



VINTAGE COMPETITION
RULES AND SPECIFICATIONS

**VINTAGE AND HISTORIC
GENERAL COMPETITION
RULES**

&

SPECIFICATIONS

1954, '59, '62, '65, '67, '72

Sports Car Club of America
Club Racing Department
PO Box 19400
Topeka KS 66619



Vintage Competition Rulebook

1995 Edition

Sports Car Club of America, Inc.
Club Racing Department
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The General Competition Rules of the Sports Car Club of America are intended to assist in the orderly conduct of race events. They are in no way a guarantee against injury or death to participants, spectators, or others. No express or implied warranties of safety or fitness for a particular purpose are intended or shall result from publication of or compliance with these rules.

VINTAGE/HISTORIC
2010 RULES AND REGULATIONS

GCR: *References to "GCR" mean the current updated SCCA Club Racing General Competition Rules.*

LICENSE: An SCCA Novice Permit, Vintage, Regional, National or Pro Racing license is required to participate in an approved SCCA Vintage event. Other licenses may be approved in the Supplementary Regulations.

Holders of Novice Permits who are current SCCA regular or spouse members in good standing and who have satisfactorily completed the Driver School requirements may apply to the National Office for a Vintage license.

RENEWAL: In order to qualify for a vintage competition renewal, the license holder shall have completed at least two (2) vintage events within the preceding twelve (12) months.

MEDICAL EXAM: *All drivers are required to have completed a medical examination in accordance with GCR Appendix C.*

LOG BOOKS: Each car shall have a log book (properly filled in and maintained) to be presented at tech inspection for each event and retained with the car at all times.

ROLL BARS: Per Appendix Z.

DRIVER RESTRAINT SYSTEM: *must conform to GCR section 9.3.*

DRIVER'S SAFETY EQUIPMENT: *must conform to GCR 9.3.*

FUEL CELLS: *all new cars registered after 1/1/11 shall be equipped with a safety fuel cell that conforms to GCR 9.3. Cars with fuel cells that met the requirements of the now defunct Appendix X may continue to use them, but new bladders must conform to GCR 9.3.*

MIRRORS: At least one rear view mirror with a minimum area of 8 square inches is required.

FIRE EXTINGUISHERS: *All cars must be equipped with a fire extinguisher or fire system that conforms to GCR 9.3.23.*

MASTER SWITCH: *It is required that each car has a master switch that conforms to GCR 9.3.34.*

BODY: No modification from original, such as contemporary flares, spoilers or air dams are permitted. Paint schemes must be appropriate to the original period. Commercial advertising on cars is permitted if it is discreet and does not distract from the appearance of the car. Such lettering or graphics will not exceed 100 square inches per side, 200 square inches total. Historically significant markings are encouraged, preferred, and exempt from the 200 square inch rules.

WHEELS: Cars must run on wheels of the same appearance and size as were made available from the manufacturer at the time (magnesium wheels may replace steel for safety purposes). We refer specifically to rim width, diameter and off set as specified in the manufacturer's homologation statement. A rim width up to 1" larger may be used for safety purposes but 70 series or equivalent tires must also be used.

TIRES: Tires must approximate as closely as possible the original size homologated for the car. All tires must have a tread pattern with a minimum tread depth of 1/16". No slicks will be allowed except when originally used in that car's class (FIA and Can-Am). Racing re-caps are allowed, but must with the specified rules. Radial tires of 60 series or taller and appropriately rated may be used (except when non-standard wheels are used and 70 series tires are required).

ENGINE: The entrant must certify the correct engine displacement. Engine should be of original type and year of manufacture as originally fitted. However, the entrant shall have the option of fitting any substitute engine provided that engine was used in that car during the vehicles' vintage or historic competition history. In the spirit of historic preservation and fair play, participants will assume responsibility for keeping their equipment as close to original as possible.

SUSPENSION: All steering and suspension components will be properly fitted with no excessive wear or play. The system of suspension (spring type and number) must not be altered nor shall additional location or springing devices be added unless a factory option of the period for that model.

BRAKES: Braking system must be per the year of homologation for the vehicle model. Dual master cylinders may be used for safety purposes. Disc brakes are permitted when it can be shown they were available as a regular production option during the year of homologation. Brakes must be original size as raced.

MODIFICATIONS: Any modifications to engine, body, suspension or brakes update the vehicle eligibility date to the year that modification was available for that specific vehicle.

GENERAL: A securely fastened catch tank with a minimum capacity of 1 quart each is required for both engine and radiator (if used).

Each carburetor must have its own throttle return spring in addition to the single linkage spring.

A firewall must be provided between the cockpit, engine and fuel tank (except when a fuel cell is fitted). Selected Formula cars excepted.

Undertrays must have drain holes.

Wheels must be free of cracks and faults.

Wire Wheels: Spokes must be properly tensioned with no broken or missing spokes.

Bolt on Rudge Whitworth Spline adapters are not permitted.

Suspension Parts: It is strongly recommended that suspension parts and steering components be magnafluxed for cracks.

It is recommended that all cars have an eyebolt or equivalent both front and rear to attach a tow cable.

No oil, fuel, water or fluid leaks of any kind will be tolerated.

All cars must be fitted with at least one brake light in working order. (Formula cars excepted.)

All fuel filler caps must be securely fastened so as not to open on impact.

Monza type (quick release) caps must be wired shut.

All hoods and deck lids must be adequately fastened.

All drain plugs must be safety wired or paint striped.

Batteries must be securely fastened down. Those located in the cockpit must be covered or have leak proof caps.

Cars must be presented in a neat and finished condition. Engine compartment, suspension, chassis and drive line must be clean enough to facilitate inspection. Cables, wires and hoses must be taped or otherwise secured to prevent chafing, etc.

All cars must display legible numbers on both sides of the vehicle.

VINTAGE/HISTORIC CAR CLASSES

Sports and Racing Cars

Pre-War

- A-1 Pre 1931 Sports Cars
- B-1 (FIA – C) Racing Cars
- A-2 1931-Pre 1941 Sports Cars
- B-2 (FIA – D) Racing Cars

Vintage

- C-1 1941-Pre 1955 Sports Cars (Under 1200 cc)
- C-2 Sports Cars (1200 cc and over)
- C-3 Sports Racing Cars (2000 cc and under)
- C-4 Sports Racing Cars (over 2000 cc)
- D-1 1955-Pre 1963 Sports Cars (2000 cc and under)
- D-2 Sports Cars (over 2000 cc)
- D-3 1955-Pre 1960 Sports Racing Cars (2000 cc and under)
- D-4 Sports Racing Cars (over 2000 cc)

Historic

- E-1 1963-Pre 1968 Sports Cars (2000 cc and under)
- E-2 Sports Cars (over 2000 cc)
- F-1 1960-Pre 1966 Sports Racing Cars (2000 cc and under)
- F-2 Sports Racing Cars (over 2000 cc)
- G-1 1960-Pre 1973 GT Cars (2000 cc and under)
- G-2 GT Cars (over 2000 cc)
- G-3 1966-Pre 1973 Trans-Am (up to 2000 cc)
- G-4 Trans-Am (over 2000 cc)
- H-1 1966-Pre 1973 Can-Am Group 5-6
- H-2 FIA Makes Championship Cars

Formula Cars

Vintage

J-1	1942-Pre 1961	Formula I (front engine)
J-2		Formula I (rear engine)
J-3		Formula II (front engine)
J-4		Formula II (rear engine)
J-5	All	Formula III (500 cc)
J-6	All	Formula Jr. (front engine)
J-7	All	Formula Jr. (rear engine)

Historic

K-1	1961-Pre 1966	Formula I
K-2	All	Formula 5000 and Formula A
K-3	1965-Pre 1973	Formula B and Formula Super Vee
K-4	1966-Pre 1973	Formula C
K-5	1966-Pre 1973	Formula Ford
K-6	1964-Pre 1966	Formula Vee
K-7	1966-Pre 1973	Formula Libre

REPRESENTATIVE VINTAGE/HISTORIC CARS

CLASS A-1: Pre 1931 Sports Cars

Alco	Chenard & Walcker	Lorraine	OM
Alfa-Romeo	Duesenberg	Mercer	Peugeot
Amilcar	Fiat	Mercedes	Renault
Austin 7	Ford	Marmon	Sunbeam
Buick	Hispano-Suiza	MG	White
Bentley	Isotta-Franschini	Mogan	MX
Benz	Lancia	Opel	

CLASS A-2: 1931-Pre 1941 Sports Cars

Alfa-Romeo	Bugatti	Invicta	Riley
Amilcar	Chrysler	Jaguar SS	Stutz
Aston Martin	Delahaye	Lagonda	Salmson
Bentley	Delage	Mercedes-Benz	Talbot
BMW	HRG	MG	

CLASS B-1: Pre 1931 Racing Cars

Alfa-Romeo	Bugatti	Frazer-Nash
Alvis	Delage	Maserati

CLASS B-2: 1931-Pre 1941 Racing Cars

Alfa-Romeo	Delahaye	Maserati
Auto-Union	ERA	Mercedes-Benz
Bugatti	Frazer-Nash	Miller

CLASS C-1: 1942-Pre 1955 Sports Cars under 1200 cc

Bandini	Denzel	Lotus MK6	Porsche 1100
Cisitalia	Ermini	MG-TC, TD, TF	Siata
Crosely	Graur	Nardi	Simca Spl.
DB	Kieft	Panhard	

CLASS C-2: 1942-Pre 1955 Sports Racing Cars 1200 cc and over

Aston Martin DB2	Corvette	HRG	Porsche 1100
Alfa-Romeo 6C 2500S	Doretti	Healey Silverstone	Porsche 1300
Alfa-Romeo 2500S	Ferrari 212, 225	Jaguar XK-120	Siata 208SCS
Alfa-Romeo 1900S	Fiat 8V	Jaguar XK-120M	
Austin-Healey 100/M	Frazer-Nash LM	Lancia B-20	

CLASS C-3: 1942-Pre 1955 Sports Racing Cars 2000 cc and under

Abarth 207	Kieft-Climax	Lotus MK8, MK9	Porsche 550
AFM	Ferrari 166, 195	Maserati A6GCS	Veritas
Cooper Sports	Lester-MG	MG Specials	
DB	Lister-Bristol	O.S.C.A., MT-4	

CLASS C-4: 1942-Pre 1955 Sports Racing Cars over 2000 cc

Alfa-Romeo 6C 3000	Edwards Spl.	Hagerman Spl.
Allard	Ferrari 212, 250MM, 340	Jaguar C-Type
Aston Martin DB3, DB3S	Fitch-Whitmore	Kurtis
Austin-Healey 100-S	Gordini	Monza, 121
Cunningham	HWM-Chevrolet	Pegaso

CLASS D-1: 1955-Pre 1963 Sports Cars 2000 cc and under

AC-Bristol	Fiat 1100	Lancia GT	Peerless GT
Alfa-Romeo Guilietta	SS, SZ	Lotus Elite	Porsche 356
Arnolt-Bristol	Fiat-Abarth	Lotus MK7	Sunbeam Rapier
Austin Healey Sprite	Frazer-Nash MM	MGA	Triumph TR3, TR4
Deutsch-Bonnet	Ginetta	Morgan ± 4	Turner

CLASS D-1: 1955-Pre 1963 Sports Cars over 2000 cc

Aston Martin DB 2/4	Corvette 283	Ferrari 250 GT
Austin-Healey 100/6	Daimler SP 250	Jaguar XK-140, 140M, 150
Mercedes-Benz 300SL, 300SL Rdst.		

CLASS D-3: 1955-Pre 1960 Sports Racing Cars 2000 cc and under

Begra	Ferrari 500 TR, TRC	Maserati 150S	Porsche RSK
Cooper-Climax 1100	Lola MKI	Maserati 200S	Tanner SPL
Dolphin 850, 100	Lotus MKII	O.S.C.A. 2000	
Elva MKI-MK5	MK15 & MK17	Peerless LM	

CLASS D-4: 1955-Pre 1960 Sports Racing Cars over 2000 cc

Aston-Martin DBR1	Jaguar D-Type	Maserati 300S, 350S
Aston-Martin DBR2	Kurtis SXMaserati	450S, T-60/61
Cooper Monaco	Lister-Corvette	Ol' Yeller Specials
Devin SS	Lister-Jaguar	Scarab
Ferrari 290, 315, 212, 250TR		

CLASS E-1: 1963-Pre 1968 Sports Car 2000 cc and under

Austin Mini	Lotus 7A	Porsche 911
Elva Courier	Lotus Elan	Porsche 912, Carrera, Super 90
Fiat 1200, 1500, 1600	MGB	Sunbeam Alpine
Glas Isard	Marcos GT	Triumph TR4A, TR5

CLASS E-2: 1963-Pre 1968 Sports Cars over 2000 cc

AMC/AMX	Cobra 260, 289	Shelby GT 350
Aston Martin DB 4/5	Corvette 327	Sunbeam Tiger
Austin Healey 3000	Jaguar E Type	

CLASS F-1: 1960-Pre 1965 Sports Racing Cars 2000 cc and under

Brabham BT5-BT8	Crossle	Lotus 17 23 23B
Bobsey SR3	Elva MK6-MK8	Porsche RS60-61 (Porsche/BMW/Ford)

CLASS F-2: 1960-Pre 1965 Sports Racing Cars over 2000 cc

Chaparral	Echidna	Lotus 19-19B
Cheetah	Ferrari 250/330P	Lotus 30 and 40
Cooper King Cobra Genie	Webster Spl.	

CLASS G-1: 1960-Pre 1973 GT Cars 2000 cc and under

Abarth GT	Lotus Europa	Porsche 904
Alfa-Romeo GT2 GTA	Morgan SS	Porsche 914-6 GT
Ginetta	O.S.C.A. 1600 GT	

CLASS G-2: 1960-Pre 1973 GT Cars over 2000 cc

Bizzarini GT	Isso – Grifo GT	
Cobra Daytona & 427	Jaguar E Lightweight	
Corvette 327 Grand Sport, 396, 427		
Dino 206 SP	Shelby R	
Ferrari 330LMB, 275 LMB, GTB, 250 GT, GTO		

CLASS G-3: Trans-Am Up to 2000 cc

Alfa-Romeo	Datsun 510	Saab
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Fiat 124 CP

Lotus Cortina

Volvo

CLASS G-4: Trans-Am over 2000 cc

AMC Javelin

Ford Mustang

Plymouth AAR-Cuda & Barracuda

Chevrolet Camaro

Mercury Cougar

Pontiac Trans-Am

Dodge Dart & Challenger

CLASS H-1: 1966-Pre 1973 Can-Am, Group 5 & 6 Cars

Alfa-Romeo T12 & T33

March

BRM 167

McLaren M1 and M20

Chevron B8, B16, B19, B21, B23

Porsche 917

Ferrari 612, 312 PB

Lola T-70, T-160, T-222, T-210, T-212, T-290, T-292

CLASS H-2: 1966-Pre 1973 FIA Makes Championship Cars

Abarth 3000

Ford GT-40, MKII, MKIV

McLaren M6B-GT

Alfa-Romeo T-33/33/3

Lola T-70 GT

Porsche 908, 910

Ferrari 330 P2, P3, P4, 312P, 512

Appendix X Safety Fuel Cell Specifications

This appendix is retained for reference only. For new cars and replacement bladders see the requirements on page 3.

Starting January 1, 1983, all new cars registered after 1/1/83 shall be equipped with a safety fuel cell per Appendix "X" specifications. Safety fuel cells shall consist of a fuel bladder enclosed in a container as follows:

A. FUEL BLADDER

1. Materials

Bladders shall be constructed of nylon or Dacron woven fabric impregnated and coated with a fuel resistant elastomer.

2. Physical Properties – Minimum Standards

Tensile Strength 450 lbs. Spec. CCC-T-191 b

Method 5102

Tear Strength 50 lbs.

Spec. CCC-T-191 b

Method 5134

Puncture Test 175 lbs. Spec. Mil-T-6396

Article 4.5.17

These physical properties must be maintained through all areas of the finished bladder, including seams, joints and fittings.

3. Fittings

All fittings shall be built into the bladder and bonded and cured as an integral part of the bladder during vulcanization.

4. Approval

All bladders shall comply with FIA FT-3 specifications.

B. CONTAINER

1. GT and Production Category

The bladder shall be installed in a container of 20-gauge steel, .059 inch aluminum or .125 inch Marlex, fully surrounding the bladder.

2. Sports Racing Category and Formula Cars

The fuel bladder shall be completely surrounded by a container (which may also be a part of the structure of bodywork of the car) to ensure rigid and secure mounting of the bladder and provide additional protection. A minimum of 20-gauge steel, .059 inch aluminum or an approved equivalent is required for all vehicles manufactured after January 1, 1972.

3. Fuel cells shall not be installed any closer to the ground than six (6) inches unless enclosed within the bodywork.

C. FOAM

Foam internal baffling is required where safety fuel cells are required in SCCA competition.

1. Other Designs.

SCCA may, at its discretion, approve safety fuel cells of other types

and with basic specifications that differ from the bladder and container specifications above. In such cases, the manufacturer shall be required to demonstrate to the satisfaction of SCCA that such cells meet or exceed the crash resistant properties of cells meeting the standard specifications. SCCA may require independent laboratory analysis, comparative destructive testing, and such other tests it deems sufficient.

2. A positive locking fuel filler cap (no Monza/flip-type) must be used and fuel pick-up openings and lines, breather vents and fuel filler lines shall be designed and installed that if the car is partially or totally inverted, fuel shall not escape. If the fuel filler cap is located directly on the fuel bladder, a check valve shall not be required provided the filler cap is of a positive locking type and does not incorporate an unchecked breather opening. If the fuel filler cap is not located directly on the fuel bladder, a check valve must be incorporated in the fuel bladder to prevent fuel escaping if the cap and filler neck are torn from the bladder. Fuel cell breathers must vent outside the car. The cell need not incorporate a drain fitting. Fuel filler location is unrestricted when SCCA approved safety fuel cells are installed in Production and GT Category cars.

It is recommended that all lines, filler openings, and vents be incorporated in a single fitting located at the top of the fuel cell.

3. Where safety fuel cells are allowed or required in GT and Production Category automobiles, size and capacity shall be free.
4. The use of rotary molded fuel cells not having a bladder, or not contained in a metal can is allowable in those cars that do not require the use of a fuel cell, but where they are an allowed option. In those classes of cars requiring the use of a fuel cell, only the approved cells which have a bladder and are contained in a metal container are allowed to be used.

APPENDIX Z

ROLL CAGES

Roll cages are required in all *production* cars *model year 1973 or later*. There is no requirement for cars *from model year 1972* or earlier to have roll cages; however, members are encouraged to install roll cages in “older” cars where satisfactory installation can be achieved. Specific installations are subject to approval by the Technical and Safety Inspector at each event.

A. BASIC DESIGN CONSIDERATIONS

1. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence or is struck by another car. It must be designed to withstand compression forces from the weight of the car coming down on the roll-over structure and to take fore/aft and lateral loads resulting from the car skidding along the ground on its roll-over structure.
2. A system of head restraint to prevent whiplash and prevent the driver’s head from striking the underside of the main hoop must be installed on all vehicles. The head restraint must have a minimum area of 35 square inches and be padded with a non-resilient, material such as Ethafoam® or Ensolite® or other similar material with a minimum thickness of one (1) inch. The head restraint must be capable of withstanding a force of 200 lbs. in a rearward direction.
3. Forward braces and portions of the main hoop subject to contact by the driver’s helmet (as seated normally and restrained by seat belt/shoulder harness) must be padded with non-resilient material such as Ethafoam® or Ensolite® or other similar material with a minimum thickness of one-half (1/2) inch.
4. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.
5. Roll cage or chassis design must prevent engine intrusion into the driver compartment.

B. MATERIAL

1. Seamless, or DOM (drawn over mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent or alloy steel tubing (SAE 4125, 4130) (T-45) must be used for all roll cage structures. Proof of use of alloy steel is the responsibility of the entrant. ERW Tubing may be used. (See minimum tubing size chart –Z.D.).
2. An inspection hole at least 3/16 inch diameter must be drilled in a non-critical area of the roll cage hoop to facilitate verification of wall thickness.

C. GENERAL CONSTRUCTION

1. One continuous length of tubing must be used for the main hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than 3 times the diameter of the tubing.

Whenever possible, the roll cage hoop should start from the floor of the car; and in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs to distrib-

ute the loads. It is recommended that gussets be used at all joints.

2. All welding must be of the highest possible quality with full penetration and must be done according to A.S.T.M. specifications for the material used. Arc welding, particularly heliarc, should be used whenever possible. Welds should be inspected by magnaflux or dye penetrant after fabrication. Alloy steel must be normalized after welding.
3. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care must be used in preparation of parts before bronze welding and in the design of the attaching joints.

D. MINIMUM TUBING SIZES – ALL CARS

1. Main and Front Hoops

VEHICLE RACE WEIGHT WITHOUT DRIVER	MATERIAL	
	MILD STEEL	ALLOY STEEL
700 lbs to 900 lbs	1.25" x .095"	1.25" x .080"
900 lbs to 1500 lbs	1.375" x .095"	1.375" x .080"
1500 lbs to 2500 lbs	1.50" x .095"	1.375" x .095"
Over 2500 lbs	1.50" x 1.20"	1.50" x .095"
	Or	1.75" x .095"

ERW tubing may be used in the following sizes only:

VEHICLE WEIGHT (WITHOUT DRIVER)	ERW TUBING SIZE (MINIMUM)
Up to 2500 lbs	1.50" x .120"
Over 2500 lbs	1.75" x .120"

"ERW tubing must have the weld to the inside of all bends."

For the purposes of determine tubing sizes, the vehicle race weight is as raced without fuel and driver. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness.

E. MAIN HOOP

Main hoop (behind the driver) must be the full width of the cockpit for all closed cars, Formula and Sports Racing cars, and is recommended for open Production and GT Category cars. A partial width main hoop (only behind driver) may be used in open Production and GT Category cars. Vertical members of the main hoop must not be less than 15" apart (inside dimensions) at their attachment to the chassis (full or partial width hoops). Formula cars; 15" apart at the uppermost main chassis member.

On all closed cars, the main hoop must be as near the roof as possible. On open cars (Production, GT, Formula, and Sports Racers) a straight line drawn from the top of the main hoop to the top of the front hoop must pass over the driver's helmet when the driver is seated in the normal driving position. The top of the main hoop, however, must not be less than two (2) inches over the driver's helmet, with the driver seated normally and restrained by seat belt/shoulder harness.

F. FRONT HOOP

1. Open cars (Production, GT, Formula and Sports Racers):

The front hoop may be a low hoop (near the dashboard, but at least as high as the top of the steering wheel rim) or a high hoop, (similar to the rear hoop but without a lateral brace). On cars of full monocoque construction, a fabricated sheet metal structure may be approved as a substitute upon specific application to the SCCA. If a high front hoop is used, it should be of similar design as that required for closed cars.

2. Closed cars

The front hoop must follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop on each side (as close to the roof as possible). Alternatively, two side hoops following the line of the front pillars to the top of the main hoop. These two side hoops are to be connected by a horizontal bar over the top of the windshield. (See Figure 1)

G. BRACING

Except for specific exceptions for single seater Formula and Sports Racer cars (see below), all required bracing must be of the same diameter and wall thickness as listed in Appendix Z.D.2. (Main and Front Hoops)

All full cockpit width main hoops (except Formula Cars) must incorporate a lateral brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop. (Figures 1, 2, 10)

1. Main Hoop Bracing

- a. Closed cards; open Production and GT Category cars with full cockpit width main hoops must have two (2) braces extending to the rear, attaching to the frame or chassis. Braces must be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least 30 degrees.
- b. Formula and Sports Racers must have two (2) braces extending forward from the main hoop, attaching to the frame, monocoque or front hoop. This bracing may be supplemented by rear bracing. Forward and rear bracing must be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least 30 degrees. The driver's shoulders and torso must be protected by this bracing.
- c. Minimum dimensions for forward and rear bracing for single seater Formula and Sports Racer cars under 1500 lbs is: 1.0" diameter x .080" wall thickness alloy steel or mild steel of equal dimensions to that of the main and front hoops.
- d. Open Production and GT Category cars with partial cockpit width main hoops must have two braces extending forward from the main hoop attaching to the frame or front hoop. Forward and rear bracing must be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least 30 degrees. The driver's shoulders and torso must be protected by this bracing.

- e. Removable bracing must incorporate connectors of the double lug, tapered, or muff-type as shown in Figures 4, 5, 6. The double-lug type must include a doubler, gusset or capping arrangement so as to avoid distortion or excessive strain caused by welding.

2. Front Hoop Bracing

There must be two (2) braces extending forward from the front hoop to protect the driver's legs. (Formula F cars, see FF Chassis Construction Rules.) It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but in any case, must be integrated into the frame or chassis to provide substantial support for the front hoop. For Formula and Sports Racing cars under 1500 lbs., may be a minimum of 1.0" diameter x .080" wall (alloy steel) or 1.0" x .080" wall thickness (mild steel).

H. SIDE PROTECTION – open and closed Production and GT Category cars.

1. The minimum side protection must consist of a horizontal side tube connecting the front and rear hoops across the driver's door opening. Additionally, there must also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.
2. In cars with full roll cage installations include side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections must be protected.

I. MOUNTING PLATES

The thickness of mounting plates bolted or riveted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and must be backed up with a plate of equal size (area) and thickness on the opposite side of the panel, with the plate through –bolted (riveted) together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) must be Grade 5 or better. Mounting plates welded to the structure of the car shall not be less than .080 thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar). (See Section K, "Installation on Cars of Space Frame and Frameless Design.")

J. REMOVABLE ROLL CAGES

Removable roll cages and braces must be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom by design, on the permanently mounted tube, and at least two bolts must be used to secure each such joint. The telescope section must be at least eight (8) inches in length. (See drawing No. 4) Removable bracing sections (compression loading only) may use 3 bolt flange design (minimum thickness 3/16").

K. INSTALLATION ON CARS OF SPACE FRAME AND FRAMELESS DESIGN

1. It is important that roll cage structures be attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to

simply attach the roll cage to a single tube or junction of tubes. The roll cage must be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame. Considerable care must be used to add necessary strength to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll cage can only be as strong as any single tube in the frame.

2. On cars of frameless construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll hoop then becomes a substitute for the frame.

L. DRIVER'S SEAT

The driver's seat must be firmly mounted to the structure of the car. In cars where the seat back is upright (most common in GT and Production cars) the back of the seat must be firmly attached to the main roll hoop, or its cross bracing, so as to provide aft and lateral support. Bulkheads, firewalls, rear decks or similar structure of suitable strength may be used as a substitute for the main roll hoop or cross bracing to provide the required seat back support.

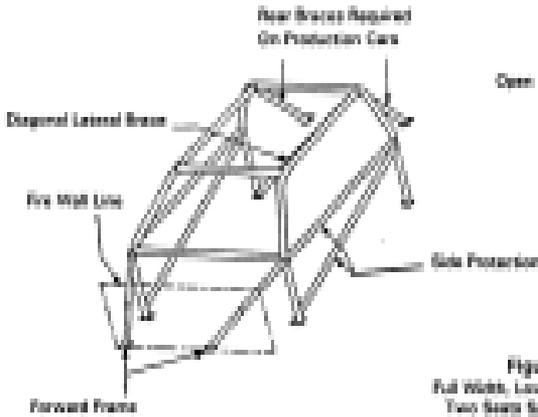
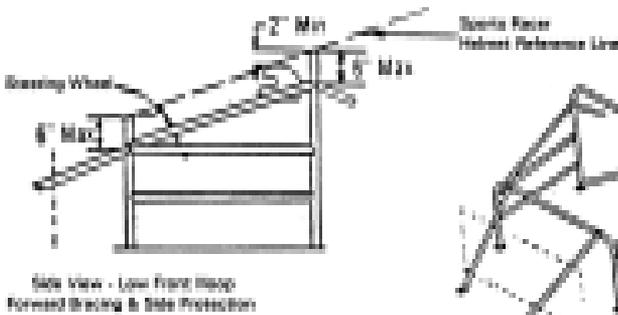


Figure 1
Recommended Roll Cage
Open & Closed, GT & Production Cars

Drawn by Normand

Figure 2
Full Width, Low Front Hoop
Two Seater Sports Car



Drawn by Normand

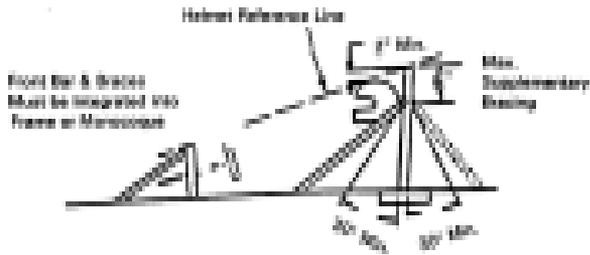
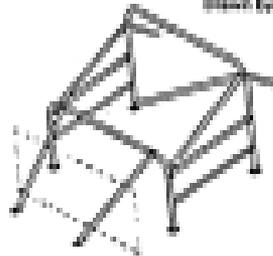
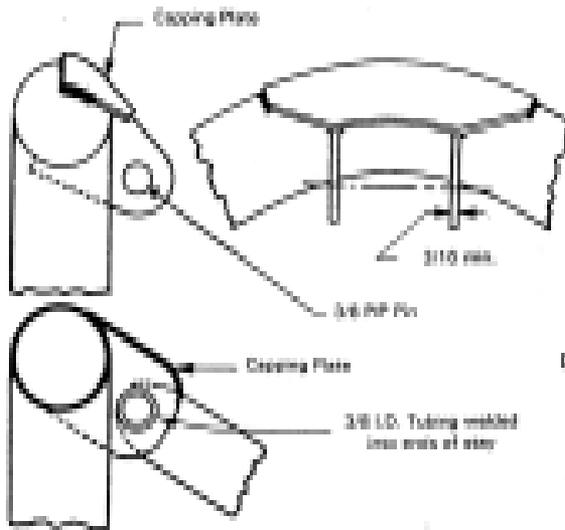


Figure 3
Formula Cars

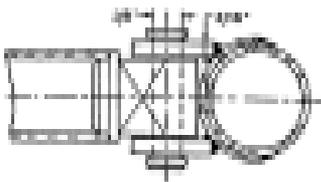
Removable Rail Bar Brakes
Attachment Details



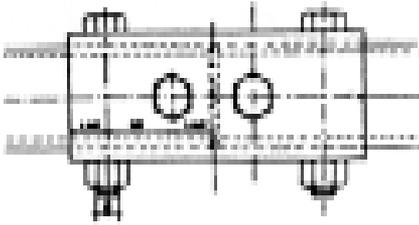
Drawing No. 1



Drawing No. 2

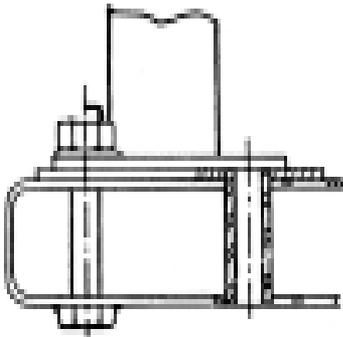


Drawing No. 3



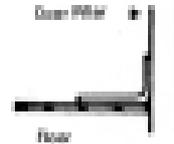
Drawing No. 4

12 mm (tube = 40 mm diam. ext.)
 14 mm (tube = 40 mm = 50 mm diam. ext.)
 18 mm (tube = 50 mm diam. ext.)

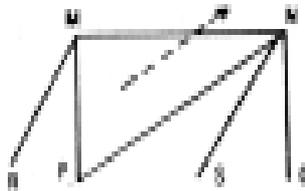


Drawing No. 6

Roll Bar Attachment to
 Integral Chassis Type of Car



Drawing No. 5



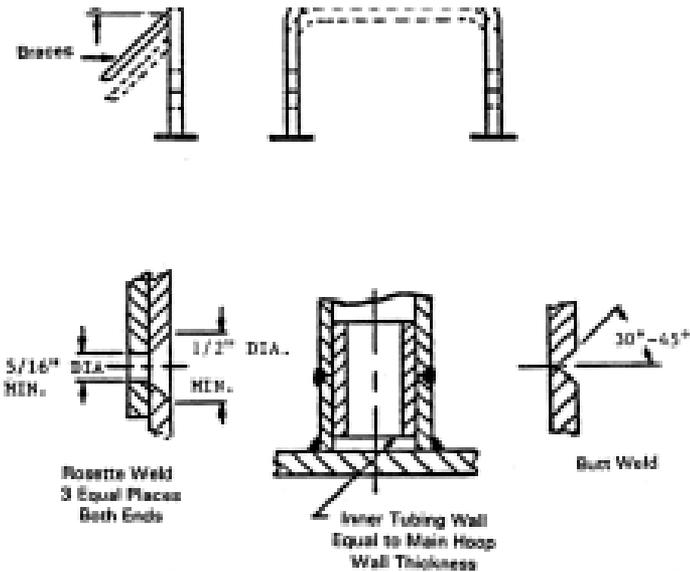
The lateral brace must be fitted
 either from M to Q or from M to P,
 M to Q or N to P

Drawing No. 7

Appendages to Roll Bar/Cages: The following procedures are approved for modification to roll bars/cages that do not meet the 2-inch required minimum:

The old main hoop may be cut off near the chassis mounting and a new main hoop of equal tube size or a section of equal tubing size may be added, and inner tube(s) must be used to mate all sections together. All braces must be minimum distance from top of hoop per Appendix Z. All welding for this modification must be arc welded (min). The inner tube(s) must be rosette welded (3) places near top and bottom.

Refer to diagram below:



ROLL BARS

THESE SPECIFICATIONS ARE FOR INSPECTING CARS REGISTERED PRIOR TO JANUARY 1, 1979 and are mandatory and represent minimum requirements. Specific installations are subject to approval by the Technical and Safety Inspector at each event.

A. BASIC DESIGN CONSIDERATIONS

1. The basic purpose of the roll bar is to protect the driver if the car turns over or is involved in a serious accident. This purpose should not be forgotten.
2. The top of the roll bar must be a minimum of two inches above the top of the driver's helmet when the driver is sitting in a normal driving position (as near the roof as possible on closed sedans) and shall not be more than six inches behind the driver.
3. The roll bar must be designed to withstand compression forces resulting from the weight of the car coming down on the roll structure, and to take fore and aft loads resulting from the car skidding along the ground on the roll structure.
4. The two vertical members forming the sides of the hoop shall not be less than 15 inches apart inside dimensions. It is recommended that the roll bar extend the full width of the cockpit to provided maximum bearing area. The roll bar vertical members on Formula Cars must not be less than 15 inches apart, inside dimension, at their attachment points to the uppermost main chassis member.
5. A system of head restraint to prevent whiplash and to prevent the driver's head from striking the underside of the roll bar must be installed on all vehicles. The head restrained should be capable of withstanding a force of 200 lbs, in an aft direction. It is recommended that a headrest of approximately 36 square inch area with a non-resilient padding two inches thick be used. It is mandatory that any portion of the roll bar or bracing which might be contacted by the driver's helmet shall be covered with Styrofoam or other energy-absorbing material (high density) to a minimum thickness of one inch. The energy absorbing material must be covered by duct tape or similar protective wrapping. The padding need not be installed where side or forward vision is restricted.
6. No portion of the safety roll bar shall have an aerodynamic effect by creating a vertical thrust.

B. MATERIAL

1. The roll bar hoop and all braces must be seamless, ERW or DOM mild steel tubing or chrome molybdenum alloy steel such as SAE 4125 or SAE 4130. It is recommended that mild steel tubing be used as chromium alloys present difficulties in welding and must be normalized to relieve stress. Proof of the use of alloy steel will be the responsibility of the entrant.
2. For the purpose of determining tubing sizes, the vehicle race weight is without driver. The size of the tubing shall be determined as fol-

lows:

VEHICLE RACE WEIGHT

ROLL BAR

	MILD STEEL	ALLOY STEEL
Under 1500 lbs	1.5" x .120"	1.375" x .090"
1500 lbs – 2500 lbs	1.75" x .120"	1.625" x .095"
Over 2500 lbs.	2.25" x .120"	2.00" x .095"

Note: See alternate tubing sizes and diagrams at the end of Appendix Z.

An inspection hole of at least 3/16 inch diameter must be drilled in a non-critical area of the roll bar hoop to facilitate verification of wall thickness.

Where bolts and nuts are used, the bolts shall be at least 3/8 inch diameter SAE Grade 5 or equivalent aircraft quality.

C. FABRICATION

1. One continuous length of tubing must be used for the hoop member with smooth continuous bends and no evidence of crimping or wall failure. It is recommended that the radius of the roll bar hoop be such that the minimum outside width measured at a point four inches below the uppermost point is 12 inches. Whenever possible the roll bar hoop should start from the floor of the car, and in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs in order to distribute the loads.
2. All welding must be of highest possible quality with full penetration. Arc welding, particularly heliarc, should be used wherever possible. The welds should be inspected by magnaflux or dye penetrant after fabrication. Alloy steel must be normalized after welding.

D. BRACING

1. Full cockpit width (two seats) roll bar hoops must have two fore/aft braces with tubing of dimensions at least equal to that required for the hoop itself. Diagonal lateral bracing of equal dimension tubing must be installed to prevent lateral distortion of the hoop. (In most cases, a lateral brace from the bottom corner of the hoop on one side to the top corner of the hoop on the other side is sufficient.) The following alternates are permitted: Although installing the diagonal lateral brace in the main hoop is the strongest (and hence most preferable) alternative, there may be instances where such an installation is not practical. In such situations, the installation of the diagonal brace as shown in the drawing below will be acceptable.
2. Partial cockpit (single seat) roll bar hoops may have either one fore/aft brace with a minimum dimension equal to the tubing required for the main hoop or two fore/aft braces with a minimum dimension of 1.0 x .090 inches mild steel or alloy steel.
3. The bracing must be attached as near as possible to the top of hoop but not more than six inches below the top of the hoop and at an included angle of at least 30 degree. If a single brace is used, it must be attached at the top of the main hoop.
4. If the fore/aft bracing must be removable, the connection between

the roll bar hoop and the brace rod must be of the double – lug type fabricated from material at least 3/16 inch thickness and welded through a doubler or gusset arrangement to avoid distortion or excessive strains caused by welding. (See diagrams). It is recommended that the fore/aft brace be attached to a rear chassis member through a double lug connection. If attached to the engine, it must mount to a major component such as a head stud or combination or head studs.

E. MOUNTING PLATES

1. Roll bars and braces must be attached to the frame of the car whenever possible. Mounting plates, regardless of whether welded or bolted to the frame, must be at least 3/16 inch thick.
2. In the case of cars with unitized or frameless construction, or cars with frames where frame mounting of the roll bar is impractical, mounting plates must be used to secure the roll bar structure to the floor of the car. The important consideration is that the load be distributed over as large an area as possible. Mounting plates bolted to the structures shall not be less than .1875 (3/16) inch thick with a back-up plate of equal size and thickness on the opposite side of the panel with the plates through-bolted together. Mounting plates welded to the structure shall not be less than .080 inch thick. Whenever possible the mounting plate should extend onto a vertical section of the structure such as a door pillar.

F. REMOVABLE ROLL BARS

Removable roll bars and braces must be very carefully designed and constructed to be at least as strong as permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion must fit tightly and must bottom on the permanent mounting, and at least two bolts must be used to secure each such joint. The telescope section must be at least eight inches in length.

G. INSTALLATION ON CARS OF SPACE FRAME AND FRAMELESS DESIGN

1. It is important that roll bar structures be attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to simply attach the roll bar to a single tube or junction of tubes. The roll bar must be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame. Considerable care must be used to add as necessary to the frame structure itself in such a way as to properly distribute the loads. It is not true that a roll bar can only be as strong as any single tube in the frame.
2. On cars of frameless construction, consideration should be given to using a vertical roll bar hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll bar then becomes a substitute for the frame.

- #### H. OTHER ROLL BAR DESIGNS (Acceptable for cars built prior to 1/1/79)
- Roll bars of alternate material or design may be accepted by the Technical and Safety Inspector upon presentation of data verifying the installation is able to withstand three simultaneously applied loads:

1.5 G Lateral

5.5 G Fore-and-Aft

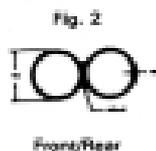
7.5 G Vertical

The induced loads being carried over into the primary structure. Royal Automobile Club (RAC) certification of alternate designs is acceptable for automobiles built prior to 1/1/79.

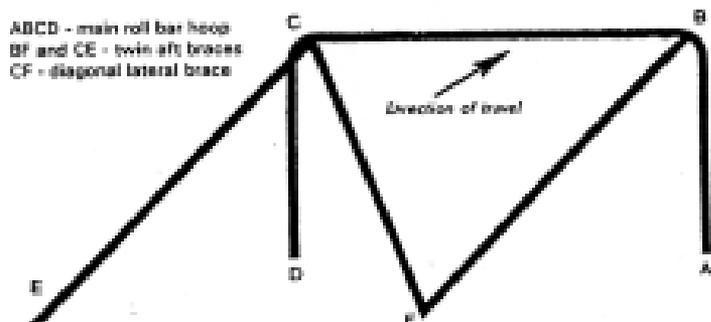
I. ALTERNATE TUBING SIZES

Roll bar tubing of an alternate diameter and wall thickness equal to or exceeding the bending strength of those specified in Table B.2 may be used:

Under 1500 lbs	Under 2500 lbs.	Over 2500 lbs.
	Fig. 2 (2 each)	
1.375" x .187"	1.50" x .120"	2.00" x .180"
1.625" x .120"	1.50" x .250"	2.125" x .162"
Fig. 1(2 each)1.00" x .062"	1.625" x .160"	2.50" x .085"
With (2) 1 ¼" x .062" strips	1.875" x .088"	



Cross-sectional
Top View of One Leg



RULES OF THE ROAD FOR VINTAGE RACING

Vintage racing IS NOT the same as competitions for current cars. Although competitive, the primary purpose is NOT winning, or cut and thrust competition, but driving under competitive track conditions in a safe and enjoyable environment for all participants. For those who seek all out competition, there are numerous more suitable outlets.

Vintage events include cars of many ages and great disparities in speed, cornering, and braking capabilities; and drivers of widely varied experience. This requires the exercise of great care, prudence, and courtesy in traffic and in passing. The slowest car and driver have as much right to be on track as the fastest, and all drivers must conduct themselves accordingly.

1. **FLAGS:** the following flag signals shall be obeyed without question:
 - Green:** (Ordinarily displayed at S/F only) The race is under way (started) and instant the green flag falls, and passing may begin.
 - Yellow:** Motionless: Reduce speed, take care, danger. No passing until past the emergency area. Waved: Make large reduction of speed; great danger, course may be blocked, be prepared to stop. No passing until past the emergency area.
 - Red:** (Ordinarily at S/F only) Stop immediately and safely, clear the circuit as well as circumstances permit.
 - Blue with Diagonal Yellow Stripe(s):** Motionless: Another car is following you closely. Waved: Another car is closing, and trying to pass.
 - Yellow with Vertical Red Stripes:** Take care: debris or slipper condition on track.
 - White:** There is a slow moving vehicle (official or crippled race car) on the circuit. Take care.
 - Black:** At S/F, or Black Flag Station: Complete the lap you are on. Then stop at your pit, or the designated "black flag area," for consultation. At S/F, furled – Warning: you are driving in an unsafe or improper manner. If continued, you will be given a full black flag. On corner – the race has been stopped, there is a red flag displayed at S/F. Stop racing, and proceed to your pit, exercising extreme caution and being prepared to stop.
 - Black with Orange Ball In Center (At S/F or black flag station only):** There is something mechanically wrong with your car. Proceed to your pit at reduced speed.
 - Checkered:** You have finished the race (or practice session, etc.). Complete one more lap cautiously, and retire to the paddock, or report to impound area as required.
2. **STARTER:** to be considered a starter, a car must receive the green flag at the start. Cars entering the race after the initial start are also considered starters.
3. **FINISHER:** to be considered a finisher, a car must complete one half of the race distance (or time) under its own power.

4. **RIGHT OF WAY:** the car in front of another has the right of way, and need not yield to the car behind. However, if the car ahead is clearly much slower than an overtaking car, as a matter of sportsmanship the slower car should yield right of way to the much faster car when it can be done safely.
5. **PASSING:** the responsibility for the decision to pass another car, and thus for the safety of the pass, lies with the overtaking driver. The overtaking car must leave racing room for the overtaken car, and the pass must be completed without requiring the overtaken driver to take evasive action to avoid contact with the overtaking car.
It is the responsibility of the overtaken driver to maintain a consistent and predictable line or course of travel, so that an overtaking driver will not find himself committed to a passing line only to have the overtaken care suddenly swerve into that line, resulting in unavoidable car to car contact.
6. **CAR TO CAR CONTACT:** Is absolutely contrary to the spirit of vintage racing. The driver judged at fault in an involuntary contact situation **WILL** be penalized, up to and including removal from participation. A driver adjudged at fault for a deliberate contact, or for repeated contacts, or for an involuntary contact involving great carelessness or negligence. **SHALL BE** excluded from participation in that event and may be suspended from further participation for such period as adjudged appropriate.
7. A car which has left the course with all four wheels, or which has sustained damage during an event, **MUST** proceed directly to the pits to be inspected for damage by a designated official before being allowed to return to the track.
8. **HAND SIGNALS**
 - a. A driver shall signal by raising his arm before entering the pits from the circuit.
 - b. A driver overtaken by a clearly faster car should point to the side on which the overtaking car should pass.
9. It is forbidden to drive or tow a car during the course of an event on the circuit or in the pits in a direction opposite to that in which the event is being run. A car which overshoots its pit must be pushed back by hand, or continue for another lap.
10. If a driver is forced to stop his car on the circuit during an event, it is his first duty to insofar as possible place it in such a manner as to cause no danger or obstruction.

Sports Car Club of America, Inc.

Competition Regulations

1954 Edition



Section II

CARS

RULE 1 – The registration system for Competition Cars used in the past is discontinued. Suitability of cars for competition will be determined at Technical Inspection at the various events.

RULE 2 – A car may be entered in any event by a non-member of the SCCA, but it must be driven by an SCCA member, except in the case of invitational or Inter-Club meets. When it satisfactorily completed Technical Inspection for an event, a car entered by a non-member will be accepted for the duration of the event.

RULE 3 – Competition Cars will be divided into Sports, Production Sports and Unrestricted Categories.

SPORTS CATEGORY – Cars in the Sports Category are to conform exactly to the International Sporting Code of the F.I.A. currently in effect, as summarized in Appendix “A”, with one exception, namely that pump fuel must be used. Pump fuel is defined as any grade of automotive gasoline commonly available at roadside stations without any additives of any nature, excepting upperlube which must be added directly to the gasoline tank, and not through any injection or drip oiler system.

PRODUCTION SPORTS CATEGORY – Production sports cars are defined as standard sports cars which have been series produced in quantities of at least 500 per model sold, burden of proof for which shall be with the entrant. Such “mind modifications” as trimming fenders, removal of air cleaners, wire wheels, etc., make a car ineligible for competition in the Production Sports Category.

Allowable exceptions are:

- Optional Carburetor Jets
- Optional Spark Plugs

Tires of the same size as originally supplied must be used, but may be racing tires or of different manufacture or design.

Hub caps and/or fender skirts (valances) may be removed. Bumpers shall not be removed.

Straight exhaust pipe or pipes may be used provided the stock header or headers are used, and no more pipes are fitted than the number supplies as original equipment. This contemplates merely the removal of any muffling device and not the extension of header take-off pipes or stub exhaust pipes beyond the normal juncture with the original exhaust pipe or pipes.

Windshields originally designed to fold flat may be folder, but must be carried, provided a suitable aeroscreen is fitted.

Normal touring accessories such as radio, heater, grab handle, which do not affect the performance of the car may be carried, provided they do not interfere with the efficiency of the driver.

Normal replacement of functional parts as a result of wear or breakdown must be made with standard parts meeting the manufacturers' specifications for original equipment. Cylinder rebore will be limited to 0.030" oversize.

As the production category is intended to provide competition for the stock car driver, modifications other than those listed above, whether factory specified and installed or not, will bar a car from this category. "Competition Models" based on standard road models, such as the MK II M.G., the factory modified Jaguar XK – 120, and the Porsche Competition Roadster are not eligible for this category because of the obvious advantage they enjoy over the standard models of the same make.

UNRESTRICTED CATEGORY – The Unrestricted Category shall include all Competition cars which are suitable for racing, but which do not conform to the requirements of the Sports or Production Sports Categories above. It therefore includes earlier sports cars which no longer conform to regulations as regards body dimensions, etc., "Specials", and pure racing or Grand Prix cars, including Formula III cars, and sports cars running without proper F.I.A. equipment such as fenders, lights, etc., or super tuned machines running on other than pump fuel.

There are no restrictions on types of fuels, or blends in this category, except that Nitro Methane, commonly known as "Nitro", or any other fuels, which present exceptional danger in handling, shall not be used.

RULE 4 – The Displacement Classes for the Sports and Production Sports Categories above shall conform to the International F.I.A. Displacement Classes, as modified below:

Class	Total Piston Displacement in CC's
A	Over 5,500 cc (must run Unrestricted)
B	5,000 – 5,500
C	3,000 – 5,000
D	2,000 – 3,000
E	1,500 – 2,000
F	1,100 – 1,500
G	750 – 1,100
H	500 – 750
I	350 – 500
J	Under 350

In each case the upper limit of the class is inclusive. For example Class H includes 750 cc, while Class G begins at anything over 750 cc.

All supercharged cars will move up one class.

The Contest Board understands that the F.I.A. is contemplating future changes in the International Displacement Classes, and reserves the right to change the above displacement classes to more nearly conform with the new F.I.A. classes when announced if it considers such change to be advisable.

RULE 5 – In the unrestricted category there shall be two displacement classes; Formula III, for International Formula Iii 500cc cars, and unrestricted, which shall include all other unrestricted category cars.

RULE 6 – All cars shall race in their respective categories, unless insufficient entries make it necessary to put more than one category together. Cars will be judged by their performance in their own displacement classes. Prizes will be given to the first three cars to finish in each class provided that six or more cars start an event in each displacement class. If less than six cars starts an event in a given class, prizes will be awarded to the first two cars to finish. If less than four cars starts in a given class, a prize will be given only to the winner. Two or less cars in a given class will move up to the next larger class and will compete for trophies in that class. Two or less entrants in Class “B” will race with the sports category, but will receive no trophy or prize.

RULE 7 – Mechanical Condition of Cars and Technical Inspection – At all SCCA National events, a Standard Technical Inspection form shall be used. The points covered shall be:

1. Suitability for competition – The basic design of the car must be suitable for high performance with safety. The opinion of the inspectors and the Contest Board shall be final.
2. Neat and Clean appearance.
3. Tires – Spare – Tires shall be new or very good. Tires with thin treads will not be permitted. A spare tire of the same quality as the road tires must be presented with all sports cars. No macadam or asphalt slick tires, commonly known as “Baldies” whether new or recapped, will be allowed. This includes unrestricted category cars.
4. Brake Condition and Adjustment – All cars must have effective pedal operated brakes working directly on each road wheel. All brake parts must be in perfect working condition, and the brake linings must be new or very good. The entrant should be prepared to remove his brake drums for inspection. Brakes must be properly adjusted for maximum efficiency.
5. Wheel Bearings – Should be properly adjusted so that there is no excessive wheel play.
6. Fenders and Brackets – Fenders must meet F.I.A. regulations as specified in Appendix “A” for all sports cars, and must be securely mounted, particularly in the case of cycle fenders.
7. Exhaust System – The car must present an exhaust system which will carry exhaust gases away from the body and exhaust them to the rear of the driver in such a way that no danger is constituted. Exhaust systems must be solidly fabricated and securely mounted. They will be subject to the same careful scrutiny as fenders and

- brackets.
8. Radiator and Hoses – Must be free from all leakage, and must be securely mounted.
 9. Hood and Engine Compartment – Hood must be securely fastened so that there is no possibility of it flying open during competition. The engine compartments will be checked to see that everything is in proper order and securely fastened in place.
 10. Front Suspension and Steering – shall be of suitable design, in proper order, and properly adjusted for maximum safety and efficiency.
 11. Toe-in – Toe-in shall be checked with an accepted device and shall be according to the manufacturers' specifications.
 12. Front and Rear Shock Absorbers – Front and rear shock absorbers shall be securely mounted and in proper working order.
 13. Tightness – All chassis and body bolts and nuts will be tightened and secure.
 14. Leakage and caps – No leakage of fuel, lubricants, or coolants will be allowed. All caps must fit properly so as to prevent loss of the cap, or spillage during competition.
 15. Wiring – All wiring shall be properly installed and secure.
 16. Hand Brake – The hand brake must be properly adjusted and must operate either directly or indirectly on the front or rear wheels by a system independent of the foot brake.
 17. Rear Suspension – Must be properly installed, operating and adjusted.
 18. Stop and Tail Light – Each sports car must have stop and tail light(s) which shall be adequate and operating, and must conform to the laws of the state in which the vehicle is registered or the F.I.A. rules.
 19. Seat Mounts and Safety Belt – Seats must be securely mounted in the car, and safety belt must be installed directly to the frame of the car, or in such a manner as the technical inspection may approve.
 20. Passengers Seat Back – The back of the passenger's seat shall be securely bolted or strapped in place so that it cannot move forward and impair the efficiency of the driver in case of hard braking.
 21. Tonneau Covers – No tonneau cover, which covers the passenger's seat, or in any way would impair the movement of the driver seeking cover in case of emergency, will be allowed.
 22. Frame – Shall be checked by the inspector for design and defects which would tend to impair the safety of the car.
 23. F.I.A. Regulations – the Car (Sports and Productions Sports cars only) will be checked to make certain it conforms to F.I.A. regulations as regards body dimensions, fenders, horn, lights, etc.
 24. Firewall and Floor – Shall be adequate to prevent the passage of flame from the engine compartment or under the car to the driver's compartment.
 25. Mirror – shall be adequate to give an unobstructed view of the road behind, and mounted in such a manner so as not to vibrate at high speed.
 26. Fire Extinguisher, First Aid Kit, Crash Helmet, Goggles or Visor (except when the driver is driving behind a full, erected windshield), copy of these regulations, and copy of the regulations for the event entered – must be presented at Technical Inspection. These items

will also be checked in the pits by the pit stewards before the start of each race.

27. Number – shall be at least eight inches high on both sides front and rear of car, and must meet the approval of the Technical Inspector, acting on the advice of the Chief Timer and Scorer.

RULE 8 – In all cases the decision of the Technical Inspection shall be final. An entrant whose car is barred, or who presents the car for recheck without the specified corrections made to the satisfaction of the Technical Inspector shall be disqualified from the event.

RULE 9 – It is assumed that all things checked at Technical Inspection will be maintained at the same degree of efficiency until the end of the event. If any component becomes deranged in any manner, the car may be barred from the course until the defect is repaired, or, if in the opinion of the Inspector or Stewards, the defect cannot be repaired in the time available, the car will be disqualified.

RULE 10 – No advertisement or trade sign shall be carried on, or distributed from, any car during an SCCA event. No car shall be entered in the name of any dealer or organization, but shall be entered in the personal name of the individual owner.

RULE 11 – If the results of an event are in dispute, the Contest Board reserves the right to impound and to inspect any car for any reason, but it is not bound to state any reason. If an individual protests a car as not being represented, he may demand that the car be disassembled, inspected and reassembled, or may demand any other test he may desire, provided he is willing to post bond in the amount of the total expense for such disassembly, inspection, and reassembly, or other tests demanded. If the car is found to be as represented, the individual lodging the protest shall forfeit his bond to cover the expense involved. If the car is found to be non-standard or not as represented, the entrant of the car will not only stand all expenses, but will be subject to the further action by the Contest Board.

RULE 12 – The Contest Board reserves the right to bar any car from competition should there be any infraction of the above rules, or it, for any reason, the board is of the opinion that a car is unsafe. Likewise, the Judges or Stewards may prevent a car from competing for the same reasons.

Sports Car Club of America, Inc.

Competition Regulations

1959 Edition



Section III – CARS

Classification

1. There shall be three classifications: "Production Category", "Modified Category" and "Restricted Category."
2. Production Category – The Contest Board will publish annually early in each year a list of the cars, and optional equipment for these cars, which will be eligible for competition in the Production Category in the current calendar year. No changes or additions in classification will be made during the calendar year.

Production sports cars will normally be only those which are series produced with normal road touring equipment in quantities of at least 150 per model sold. However, the Board reserves the right to exclude any sports cars of optional equipment from the Production Category, even if made in quantities of more than 150, if such cars or optional equipment, in the opinion of the Board, are primarily designed as for racing cars. Production Cars cannot be bought with modifications, or modified after purchase to take advantage of any items or equipment which affect mechanical performance unless such items are specifically listed by the Contest Board for the model bought.

All Production cars shall run only on pump fuel as defined in Item 3 of this Section.

These cars must be raced as described above with no modifications other than the following:

- a) Make but not typing of lighting device.
- b) Make of brake linings and clutch linings.
- c) Make of tires. Tires must be of the same size, front and rear. A usable spare must also be carried.
- d) Make but not type of shock absorbers.
- e) Make but not type of spark plugs and ignition coil, on condition that the system of ignition remains the one provided by the manufacturer.
- f) Make of battery, provided its voltage remains unchanged.
- g) Jets and chokes of the carburetors, provided the diameter of the inlet flange remains the same as that of the flange provided by the manufacturer. Ports may be matched and polished.
- h) The ratios of the gear box and rear axle, when series produced model is sold with such different ratios listed as available according to the manufacturer's catalog.
- i) The capacity of the fuel tank and that of the radiators when the series-production model may be sold, according to the manufacturer's catalog, with such different fuel tanks and radiators.
- j) Reboring, on condition that bore does not exceed by more than .030" the manufacturer's specifications for a new engine.
- k) The addition of lighting and signal devices, provided they do not violate traffic regulations in the State of registry.
- l) The fitting of all accessories capable of improving the conditions of use of the vehicle, provided these accessories have no influence

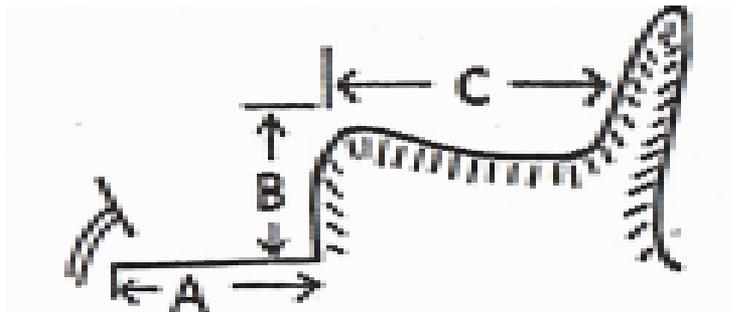
- on the mechanical performance.
- m) The fitting of dual master cylinders.
 - n) Balancing.
 - o) All inside modifications for the purpose of improving the comfort of passengers, provided they do not reduce the weight.
 - p) The removal of hub caps and fender skirts.
 - q) The top may be removed from open cars, or else must be folded and securely fastened.
 - r) Windshield may be folded or removed provided a suitable aero screen is fitted, and provided no cutting is necessary to remove it. However, the entire windshield (i.e. both halves if a divided windshield) including all brackets and mounting fixtures must be removed if this substitution is made.
 - s) Bumpers may be removed. (Grilles may not be removed.)
 - t) Straight exhaust pipe or pipes may be used providing that no changes are made forward of the muffler. Because of the unconventional layout straight pipes may be installed on Porsches directly at the exhaust ports.
 - u) Additional hood straps or fasteners.
 - v) Addition of a device for locking out reverse gear.
 - w) Installation of a spiral tube or other types of transmission breathers to prevent oil from boiling into the cockpit.
 - x) Raising hood for ventilation of engine compartment by use of hinge adjustment mechanism as installed by manufacturer. (Hood blocks or other modifications are not allowed.)
 - y) Fairing of cycle type fenders to the body provided such fenders are the type originally installed on the car by the manufacturer.
- Production cars shall be divided into eleven classes according to the cylinder capacity of their engines.

Class

- A Over 5,000 cc
- B Over 3,500 cc and below or equal to 5,000 cc
- C Over 2,700 cc and below or equal to 3,500 cc
- D Over 2,000 cc and below or equal to 2,700 cc
- E Over 1,600 cc and below or equal to 2,000 cc
- F Over 1,300 cc and below or equal to 1,600 cc
- G Over 1,000 cc and below or equal to 1,300 cc
- H Over 750 cc and below or equal to 1,000 cc
- I Over 500 cc and below or equal to 750 cc
- J Over 350 cc and below or equal to 500 cc
- K Cylinder capacity below or equal to 350 cc

3. Modified Category – Cars in the Modified Category must conform to the following specifications.
 - a) Bodies – Bodies must have at least two side-by-side seats which can actually be occupied and their combined external width must be at least 35.4" measured at the rear-most point of the steering wheel.

Dimension A plus Dimension B plus Dimension C should total not less than 43.4". These are measured when seat is occupied by a person weighing at least 132 lbs. All cars must have at least one operative solid door with proper fastenings and hinges which should measure at least 15.7" x 7.9".



- a) Pump fuel must be used. Pump fuel is defined as any grade of automotive gasoline available at roadside stations without any additions of any nature, excepting upper lube which must be added directly to the gasoline tank and not through any injection or drip oiler system, and which must not raise the octane rating.
- b) Rebore to the upper class limit *only* is allowed.
- c) Different size wheels and tires, front and rear, will be allowed provided they do not rub or jeopardize the handling quality of the car. One usable spare wheel and tire must be carried, and must not conflict with space reserved for driver or passenger.
- d) A suitable aero screen must be carried.
- e) A complete electrical system must be carried. This includes a self-starter, lights, horn, as well as the generator and battery which operates them.
- f) Classes – Modified cars shall be divided into ten classes according to the cylinder capacity of their engines. Super-charged cars will move up one class.

Class

- | | |
|---|--|
| A | Over 8,000 cc |
| B | Over 5,000 cc and below or equal to 8,000 cc |
| C | Over 3,000 cc and below or equal to 5,000 cc |
| D | Over 2,000 cc and below or equal to 3,000 cc |
| E | Over 1,500 cc and below or equal to 2,000 cc |
| F | Over 1,100 cc and below or equal to 1,500 cc |
| G | Over 750 cc and below or equal to 1,100 cc |
| H | Over 500 cc and below or equal to 750 cc |

- I Over 350 cc and below or equal to 500 cc
- J Cylinder capacity below or equal to 350 cc

4. Restricted Category – The Restricted Category shall consist of approved classes of cars which do not fulfill the definitions of the Production or Modified Categories. These classes, which shall be established by the National Contest Board, must conform to specified descriptions or formulas, and there must be a sufficient number of cars in each class to establish a satisfactory racing program.
 - a. Formula III –
 1. Engines-500 cc (30.5 cu. in.) any type combustion chamber and valve actuating system, unsupercharged. Two-stroke cycle engines may not have more than 1.25 atmospheres induction pressure; or 750 cc (45.7 cu. in.) “L” head engines or in-line overhead valve liquid-cooled engines, unsupercharged. 5% extra displacement allowed on all engines for rebuilding.
 2. Fuel – No oxygen-bearing fuels, such as nitro-methane.
 3. Weight – 440 pounds minimum dry, empty weight.
 4. Formula III cars must race by themselves, and not be grouped with other classes or categories.
 5. Paragraphs f), n), o), q), and s) of Section III, Rule 5 (Mechanical Condition of Cars and Safety Inspection) will not apply to Formula III cars.

Mechanical Conditions of Cars and Safety Inspection

5. At all SCCA speed events a standard Safety Inspection form shall be used. An entrant whose car is barred, or who presents the car for recheck, without the specified corrections made to the satisfaction of the Safety Inspection, may be disqualified from the event. It is assumed that all things checked at Safety Inspection will be maintained at the same degree of efficiency until the end of any event. If any component becomes deranged in any manner, the car may be barred from the course until the defect is repaired, or if, in the opinion of the Inspector or Chief Steward, the defect cannot be repaired in the time available, the car may be disqualified.

The points covered at Safety Inspection shall be:

- a) Suitability for Competition – the basic design of the car must be suitable for high performance with safety.
- b) Neat and clean appearance. No advertisement or trade sign shall be carried on any car during an SCCA event.
- c) Tires shall be new or very good. Racing tires will be required on cars capable of speeds in excess of 115 mph when running on courses suitable for the attainment of such speeds. Recaps will be allowed only if they are on accepted racing tire carcasses in good condition, where speeds will not exceed 115 mph.

The Contest Board accepts the following racing tires: Continental Racing, Dunlop “Racing” and “Road Speed,” Englebert Racing, Firestone “Super Sports,” “Nylon 500” and “Deluxe Champion Racing,” Goodrich “Silvertown 125,” Goodyear “Blue Streak Special”

and "Road Race," Michelin X, Pirelli "Speed," "Super Sport," and "Corsa," U.S. Royal "XP 140."

All tires and wheels to be used at any time in any event must be presented to the Safety Inspector for his approval.

- d) Brake Condition and adjustment – All cars must have effective pedal operated brakes working directly on each road wheel. All brake parts must be in perfect working order, and the brake linings must be new or very good. The entrant should be prepared to remove his brake drums for inspection. Brakes must be properly adjusted for maximum efficiency.
- e) Wheel Bearings – Should be properly adjusted so that there is no excessive wheel play.
- f) Fenders and Brackets – Fenders must be securely mounted. They must cover the tread of the tire for 120° down to a point at the rear of the tire, no higher than a horizontal plane through the axles. "Cycle" type fenders will not be permitted.
- g) Exhaust System – The car must present an exhaust system which will carry exhaust gases away from the body and exhaust them to the rear of the driver or in such a way that no danger is constituted. Coupes must run with at least one window open or other ventilating provision.
- h) Radiator and Hoses – Must be free from all leakage, and must be securely mounted.
- i) Hood and Engine Compartment – Hood must be securely fastened so that there is no possibility of it flying open during competition. The engine compartment will be checked to see that everything is in proper order and securely fastened in place.
- j) Front Suspension and Steering – Shall be of suitable design, in proper order, and properly adjusted for maximum safety and efficiency.
- k) Front and Rear Shock Absorbers – Shall be securely mounted and in proper working order.
- l) Leakage and Caps – No leakage of fluid, lubricants, or coolants will be allowed. All caps must fit properly so as to prevent loss of cap, or spillage during competition.
- m) Wiring – All wiring shall be properly installed and secure.
- n) Hand Brake – The hand brake must be properly adjusted.
- o) Stop and Tail Lights – Each sports car must have stop and tail light(s) which shall be adequate and operating.
- p) Seat Mounts and Safety Belts – Seats must be securely mounted in the car, and safety belt must be installed directly to the chassis frame or equivalent structural part in a manner to contain and restrain the pelvic girdle, at an angle of approximately 45 degrees to the vertical to pull the driver backwards to his seat squab, not just straight downward from his thighs.
- q) Passenger's Seat Back – The back of the passenger's seat (if a folding seat) shall be securely bolted or strapped in place so that it cannot move forward and impair the efficiency of the driver in case of hard braking.
- r) Roll bars are mandatory for all cars. Questionable roll bar installations

- are subject to final approval of the Safety Inspector.
- s) Tonneau covers over the passenger's seats may be carried if substantially made and fastened.
 - t) Firewall and Floor – Shall be adequate to prevent the passage of flame from the engine compartment or under the car to the driver's compartment. Floorboards must be suitable to protect the driver on all sides from gravel, oil, water, and debris from the road and engine. Belly pans should be adequately vented to prevent accumulation of inflammable liquids.
 - u) Mirror – The mirror shall be adequate to give an unobstructed view of the road behind, and mounted in such a manner so as not to vibrate at high speed.
 - v) Fire Extinguisher, Flame-resistant Garments, Crash Helmets, Goggles or Visor – Must be presented for approval at Safety Inspection. These items will also be checked in the pits by the Pit Stewards before the start of each race. The Fire Extinguisher must be securely mounted in the cockpit and be a minimum of a) liquid – one pint, b) CO₂ – one pound, c) dry chemical – two pounds.
 - w) Numbers and Class Letters – Number shall be at least eight inches high on both sides, front and rear of the car, and must meet the approval of the Safety Inspector, acting on advice of the Chief Timer and Scorer. Class letters will also be carried on both sides.
 - x) Headlights – Must be protected to prevent shattering.
 - y) Hub Caps and fender skirts must be removed.
 - z) Cars equipped with detachable hard tops must be run with such tops removed.



General Competition Rules

1962 Edition

Appendix A Automobiles

1. SCCA Section

A. Pump Fuel

Is defined as any grade of automotive gasoline available at roadside stations, without additions of any nature except upperlube which must be added directly to the gasoline tank and not through any injection or drip oiler system, and which must not raise the octane rating.

B. Production Category

The Car Classification Committee shall publish early in each year a list of the cars and optional equipment for these cars which shall be eligible for competition in the Production Category in the current calendar year. No changes or additions in classification shall ordinarily be made during the calendar year.

Production sports cars shall normally be only those which are series produced with normal road touring equipment in quantities of at least 150 per model sold. However, the Car Classification Committee reserves the right to exclude any sports cars or optional equipment from the Production Category, even if made in quantities of more than 150, if such cars or optional equipment in the opinion of the Committee are primarily designed as or for racing cars.

Production sports cars must be raced as they are normally delivered to the public by the manufacturer's sales outlets, except for the addition of approved optional equipment and the modifications authorized by these rules.

It is not permitted to utilize any items of optional equipment which affect the mechanical performance or reliability of a car unless they are specifically designated for that car by the maker, available to members through the normal sales and parts outlets of the manufacturer, and are approved by the Car Classification Committee.

In 1962, Production cars shall be divided into classes based upon relative performance as follows:

CLASS A –

Jaguar XKE
Ferrari 250 GT (2400 mm wheelbase)
Corvette 327
Aston Martin DB4 GT

CLASS B –

Corvette 283
BMW 507
Ferrari 250 GT (2600 mm wheelbase)
Mercedes 300SL
Porsche Carrera
Aston Martin DB2, DB2-4, DB4

CLASS C –

Daimler 250 SP
Morgan + 4 (with Options)
AC Bristol
Porsche Super 90
Jaguar XK120, XK140, XK150, XK150S (3.4
and 3.8)
Alfa Romeo Sprint Zagato
Fraser-Nash
Arnolt Bristol
FIAT-Abarth 1000 doc
Lotus Elite-State III Climax
TVR Climax
Sprinzel Sebring Sprite
Alfa Romeo Sprint Speciale
Lotus Seven Super Classic (Ford 109E)

CLASS D –

A-H 3000
Alfa Romeo Veloce
Alfa Romeo 2000
Porsche 1500, 1600 Super
SIATA 208S
Lancia Aurelia—GT Spyder
Turner-Climax
Jensen
A.C. Ace and Aceca
G.S.M. Delta

CLASS E –

A-H 100-6-2.6
A-H 100-4-2.6
Triumph TR-2, 3, 4
Morgan + 4
MG A Twin-Cam
Fairthorpe Electron
FIAT-Abarth 1000 (push rod)
FIAT-Abarth 700 (doc), 750 (doc)
Elva Courier
TVR MG A (1600 engine)
Lotus Elite – Stage 1
Volvo P1800

CLASS F –

Sunbeam Alpine
Porsche 1500, 1600 Normal
DB HBR-5, 850, 950 (Twin ignition)
Mercedes-Benz 190SL
FIAT 1500 Spyder
FIAT Abarth 850S

Denzel 1300S
Turner 950S
MG A 1500
MG A 1600
MG A 1600 Mk. II
Sabra Sport
Facellia
Renault Alpine 900, 850, 750

CLASS G –

Porsche 1300, 1300S
Alfa Romeo Giulietta
A-H Sprite—(with options and Mk. II head)
A-H Sprite—Mk. II
MG Midget (same specs and options as Sprite)
Lotus Seven America—BMC engine
D.B. HBR-5, 850
MG TF 1500
FIAT-Abarth 750 Mille-Miglia
FIAT-Abarth 850
Berkeley B-95, B-105
Fairthorpe Minor
Morgan 4-4—Series III—(Ford 105E)

CLASS H –

A-H Sprite
FIAT-Abarth 750 GT
Auto Union 1000 SP
FIAT 1200 Spyder
MG TC 1250
MG TD 1250
MG TF 1250
Berkeley 500 cc
Lancia Appia GT
N.S.U. Sport Prinz
Dyna Junior (Dyna Panhard)
Morgan 4-4 (Ford 100E)

The following additional changes and modifications are permitted:

Bodywork:

- a. The make and number of lighting and signaling devices, provided they do not violate traffic regulations in the state of registry.
- b. The fitting of all accessories and all inside modifications for the purpose of improving the convenience and comfort of the driver and passenger, provided they have no influence whatever on the mechanical performance and do not reduce the weight of the car.
- c. Raising hood for ventilation of engine compartment by use of hinge adjustment mechanism as installed by manufacturer. (Hood blocks or other modifications are not allowed). Additional hood straps or

- fasteners may be used.
- d. The capacity of the fuel tank and that of the radiators when the series production model may be sold according to the manufacturer's catalog and listed by the SCCA with such different fuel tanks and radiators.
 - e. The top may be removed from open cars or else must be folded and securely fastened.
 - f. Windshield may be folded or removed provided a suitable aero screen is fitted and provided no cutting is necessary to remove it. However, the entire windshield (i.e. both halves if a divided windshield) including all brackets and mounting fixtures must be removed if this substitution is made. Window glass and projecting hardware which might prove hazardous may be removed from the doors
 - g. Bumpers may be removed, but if so, all projecting hardware such as brackets and fixtures must also be removed. No substitute bumpers are allowed. Hub caps and fender skirts must e removed. Grills ma not be removed.

Tires:

- h. The make and size of tires provided they fit the rims without change or additions and do not interfere with the bodywork under any conditions of steering lock or rebound. Tires must all be of the same size. No racing "slicks" or "baldies" permitted. Spare tires may be removed, unless the supplementary rules for an event specify otherwise. Tubeless tires are not permitted for racing.

Wheels, Chassis and Brakes:

- i. Strengthening of wheels provided the original wheels are retained and their dimensions are unchanged.
- j. The make and type of shock absorbers, but not their numbers, or their system of operation (i.e. lever or telescopic), or their system and points of attachment, unless specifically listed as an allowed option for a given model by the SCCA.
- k. The cooling of brakes by ventilation of backing plates or fitting of air ducts, provided no changes are made in the bodywork above a plane passing through the wheel hubs.
- l. The make of brake linings and the fitting of dual master cylinders.

Electrical System:

- m. Make of spark plugs and ignition coil on condition that the system of ignition remains the one provided by the manufacturer.
- n. Make of battery provided its voltage remains unchanged.

Engine, Gear Box, Rear Axle

- o. Jets and chokes but not the make or type of the carburetors approved for the car. Ports may be matched and polished, but may not be enlarged or altered beyond the shape and measurements listed by the SCCA and the manufacturer. Air cleaners may be altered or removed.
- p. An additional or substitute fuel pump may be utilized.
- q. Cylinders may be rebored to compensate for wear to accommodate a maximum of 0.030 in. oversize pistons if they are available from the manufacturer of the car. Cylinder heads may be trued by removing a maximum of 0.015 in. from the manufacturer's original thickness

tolerance. Compression ratio variations which result from these operations may not exceed the specified compression ration by more than 0.5:1

- r. Balancing of all rotating or reciprocating parts.
- s. Straight exhaust pipe(s) may be fitted but no changes may be made in the exhaust header(s). However, in cases of cars where there are no exhaust headers as such (i.e.: Porsche, Deutsch-Bonnet, etc.) straight pipes may be installed directly at the exhaust ports.
- t. The addition of an oil filters.
- u. Addition of a device for locking out reverse gear.
- v. The ratios of the gear box and rear axle when listed according to the manufacturer's catalog, and by the SCCA.
- w. Installation of a spiral tube or other types of transmission breathers to prevent oil from boiling into the cockpit.
- x. Any modifications to the clutch except changing the diameter of the unit originally specified for the model by the manufacturer.

C. Modified Category

SCCA Modified Category automobiles shall be those which conform to current or obsolete regulations for "Sports Cars" defined in Appendix C of the International Sporting Code. The following specific deviations from the current Appendix C shall be permitted and shall apply for SCCA National, Divisional, and Regional events:

1. CLASSES — Automobiles in the Modified Category shall be divided into six classes according to the cylinder volumes of the engine:
 - C Over 3000 cc
 - D Over 2000 cc and below or equal to 3000 cc
 - E — Over 1600 cc and below or equal to 2000 cc
 - F — Over 1100 cc and below or equal to 1600 cc
 - G — Over 750 cc and below or equal to 1100 cc
 - H — Below or equal to 750 cc
2. FUEL — All Modified Category automobiles shall run only on pump fuel.
3. WEIGHT — There shall be no minimum limitations on weight.
4. CHASSIS—GROUND CLEARANCE—LOCK — Provisions of previous editions of APPENDIX C shall apply.
5. COACHWORK—SEATS
 - i) Provisions of previous or current editions of APPENDIX C shall apply. Specifically, two seats shall be offered, but need not necessarily be located on either side of the longitudinal axis of the automobile. The inside minimum width shall be 120cm (47.24") measured at the immediate rear of the steering wheel perpendicular to the longitudinal axis of the car.
 - ii) The arrangement of the drivers seat shall be such that A B C = 110 cm (43.3") minimum.
 - iii) Backs of seats shall have a minimum height of 30 cm (11.8").
 - iv) Footspace for the driver and passenger shall each be at least 25 cm (10") in width measured at a point even with the pedals.
 - v) All cars shall have at least one rigid door giving direct access to the seats and measuring at least 15.7" x 7.9".

- vi) The carrying of tops shall not be required.
- vii) A suitable aero screen in front of the driver shall be carried. There shall be no other requirements for windshields.
- viii) There are no minimum requirements on the size of the luggage compartment.

6. WHEELS AND TIRES

There shall be no restrictions on the size of wheels or tires, provided they are identical for the front axle(s) and rear axle(s).

A usable spare wheel and tire of the same size as one of those mounted on the car shall be presented for safety inspection, and, unless the Supplementary Regulations for a competition otherwise specify, may be left in the assigned pit.

Under no circumstances shall the passenger’s space be used to carry the spare wheel and tire.

D. Formula III

1. Engines—Maximum of 500 cc (30.5 cu in) any type combustion chamber and valve actuating system, unsupercharged. Two-stroke engines may not have more than 1.24 atmospheres induction pressure; or 750 cc (45.7 cu in) “L” head engines or in-line overhead valve liquid-cooled engines, unsupercharged. 5% extra displacement allowed on all engines for rebuilding.
2. Fuel—No oxygen-bearing fuels, such as nitro-methane.
3. Weight—440 pounds minimum dry, empty weight.
4. Formula III cars must race by themselves, or else be grouped with other open-wheeled cars.

E. Formula Libre

In order to be eligible to compete in a Formula Libre event, an automobile shall conform to a current or obsolete FIA formula for a single-seat, open-wheeled, road-racing machine. Examples of such cars are:

- Formula I Current or obsolete
- Formula Intercontinental Current or obsolete
- Formula II Obsolete
- Formula III
- Formula Jr.

**2. FIA SECTION
APPENDIX C**

**TO THE INTERNATIONAL SPORTING CODE
(1962)
SPECIAL REGULATIONS FOR SPORT CARS**

200. Classes

Vehicles of the “Sports” category, being the subject of the present regulations, shall be distributed, in view of the participation in competitions, according to the engine cylinder capacity in one of the 15 following classes:

1. Engine capacity inferior or equal to 400 cc
2. Engine capacity exceeding 400 cc and inferior or equal to 500 cc
3. Engine capacity exceeding 500 cc and inferior or equal to 600 cc

4. Engine capacity exceeding 600 cc and inferior or equal to 700 cc
5. Engine capacity exceeding 700 cc and inferior or equal to 850 cc
6. Engine capacity exceeding 850 cc and inferior or equal to 1000 cc
7. Engine capacity exceeding 1000 cc and inferior or equal to 1150 cc
8. Engine capacity exceeding 1150 cc and inferior or equal to 1300 cc
9. Engine capacity exceeding 1300 cc and inferior or equal to 1600 cc
10. Engine capacity exceeding 1600 cc and inferior or equal to 2000 cc
11. Engine capacity exceeding 2000 cc and inferior or equal to 2500 cc
12. Engine capacity exceeding 2500 cc and inferior or equal to 3000 cc
13. Engine capacity exceeding 3000 cc and inferior or equal to 4000 cc
14. Engine capacity exceeding 4000 cc and inferior or equal to 5000 cc
15. Engine capacity above 5000 cc

201. Weight

When the Supplementary Regulations for a competition impose a minimum weight for care of the Sports category, this weight must consist of the weight of the manufactured vehicle itself with its component parts, and cannot therefore be arrived at by the addition of anything extra in the way of ballast.

In order to facilitate proceedings, the vehicle may be weighed without draining out the lubricating oil, in which case the following will be added to the minimum weight, required by the supplementary regulations:

Classes 1 to 5: 5 kilos

Classes 6 to 10: 10 kilos

Classes 11 to 14: 15 kilos

Classes 15: 20 kilos

202. Chassis—Ground clearance—Lock

All parts of the chassis shall be at least 12 cm from the ground so that a mass 80 cm wide and 12 cm high may be introduced between the back wheels and through the length of the cars equipped with the wheels and tires which are to be used for the competition.

The turning radius shall be 6m,75 maximum, in other words the car must be able to make a complete turn without backing between two parallel lines 13m,50 apart.

203. Self Starter

A self-starter fitted to the vehicle in proper working order is obligatory. It must be used at the start of the competition, and none of its parts may be removed during the event.

All other means of starting up the engine are prohibited, and penalties in case of non-functioning of the automatic self-starter at the beginning or in the course of the competition shall be laid down in the supplementary regulations.

204. Braking safety

The braking system should be ensured in such a way that the brake pedal normally controls the 4 wheels.

In case of a leak at any point of the piping or any failure in the braking transmission the brake pedal should operate on at least two wheels on one same axle.

205. Fuel Tanks

The total capacity of the fuel tanks (principal and auxiliary, if such exist) shall not exceed the following maximums:

- Cars of an engine capacity up to 1000 cc: 70L. (18.5 gal.)
- Cars of an engine capacity from 1000 cc to 1300 cc: 85L. (22.4 gal.)
- Cars of an engine capacity from 1300 cc to 1600 cc: 100L. (26.4 gal.)
- Cars of an engine capacity from 1600 cc to 2000 cc: 110L. (29.0 gal.)
- Cars of an engine capacity from 2000 cc to 2500 cc: 120L. (31.7 gal.)
- Cars of an engine capacity from 2500 cc to 3000 cc: 130L. (34.3 gal.)
- Cars of an engine capacity exceeding 3000 cc: 140L. (36.9 gal.)

206. Coachwork – Seats

Coachwork must be completely finished and offer no make-shift element. They must offer at least TWO seats of equal dimensions located on either side of the longitudinal axis of the car, and of the same height, without prejudicing the normal system of adaptation to the size of the driver.

The inside minimum width shall be:

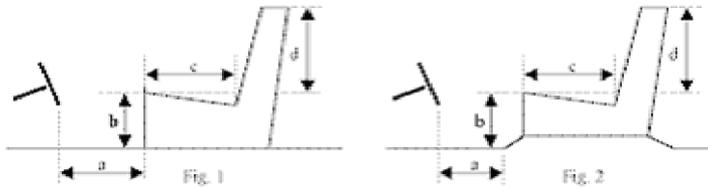
- 100 cm for cars with engine cylinder capacity inferior or equal to 1000 cc.
- 110 cm for car; with engine cylinder capacity exceeding 1000 cc.

This dimension shall be measured at the immediate rear of the steering wheel, perpendicular to the longitudinal axis of the car. It must be maintained on a minimum height of 25 cm.

The passengers place shall remain available during the whole of the event. It shall not be either partly or totally covered and shall offer the same conditions of comfort, room and protection as that of the driver's. However the passenger's place may be sheltered by means of a cloth or any similar supple material liable to be quickly removed by hand without using any tools. Under no condition may the seats serve as a holder to a spare wheel or be combined with the fuel tank(s). Tanks shall be placed outside the cabin so as to protect the passengers of the car from any fumes or direct splashing of the fuel.

The transmission organs (shafts and cardan joints) must be under the floor boards or be fitted in tubes or casings. The floor boards, tubes or casings must not be of a temporary nature but must be properly joined together and firmly fixed to the coachwork and the chassis.

Front seats must fulfill the conditions setout hereafter (Figure 1 and 2).



a is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal axis and limiting from front to rear the open space on a level where the measurement taken.

For the driver's seat, *a* is measured on the floor level, or at the bottom of any recess if need be, from the perpendicular at the furthest pedal in its position of rest.

For the passenger seat, this measurement is taken at a height of 20 centimeters above the floor, or at the bottom of the recesses, if need be.

In case of movable seats it is forbidden to alter the position of any seat while the cars are being measured.

b is measured vertically from the rear of *a* to the horizontal plane tangent to the highest part of the cushion as shown on the drawings.

c is measured in the horizontal plane defined above from the upper end of *b*, parallel to *a*, and in the middle of each axis of the chassis and tangent to the foremost point of the back of seats.

Back of seats must have a minimum height of 30 cm. (11.8 in.) measured vertically from rear of *c*.

The arrangement of the body must be such that:

$$a + b + c = 1\text{m}.10 \text{ (43.3 in.) at least.}$$

The minimum width for the foot space (for each person must be 25 cm (9.84 in.) measured perpendicularly to the longitudinal axis of the chassis plumb with the pedals.

207. Doors

All vehicles shall be equipped with at least one rigid door on either side, with

a closing device and hinge giving direct access to the seats. They shall, when they are opened, free a space enabling to frontally slide through a rectangle of 50 cm by 30 cm (19.68 in x 11.81 in).

Vehicles with a frontal or a rear door and whose engine cylinder capacity is inferior to 500 cc may have only one door.

There shall always be a means of removing immediately the passengers whatever the position of the car.

208. Windscreen—Windscreen wiper

The windshield is compulsory. If it is broken or loses its transparency on more than three quarters of its width in the course of a race on a closed circuit it must be urgently replaced at the pit under pain of exclusion from the race. It shall be placed symmetrically with regard to the axis of the car and have the following minimum dimensions:

Width, chord measurement:

90 cm (35.43 in.) for cars with cylinder-capacity inferior or equal to 1000 cc.

100 cm (39.37 in.) for cars with cylinder-capacity exceeding 1000 cc.

Height:

15 cm (5.9 in.) measured vertically all along the minimum width.

It shall be efficiently attached to the hood or to the roof of the car, if of closed body type.

If the windscreen is equipped with glass, only glass of safety type shall be permitted.

The windscreen must have at least one automatic wiper, placed in front of the driver, the surface action of the wiper should be sufficient for the driver to be able to see the road distinctly, from his seat.

209. Mudguards

Mudguards of vehicles must not include temporary parts and they must be firmly affixed.

They must be placed exactly above the wheels and they must cover the effectively by surrounding at least a third of the circumference. It will, however, be permitted to make in each mudguard an opening not exceeding a maximum of 200 square centimeters (31 in²) to enable the driver to check the condition of his tires.

The width of mudguards must be such as to cover the tires completely when the wheels are parallel to the longitudinal axis of the car. In those cars where the mudguards are entirely or partly overhung by the structure of the body, the combination of mudguards and body, or the body alone, must nevertheless fulfill the above-mentioned requirements as to protection.

The rear extremities of the front and rear mudguards must not be higher above the ground than a horizontal line passing through the center of the

wheel hub cap.

Mudguards fitted on the wheels and liable to turn when the wheels are steered are prohibited. They must therefore be solid with the body, there being no gap between them.

210. Hoods (Tops)—No longer required on open sports-racing cars in 1962.

211. Closed cars

Bodies of closed cars, convertible or not, must correspond at least to all the conditions indicated above for open cars.

Bodies of closed cars must be established in such a way that they ensure perfect visibility for the driver. The windows must be fitted with safety glass.

The minimum size of the panes must be such as to include a rectangle measuring:

- a. For the front and rear windows. 40 cm wide by 2 cm height (15.75 in. x 9.84 in.)
- b. For the back window: 50 cm (19.68 in.) total width, composed of one pane, or several panes inserted into separate frames. Height 10 cm (3.93 in) all along the width, measured vertically.

During races, either by means of open windows or by a special apparatus, a sufficient draught must exist to prevent gases from accumulating inside the car.

Lastly, the height of the roof, measured from the lowest part of the cushions of the rear and front seats shall be at least 85 cm (33.46 in.)

212. Luggage space

A covered space shall be provided, forming an integral part of the body, but outside the space occupied by the front seats. It must be able to contain a trunk measuring 65 cm x 40 cm x 20 cm (25.59 in. x 15.75 in. x 7.87 in.) excluding the spare wheel, the tools, or the folded hood.

213. Wheels and tyres

All the wheels of the car shall have the same diameter.

All through the competition, at least one spare wheel, with tyre, identical to one of those mounted on the car must be placed outside the space reserved for occupants of the vehicle, and in such a manner that the normal working of the door is not impeded. Extra spare wheels may, if necessary, be placed in the rear seats of cars for more than two passengers, but in no case may they occupy the space reserved for passengers in the front seat(s).

During competitions, and for safety reasons, spare wheels placed outside the bodies must comprise at least two kinds of systems to fix them, which must be independent one from the other (for instance a hub shaped attachment and straps).

Dimensions of tyres are free.

214. Rear-reflecting mirrors—Silencer—Lighting and Warning apparatus

Vehicles must compulsorily be fitted with:

1. A rear-reflecting mirror with a reflecting surface of at least 50 cm² (7.75 in.²)
2. An efficient silencer.

The efficiency of a silencing system is thus defined and verified: the exhaust shall give the impression of a muffled and diminishing sound in which the explosions of each cylinder are not strongly accentuated.

The exhaust pipes shall be arranged so as not to raise any dust.

The sound and luminous signaling devices shall be in working order from beginning to end of the competition.

The lighting devices shall comply with the provisions of the International Convention on Motor Traffic. They shall furthermore be in working order at the start of the competition and remain so during the normal hours of functioning as well as during the hours which are foreseen in the Supplementary Regulations.

The Supplementary Regulations shall lay down what penalties apply in case of tile above accessories being broken, lost, rendered partly or completely useless.

However, damage done to glass by projection of stones shall not be subject to penalization and the replacement of burnt out electric bulbs shall always be authorized.

215. Special provisions

All the integral parts of the body, such as front and rear mudguards, supports and frame of windscreen, hoods, doors, spare-wheel attachments, must be maintained in normal position of use until the end of the event (or if need be, replaced at the first passage at a replenishment pit).

Any competing car shall be in strict compliance with the traffic regulations of either its country of origin, or its country of registration.

Furthermore, the Supplementary Regulations may provide that only those cars are eligible which carry a national registration plate enabling proper identification, to the exclusion of all provisional mobile plates (trial or garage keeper's plate).

All vehicles corresponding to the above characteristics must be admitted in all International Competitions for Sports cars. But this obligation shall not prevent promoters from refusing entry to a competitor, on account of any other reason.

B. APPENDIX J

TO THE INTERNATIONAL SPORTING CODE

**GENERAL REGULATIONS
FOR TOURING AND GRAND TOURING CARS**

CHAPTER I—GENERAL PROVISIONS

251. Enforcement of the Regulations

The present regulations define all cars built in large or small series and recognized by the FIA in categories "TOURING" or "GRAND TOURING" in compliance with provisions of article 254 below.

They compulsorily apply to all events entered on the International Sporting Calendar (speed events or regularity trials) or on the Calendar of National Events with foreign participation authorized and in which series production cars of the Touring and Grand Touring categories participate.

252. Categories and groups of vehicles

Vehicles referred to in the above article shall be distributed into the following categories and groups:

A. "TOURING" category:

- Group 1. Series production Touring Cars
- Group 2. Improved Touring Cars

B. "GRAND TOURING" category:

- Group 3. Grand Touring Cars

This group takes in also series production Touring Cars with altered bodies as well as Touring Cars belonging to the former group of "Special Touring Cars".

Events open to cars of the Touring and/or Grand Touring categories may also be open to cars of the "Sports" category. In that case cars of this category, which is not defined in the present regulations, shall form the:

C. Group 4. Sports Cars

In which shall be admitted all cars complying with the special regulations of Appendix C to the International Sporting Code, as well as Touring and Grand Touring Cars of a model recognized by the FIA, but which because of changes effected cannot be entered in one of the 3 above mentioned groups (see art. 274 hereafter).

Promoters are free to choose the group(s) they wish to include in the Supplementary Regulations.

Except when otherwise specified by the FIA for a given category of events, the combination of several consecutive groups is authorized.

Since the order of groups as given here-above is considered as forming a logical progression, a car which is eligible for competing in any group not provided in the Supplementary Regulations of an event is automatically eligible for competing in a higher group.

253. Class Scale

Cars shall be distributed into the following 15 classes, according to the engine cylinder capacity:

1. Engine capacity inferior or equal to 400 cc
2. Engine capacity exceeding 400 cc and inferior or equal to 500 cc
3. Engine capacity exceeding 500 cc and inferior or equal to 600 cc
4. Engine capacity exceeding 600 cc and inferior or equal to 700 cc
5. Engine capacity exceeding 700 cc and inferior or equal to 850 cc
6. Engine capacity exceeding 850 cc and inferior or equal to 1000 cc
7. Engine capacity exceeding 1000 cc and inferior or equal to 1150 cc
8. Engine capacity exceeding 1150 cc and inferior or equal to 1300 cc
9. Engine capacity exceeding 1300 cc and inferior or equal to 1600 cc
10. Engine capacity exceeding 1600 cc and inferior or equal to 2000 cc
11. Engine capacity exceeding 2000 cc and inferior or equal to 2500 cc
12. Engine capacity exceeding 2500 cc and inferior or equal to 3000 cc
13. Engine capacity exceeding 3000 cc and inferior or equal to 4000 cc
14. Engine capacity exceeding 4000 cc and inferior or equal to 5000 cc
15. Engine capacity above 5000 cc

The above classification applies to cars with non-supercharged engines.

Cars equipped with a supercharging device provided for the whole series by the manufacturer may be recognized by the FIA but in one of the classes above the one they would belong to according to their normal cylinder capacity.

Except when otherwise occasionally specified by the FIA for a given category of events, there is no obligation for the promoters to include all the above classes in the Supplementary Regulations and furthermore, they remain free to combine two or more consecutive classes according to circumstances particular to their events.

254. Recognition of series production models

Before a series production car is accepted in the "TOURING" or "GRAND TOURING" category in a competition, it has to be recognized in that category by the FIA.

Recognition of each Touring or Grand Touring model shall be requested by the National Automobile Club (ACN) of its manufacturing country. Said request shall be accompanied with a certification from the ACN that the minimum production required has been met and within a recognition form (see art. 255) enabling the unmistakable identification of the model concerned.

Recognitions will be granted by the FIA, on recommendations of a Sub-Commission appointed by the CSI called "Sub-Commission for Recognitions". They will be circulated at the earliest opportunity by the FIA Secretariat.

Any change definitely brought to the series production of an existing model shall make the subject of a descriptive note giving specifications as to the

exact nature of the change effected. Said note shall be established by the ACN of the country where the altered vehicle has been manufactured, and submitted by the ACN to the Sub-Commission for Recognitions.

The Sub-Commission will have to determine which of the following case is concerned:

1ST CASE: INTRODUCTION OF A NEW MODEL

The change(s) introduced for good either noticeably improve the performance of the vehicle, or modify its main characteristics.

It shall be then considered as a new model for which construction of the minimum series in the category concerned shall be required, and a new recognition form shall have to be issued.

2ND CASE: NORMAL EVOLUTLON OF THE TYPE

The change(s) introduced for good (construction of previous model abandoned) do not noticeably improve the performance or the main characteristics of the vehicle.

The altered model will remain covered by the original recognition without the manufacturer being required to produce a new minimum series, but the changes must be stated either on a supplementary form appended to the existing one or on a new recognition form.

In particular, such is the case of models on which a change of cylinder-capacity has been carried out, as exceptionally authorized during the years 1960-1963, to enable the readjustment of models to the new limits of classes provided by art. 253 and subject to the following conditions:

- a. The production of engines of the previous cylinder-capacity must be definitely discontinued.
- b. The cylinder-capacity may be increased till the superior limit of the new class, or reduced under the superior limit of the preceding class.
- c. The change may be obtained by modifying either the boring, or the stroke, or by both said means, provided that apart from the pistons, sleeves, connecting rods and crankshaft, all the mechanical parts of the engine unit including their location are not modified.

The model may otherwise not be subject to any modification whatsoever not explicitly permissible according to the present regulations.

3RD CASE: VARIANT

One or several changes are made and noticeably modify either the performance or the main characteristics of the vehicle, but these changes concern only a part of the production of the manufacturer and the construction of the previous model is not discontinued. Said changes will be considered as introducing a "variant" which shall be accepted as well as the original model as soon as the minimum series required for this category of car has been built in twelve months. The variant will imply the drawing up, either of a

new recognition form or of an additional one to be appended to the already existing recognition form.

However, when the changes imply a noticeable reduction of the performances, such as those which are necessary for adapting a car to utility tasks to the detriment of the mechanical efficiency, the variant (s) will be accepted without imposing upon the manufacturer the obligation of previously producing a minimum series, subject to the following conditions:

- a. That all the parts liable of being substituted be mentioned on the recognition form concerning said model.
- b. That the substitution although it reduces the general efficiency does not improve certain secondary performances which are of special interest in, the competition in which the vehicle has been entered (for instance the fitting of a carburetor of economy type for a fuel consumption event).

The variant(s) may however always be accepted without having to give evidence of a minimum series production, when it concerns (or they concern) a special equipment for climatic or other purposes intended to adapt the car to an arctic or tropical climate or to an unusual type of ground (such as desert or bush) under the express condition that the vehicle is only used in competitions run in the particular circumstances which are referred to hereabove.

255. Recognition Forms

All Touring and Grand Touring cars recognized by the FIA will be described on a form, called Recognition Form, drawn up by the National Automobile Club, on which will be entered the chief specifications enabling the identification of each model.

Shall only be used to this effect by all ACN's the model recognition form, as well as the additional form for "normal evolution of the type" and "variant", drawn up by the FIA.

These forms will be prepared by the ACN of the country in which the car has been built and submitted by said ACN to the Sub-Commission for Recognitions.

It rests within the entrant to secure the recognition form and if need be the additional form concerning his car either from his ACN or if not available at his own ACN, from the ACN of the country in which his vehicle has been built.

Promoters may require entrants to produce the form at scrutineering and/or at the start. They will be entitled to refuse participation of an entrant if the necessary form(s) is (are) not produced.

256. Fuel

Fuel shall be of a commercial type generally distributed at road service stations of the country or countries in which the event is to be run. If in one of the countries, the standards of the best commercial fuel is inferior to the fuel having the largest octane number is one of the three following countries:

France, Great Britain, Italy, a special waiver may be granted to the promoters with the approval of the CSI.

Upper cylinder or two stroke engine lubricants are authorized, on condition there is no increase of the fuel octane number.

CHAPTER II—GROUP 1—SERIES PRODUCTION TOURING CARS

257. Definition—Minimum of construction

Series production Touring cars are motor vehicles intended for the transportation of persons and for which the manufacturer has endeavored to obtain the best performance in normal conditions of use. They must be recognized by the FIA in the "Touring" category.

In order to enjoy such recognition, these cars must be in conformity with a model well defined in a catalogue and obviously intended for normal use, for pleasure or business. They must be offered to customers by the regular sales department of their manufacturer.

They must be of a model in current production or which has not been definitively abandoned for over 4 years. They must have been manufactured in series at a minimum rate of 1000 units in 12 consecutive months and be identical as far as mechanism and coachwork are concerned.

By identical is meant that the external shape and the component materials of the mechanical parts, the chassis and the body must remain unchanged.

To the exception of the modifications and additions explicitly authorized according to the present regulations, any accessory and/or any mechanical part may only be replaced by the same accessory or the same part used by the manufacturer for the considered model, the only tolerances in size being those officially provided by the factory.

All elements of the vehicle must compulsorily be those of one same recognized model, whether said model is the basic one or one of its variants also recognized (see art. 254) to the exception of elements whereof the addition, the removal or the replacement is explicitly authorized according to the present regulations (considering the group which applies).

However, in case of "normal evolution of the type" (see above art. 254, 2nd case) when a manufacturer has abandoned for good the production of certain spare parts, spare parts of the altered model may be substituted, provided they are perfectly adaptable and do not imply any modification whatsoever of the supports.

258. Coachwork

Series production touring cars shall have a closed body or a "convertible" body.

Coachwork means all the external parts of the vehicle licked by the air streams and located above a plane passing through the wheel hubs.

Convertible coachwork means a body which can be either completely closed, or open, with inter alii mobile windows in the doors. Is excluded all coachwork fitted with a simple hood offering but a scanty protection against bad weather, even if the hood is equipped with detachable sidescreens.

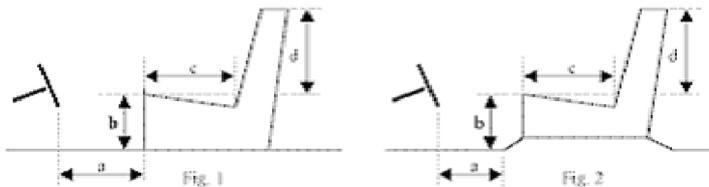
As a rule the body shall be built by the manufacturer of the frame. However, a series production body manufactured by a coachwork builder approved by the maker of the frame may be admitted. For cars whose body has been made outside of the main factory, there will have to be at least 1000 units assembled within a period of 12 consecutive months and said cars will be subject to a separate recognition.

259. Number and dimensions of seats

Series production Touring cars shall have the number of seats provided by the manufacturer. This number shall be at least TWO when the engine cylinder capacity is inferior or equal to 1000 cc and at least FOUR when the engine capacity is superior to 1000 cc.

Shall be counted as seats only those especially adjusted by the maker of the body for the sake of carrying the passengers, drivers included.

The seats shall have the following minimum dimensions as indicated on the sketch below:



a is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal axis and limiting from front to rear the open space on a level with the height where such measurement is taken.

For the driver seat *a* is measured at floor level, or at the bottom of any recess, from the perpendicular of the nearest pedal at rest.

For the passenger seat *a* is measured 20 cm above floor level or the bottom of recesses if need be.

In the case of movable seats the position shall not be altered when measurements are taken.

b is measured vertically from the rear of *a* to the horizontal plane tangent to the highest part of the cushion, as shown on the sketch.

c is measured in the horizontal plane defined above from the upper end of *b*, parallel to *a* and in the center of each seat, as far as the vertical plane perpendicular to the longitudinal axis of the chassis and tangent to the foremost point of the back of the seat.

Back of seats shall have a minimum height of 30 cm, measured vertically from the rear end of *c*.

The coachwork must be planned in order to obtain:
 $a + b + c$ 1,10 m. minimum

The minimum width for foot space (for each person) shall be 25 cm measured perpendicularly to the longitudinal axis of the chassis, at the vertical of the pedals.

Shall not be considered as a four-seater, cars offering inside the coachwork for 2 normal seats and a back space provided for the transportation of dogs or luggage, even if the dimensions of said space enable the temporary accommodation of passengers.

The normal arrangement of the seats may be subject to all kinds of modifications intended to improve the comfort of the occupants of the car (transformations of the seats or their replacement by others) subject to there being no reduction of the number or of the comfort of the seats provided by the manufacturer.

260. Minimum weight

The recognition form shall state the official weight of the considered model. This weight shall be obtained by taking the average of the actual weighing of five closed cars of the same model, selected at random and weighed in the following conditions: with the spare wheel provided by the manufacturer and with a tyre which is the same as those which are mounted on at least two wheels of the vehicle, with full oil tank, and full water tank (if such is the case) but without fuel, tools, luggage or anyone aboard.

When the weight is being checked by the scrutineers on the occasion of an event, a tolerance of minus 5% as compared with the weight entered on the recognition form will be granted, whatever the cause of the reduced weight and provided it results from a lightening which is permissible according to the present regulations.

261. Changes and additions authorized

1. LIGHTING DEVICES: make and number are free, provided they comply with the International Convention on Road Traffic.

2. **RADIATORS AND FUEL TANKS:** any radiator or fuel tank provided by the manufacturer for the model considered and mentioned in the maintenance booklet and on the recognition form may be used.

The use of radiators having a capacity superior to that of those provided by the manufacturer may be authorized by the ACN in the case of events organized under particular climatic conditions.

The addition of a radiator screen whether fixed or mobile, regardless of its system of control, is authorized.

3. **AIR FILTERS:** may be changed or removed.
4. **CARBURETORS:** the number, type and make must comply within those used by the manufacturer for the model considered. They must always be liable to be directly adapted on the inlet manifold but all the settings and the changes of the venturis, the jets and chokes are authorized.

All timing operations and modifications of the venturis or the jets and chokes are authorized, even when the tuning is obtained by a substitution of the carburetor body, provided the mounting on the inlet manifold continues to be done without any kind of intermediary device whatsoever.

The substitution of an automatic control of the starter by a hand control (or vice-versa) is authorized.

5. **BATTERY:** the tension (voltage) as well as the location provided by the manufacturer may not be changed; but the make, type and capacity (amperage) are free as well as the shape, the dimensions and the attachment system.
6. **IGNITION COIL, CONDENSER AND DISTRIBUTOR:** are free. on condition the ignition system remains as provided by the manufacturer for the considered model.

A spare coil and/or a spare condenser may be set up anywhere provided the switching from main to spare cannot be controlled from the inside of the car..

The replacement of an automatic control of the ignition by a hand control (or vice-versa) is authorized.

7. **PLUGS:** same number per cylinder as provided by the manufacturer, make and type free.
8. **PETROL PUMP:** a mechanically controlled pump may be replaced by an electrically controlled one and vice versa.
9. **REBORING:** is authorized on condition not to exceed the original bore by more than 0.6 mm. Moreover, the resulting increase in capacity must not be such as to make the car pass into the above class.

The make of pistons is free as well as the basic material, hut they shall be identical (except for the ribs) to those provided by the manufacturer for the model considered and shall have at least the same weight.

In particular. the shape of the head, the location of the axis, the number and type of rings may not be modified. The type of ring is defined by the

function for which it is intended: top ring, compression ring or oil cutter ring.

When the engine has removable sleeves, the replacement of pistons is authorized in the same conditions as provided hereabove, that of the sleeves is also permitted provided the replacement sleeves are identical to the original ones and in particular the basic material is the same. Moreover engines removable sleeves shall enjoy the same re-boring tolerance as provided for sleeveless engines.

10. MUFFLER: the make and type are free, provided the noise-deadening efficiency is not affected and the exhaust manifold and particularly its outlet port is not modified.
11. TRANSMISSION: any manually or automatically controlled gear box and any axle ratio provided and supplied by the manufacturer, mentioned in the maintenance booklet and on the recognition form may be used. The substitution of the clutch pedal by an automatically controlled one, regardless of its system of operation, is authorized.
12. SHOCK ABSORBERS: the make and type are free but neither the number nor the system of operation, nor the system of attachment, may be modified.

By system of operation is meant: hydraulic or friction shock-absorber, of telescopic or lever type regardless of the mechanical resultants of these different systems, such as for instance whether the device has a double-acting or a single-acting effect, and in case of hydraulic shock-absorbers whether there is or not an additional gas chamber.

13. WHEELS: must be of a type provided by the manufacturer and stated on the recognition form.

One basic series may comprehend wheels of different types (solid or perforated disk wheels spoke wheels, etc).

The wheels, including their attachment system maybe reinforced, even if the strengthening entails a modification of said attachment system.

Wheels may be balanced.

14. TYRES: the make and type are free but they must fit without any modification thereof on the original wheels and/or rims without the need of any intermediary device.
15. BRAKES: any system improving the cooling or increasing the safety of the braking system is authorized, such as for instance the fitting of special air-pipes (provided the body as defined in art. 258 is not altered).

The fitting of a dual-pump or any type of device providing both a simultaneous action on the four wheels and a divided action on the front and rear wheels is authorized. The make and attachment system of the linings is free.

All the original supports and all the dimensions of inner friction surfaces shall remain unchanged.

By original supports are meant those on which are fixed the mobile parts (drums or disks) and also the attachment system of the elements bearing the friction parts (brake-shoes or pad-linings).

16. SUPPLEMENTARY ACCESSORIES: all accessories likely to improve the operation of the vehicle. The comfort of its passengers or the safety are authorized, provided they have no influence whatsoever on the mechanical performance of the engine, the transmission, the road holding and the braking (except if explicitly authorized in this same article).
17. COACHWORK ELEMENTS: (windows, quilting, etc) The glass windows of the doors and the rear pan may be replaced by any other rigid and transparent material. The quilting may be changed and all inner coach work accessories may be replaced by other ones or removed.
18. BUMPERS, EMBELLISHERS, STREAM-LINING: The bumpers are compulsory except when the model is of a series normally delivered without bumpers by the manufacturer. The shape is free, but the total weight (including the attachment parts) must be at least equivalent to that of the bumpers and attachment system provided by the manufacturer for the same model.

However, for speed races on closed circuits, the supplementary regulations may authorize or prescribe the removal of the bumpers (in case of events comprising both a regularity course and classification tests on a closed circuit, the bumpers must be fitted on the car for driving on the open road).

Embellishers and detachable hub caps liable to interfere with the changing of wheels may be removed beforehand if the entrant so wishes. The gain of weight thus obtained must of course be included in the tolerance of 5% provided by art. 260 hereabove.

The addition of any protective stream-lining device not provided by the manufacturer for the considered series model is prohibited. However, for events run on particularly difficult ground (snow, sand, rutted tracks) the promoter, in his supplementary regulations, may generally authorize or even require the addition of a stream-lining appliance or any other underneath protective device.

NB. Any alteration or addition not explicitly authorized hereabove will make the vehicle uneligible in group 1 and will entail its assignment to whichever of the 3 other groups of the present regulations which applies.

Any change or addition not listed above and which has not been subject to a previous written statement of the entrant will entail a penalty which may go as far as exclusion from the competition without prejudice to higher penalties in case of willful misrepresentation.

CHAPTER III—GROUP 2—IMPROVED TOURING CARS

262. General Specifications

All provisions of Chapter II concerning series Touring cars apply likewise to

group 2 cars with the exception of 3rd paragraph of art. 257 concerning cars whose building has been abandoned since more than 4 years.

263. Changes and additions authorized

In addition to the 18 latitudes granted for cars of Group 1, the following changes and extra equipment are authorized.

19. WHEELS: may be of a different type than the one or those provided by the manufacturer provided the hub remains unchanged as well as the dimensions of the rim and of the track provided and stated by the manufacturer.
20. REBORING: authorized in the same conditions as for cars of the 2st group (art. 261-269) but with a maximum tolerance of 1.2mm (instead of 0.6).
21. STABILIZER: the fitting of a commercial suspension stabilizer or equivalent device is authorized, on condition it does not constitute an additional stay rod.
22. OIL FILTER: an oil filter may be added when the model provided by the manufacturer has none.
23. SPRINGS OF ANY KIND: (valves, clutch, suspension, etc.) — They may be replaced by other ones of unrestricted origin, but without modification of the number provided by the manufacturer and on condition they can be fitted without any alteration of the original supports.
24. FINISHING OFF: any perfecting operations by finishing or machining the original parts but not their replacement except with regard to springs as specified hereabove. In other words provided it is always possible to ascertain unquestionably the origin of the series production part, it may be rectified, balanced, lightened, reduced or modified with regard to the shape through tooling, to the exclusion of any addition of material or any mechanical extension or of any process involving a change of the characteristic molecular structure or of the surface of the metal.

The increase of the compression ratio through machining the cylinder head or block, or using a thinner gasket or doing without one, is authorized.

25. BRAKING: the braking power may be increased subject to the system of operation provided by the manufacturer (drum brakes or disk brakes) being maintained as well as the original supports (cft hereabove art. 261, par. 15).

N.B. Any alteration or addition not specifically provided hereabove will make the vehicle unfit for classification in group 2 and will result in its being affected to that of the 2 other groups of the present regulations which applies.

Any alteration or addition not listed above and which has not been subject to a previous written statement of the entrant will entail a penalty which may go as far as exclusion from the competition without prejudice to higher penalties in case of willful misrepresentation.

CHAPTER IV — GROUP 3 — GRAND TOURING CARS

264. Definition

Grand Touring Cars are vehicles built in small series for customers who are looking for a better performance and/or a maximum comfort and are not particularly concerned about economy.

Such cars shall conform to a model defined in a catalogue and be offered to the customers by the regular sales department of the manufacturer. They must be recognized by the FIA according to the provisions of article 265 below.

Shall on the other hand also be classed in group 3 (Grand Touring Cars) Touring Cars recognized in the Touring category, made of series production mechanical parts and not having been subject to any other changes or additions apart from those authorized according to art. 261 and 263 but equipped with a special coachwork.

By special coachwork is meant:

- a. either the original one as defined in art. 258 when it has been subject to any kind of alteration in shape or appearance (other than one due to latitude granted under 261 or 263) or to an alteration of the material used by the manufacturer.
- b. or a coachwork without any relation with the original one and made especially either by the manufacturer or an independent builder to answer a private order.

In that case, two possibilities are to be examined:

1. If the frame is of self-bearing type, it shall be maintained and may be strengthened, but not lightened nor cut.
2. If the frame is not of self-bearing type, that is when the car has no frame or only a partial or insufficiently bearing one, the body may be changed as a whole, but shall under its new shape compulsorily use the original attachment points on the series production elements of the suspension, propulsion and steering.

Shall also be classified in the same group 3, Touring Cars equipped with their standard coachwork, but having been subject to changes or additions not authorized by art. 261 and 263 above and whose limits are stated hereafter under art. 274, b.

265. Minimum production—Recognition

In order to enjoy recognition in the “Grand Touring” category, cars will have to be produced at a minimum rate of one hundred identical units as far as mechanical parts and coachwork are concerned in 12 consecutive months.

The word “identical” has the same meaning as defined under art. 257, 4th paragraph. However, one same minimum series of 100 units may have two different carburetor equipments either in number or size.

By “equipment” is meant the carburetor and venturi unit.

Moreover cars will have to conform to specifications of articles 266-270 below.

266. Ground Clearance

All parts of the chassis shall be at least 12 cm from the ground, so that a mass of 80 cm wide and 12 cm high may be introduced between the rear wheels of the car and slipped through the whole length of the car.

This ground clearance may be measured with empty tank and with nobody in the car, which must be equipped with the wheels and tires that are to be used in competition.

267. Lock

The maximum lock shall be 6.75 m. which means that the car must be able to make a complete turn in any direction without the wheels going beyond two parallel lines 13.50 m apart, drawn on the ground.

268. Starting

Grand Touring cars shall have to be equipped with a starting device liable of being operated by the driver when aboard.

269. Fuel tank

Grand Touring cars shall have one of the fuel tanks provided by the manufacturer and whereof the capacity shall be mentioned on the recognition form.

However, the total capacity of the fuel tanks (main and emergency, if any) shall not exceed the following maximum:

Cars of an engine capacity up to 1000 cc: 70L. (18.5 gal.)

Cars of an engine capacity from 1000 cc to 1300 cc: 85L. (22.4 gal.)

Cars of an engine capacity from 1300 cc to 1600 cc: 100L. (26.4 gal.)

Cars of an engine capacity from 1600 cc to 2000 cc: 110L. (29.0 gal.)

Cars of an engine capacity from 2000 cc to 2500 cc: 120L. (31.7 gal.)

Cars of an engine capacity from 2500 cc to 3000 cc: 130L. (34.3 gal.)

Cars of an engine capacity exceeding 3000 cc: 140L. (36.9 gal.)

270. Coachwork

Grand Touring cars shall be equipped with a coachwork enabling a normal touring use, in particular with regard to comfort, habitability and protection against bad weather.

Coachwork shall be completely finished without any provisional part. It shall offer at least two seats located on either side of the longitudinal axis of the car, and at the same level, without prejudicing the normal system of adapting the seat to the size of the pilot.

The minimum inside width shall be 100 cm for cars within an engine cylinder capacity of 1000 cc or less, and 110 cm for cars of higher capacity. This width, measured perpendicularly to the longitudinal axis of the car must be respected along a minimum height of 25 cm and a minimum depth of 30 cm, measured on the vertical plane tangent to the back of the steering wheel and the back of the seat (i.e. at the normal place where the pilot needs elbow-room).

The passenger's space shall remain available through the whole event. It

shall not be either totally nor partly covered and shall offer the same conditions of comfort, habitability and protection as that of the driver. However, supplementary regulations may provide for the covering of the passenger's seat with canvas or any other similar supple material, which can be quickly removed by hand without the use of any tool. Under no condition whatever may the seat be used for a spare wheel or be combined with the fuel tank (s). The latter shall be located outside the cabin so as to protect its occupants from fumes and from direct fuel splashing.

Transmission equipment (shafts and cardan joints) shall be placed under the floor boards or in tubes or casings. Floor boards, tubes and casings shall be permanent fixtures, properly joined together and firmly fixed to the coachwork or the chassis.

With regard to the location of the seats in relation to the pedals it shall answer the minimum specifications of art. 259 for Touring cars. The height under the roof or hood measured from the lowest point of the upper surface of the driver's seat cushion used in competition shall be 85 cm minimum.

WINDSHIELD—WINDSHIELD-WIPER—PROTECTED HEIGHT - A windshield is compulsory. It shall be placed symmetrically with regard to the axis of the vehicle and be equipped with at least one wiper placed in front of the driver and sweeping a sufficient area to enable him to directly observe the road from his seat.

Moreover, for cars with an open or convertible coachwork, the windshield shall comply within the following requirements:

Minimum width (chord measurements):

90 cm for car with an engine capacity inferior or equal to 1000 cc

100 cm for cars with an engine capacity exceeding 1000 cm

Minimum height:

25 cm, measured vertically and maintained along the whole minimum width

MUDGUARDS—Mudguards shall be of permanent nature and firmly fixed.

They shall be placed exactly above the wheels and provide efficient covering on at least one-third of their circumference.

The width of the mudguards shall be such that no part of the tire may protrude beyond its edge when the wheels are not steered.

In those cars where mudguards are entirely or partly overhung by the body structure, the combination mudguard-body or the body alone shall nevertheless met the above protection requirements.

The back extremities of the front and rear mudguards shall come down at least to the horizontal plane passing through the center of the wheel hub cap.

Mudguards turning with the wheels are prohibited. They must be solid with the body, there being no gap between them.

HOODS—Open or convertible cars shall be equipped with a hood fitting timing exactly and without any intermediary device the windshield the door windows and side panels and the rear of the coachwork.

It shall offer a rear window the minimum dimensions whereof are specified in the present article (see further on).

The hood may never interfere with the opening of the doors.

The hood may be replaced by a removable hard top, but at scrutineering, cars must be shown with one of the devices fitted on.

DOORS— All vehicles shall be fitted with at least one rigid door on each side with closing device and hinges, giving direct access to seats. When open it shall liberate a space allowing for the frontal passage of a 50 x 30 cm rectangle.

Vehicles with a front or rear door may have only one door.

Cars with closed or convertible coachwork shall have doors equipped with mobile security glass or transparent and rigid plastic material, providing ventilation, each window having a minimum width of 40 cm and a minimum height of 25 cm.

REAR WINDOW— It shall let the light through a minimum width of 50 cm and a minimum height (all along the whole minimum width) of 10 cm.

LUGGAGE TRUNK— A covered space being an integral part of the coachwork but outside of the space occupied by the front seats, large enough to receive a parallel pipe of 65 x 40 x 20 cm minimum, besides the spare wheel, tools or the folded hood, shall be provided.

271. Special Bodies

Open or closed special bodies built in supplement to those required for the recognition of the car according to art. 265 above shall be admitted if they meet the specifications of art. 264 b and 270 above, provided the weight of the vehicle remains at least equal to that of the corresponding recognized car, with the same tolerance of minus 5% (not to be added).

Once there is an existing series of 100 units built within 12 consecutive months, offering the standard body and duly recognized, no minimum of construction is further required for a special body whether mounted by the manufacturer or by the entrant.

272. Minimum weight

The weight of a Grand Touring car shall be entered on the recognition form of the model under consideration. It shall be obtained in the conditions specified under art. 260 with a tolerance of 5% less than the weight entered on the recognition form.

273. Modifications authorized

All additional equipment and modifications authorized for series production Touring cars (group 1) and Improved Touring cars (group 2) are authorized for Grand Touring cars (group 3), in particular all those listed in articles 261 and 263.

Any Grand Touring car with extra equipment or subject to any modification not explicitly authorized may take part in a competition only in group 4, as defined hereafter at art. 275, and subject to said group being provided in the supplementary regulations.

NB. Any alteration or addition not explicitly authorized hereabove will make the vehicle uneligible in group 3 and will entail its assignment to group 4 (see art. 275 hereafter).

Any change or addition not listed above and which has not been subject to a previous written statement of the entrant will entail a penalty which may go as far as exclusion from the competition without prejudice to higher penalties in case of willful misrepresentation.

274. Touring cars assimilated to "Grand Touring"

a. TOURING CARS WITH SPECIAL COACHWORK

Touring cars of a model recognized by the FIA equipped with special coachwork, as defined in art. 270 above but in conformity with regard to mechanism with the series production model, except for changes and additions authorized according to art. 261 and 263, shall be assimilated to Grand Touring cars and may participate in events in group 3.

If the above cars are subject to changes and additions exceeding the limits provided under 261 and 263, they will be authorized to enter the events only in group 4 - sports car (see art. 275 below).

b. TOURING CARS WITH STANDARD COACHWORK AND SPECIAL MECHANICAL PARTS (PREVIOUSLY CALLED SPECIAL TOURING CARS)

Shall also be assimilated to Grand Touring cars, Touring cars of an FIA recognized model equipped with their original coachwork but which have been subject to alterations and additions other than those authorized according to art. 261 and 263, and made either by the manufacturer or he competitor, with the intention of increasing the performances and improving the conditions of use of the vehicle.

These alterations or additions may affect the mechanical parts of the engine, of the transmission, of the steering, of the suspension, the number of carburetors, the inlet and exhaust system, the braking system.

The re-boring of the engine whether sleeveless or fitted with sleeves, is authorized up to the limit of the class to which belongs the car accord-

ing to its original cylinder capacity. Furthermore, in consideration of the trend of technical evolution, and the necessity of increasing the safety of cars whose high performances had not been initially foreseen by the manufacturer, the improvement of the braking may be sought without any obligation of maintaining the original system. Drum brakes may therefore be replaced by disk brakes.

However, the fundamentals and general design of the car, of the engine and other mechanical parts must remain the same as those of the corresponding series production car. The standard coachwork must not be modified; the chassis may be reinforced but not lightened nor cut. The track and wheel-base must remain unchanged. The suspension and rear axle must remain of same type. All casings and blocks housing the mechanical parts must remain unchanged, except for the following:

1. Cylinder-head
2. Oil sump
3. Braking system
4. Gear box and rear axle box, which may be subject to minor alterations to enable the modification of the gear box ratios or the mounting of an overdrive.

The minimum weight must be that entered on the recognition form of the corresponding series production touring car, but the tolerance granted when the weight is checked will be minus 10% (instead of minus 5%).

The addition of compressors, blowers or any kind of supercharging device not provided for the series production and not entered on the recognition form remains prohibited on cars of this group.

All changes or additions not authorized under art. 261 and 263 shall be the subject of a written statement from the competitor to be appended to the entry form sent to the promoters.

NB. Any omission or wrong information on the above mentioned statement will entail a sanction which may go as far as excluding the car from the competition without prejudice to higher penalties in case of willful misrepresentation.

CHAPTER V-CARS NOT COMPLYING WITH THE ABOVE PROVISIONS

275. Group 4—Sports cars

If the promoters of the events wish to accept the entry of other cars than those which are complying with the hereabove mentioned specifications for groups: 1, 2 and 3, they may contemplate a 4th group which will include:

1. All Touring and Grand Touring cars of a model recognized by the FIA, but not complying with the specifications recognized for classification in one of the groups from 1 to 3. In that case they must comply with the provisions of art. 266 to 270.

Cars deriving from a model recognized in the Touring category but assimilated to sportcars on account of alterations exceeding the limits consistent with classification in one of the 3 preceding groups are not however when they compete in regularity trials subject to the specifications of art. 266 (minimum ground clearance) nor of art. 268 (maximum lock) –

2. All cars which are not of a recognized model but which comply with the specifications of Appendix C to the International Sporting Code.

276. Cars belonging to none of the above categories or groups—

Promoters are free to allow participation in an event of cars of any type and which do not correspond to any of the above categories or groups, such as for instance: military cars, busses, lorries, experimental cars in conformity neither with Appendix C, nor Appendix J, etc.

They shall however not allow any one of these cars to compete in any one of the 4 groups listed under art. 252.

These regulations have been issued in more than one language. In the event of any controversy the French Version shall be considered valid.

C. FORMULA I

1. Racing cars with an engine cylinder-capacity superior to 1300 cc and inferior or equal to 1500 cc
2. No supercharging device.
3. Commercial fuel as specified by the FI.-I.
4. Minimum weight of car (without ballast: 450 kgs. in working order including lubricant and coolant but without fuel.)
5. Compulsory automatic starter with an electrical or other source of energy liable of being controlled by the pilot at the steering-wheel.
6. Protection against fire: besides that already provided by art. 125 of the International Sporting Code, the car shall be equipped with a general electric circuit breaker either operating automatically or at the disposal of the pilot.
7. Driver's seat liable of being occupied or left without it being necessary to open a door or move a panel.
8. Fastening system for safety belt, the latter optional.
9. Compulsory anti-roll bar complying with the following conditions:
 - a. Not overhanging the driver's head.
 - b. Exceeding in height the driver's head when sitting at the steering-wheel.
 - c. Exceeding in width the driver's shoulders when sitting at the steering-wheel.
10. All the wheels exterior to the body so that the vertical projection be contained within the figure drawn by the vehicle wheels when front wheels are not steered.
11. Compulsory double braking system operated by the same pedal and defined as follows:

The pedal shall normally control the four wheels. In case of a leakage at any point of the brake system pipes or of any kind of failure in the brake transmission system, the pedal shall still control at least the two front wheels.

12. Fuel tanks complying with the following requirements:
 - a. The filling port(s) and the cap shall not protrude beyond coachwork material.
 - b. The opening shall have sufficient diameter for allowing the air exhaust at the time of quick refueling (in particular those done under pressure) and if necessary the breather-pipe connecting the tank to the atmosphere shall be such as to avoid any liquid leakage during the running.
13. No refueling of lubricant is allowed for the whole duration of the events.

The filling ports of the oil tanks and radiators shall provide as the possibility of affixing seals.

The leads sealing the filling port (s) of the lubricant tank (a) may not be removed at any the during the race.

The lead(s) sealing the filling port(s) of the radiator(s) shall be in place at the start of the race, but may be removed at any pit-stop.

D. INTERCONTINENTAL RACING FORMULA (FORMULA I/C)

Valid from 1st January 1962 to 31st December 1963

Formula for one-seater racing cars of an engine cylinder- capacity front 2,000 cc. to 5,000 cc., equipped either with a free-built engine (Class I, 2,000 to 3,000 cc.) or with an engine taken from a series production touring car of an FIA recognized model (Class II, cylinder-capacity: 3,000 to 4,000 cc., and Class III, cylinder-capacity: 4,000 to 5,000 cc.).

ENGINE

Class I. cylinder-capacity above 2,000 cc. and inferior or equal to 3,000 cc. (122-183 cu. ins.)

Piston engine of entirely free construction.

Class II. cylinder-capacity above 3,000 cc. and inferior or equal to 4,000 cc. (183-244 cu. ins.)

Engine taken from a series production touring car of a model whereof a thousand units have been produced within a twelve-month period, and which has been recognized by the FIA.

These engines shall be fitted with the cylinder head(s) provided and used by the manufacturer and shall undergo no change. When the engine is re-bored a beveling of the inside edge of the combustion chamber for adaptation to the modified cylinder diameter is tolerated.

The cylinder-block shall also be that provided by the manufacturer and shall

undergo no change except within regard to the cylinder-capacity which may be increased or reduced by altering the bore and/or the stroke until the 4,000 cc. limit.

If the engine is of the overhead camshaft type, the intake system (by carburetor or injector) shall be the one used for the original series production car. For carburetor-fed engines, the number and type of carburetors (single or double body etc.) shall be the same as used by the manufacturer for his recognized series production and specified on the recognition form of the model concerned.

All tuning operations and modifications of the venturis or the jets and chokes are authorized, even when the tuning is obtained by a substitution of the carburetor body, provided the mounting on the inlet manifold continues to be done with-out any kind of intermediary device whatsoever.

Make of carburetor and induction pipe: free.

Any feeding system is permissible, as well as any type or number of carburetors, on engines with camshafts in cylinder-block.

Class III. cylinder-capacity above 4,000 cc. and inferior or equal to 5,000 cc. (244-305 cu. ins.)

Engine taken from a series production touring car, a thousand of which have been produced within a twelve month period, and recognized by the FIA. Engines with over-head camshafts may not be used.

Cylinder-block (except for cylinder-capacity), cylinder- head, (except for the beveling of the inside edge), valve control system, feeding system, number and type of carburetors, induction pipe must be in strict conformity with those of the original series production. The cylinder-capacity may be increased or reduced by alteration of the bore and/or stroke until the 5,000 cc limit.

GENERAL SPECIFICATIONS

1. No supercharging device.
2. Minimum weight of the car (without ballast) in working order including lubricant and coolant, but without fuel or driver aboard:
Class I: 450 kgs. (990 lbs.)
Class II: 550 kgs. (1210 lbs.)
Class III: 550 kgs. (1210 lbs.)

The ballast which is prohibited is that of a removable type. It is therefore permissible to complete the weight of the car through one or several ballasts incorporated to the materials of the car, providing that solid and unitary blocks are used, and that they are fixed by means of a tool and offer the opportunity of being sealed on, should the officers entrusted with scrutineering deem it necessary.

3. Minimum ground clearance: 7 cm. (2.76 ins.). It must always be possible to slip under the car in all directions without hitting any obstacle a mass

- or a plank maintained vertically of a minimum height of 7 cm. (2.76 ins.)
4. Compulsory fuel: Commercial pump gasoline complying with the FIA definition.
 5. Compulsory automatic starter with an electrical or other source of energy capable of being controlled by the driver at the steering-wheel.
 6. Protection against fire besides the fire-wall already provided by art. 125 of the International Sporting Code, the car shall be equipped with an ignition cut off switch either operating automatically or at the disposal of the driver.
 7. Driver's seat capable of being occupied or left without it being necessary to open a door or move a panel.
 8. Fastening system for safety belt, the latter optional.
 9. Compulsory roll-bar complying with the following conditions:
 - a. not overhanging the drivers head
 - b. exceeding in height by at least 3 cms (1.2 in) the driver's head when sitting at the steering wheel
 - c. exceeding in width the driver's shoulders when sitting at the steering wheel.
 10. All the wheels exterior to the body so that the vertical projection be contained within the figure drawn by the vehicle wheels when the front wheels not deflected.
 11. Compulsory double braking system operated by the same pedal and defined as follows:

The pedal shall normally control the four wheels. In case of a leakage at any point of the brake system pipes or of any kind of a failure in the brake transmission system, the pedal shall still control at least two wheels of one same axle.

12. Fuel tanks complying with the following requirements:
 - a. the filling port(s) and the cap shall not protrude beyond the body material.
 - b. the opening shall have a sufficient diameter for allowing the air to exhaust at the time quick refueling (in particular those done under pressure) and if necessary the breather-pipe connecting the tank to the atmosphere shall be such as to avoid any liquid leakage during refueling.
13. No refueling of lubricants is allowed for the whole duration of events.

The filling ports of the oil tanks and radiators shall provide for the possibility of affixing seals.

The lead(s) sealing the filling port(s) of the lubricant tank(s) may not be removed at any the during the race.

The lead(s) sealing the filling port(s) of the radiator(s) shall be in place at the start of the race, but may be removed at any pit-stop.

E. FORMULA JUNIOR

1—Definition

The cars of Formula Junior are single seat cars, whose basic elements are derived from cars homologated by the FIA (minimum 1000 specimens in 12

consecutive months).

2—Measurements

- a. Wheelbase, minimum: 200 cm.
- b. Track, minimum: 110 cm.
- c. Width, maximum—body: 95 cm. (exterior).

Displacement and Weight:

- a. Displacement max.: 1100 cm³
Weight min.: 400 kg. (880 lb.)*
- b. Displacement max.: 1000 cm³
Weight min: 360 kg (792 lb.)*

* Ballast may be carried to attain minimum weight requirements but it must be permanently installed in the car.

3—Mechanism

- a. The block, including the crankcase, the cylinders and cylinder heads if the latter are removable, must be of those of the motor of a car homologated in the touring category by the FIA.
- b. The gear-box must be one of a car homologated in the touring category by the FIA. All freedom is granted as regards to the number and degree of ratios.
- c. Formula Junior cars may be fitted with any brakes that are the most efficient.
- d. The system and principle of fuel intake (carburetors, injectors, etc.) must be those of the car from which the motor derives.
- e. The displacements defined by the regulations can be obtained by modification of the original bore (increase or reduction). Any modification of the stroke is forbidden.
- f. The car is required to have an automatic self-starter.

4—Body

The single seat and open body must have a roll bar above the driver, protecting the driver against the danger of being injured in the event the vehicle overturns. Moreover, it must have a protective wall against fire, between the cockpit and motor, provided in the International Sporting Code (Art. 125).

5—Weights

The minimum weights defined in Art. 1 are those of the car ready to run and furnished with all the accessories provided for by the regulation, but with an empty gas tank.

6—Muffler

The supplementary regulations of an event may require the use of an adequate muffler.

7—Prohibitions

The following are forbidden:

- a. The use of one or several overhead camshafts.
- b. The use of twin-traction differentials.
- c. The modifications of the number of crankshaft main bearings.
- d. The modification of the position of the camshaft.

8—Motor Fuel

Only pump fuel, as defined in Paragraph 1 of Appendix A may be employed.

Manufacturer: A.C. Class: D
Model: Ace and Aceca

DESCRIPTION:

2-Seater Roadster or Coupe

Aluminum Bodywork

Dry Weight: 1685 lbs

ENGINE: Type OHV 6 cyl in line
Bore & stroke 2.56" x 3.94"
Capacity 1991 cc
Comp ratio 8.5:1 or 9.0:1
Head material Cast Iron
Port size Intake: 1.375", Exhaust 1.25"
Piston material ... Aluminum
Piston weight 10.75 oz

Timing data:

Intake Open 12-1/2°BTDC, Close 50°ABDC

Exhaust ...Open 50°BBDC, Close 20°ATDC

Valve lift: 0.375"

Valve head dia:

Intake 1.375"

Exhaust ...1.25"

Valve spring Inner 20 lbs, Outer 55 lbs

Carburation Three SU #AUG.700

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.4 2.7

2 1.9 or 1.9

3 1.4 1.3

4 1.0 1.0

Final drive ratios: 3.64, 3.91, 4.1, 4.3

CHASSIS

Wheelbase 90"

Track dimension, front 50"

Track dimension, rear 50"

Shock absorber Armstrong Tubular

Steering ratio 1 7/8 turns

Tire size 16"x5.50"/15"x5.50"

BRAKES

LINING AREA

Front: 74.3" sq

Rear: 71.5" sq

APPROVED OPTIONAL EQUIPMENT

Second ignition coil

Aluminin fuel atnk

Heavy duty clutch

Larger tank (25 gal)

Second petrol pump

Overdrive

Duplicated fuel line

Oil cooler

Air straighteners on carburetors

Sports Exhaust Manifold

Disc brakes on front wheels (28.2" sq)

Extra leaf to road springs

9 leaves in front

8 leaves in rear

Manufacturer: A.C. Class: C
 Model: Ace-Bristol and Aceca-Bristol

DESCRIPTION:

2-Seater Roadster or Coupe
 Aluminum Bodywork
 Dry Weight: 1685 lbs

ENGINE: Type OHV 6 cyl in line
 Bore & stroke 2.59" x 3.78"
 Capacity 1971 cc
 Comp ratio 8.5:1 or 9.5:1
 Head material Aluminum
 Port size Intake: 1.250" ± 0.010", Exhaust 1.180" ± 0.010"
 Piston material ... Aluminum
 Piston weight 8.5:1 = 11 oz, 9.5:1 = 12 oz
 Timing data (engine hot):
 Intake Open 32° BTDC, Close 42° ABDC
 Exhaust ... Open 42° BBDC, Close 32° ATDC
 Valve lift: 0.343"
 Valve head dia:
 Intake 1.540" ± 0.010"
 Exhaust ... 1.31"
 Valve spring 101.5 ± 8 lbs @ 1.028"
 Carburation Three Solex 32 PBI 6

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 3.4 2.7
 2 1.9 or 1.9
 3 1.4 1.3
 4 1.0 1.0
 Final drive ratios: 3.64, 3.91, 4.1, 4.3

CHASSIS

Wheelbase 90"
 Track dimension, front 50"
 Track dimension, rear 50"
 Shock absorber Armstrong Tubular
 Steering ratio 1 7/8 turns
 Tire size 16"x5.50"/15"x5.50"

BRAKES

LINING AREA
 Front: 74.3" sq
 Rear: 71.5" sq

APPROVED OPTIONAL EQUIPMENT

Second ignition coil
 Aluminum fuel tank
 Second petrol pump
 Heavy duty clutch
 Duplicated fuel line
 Oil cooler
 Disc brakes on front wheels (28.2" sq)
 Air straighteners on carburetors
 Sports exhaust manifold
 Overdrive
 Larger fuel tank (25 gal)
 Extra leaf to road springs
 9 leaves in front
 8 leaves in rear

Manufacturer: Alfa Romeo Class: G
Model: Guilietta Sprint and Spider

DESCRIPTION:

2-Seater Roadster or Coupe

Dry Weight: 1809 lbs Spider, 1970 lbs Sprint

ENGINE: Type DOHC 4 cyl in line
Bore & stroke 74mm x 75mm
Capacity 1290 cc
Comp ratio 9.2:1
Head material Aluminum Alloy
Port size Intake: 32mm, Exhaust 29mm
Piston material ... Aluminum Alloy
Piston weight

Timing data:

Intake Open 25°20' BTDC, Close 68° ABDC

Exhaust ...Open 61°20' BBDC, Close 18°40' ATDC

Valve lift: 8mm

Valve head dia:

Intake 37mm

Exhaust ...34mm

Valve spring 35 kg

Carburation One Solex 35 APAI-G

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.258

2 1.985

3 1.352

4 1.0

Final drive ratios: 4.1 (41/10), 4.55 (41/9), 5.12 (41/8)

CHASSIS

Wheelbase 2380mm (Sprint), 2250mm (Spider)

Track dimension, front 1292mm

Track dimension, rear 1270mm

Shock absorber Telescopic

Steering ratio 15.5:1

Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Limited-slip differential (1365-32775)

Front springs (101-07-21-500-00)

Rear springs (101-07-25-510-00)

Competition fan blades (1315-61003-M)

Distributor (1315-55411)

Flywheel (1315-23705M)

Cylinder head (1315-12712)

Manufacturer: Alfa Romeo Class: D
Model: Guilletta Sprint and Spider Veloce

DESCRIPTION:

2-Seater Roadster or Coupe

Dry Weight: 1809 lbs Spider, 1970 lbs Sprint

ENGINE: Type DOHC 4 cyl in line
Bore & stroke 74mm x 75mm
Capacity 1290 cc
Comp ratio 10:1
Head material Aluminum Alloy
Port size Intake: 32mm, Exhaust 29mm
Piston material ... Aluminum Alloy
Piston weight 0.35 kg

Timing data:

Intake Open 34° BTDC, Close 63° ABDC
Exhaust ...Open 63° BBDC, Close 30° ATDC

Valve lift: 8.5mm

Valve head dia:

Intake 37mm

Exhaust ...34mm

Valve spring 35 kg

Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.258

2 1.985

3 1.357

4 1.0

5 0.854 (optional)

Final drive ratios: 4.1 (41/10), 4.55 (41/9), 5.12 (41/8)

CHASSIS

Wheelbase 2380mm (Sprint), 2250mm (Spider)

Track dimension, front 1292mm

Track dimension, rear 1270mm

Shock absorber Telescopic

Steering ratio 15.5:1

Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Limited-slip differential (1365-32775)

5-speed gearbos(10120-13-001-00)

Front springs (10107-21-505-00)

Rear springs (10107-25-510-00)

Competition fan blades (1315-61003M)

Flywheel (1315-23705M)

Cylinder head (1315-12715)

Manufacturer: Alfa Romeo Class: C
 Model: Guilietta Sprint Speciale and Sprint Zagato

DESCRIPTION:

2-Seater Coupe

Dry Weight: 1892 lbs Speciale, 1710 lbs Zagato

ENGINE: Type DOHC 4 cyl in line
 Bore & stroke 74mm x 75mm
 Capacity 1290 cc
 Comp ratio 10:1
 Head material Aluminum Alloy
 Port size Intake: 32mm, Exhaust 29mm
 Piston material ... Aluminum Alloy
 Piston weight 0.35 kg
 Timing data:
 Intake Open 46° BTDC, Close 65° ABDC
 Exhaust ...Open 65° BBDC, Close 34° ATDC
 Valve lift: 8.5mm
 Valve head dia:
 Intake 37mm
 Exhaust ...34mm
 Valve spring 35 kg
 Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 3.258
 2 1.985
 3 1.357
 4 1.0
 5 0.854
 Final drive ratios: 41/10, 41/9, 41/8

CHASSIS

Wheelbase 89"
 Track dimension, front 51"
 Track dimension, rear 50"
 Shock absorber Telescopic
 Steering ratio
 Brakes Finned Aluminum Drums
 Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Crankshaft (1315-14701)
 Connecting Rods (1315-16710)
 Cylinder Block (10120-01-010-03)
 Cylinder Head (1315-12715)
 Flywheel (1315-23705M)
 Limited-slip differential (1365-32775)

Manufacturer: Alfa Romeo Class: D
Model: 2000 Spider

DESCRIPTION:

2-Seater Roadster
Dry Weight: 2600 lbs

ENGINE: Type DOHC 4 cyl in line
Bore & stroke 84.5mm x 88mm
Capacity 1975 cc
Comp ratio
Head material Aluminum
Port size
Piston material ... Aluminum
Piston weight

Timing data:

Intake Open 31°48' BTDC, Close 78°56' ABDC
Exhaust ...Open 65°36' BBDC, Close 18°28' ATDC

Valve lift:

Valve head dia:

Intake
Exhaust ...

Valve spring

Carburation Two Solex 44 PHH

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.958
2 1.985
3 1.352
4 1.0
5 0.854

Final drive ratios: 43/9

CHASSIS

Wheelbase 98.4"
Track dimension, front 55.1"
Track dimension, rear 53.9"
Shock absorber Telescopic
Steering ratio 16.2:1
Tire size 165 x 40

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Arnolt-Bristol Class: C
Model: Bolide

DESCRIPTION:

2 Seater open roadster
Steel and aluminum bodywork
Dry Weight: 2000 lb

ENGINE: Type OHV 6 cyl in line
Bore & stroke 66mm x 96mm
Capacity 1971 cc
Comp ratio 9.0:1, 9.5:1, 10.0:1
Head material Aluminum Alloy
Port size Intake: 1.25", Exhaust 1.25"
Piston material ... Aluminum Alloy
Piston weight 288.976 grams
Timing data:

Intake Open 40° BTDC, Close 80° ABDC
Exhaust ...Open 80° BBDC, Close 40° ATDC

Valve lift: 0.343"

Valve head dia:

Intake 1.532"
Exhaust ...1.308"

Valve spring

Carburation Three Solex 32 BI

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.4	
2	7.12	
3	5.04	- Using 3.90:1 rear axle
4	3.90	
5		

Final drive ratios: 3.545 = 39/11, 3.7:1 = 37/10, 3.9 = 39/10, 4.22 = 38/9

CHASSIS

Wheelbase 96.25"
Track dimension, front 51.86"
Track dimension, rear 54"
Shock absorber Telescopic
Steering ratio 8/25
Brakes
Tire size 5.50 x 16

APPROVED OPTIONAL EQUIPMENT

Anti-sway bar for front end
Remote control gear shift
Counter balanced crankshaft
Viscous dampener
Enlarged oil pan
Aluminum-iron brake drums
12" front brake
Knock-off wheels and hubs
Front disc brakes
Micrometer torsion bar adjuster

Manufacturer: Aston Martin Class: B
Model: DB2 (1950-1954) DB2-4 Mk I

DESCRIPTION:

2-4 Seater Coupe

Dry Weight: (not spec'd)

ENGINE:

Type DOHC 6 cyl in line
Bore & stroke 78mm x 90mm
Capacity 2580 cc
Comp ratio 6.5:1, 8.2:1
Head material Cast Iron
Port size Intake: 1.5", Exhaust 1.7"
Piston material ... Aluminum Alloy
Piston weight 14.25 oz
Timing data:
Intake Open 18° or 14° BTDC, Close (not spec'd)° ABDC
Exhaust ...Open 8° or 10° BBDC, Close (not spec'd)° ATDC
Valve lift: 0.344"
Valve head dia:
Intake 1.515"
Exhaust ...1.365"
Valve spring Intake: 41.4 lb/in, Exhaust 103.8 lb/in
Carburation Two SU H4 Thermo 556

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	2.92		2.92
2	1.96		1.87
3	1.33	or	1.26
4	1.00		1.00
5			

Final drive ratios: 3.50:1 = 35/10, 3.73:1 = 41/11,
3.77/1 = 49/13, 4.1:1 = 37/9

Wheelbase (not spec'd)
Track dimension, front 54"
Track dimension, rear 54"
Shock absorber Telescopic
Steering ratio 14.5:1
Brakes
Tire size 6.00 x 16

APPROVED OPTIONAL EQUIPMENT

Two SU H6 Thermo 571 carburetors
Three Weber 35 DCO or 36 DCF carburetors

Manufacturer: Aston Martin Class: B
Model: DB2-4 Mk I and Mk II

DESCRIPTION:

2-4 Seater Coupe
Dry Weight: 2594 lbs

ENGINE: Type DOHC 6 cyl in line
Bore & stroke 83mm x 90mm
Capacity 2922 cc
Comp ratio 8.2:1 or 8.7:1
Head material Cast Iron
Port size Intake: 1.5", Exhaust 1.7"
Piston material ... Aluminum Alloy
Piston weight 14.25 oz
Timing data:
Intake Open 10° BTDC, Close (not spec'd)° ABDC
Exhaust ...Open 10° BBDC, Close (not spec'd)° ATDC
Valve lift: 0.344" or 3.75"
Valve head dia:
Intake 1.515"
Exhaust ...1.365"
Valve spring Intake: 41.4 lb/in, Exhaust 103.8 lb/in
Carburation Two SU H6 701

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	2.92		2.92
2	1.96		1.87
3	1.33	or	1.26
4	1.00		1.00
5			

Final drive ratios: 3.31:1 = 43/13, 3.50:1 = 35/10, 3.53:1 = 46/13, 3.73:1 = 41/11, 3.77:1 = 49/13, 4.09:1 = 45/11, 4.10:1 = 37/9, 4.27:1 = 47/11

CHASSIS

Wheelbase (not spec'd)
Track dimension, front 54"
Track dimension, rear 54"
Shock absorber Telescopic
Steering ratio 14.5:1
Brakes 12 in Drums, Lining area = 174 in sq
Tire size 6.00 x 16

APPROVED OPTIONAL EQUIPMENT

Larger valves (cyl head conversion VB6L/1)
Three Weber 35 DCO carburetors

Manufacturer: Aston Martin Class: B
Model: DB2-4 Mk III

DESCRIPTION:

2-4 Seater Coupe or Convertible
Aluminum Bodywork
Dry Weight: 2800 lbs

ENGINE: Type DOHC 6 cyl in line
Bore & stroke 83mm x 90mm
Capacity 2922 cc
Comp ratio 8.2:1, 8.7:1, 9.2:1
Head material Cast Iron
Port size Intake: 1.5", Exhaust 1.7"
Piston material ... Aluminum Alloy
Piston weight 14.25 oz
Timing data:
Intake Open 10° BTDC, Close (not spec'd)° ABDC
Exhaust ...Open 10° BBDC, Close (not spec'd)° ATDC
Valve lift: 0.375" or 0.435"
Valve head dia:
Intake 1.675"
Exhaust ...1.575"
Valve spring Intake: 41.4 lb/in, Exhaust 103.8 lb/in
Carburation Two SU H6 701

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.92 2.92
2 1.96 1.87
3 1.33 or 1.26
4 1.0 1.00
5
Final drive ratios: 3.31:1 = 43/13, 3.54:1 = 46/13, 3.77/1 = 49/13
4.09:1 = 45/11, 4.27:1 = 47/11

CHASSIS

Wheelbase (not spec'd)
Track dimension, front 54"
Track dimension, rear 54"
Shock absorber Telescopic
Steering ratio 14.5:1
Brakes Front Disc, Rear Al-fin (12" x 1-1/4")
Tire size 600 x 16

APPROVED OPTIONAL EQUIPMENT

Oil cooler radiator
Laycock de Normanville O.D.
Larger fuel tank (33.6 U.S. gal)
Large filler
Three Weber 35DCO Carburetors

Manufacturer: Aston Martin Class: B
Model: DB4

DESCRIPTION:

2-4 Seater Coupe
Dry Weight: 2880 lbs

ENGINE: Type DOHC 6 cyl in line
Bore & stroke 92mm x 92mm (3.622" x 3.622")
Capacity 3670 cc (223.8")
Comp ratio 8.25:1
Head material Aluminum Alloy
Port size Intake: 1.325", Exhaust 1.65"
Piston material ... Aluminum Alloy
Piston weight 1.8 lbs
Timing data:
Intake Open 28° BTDC, Close 58° ABDC
Exhaust ...Open 62° BBDC, Close 22° ATDC
Valve lift: Intake: 0.45", Exhaust: 0.425"
Valve head dia:
Intake 1.875"
Exhaust ...1.710"
Valve spring Inner: 9.8 lb fitted, Outer: 44.5 lb fitted
Carburation Two SU/HD8

TRANSMISSION AND DRIVE TRAIN:
Ratios:
1 2.49
2 1.74
3 1.25
4 1.00
5
Final drive ratios: 3.31:1 = 43/13, 3.54:1 = 46/13, 3.77:1 = 49/13

CHASSIS
Wheelbase 98"
Track dimension, front 54"
Track dimension, rear 53.5"
Shock absorber Telescopic
Steering ratio 14:1
Brakes Brake lining area: 491 in sq
Tire size 6.00 x 16

APPROVED OPTIONAL EQUIPMENT
Power-Loc differential
Oil cooler
Three Weber Dual Horizontal Carburetors

Manufacturer: Aston Martin Class: A
Model: DB4 GT

DESCRIPTION:

2-4 Seater Coupe
Aluminum-Magnesium Bodywork
Dry Weight: 2530 lbs

ENGINE: Type DOHC 6 cyl in line
Bore & stroke 92mm x 92mm (3.622" x 3.622")
Capacity 3670 cc (223.8")
Comp ratio 9.0:1
Head material Aluminum Alloy
Port size Intake: 1.7", Exhaust 1.65"
Piston material ... Aluminum Alloy
Piston weight 1.68 lbs with rings and pin
Timing data:
Intake Open 47-1/2° BTDC, Close 69-1/2° ABDC
Exhaust ...Open 66° BBDC, Close 41° ATDC
Valve lift: 0.45"
Valve head dia:
Intake 2.010"
Exhaust ...1.875"
Valve spring Inner: 25.5 lb fitted, Outer: 64 lb fitted
Carburation Three Weber 45 DCOE 4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.49
2 1.74
3 1.25
4 1.00
5

Final drive ratios: 2.93, 3.31, 3.54, 3.77, 4.09

CHASSIS

Wheelbase (not spec'd)
Track dimension, front (not spec'd)
Track dimension, rear (not spec'd)
Shock absorber Front: Telescopic, Rear: Lever
Steering ratio 14:1
Brakes Disc (Girling)
Tire size 6.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Austin Healey Class: D
Model: 3000 and 3000 Mk II

DESCRIPTION:

2-4 Seater Roadster

Steel and Aluminum Body

Dry Weight: 2-Seater 2381 lb, 4-Seater 2880 lbs

ENGINE: Type OHV 6 cyl in line
Bore & stroke 83.6mm x 88.9mm
Capacity 2912 cc
Comp ratio 9.3:1, 9.6:1
Head material Cast Iron
Port size Intake: 1.325", Exhaust 1.65"
Piston material ... Aluminum Alloy
Piston weight 1 lb 5 oz 11 drams complete
Timing data:

Intake Open 5°, 16°, 5° BTDC, Close 45°, 56°, 45° ABDC

Exhaust ...Open 40°, 51°, 51° BBDC, Close 10°, 21°, 21° ATDC

Valve lift: 0.314" or 0.356"

Valve head dia:

Intake 1.75"

Exhaust ...1.56"

Valve spring Inner: 26 lb, Outer: 55.7 lb, fitted & closed

Carburation Two SU/HD6

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 2.93 2.413

2 2.053 1.722

3 1.039 1.195

4 1.00 1.00

5

Final drive ratios: 3.545:1, 3.909:1, 4.1:1, 4.3:1, 4.8:1

CHASSIS

Wheelbase 91.23"

Track dimension, front 48.75"

Track dimension, rear 50"

Shock absorber Lever

Steering ratio 15:1

Tire size 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Camshafts (AEC865 or (690/1223)

Valve Springs (1G 2887)

SU HD8 Carburetors (AUC 938)

3 x SU 2" Carburetors and manifold

25 gal or 15 gal gas tank

Cold air box (H.8427)

Large Sump (H.8427)

Front springs (1H.4092) or (1H.4055)

Rear springs (H.8776)

Anti Roll Bar (H.8275)

Oil Cooler (AJA.5291)

Wire Wheels (60 spoke - AHH 8000/8001)

Overdrive

Flare pipes on carburetor

Distributor (LT 17001)

Rear disc brake kit (H.8462)

Additional front dampers-telescopic (H.8792)

Close ratio gear box (H.8794)

Light-weight seats (Q.2609)

Limited slip differential (HAC-25)

Manufacturer: Austin Healey Class: E
 Model: 100-6 BN4, BN6

DESCRIPTION:

2-4 Seater Roadster
 Dry Weight: 2435 lbs

ENGINE: Type OHV 6 cyl in line
 Bore & stroke 3.125" x 3.5"
 Capacity 2639 cc
 Comp ratio 8.25:1, 9.5:1
 Head material Cast Iron
 Port size Intake: 1.380", Exhaust 1.193"
 Piston material ... Aluminum Alloy
 Piston weight
 Timing data:
 Intake Open 5° BTDC, Close 45° ABDC
 Exhaust ...Open 40° BBDC, Close 10° ATDC
 Valve lift: 0.356"
 Valve head dia:
 Intake 1.693"
 Exhaust ...1.420"
 Valve spring Inner: 30 lb fitted, Outer: 60.5 fitted
 Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 3.077 3.077
 2 1.913 1.913
 3 1.333 1.333 (OD 1.034)
 4 1.00 1.00 (OD 0.778)
 5
 Final drive ratios: 3.9:1, 4.1:1, 4.3:1, 4.8:1

CHASSIS

Wheelbase 92"
 Track dimension, front 48.75"
 Track dimension, rear 50"
 Shock absorber Lever
 Steering ratio 14.1:1
 Brakes
 Tire size 5.90 x 15, 6.00 x 15

APPROVED OPTIONAL EQUIPMENT

6 port head
 Disc brakes (H.8249)
 High lift camshaft (H.8339)
 Competition clutch (H.8255/6)
 25 gal or 15 gal gas tank
 Cold air box (H.8427)
 Large capacity sump (H.8416)
 9.5:1 pistons (H.8417)
 Lightweight flywheel (H.8257)
 Cold air box (H.8427)
 Stiff frong spring (H.8422)
 Modified exhaust system (H.8251)
 Anti-roll bar (H.8275)
 Wire Wheels (60 spoke - AHH 8000/8001)
 Oil cooler (AJA-5291)
 Limited slip differential (HAC-25)

Manufacturer: Austin Healey Class: E
 Model: BN1, BN2

DESCRIPTION:

2-Seater Roadster

Dry Weight: 2176 lbs

ENGINE:

Type OHV 4 cyl in line
 Bore & stroke 3.4375" x 4.375"
 Capacity 2660 cc
 Comp ratio 7.5:1
 Head material Cast Iron
 Port size Intake: 1.5", Exhaust 1.25"
 Piston material ... Aluminum Alloy
 Piston weight 1 lb 8 oz 14 drms, complete
 Timing data:
 Intake Open 5°BTDC or 10°BTDC or 45° BBDC
 Close 45°ABDC 50°ABDC 15° ATDC
 Exhaust ...Open 40° BBDC,
 Close 10° ATDC
 Valve lift: 0.39"
 Valve head dia:
 Intake 1.725"/1.730"
 Exhaust ...1.415"/1.420"
 Valve spring Inner: 22.5 lb fitted, Outer: 6 lb5 fitted
 Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios: BN1

BN2

	1	2.25	2.25	
3.077	2	1.47 (od 1.034)	1.42 (od 1.103)	
1.913		3	1.00 (od 0.756)	1.00 (od
0.778)		1.333 (od 1.034)		
	4			
1.00 (od 0.778)	5			
	Final drive ratios:	3.667:1, 3.909:1, 4.10:1, 4.125:1, 4.3:1, 4.8:1		

CHASSIS

Wheelbase 90"
 Track dimension, front 48.75"
 Track dimension, rear 50"
 Shock absorber Lever
 Steering ratio 12.6:1, 14.7:1
 Tire size 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Le mans Kit (P.281)—includes:
 HD Valve springs (1B.2814)
 HD Valve springs (1B.2813)
 1-3/4" Carburetors
 Cold air box (7H.1724)
 Hi-lift camshaft (1B.2892)
 Dist. spec. adv. curve (7H.1727)
 HD rear springs (1B.8929)
 HD anti-roll bar (7H.1721)
 HD front shocks (1B.8935)
 HD front springs (H.8422)
 25 gal or 15 gal gas tank
 Overdrive
 Alfin brake drums
 Disc brake kit (H.8249)
 Competition clutch (H.8255/6)
 Wire Wheels (60 spoke - AHH 8000/8001)
 Oil cooler (AJA-5291)
 Le Mans type hi-comp pistons
 Limited slip differential (HAC-25)

Manufacturer: Austin Healey Class: G and H
Model: Sprite (thru 1961)

DESCRIPTION:

2-Seater Roadster
Dry Weight: 1408 lbs

ENGINE: Type BMC Type A OHV 4 cyl in line
Bore & stroke 63mm x 76mm
Capacity 948 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake: 1.125", Exhaust 1-13/16" x 1.0"
Piston material ... Aluminum
Piston weight
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ... Open 40° BBDC, Close 10° ATDC
Valve lift: 0.28"
Valve head dia:
Intake 1-3/32"
Exhaust ... 1.0"
Valve spring 52 lb @ 1.2968", 85 lb @ 1.012"
Carburation Two SU H1

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.628 3.0
2 2.374 1.99
3 1.412 1.35
4 1.0 1.0
5
Final drive ratios: 3.73:1, 4.22:1, 4.55:1, 5.375

CHASSIS

Wheelbase 80"
Track dimension, front 45-1/4"
Track dimension, rear 44-3/4"
Shock absorber Lever
Steering ratio 2-1/3 turns
Brakes Area 67.5 in sq
Tire size 5.20 x 13

APPROVED OPTIONAL EQUIPMENT (Class G & H - H only allowed this equipment)

Close ratio gear box (Q.2354)
Anti-roll bar (Q.2315)
Large sump (Q.2341)
Front springs (Q.2334)
Rear springs (Q.2335) or (AHA5468)
Fuel tank (Q.2336)
Exhaust manifold (Q.2345) or (AHA5448)
Electric fuel pump (H.3592)(AUA-56)

APPROVED OPTIONAL EQUIPMENT (Class G only — prohibited in class H)

Competition exhaust system (Q.234/2347)
Crankshaft-Sebring type (Q.262/2629)
Crankshaft (AEA 440)
Alfin brake drums (Q.2491)
8" front brakes (Q.2353)
Disc brakes (Q.2337, Q.2549, Q.2552)
Pistons (2A.946)
Valve springs (2A.950, AEA401)
2 x 1-1/4" SU carburetors (Q.2343)
2 x 1-1/2" SU carburetors (Q.2504/5)
Manifold (Q.2344)
Cylinder head (Q.2302)

Manufacturer: Austin Healey Class: G and H
Model: Sprite (thru 1961)

APPROVED OPTIONAL EQUIPMENT CONT.(Class G only — prohibited in class H)

Oil cooler (Q.2342)
Cold air box (Q.2350)
Polished connecting rods (Q.2346)
Flywheel (Q.2348) or (AEA 408)
Clutch (Q.2349) or (AEJ 31)
Distributor (2A.951)
Light weight seats (Q.2609)
Wire wheels (Q.2424/31)
Large inlet valves (Q.2494)
Large exhaust valves (Q.2495)
Exhaust valves (AEA 400)
Camshaft (2A.948) In open 16°BTDC, close 56°ABDC; lift 0.31"
Ex open 51°BBDC, close 21°ATDC; clearance 0.015"
Camshaft (Q.2629) In open 20°BTDC, close 80°ABDC; lift 0.38"
Ex open 50°BBDC, close 50°ATDC; clearance 0.015"
Cylinder head Mk II
Double valve springs (Q.2628)
Limited slip differential (HAC23)
Blanking sleeve (11G176)
Valve spring collars (AEA 402-432)

Manufacturer: Austin Healey Class: G
 Model: Sprite Mk II

DESCRIPTION:

2-Seater Roadster
 Dry Weight: 1280 lbs

ENGINE: Type BMC Type A OHV 4 cyl in line
 Bore & stroke 63mm x 76mm
 Capacity 948 cc
 Comp ratio 9:1
 Head material Cast Iron
 Port size Intake: 26mm, Exhaust 25mm
 Piston material ... Aluminum
 Piston weight

Timing data:
 Intake Open 5° BTDC, Close 45° ABDC
 Exhaust ... Open 51° BBDC, Close 21° ATDC

Valve lift: 7.97mm
 Valve head dia:
 Intake 29.36mm
 Exhaust ... 25.4mm
 Valve spring 52 lb @ 1.2968", 85 lb @ 1.012"
 Carburation Two SU H2

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 3.2
 2 1.916
 3 1.357
 4 1.0
 5

Final drive ratios: 3.73:1, 3.909:1, 4.22:1, 4.55:1, 4.875:1, 5.375:1

CHASSIS

Wheelbase 80"
 Track dimension, front 45-1/4"
 Track dimension, rear 44-3/4"
 Shock absorber Lever
 Steering ratio 2-1/3 turns
 Brakes

Tire size 5.20 x 13

APPROVED OPTIONAL EQUIPMENT

Close ratio gear box (Q.2354)
 Anti-roll bar (Q.2315)
 Large sump (Q.2341)
 Front springs (Q.2334)
 Rear springs (Q.2335) or (AHA5468)
 Fuel tank (Q.2336)
 Exhaust manifold (Q.2345) or (AHA5448)
 Electric fuel pump (H.3592)(AUA-56)
 Competition exhaust system (Q.234/2347)
 Crankshaft-Sebring type (Q.262/2629)
 Crankshaft (AEA 440)
 Alfin brake drums (Q.2491)
 8" front brakes (Q.2353)
 Disc brakes (Q.2337, Q.2549, Q.2552)
 Pistons (2A.946)
 Valve springs (2A.950, AEA401)
 2 x 1-1/4" SU carburetors (Q.2343)
 2 x 1-1/2" SU carburetors (Q.2504/5)
 Manifold (Q.2344)
 Cylinder head (Q.2302)
 Oil cooler (Q.2342)

Manufacturer: Austin Healey Class: G

Model: Sprite Mk II

APPROVED OPTIONAL EQUIPMENT CONT.

Cold air box (Q.2350)
Polished connecting rods (Q.2346)
Flywheel (Q.2348) or (AEA 408)
Clutch (Q.2349) or (AEJ 31)
Distributor (2A.951)
Light weight seats (Q.2609)
Wire wheels (Q.2424/31)
Large inlet valves (Q.2494)
Large exhaust valves (Q.2495)
Exhaust valves (AEA 400)
Camshaft (2A.948) In open 16°BTDC, close 56°ABDC; lift 0.31"
Ex open 51°BBDC, close 21°ATDC; clearance 0.015"
Camshaft (Q.2629) In open 20°BTDC, close 80°ABDC; lift 0.38"
Ex open 50°BBDC, close 50°ATDC; clearance 0.015"
Cylinder head Mk II
Double valve springs (Q.2628)
Limited slip differential (HAC23)
Blanking sleeve (11G176)
Valve spring collars (AEA 402-432)

Manufacturer: Berkeley
 Model: Sports 492 cc

Class: E

DESCRIPTION:

2-Seater Roadster
 Fiberglass Body
 Dry Weight: 867 lbs

ENGINE: Type 3 cyl 2 stroke
 Bore & stroke 58mm x 62mm
 Capacity 492 cc
 Comp ratio 7.4:1 up to 9.87:1
 Head material Aluminum Alloy
 Port size Intake: 1-1/8"x11/16", Exhaust 1-5/16"
 Piston material ... Aluminum Alloy
 Piston weight 5 oz
 Timing data: 2 Stroke
 Carburation 3 x Amal 376/9

TRANSMISSION AND DRIVE TRAIN:

Ratios: Sprocket tooth	17(std)	15	16	18
	1	15.1	17.4	16.3
14.5				
	2	9.12	10.3	9.7
8.6				
	3	6.33	7.15	6.7
5.96				
	4	4.61	5.22	4.9
4.35				
	5			
Final drive ratios:	2.23:1			

CHASSIS

Wheelbase 70"
 Track dimension, front 44"
 Track dimension, rear 44"
 Shock absorber Girling or Armstrong
 Steering ratio 2-1/4 turns
 Brakes
 Tire size 5.20 x 12

APPROVED OPTIONAL EQUIPMENT

Electric fuel pump
 Swirl pot attachment for carburetors
 Rear mounted fuel tank
 Super sports pistons
 Additional hood air outlets

Manufacturer: Berkeley
Model: B.95

Class: G

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 924 lbs

ENGINE: Type 2 cyl 4 stroke
Bore & stroke 70mm x 90mm
Capacity 692 cc
Comp ratio 7.25:1
Head material Aluminum Alloy
Port size Intake: 34.9mm, Exhaust 31.8mm
Piston material ... Aluminum Alloy
Piston weight 255.15 grams w/rings
Timing data:

Intake Open 30° BTDC, Close 60° ABDC
Exhaust ...Open 75° BBDC, Close 35° ATDC

Valve lift: 0.3125"

Valve head dia:

Intake 39.7mm

Exhaust ...34.9mm

Head thickness 1-11/64" Combustion chamber depth in cyl head

Valve spring

Carburation One Amal 375/41

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 13.7 14.41 15.14 13.0 13.0

2 8.62 9.06 9.52 7.79 8.20

3 5.59 6.25 6.57 5.38 5.66

4 4.31 4.53 4.76 4.30 4.59

5

Final drive ratios: 2.23:1, 2.35:1, 2.47:1

CHASSIS

Wheelbase 70"

Track dimension, front 42.25"

Track dimension, rear 42"

Shock absorber Combined spring-damper

Steering ratio 10.9:1

Brakes 65 in sq

Tire size 5.20 x 12

APPROVED OPTIONAL EQUIPMENT

Twin SU float chambers

Additional air outlets

7-1/2, 9, 11 gal fuel tanks

Manufacturer: Berkeley Class: G
Model: B.105

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 924 lbs

ENGINE:

Type 2 cyl 4 stroke
Bore & stroke 70mm x 90mm
Capacity 692 cc
Comp ratio 8:1
Head material Aluminum Alloy
Port size Intake: 34.9mm, Exhaust 31.8mm
Piston material ... Aluminum Alloy
Piston weight 255.15 grams w/rings

Timing data:

Intake Open 24° BTDC, Close 73° ABDC
Exhaust ...Open 83° BBDC, Close 35° ATDC

Valve lift:

Valve head dia:

Intake 39.7mm

Exhaust ...34.9mm

Head thickness 1-11/64" Combustion chamber depth in cyl head

Valve spring

Carburation One Amal 10/TT/9

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	13.7	14.41	15.14	13.0	13.0
2	8.62	9.06	9.52	7.79	8.20
3	5.59	6.25	6.57	5.38	5.66
4	4.31	4.53	4.76	4.30	4.59
5					

Final drive ratios: 2.23:1, 2.35:1, 2.47:1

CHASSIS

Wheelbase 70"
Track dimension, front 42.25"
Track dimension, rear 42"
Shock absorber Combined spring-damper
Steering ratio 10.9:1
Brakes 65 in sq
Tire size 5.20 x 12

APPROVED OPTIONAL EQUIPMENT

Twin SU float chambers
Additional air outlets
7-1/2, 9, 11 gal fuel tanks

Manufacturer: BMW Class: C
Model: 507

DESCRIPTION:

2-Seater Roadster or Coupe

Dry Weight: 2816 lbs

ENGINE: Type V8
Bore & stroke 82mm x 75mm
Capacity 3146 cc
Comp ratio 8:1
Head material Aluminum
Port size Intake: 30.5mm dia, Exhaust: 32.0mm dia
Piston material ... Aluminum
Piston weight 0.560 Kg
Timing data:
Intake Open 38° BTDC, Close 73° ABDC
Exhaust ...Open 73° BBDC, Close 38° ATDC
Valve lift: 8mm
Valve head dia:
Intake 42mm
Exhaust ...38mm
Valve spring 67.2Kg
Carburation Zenith NDIX 32

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.39
2 2.07
3 1.36
4 1.00
5

Final drive ratios: 3.4 = 41/12, 3.7 = 37/10, 3.9 = 39/10

CHASSIS

Wheelbase 2480mm
Track dimension, front 1445mm
Track dimension, rear 1425mm
Shock absorber 1425mm
Steering ratio 16.3:1
Brakes
Tire size 6.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Chevrolet
Model: Corvette 1953-1954

Class: B

DESCRIPTION:

Dry Weight: not specified

ENGINE: Type 6 cyl in line
Bore & stroke 3-9/16" x 3-15/16"
Capacity 3860 cc
Comp ratio 8:1
Head material Cast Iron
Port size Intake 1.44", Exhaust 1.28"
Piston material ... Aluminum w/steel struts
Piston weight 18.88 oz

Timing data:
Intake Open 19°30' BTDC, Close 224°30 ATDC
Exhaust ...Open 239 BTDC, Close 5° ATDC

Valve lift: 0.3987" (std) or 0.394" (opt) at zero lash

Valve head dia:
Intake 1.88"
Exhaust ...1.505"

Valve spring Outer 72 lbs @ 1.858"; 160 lbs @ 1.462"
Inner 31 lbs @ 1.788"; 61 lbs @ 1.392"
Three Carter #3706989

Carburation

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 Powerglide
2 "
3 "
4 "
5 "

Final drive ratios: 3.55 = 11/39

CHASSIS

Wheelbase 101.85"
Track dimension, front 56.7"
Track dimension, rear 58.8"
Shock absorber Delco
Steering ratio 21:1
Brakes
Tire size 6.70 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Chevrolet
Model: Corvette #2934 1955-1956

Class: B

DESCRIPTION:

2-Seater Convertible
Fiberglass body
Dry Weight: 2829 lbs

ENGINE: Type 90° V-8 (OHV)
Bore & stroke 3.75" x 3.00"
Capacity 4343 cc
Comp ratio 9.25:1, 8:1
Head material Cast Iron
Port size Intake 1.61", Exhaust 1.35"
Piston material ... Aluminum Alloy w/steel strut
Piston weight 18.41 oz

Timing data:
Intake Open 21°30'/35° BTDC, Close 242°30'/252° ABDC
Exhaust ...Open 242°30'/256° BBDC, Close 23°30'/31° ATDC

Valve lift:

Valve head dia:

Intake 1.725"

Exhaust ...1.505"

Valve spring Outer 79 lbs @ 1.696":169 lbs @1.306"
Inner 10 lb

Carburation One or Two Carter WCFB 4 bbl

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	2.94	2.21	Powerglide
2	1.68	1.32	
3	1.00	1.00	
4			
5			

Final drive ratios: 3.27,3.55,3.70, 4.11

CHASSIS

Wheelbase 101.85"
Track dimension, front 57"
Track dimension, rear 59"
Shock absorber Telescopic
Steering ratio 21:1
Brakes
Tire size 6.70 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Chevrolet Class: B
 Model: Corvette 1957-1961

DESCRIPTION:

2-Seater Convertible
 Fiberglass body
 Dry Weight: 2905 lbs

ENGINE: Type 90° V-8 (OHV)
 Bore & stroke 3.875" x 3.00"
 Capacity 283 cu in (4638 cc)
 Comp ratio 9.5, 10.5, 11:1
 Head material Cast Iron
 Port size Intake 1.61" (1.82"-11:1 head only), Exhaust 1.35"
 Piston material ... Aluminum Alloy
 Piston weight 21.12 oz
 Timing data:
 Intake Open 12°30'/35° BTDC, Close 57°30'/72° ABDC
 Exhaust ...Open 54°30'/76° BBDC, Close 15°30'/31° ATDC
 Valve lift: 0.3987" (std) or 0.394" (opt) at zero lash
 Valve head dia:
 Intake 1.725"
 Exhaust ...1.505"
 Valve spring Outer 79 lbs @ 1.696":169 lbs @1.306"
 Inner Damper 10 lb
 Carburation One or Two Carter WCFB 4 bbl or Rochester FI

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	2.21	2.20	2.47	Powerglide
2	1.32	1.66	1.53	
3	1.0	1.31	1.00	
4		1.0		
5				

Final drive ratios: 3.36, 4.11, 4.56 (3 speed)
 4.11, 4.56 (4 speed limited slip)
 3.55 (Power glide)

CHASSIS

Wheelbase 101.85"
 Track dimension, front 57"
 Track dimension, rear 59"
 Shock absorber Telescopic
 Steering ratio 21:1 or 16.3:1
 Brakes 157.2"sq(std), 120"sq(opt), 129"sq(opt)
 Tire size 6.70 x 15

APPROVED OPTIONAL EQUIPMENT

Heavy duty radiator
 Cross flow radiator
 11.1 compression heads w/large valves (1.945")
 24 gal fuel tank
 Steel disc wheels 15" x 5.5"
 Dual 4-barrel carburator w/standard camshaft
 Dual 4-barrel carburator w/special camshaft (9.5:1 compression ratio)
 Fuel Injection equipement with standard camshaft
 Fuel injection equipment with special camshaft
 Heads-special spark plug cooling provisions, special valves
 Domed pistons (10.5 and 11.0:1)
 Special crankshaft balancer
 High tension wiring harness
 Outside air intakes
 8000 RPM tachometer
 Heavy duty brake and suspension equipment (FI only)
 Heavy duty front and rear springs

Manufacturer: Chevrolet
Model: Corvette 1957-1961

Class: B

APPROVED OPTIONAL EQUIPMENT CONT.

- Heavy duty front and rear shock absorbers
- Heavy duty stabilizer bar
- Fast steering adapter
- Finned CI brake drums of larger width w/ vented flange plates, air scoops & ducts
- Sintered iron brake linings (RPO 686, 687)
- Four speed transmission
- Powerglide automatic transmission
- Positraction rear axle with vents and baffles in rear axle (not avail w/PG)

Manufacturer: Chevrolet
Model: Corvette 1962

Class: A

DESCRIPTION:

2-Seater Convertible

Fiberglass body

Dry Weight: 3065 lbs

ENGINE: Type 90° V-8 (OHV)
Bore & stroke 4.0" x 3.25"
Capacity 327 cu in
Comp ratio 10.25-11.25:1
Head material High Chrome Iron
Port size
Piston material ... Aluminum Alloy
Piston weight 25.75 oz (w/strut)
Timing data:

Intake Open 32°/35° BTDC, Close 87°/72° ABDC

Exhaust ...Open 74°/76° BBDC, Close 45°/31° ATDC

Valve lift: 0.3987"/0.3998"

Valve head dia:

Intake 1-23/32" or 1-15/32"

Exhaust ...1-1/2"

Valve spring Outer 65-80 lbs @ 1-45/64":155-170 lbs @ 1-5/16"
Inner Damper 5-10 lb

Carburation One or Two 4bbl Carter or Rochester Fuel Injection

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 2.47 2.20 2.54

2 1.53 1.66 1.92

3 1.0 1.31 1.51

4 1.0 1.0

5

Final drive ratios: 3.08,3.55,3.56,3.70,4.11,4.56,4.88,5.14,5.42

CHASSIS

Wheelbase 102"

Track dimension, front 57"

Track dimension, rear 59"

Shock absorber Telescopic

Steering ratio 21:1 or 16.3:1

Brakes

Tire size 6.70 x 15

APPROVED OPTIONAL EQUIPMENT

All optional equipment approved to date for 1957-1961 Corvette
(see 1957-1961 Corvette PCS). In addition, the following options for
the 327 cu in model only:

HD suspension springs:

Front (3748140)

Rear (3748143)

Stabilizer unit front aux (3823052)

Brake Unit HD (Special) (3823053)

Tank unit (3823051)

Manufacturer: Deutsch-Bonnet
Model: DB HBR5 850 1955-1959

Class: F and G

DESCRIPTION:

Fiberglass Coupe
Dry Weight: 600Kg

ENGINE:

Type 2 cyl opposed
Bore & stroke 85mm x 75mm
Capacity 850 cc
Comp Ratio 7.2:1, 7.8:1, 8:1, 8.5:1
Head material Aluminum
Port size Intake: 37mm, Exhaust: 41mm
Piston material ... Aluminum
Piston weight 445 grams
Timing data:
Intake Open 28° BTDC, Close 58° ABDC
Exhaust ...Open 58° BBDC, Close 28° ATDC
Valve lift: 9.6mm
Valve head dia:
Intake 43.5mm
Exhaust ...41.5mm
Valve spring 40Kg (100 lbs)
Carburation One or Two Zenith NDIX 32, 36, 38

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 20/23x9/21 22/20x9/21 20/23x9/21 22/20x9/21
2 20/23x20/26 22/20x20/26 20/23x20/26 22/20x20/26
3 20/23x1 22/20x1 20/23x1 22/20x1
4 20/23x24/16 20/23x26/17 22/20x22/20 20/23x25/18
5 20/23x9/21 22/20x20/26 22/20x1 22/20x23/20
Final drive ratios: 11/24x9/24 = 5.82, 11/24x11/31 = 6.15

CHASSIS

Wheelbase 85"
Track dimension, front 49"
Track dimension, rear 49"
Shock absorber Telescopic
Steering ratio 11:1
Brakes
Tire size 145x380 or 145x400

APPROVED OPTIONAL EQUIPMENT

Dual ignition cylinder heads (F-Class only)
Competition brake drums with 45mm linings for front wheels
Reinforced 145x400 Rims
Camshaft #111-15, 25-11, 25-12, 25-54
11/23 or 12/23 ring and pinion
Large fuel tank
Large filler cap (4")
Extra capacity sump

Manufacturer: D-B-Panhard Class: F and G

Model: HBR5-850 1960-61-62

DESCRIPTION:

Fiberglass Coupe and Cabriolet
Dry Weight: 600Kg (Coupe) & 630Kg (Cabriolet)

ENGINE:

Type Panhard "Tiger" 2 cyl opposed
Bore & stroke 85mm x 75mm
Capacity 850 cc
Comp Ratio 8:1, 8.5:1
Head material Aluminum
Port size Intake: 45mm, Exhaust: 45m
Piston material ... Aluminum
Piston weight 445 grams
Timing data:

Intake Open 33° BTDC, Close 65° ABDC
Exhaust ...Open 65° BBDC, Close 33° ATDC

Valve lift: 8.5mm

Valve head dia:

Intake 43.5mm
Exhaust ...41.5mm

Valve spring 40Kg (100 lbs)
Carburation One or Two Zenith NDIX 38

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	20/23x10/26	20/23x10/26	20/23x10/26	22/20x10/26
2	20/23x20/26	20/23x20/26	20/23x20/26	22/20x20/26
3	20/23x1	20/23x1	20/23x1	22/20x1
4	20/23x24/16	20/23x24/16	20/23x24/16	22/10x24/16
5				

Final drive ratios: 11/24x9/24 = 5.82, 11/24x11/31 = 6.15

CHASSIS

Wheelbase 85"
Track dimension, front 49"
Track dimension, rear 49"
Shock absorber Telescopic
Steering ratio 11:1
Brakes
Tire size 145x380

APPROVED OPTIONAL EQUIPMENT

Dual ignition cylinder heads (F-Class only)
Competition brake drums with 45mm linings for front wheels
Reinforced 145x400 Rims
Camshaft #111-15, 25-11, 25-12, 25-54
11/23 or 12/23 ring and pinion
Large fuel tank
Large filler cap (4")
Extra capacity sump

Manufacturer: Daimler Class: C
Model: SP 250

DESCRIPTION:
Fiberglass Convertible Coupe
Dry Weight: 2090 lbs

ENGINE:
Type V8
Bore & stroke 3" x 2.75"
Capacity 2548 cc
Comp Ratio 8.2:1
Head material Aluminum
Port size Intake: 1.125", Exhaust: 1.375"
Piston material ... Aluminum
Piston weight 8 oz, 5-1/2 drms
Timing data:
Intake Open 13° BTDC, Close 65° ABDC
Exhaust ...Open 55° BBDC, Close 23° ATDC
Valve lift: 0.295"
Valve head dia:
Intake 1.5"
Exhaust ...1.4375"
Valve spring 58 lbs (valve closed)
Carburation Two SU HD6

TRANSMISSION AND DRIVE TRAIN:
Ratios:
1 2.933
2 1.742
3 1.232
4 1.0
5
Final drive ratios: 3.58, 4.01

CHASSIS
Wheelbase 92"
Track dimension, front 50"
Track dimension, rear 48"
Shock absorber Telescopic
Steering ratio 14:1
Brakes Disc
Tire size 5.90x15, 5.50x15

APPROVED OPTIONAL EQUIPMENT
Wire wheels with knock-off hubs (#136201)
Overdrive
Anti roll bar (SP.4141)

Manufacturer: Denzel Class: F
Model: 1300 Super

DESCRIPTION:

2-Seater Aluminum Roadster

Dry Weight: 1320 lbs

ENGINE: Type 4 cyl opposed, air-cooled, ohv
Bore & stroke 3.07" x 2.63" (78mm x 67mm)
Capacity 1289 cc (78.1 cu in)
Comp ratio 8.5:1
Head material Aluminum
Port size Intake 1.25"; Exhaust 1.10"
Piston material ... Aluminum
Piston weight 13 oz
Timing data:
Intake Open 15° BTDC, Close 55° ABDC
Exhaust ...Open 55° BBDC, Close 15° ATDC
Valve lift: 9.32mm
Valve head dia:
Intake 1.41"
Exhaust ...1.25"
Valve spring
Carburation Two Solex 40 PH-4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.6	2.83
2	1.88	1.81
3	1.23	1.25
4	0.815	0.875
5		

Final drive ratios: 4.375 = 35/8

CHASSIS

Wheelbase 82"
Track dimension, front 52"
Track dimension, rear 52"
Shock absorber
Steering ratio 14.15
Brakes
Tire size 5.60 X 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Elva Class: E
 Model: Courier (1959)

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 1350 lbs

ENGINE: Type 4 cyl ohv in line (MGA)
 Bore & stroke 2.87" x 3.5" (73mm x 89mm)
 Capacity 1489 cc
 Comp ratio 8.3:1
 Head material Cast Iron
 Port size Intake 1-3/8"; Exhaust 1-1/16" x 1-3/16"
 Piston material ... Aluminum Alloy
 Piston weight 10 oz 8 drms
 Timing data:
 Intake Open 16° BTDC, Close 58° ABDC
 Exhaust ...Open 51° BBDC, Close 21° ATDC
 Valve lift: 0.357"
 Valve head dia:
 Intake 1.5"
 Exhaust ...1.281"
 Valve spring Outer 60-1/2 lbs, Inner 30 lbs (fitted)
 Carburation Two Solex 1-1/2"

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 3.64
 2 2.214
 3 1.374
 4 1.0
 5

Final drive ratios: 43/10, 41/9

CHASSIS

Wheelbase 90"
 Track dimension, front 50"
 Track dimension, rear 50"
 Shock absorber Armstrong spring-damper units
 Steering ratio 2-1/2 turns
 Brakes
 Tire size 5.20 X 14

APPROVED OPTIONAL EQUIPMENT

MG camshaft (1H.603)
 Exhaust valves (1H.1025)
 Oil cooler kit (AJA.5291)
 Competition clutch assembly (AHH.5457)
 9.0:1 pistons (1H.1178)
 10.0:1 pistons (1H.1108)
 1-3/4" bore SU carburetors and manifold
 Heavy valve springs (1H.1111/1112)
 Distributor (1H.1036)
 Connecting rods (AEH.22/23)
 Double fuel pump (AUA.73)

Manufacturer: Elva Class: E
Model: Courier (1960-1962)

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 1428 lbs

ENGINE: Type 4 cyl ohv in line (MGA 1600)
Bore & stroke 75.4mm x 88.9mm
Capacity 1588 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake 1-3/8"; Exhaust 1-1/16" x 1-13/16"
Piston material ... Aluminum Alloy
Piston weight 11 oz
Timing data:
Intake Open 16° BTDC, Close 58° ABDC
Exhaust ...Open 51° BBDC, Close 21° ATDC
Valve lift: 0.290" (std); 0.35" (opt)
Valve head dia:
Intake 1.5"
Exhaust ...1.281"
Valve spring Outer 62.5 lbs, Inner 30 lbs (fitted)
Carburation Two SU 1-1/2"

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.64	2.45
2	2.214	1.62
3	1.374	1.268
4	1.0	1.0
5		

Final drive ratios: 3.7, 4.2, 4.55

CHASSIS

Wheelbase 90"
Track dimension, front 50"
Track dimension, rear 50"
Shock absorber Telescopic
Steering ratio 2-1/2 turns
Brakes Drums - front 9 x 1-1/2; rear 8 x 1-1/2
Tire size 5.20 X 14

APPROVED OPTIONAL EQUIPMENT

MG camshaft (1H.603)
Exhaust valves (1H.1025)
Oil cooler kit (ARH.113)
Heavy valve springs (1H.1111/1112)
Inlet manifold (AEH.200)
Two 1-3/4" bore SU carburetors
9.25:1 pistons (12H.175)
Connecting rods (AEH.642-644)
Competition clutch assembly (AHH.5457)
Double fuel pump (AUA.73)
Distributor (1H.1036)
Disc brakes on front wheels (9-1/2")
Drum brakes on rear wheels (9 x 1-1/2")
Wide-rim wheels (5 in)

Manufacturer: Facel-Vega Class: F
Model: Facellia

DESCRIPTION:

2-Seater Steel Coupe and Convertible

Dry Weight:

ENGINE: Type 4 cyl dohc in line
Bore & stroke 3.22" x 3.07"
Capacity 1647 cc
Comp ratio 9.4:1
Head material Aluminum
Port size
Piston material ... Aluminum Alloy
Piston weight

Timing data:

Intake Open 21-23° BTDC, Close 64-66° ABDC
Exhaust ...Open 71-73° BBDC, Close 14-16° ATDC

Valve lift:

Valve head dia:

Intake 44mm
Exhaust ...38.5mm

Valve spring Outer 24Kg, Inner 22Kg

Carburation One Solex AP A1

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.45
2 1.96
3 1.28
4 1.0
5

Final drive ratios: 4.10, 4.56

CHASSIS

Wheelbase 96.5"
Track dimension, front 51.3"
Track dimension, rear 51.3"
Shock absorber Telescopic
Steering ratio
Brakes
Tire size 5.90 X 14

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Fairthorpe Class: E
Model: Electron Mk II

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 1150 lb (1962 Model - 950 lbs)

ENGINE: Type 4 cyl ohc in line (Coventry Climax FWA)
Bore & stroke 72.4mm x 66.6mm (1960-61 model bore = 3.0")
Capacity 1098 cc (1960-61 model displacement = 1220 cc)
Comp ratio 9.8:1
Head material Aluminum Alloy
Port size Intake 1.1", Exhaust 1.0"
Piston material ... Aluminum Alloy
Piston weight 12 oz 10 drms complete
Timing data:
Intake Open 12°/20° BTDC, Close 56°/64° ABDC
Exhaust ...Open 56°/64° BBDC, Close 12°/20° ATDC
Valve lift: 0.300" or 0.350"
Valve head dia:
Intake 1.350"
Exhaust ...1.200"
Valve spring Outer 67 lb @ 0.910", Inner 25 lb @ 0.686"
Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	16.1	13.85	13.45
2	9.55	8.2	7.8
3	6.28	5.43	5.03
4	4.55	4.1	3.7
5			

Final drive ratios: 3.7, 4.1, 4.55

CHASSIS

Wheelbase 82"
Track dimension, front 48"
Track dimension, rear 45-1/2" (48" for 1962 model)
Shock absorber Telescopic
Steering ratio 1-2/3 turns (2-1/4 turns for 1962 model)
Brakes Disc brakes std equipment for 1962 model
Tire size 5.90x14, 15x155mm (5.60x13 for '62 model)

APPROVED OPTIONAL EQUIPMENT

Disc brakes on front wheels

Manufacturer: Fairthorpe Class: G
Model: Electron Minor

DESCRIPTION:

2-Seater Fiberglass Roadster

Dry Weight: 920 lbs (1962 model - 965 lbs)

ENGINE: Type 4 cyl ohv in line (Standard 10 Gold Star) *
Bore & stroke 63 mm x 76 mm
Capacity 948 cc
Comp ratio 8.25/9.0/9.5/10.2:1
Head material Cast Iron
Port size Intake 1.25", Exhaust 0.94"x0.88"
Piston material ... Aluminum Alloy
Piston weight 0.617 lb

Timing data:

Intake Open 15°BTDC, Close 55°ABDC
Exhaust ...Open 55°BBDC, Close 15°ATDC

or

Intake Open 10°BTDC, Close 50°ABDC
Exhaust ...Open 50°BBDC, Close 10°ATDC

Valve lift: 0.280" or 0.305"

Valve head dia:

Intake 1.181"

Exhaust ... 1.056"

Valve spring 25.25 lb @ 1.375

Carburation One Solex 28Z1C/2

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.75	4.27
2	2.1	2.46
3	1.38	1.45
4	1.0	1.0
5		

Final drive ratios: 41/9 = 4.55

CHASSIS

Wheelbase 81" (82" for 1962 Model)

Track dimension, front 49"

Track dimension, rear 48-1/2"

Shock absorber Telescopic

Steering ratio 1-2/3 turns

Brakes

Tire size 5.60 x 13, 5.90 x 13

APPROVED OPTIONAL EQUIPMENT

Two SU #H.1 carburetors and manifold

Two SU #H.2 carburetors and manifold

* Specification change for 1962 Model:

Dry weight - 965 lbs

Engine - Triumph Herald

Wheelbase - 82"

Manufacturer: Ferrari Class: A
Model: 250 GT (SWB) Berlinetta Coupe-California Spider

DESCRIPTION:

2-Seater Aluminum Bodywork
Dry Weight: 2050 lbs (approx)

ENGINE: Type V-12
Bore & stroke 73mm x 58.8mm
Capacity 2953.211 cc
Comp ratio 9.5:1 or 9.8:1
Head material Silumin
Port size Intake 27mm, Exhaust 27mm
Piston material ... Silumin
Piston weight 224 grams
Timing data:
Intake Open 26° BTDC, Close 69° ABDC
Exhaust ...Open 73° BBDC, Close 19° ATDC
-or-
Intake Open 46° BTDC, Close 75° ABDC
Exhaust ...Open 70° BBDC, Close 40° ATDC
Valve lift: 10mm or 9mm
Valve head dia:
Intake 34mm or 32mm
Exhaust ...29mm 27mm
Valve spring 35.6Kg
Carburation Three Weber DCL

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.536
2 1.7
3 1.256
4 1
5

Final drive ratios: 32/9, 32/8, 32/7, 33/9, 34/9, 34/8

CHASSIS

Wheelbase 2400mm
Track dimension, front 1354mm
Track dimension, rear 1349mm
Shock absorber Telescopic
Steering ratio 17:1
Brakes Disc - 247 cm sq
Tire size 6.00 x 16, 175 x 400

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Ferrari Class: B
Model: 250 GT Coupe (Farina or Boano) and Cabriolet (Farina)

DESCRIPTION:

2-Seater Steel Bodywork
Dry Weight: 2712 lbs (Coupe) or 2650 lbs (Cabriolet)
2315 lbs (Berlinetta and Clifonia, approx)

ENGINE:

Type V-12
Bore & stroke 73mm x 58.8mm
Capacity 2953.211 cc
Comp ratio 9.2:1 or 9.5:1
Head material Silumin
Port size Intake 27mm, Exhaust 27mm
Piston material ... Silumin
Piston weight 224 grams
Timing data:
Intake Open 26° BTDC, Close 69° ABDC
Exhaust ...Open 73° BBDC, Close 19° ATDC
-or-
Intake Open 46° BTDC, Close 75° ABDC
Exhaust ...Open 70° BBDC, Close 40° ATDC
Valve lift: 10mm
Valve head dia:
Intake 34mm
Exhaust ...29mm
Valve spring 35.6Kg
Carburation Three Weber DCL

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.536
2 1.7
3 1.256
4 1
5
Final drive ratios: 32/9, 32/8, 32/7, 33/9, 34/9, 34/8

CHASSIS

Wheelbase 2600mm
Track dimension, front 1354mm
Track dimension, rear 1349mm
Shock absorber Telescopic
Steering ratio 18:1
Brakes Disc brakes-247 cm², drum brakes-1241 cm²
Tire size 6.00 x 16 or 6.25/6.50 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Fiat Class: H
Model: 1200 Spider

DESCRIPTION:

2-Seater Steel (Unibody) construction

Dry Weight: 2030 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 2-22/32" x 2-61/64"
Capacity 1221 cc
Comp ratio 8.25:1
Head material Aluminum
Port size
Piston material ... Aluminum
Piston weight

Timing data:

Intake Open 16° BTDC, Close 56° ABDC

Exhaust ...Open 56° BBDC, Close 16° ATDC

Valve lift:

Valve head dia:

Intake

Exhaust ...

Valve spring

Carburation One Weber 36 DCD3

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.86	3.38
2	2.38	2.09
3	1.57	1.38
4	1.0	1.0
5		

Final drive ratios: 43/10

CHASSIS

Wheelbase 92-7/64"
Track dimension, front 48.5"
Track dimension, rear 47-53/64"
Shock absorber Telescopic
Steering ratio 16.4:1
Brakes
Tire size 5.20 x 14

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Fiat Class: F
Model: 1500 Spider

DESCRIPTION:

2-Seater Steel (Unibody) construction

Dry Weight: 2183 lbs

ENGINE: Type 4 cyl dohc in line
Bore & stroke 3-5/64" x 3-5/64"
Capacity 1491 cc
Comp ratio 8.6:1
Head material Aluminum
Port size
Piston material ... Aluminum
Piston weight

Timing data:

Intake Open 20° BTDC, Close 72° ABDC
Exhaust ...Open 69° BBDC, Close 19° ATDC

Valve lift:

Valve head dia:

Intake
Exhaust ...

Valve spring

Carburation One Weber 28-36 DCLD3

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.086
2	1.977
3	1.38
4	1.0
5	

Final drive ratios: 43/10

CHASSIS

Wheelbase 92.1"
Track dimension, front 48.7"
Track dimension, rear 47.8"
Shock absorber Telescopic
Steering ratio 16.4:1
Brakes
Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Fiat-Abarth Class: E
Model: 700 Twin Cam

DESCRIPTION:

2-Seater Aluminum Record Monza Coupe, Zagato Coupe or Allemeo Roadster
Dry Weight: 550Kg (1210 lbs)

ENGINE: Type 4 cyl dohc in line
Bore & stroke 61mm x 59.5mm
Capacity 695.6 cc
Comp ratio 10.3:1
Head material Aluminum
Port size Intake 26.5mm, Exhaust 26.5mm
Piston material ... Aluminum Alloy
Piston weight 182 grams
Timing data:
Intake Open 52° BTDC, Close 70° ABDC
Exhaust ...Open 60° BBDC, Close 28° ATDC
Valve lift: Intake 8.5mm, Exhaust 7.6mm
Valve head dia:
Intake 33mm
Exhaust ...29mm
Valve spring 39.5Kg
Carburation Two Weber 36 DCL4 or Weber 40 DCM2

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 44/13
2 37/18 35/20 33/18
3 35/20 32/24 30/35 29/28
4 32/24 30/25 29/26 28/27 26/28
5 29/26 28/27 26/30 25/30 28/28
Final drive ratios: 39/9, 39/8, 40/8, 41/9, 41/8, 43/8

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber Telescopic
Steering ratio 13:1
Brakes Drums, Area = 595.5 cm sq
Tire size 135 x 13, 135 x 12

APPROVED OPTIONAL EQUIPMENT

Single or dual pad disk brakes on front or all wheels
Racing windshield (plastic)
60-70 litre gasoline tank
Aluminum oil sump
Fergat or Borani 12" or 13" heavy duty steel wheels
Amadori or Almag. 12" or 13" wheels
Aux. water radiator
Oil cooler
Stiffer rear springs
Front end reinforcement kit
Securstop master cylinder
Alfin brakes (dual, tripple, or quad shoes)

Manufacturer: Fiat-Abarth Class: H
Model: 750 GT

DESCRIPTION:

2-Seater Aluminum Coupe and Roadster

Dry Weight: 1200 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 61mm x 64mm
Capacity 747 cc
Comp ratio 9.8:1
Head material Aluminum
Port size Intake 24mm, Exhaust 22mm
Piston material ... Aluminum
Piston weight 175 grams
Timing data:
Intake Open 30° BTDC, Close 70° ABDC
Exhaust ...Open 70° BBDC, Close 30° ATDC
Valve lift: 9mm
Valve head dia:
Intake 24mm
Exhaust ...22mm
Valve spring 43Kg or 34Kg
Carburation One Weber 32 IMPE

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 44/13 44/13
2 37/18 37/18
3 32/24 30/25
4 26/29 26/30
5

Final drive ratios: 39/9, 43/8, 41/9

CHASSIS

Wheelbase 2000mm
Track dimension, front 1150mm
Track dimension, rear 1160mm
Shock absorber Telescopic
Steering ratio 28.6ft min turning diameter
Brakes
Tire size 5.20 x 12

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Fiat-Abarth Class: G
Model: 750 Mille Miglia

DESCRIPTION:

2-Seater Aluminum Coupe and Roadster

Dry Weight: 545Kg (1200 lbs)

ENGINE: Type 4 cyl ohv in line
Bore & stroke 61mm x 64mm
Capacity 747 cc
Comp ratio 9.8:1
Head material Aluminum
Port size Intake 27.5 x 59.35mm, Exhaust 28mm
Piston material ... Aluminum
Piston weight 185 grams

Timing data:

Intake Open 30° BTDC, Close 70° ABDC

Exhaust ...Open 70° BBDC, Close 30° ATDC

Valve lift: 9mm

Valve head dia:

Intake 26mm

Exhaust ...24mm

Valve spring 50Kg

Carburation One Weber 32 IMPE

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	44/13				
2	37/18	35/20	33/18		
3	35/20	32/24	30/35	29/28	
4	32/24	30/25	29/26	28/27	26/28
5	29/26	28/27	26/30	25/30	28/28

Final drive ratios: 39/9, 39/8, 40/8, 41/9, 41/8, 43/8

CHASSIS

Wheelbase 78.75"
Track dimension, front 45.3"
Track dimension, rear 45.67"
Shock absorber Telescopic
Steering ratio 28.6ft min turning diameter
Brakes Drum type
Tire size 135 x 12, 135 x 13

APPROVED OPTIONAL EQUIPMENT

Single or dual pad disk brakes on front or all wheels
Racing windshield (plastic)
60-70 litre gasoline tank
Aluminum oil sump
Fergat or Borani 12" or 13" heavy duty steel wheels
Amadori or Almag. 12" or 13" wheels
Aux. water radiator
Oil cooler
Stiffer rear springs
Front end reinforcement kit
Securstop master cylinder
Alfin brakes (dual, tripple, or quad shoes)

Manufacturer: Fiat-Abarth Class: E
Model: 750 (dual cam)

DESCRIPTION:

2-Seater Aluminum Coupe

Dry Weight: 565Kg (1244 lbs)

ENGINE: Type 4 cyl dohc in line
Bore & stroke 61mm x 64mm
Capacity 748 cc
Comp ratio 9.7:1, 10.5:1
Head material Aluminum
Port size Intake 26.5mm, Exhaust 28mm
Piston material ... Aluminum
Piston weight 185 grams

Timing data:

Intake Open 52° BTDC, Close 68° ABDC
Exhaust ...Open 73° BBDC, Close 25° ATDC

Valve lift: 9mm

Valve head dia:

Intake 33mm
Exhaust ...29mm

Valve spring 50Kg

Carburation Two Weber DCL4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	44/13				
2	37/18	35/20	33/18		
3	35/20	32/24	30/35	29/28	
4	32/24	30/25	29/26	28/27	26/28
5	29/26	28/27	26/30	25/30	28/28

Final drive ratios: 39/9, 39/8, 40/8, 41/9, 41/8, 43/8

CHASSIS

Wheelbase 78.75"
Track dimension, front 45.3"
Track dimension, rear 45.67"
Shock absorber Telescopic
Steering ratio 28.6ft min turning diameter
Brakes Drum type
Tire size 135 x 12, 135 x 13

APPROVED OPTIONAL EQUIPMENT

Single or dual pad disk brakes on front or all wheels
Racing windshield (plastic)
60-70 litre gasoline tank
Aluminum oil sump
Ferget or Borani 12" or 13" heavy duty steel wheels
Amadori or Almag. 12" or 13" wheels
Aux. water radiator
Oil cooler
Stiffer rear springs
Front end reinforcement kit
Securstop master cylinder
Alfin brakes (dual, tripple, or quad shoes)

Manufacturer: Fiat-Abarth Class: F
Model: 850/S Record Monza

DESCRIPTION:

2-Seater Aluminum Coupe and Spyder

Dry Weight: 600Kg (1320 lbs)

ENGINE: Type 4 cyl ohv in line
Bore & stroke 62.5mm x 69mm
Capacity 847 cc
Comp ratio 9.1:1,9.5:1
Head material Aluminum
Port size Intake 27.5 x 59.35mm, Exhaust 28mm
Piston material ... Aluminum
Piston weight 171 grams

Timing data:

Intake Open 30° BTDC, Close 70° ABDC

Exhaust ...Open 70° BBDC, Close 30° ATDC

Valve lift: 9mm

Valve head dia:

Intake 26mm

Exhaust ...24mm

Valve spring 50Kg

Carburation One Solex 32 PBIC

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	44/13				
2	37/18	35/20	33/18		
3	35/20	32/24	30/35	29/28	
4	32/24	30/25	29/26	28/27	26/28
5	29/26	28/27	26/30	25/30	28/28

Final drive ratios: 39/9, 39/8, 40/8, 41/9, 41/8, 43/8

CHASSIS

Wheelbase 78.75"

Track dimension, front 45.3"

Track dimension, rear 45.67"

Shock absorber Telescopic

Steering ratio 28.6ft min turning diameter

Brakes Drum type (595.5 cm sq)

Tire size 5.20 x 12

APPROVED OPTIONAL EQUIPMENT

One Weber 32 IMPE Carburetor

One Zenith Stromberg NDIX33 Carburetor

Single or dual pad disk brakes on front or all wheels

Racing windshield (plastic)

60-70 litre gasoline tank

Aluminum oil sump

Ferret or Borani 12" or 13" heavy duty steel wheels

Amadori or Almag. 12" or 13" wheels

Aux. water radiator

Oil cooler

Stiffer rear springs

Front end reinforcement kit

Securstop master cylinder

Alfin brakes (dual, tripple, or quad shoes)

Manufacturer: Fiat-Abarth Class: C
 Model: 1000 Twin Cam

DESCRIPTION:

2-Seater Aluminum Record Monza Coupe
 Dry Weight: 570Kg (1254 lbs)

ENGINE: Type 4 cyl dohc in line
 Bore & stroke 65mm x 74mm
 Capacity 982 cc
 Comp ratio 10.2:1, 10.8:1
 Head material Aluminum
 Port size Intake 26.5mm, Exhaust 26.5mm
 Piston material ... Aluminum Alloy
 Piston weight 215 grams
 Timing data:
 Intake Open 54° BTDC, Close 72° ABDC
 Exhaust ...Open 64° BBDC, Close 33° ATDC
 Valve lift: Intake: 8.5mm; Exhaust 8.3mm
 Valve head dia:
 Intake 33mm
 Exhaust ...29mm
 Valve spring Inner/Outer - 39.5Kg
 Carburation Two Weber 40 DCM2 or Weber 36 DCL4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 44/13
 2 37/18 35/20 33/18
 3 35/20 32/24 30/35 29/28
 4 32/24 30/25 29/26 28/27 26/28
 5 29/26 28/27 26/30 25/30 28/28
 Final drive ratios: 39/9, 39/8, 40/8, 41/9, 41/8, 43/8

CHASSIS

Wheelbase
 Track dimension, front
 Track dimension, rear
 Shock absorber Telescopic
 Steering ratio 13:1
 Brakes Front-Disc; Rear-Drum or disc
 Tire size 135 x 13

APPROVED OPTIONAL EQUIPMENT

Single or dual pad disk brakes on front or all wheels
 Racing windshield (plastic)
 60-70 litre gasoline tank
 Aluminum oil sump
 Ferget or Borani 12" or 13" heavy duty steel wheels
 Amadori or Almag. 12" or 13" wheels
 Aux. water radiator
 Oil cooler
 Stiffer rear springs
 Front end reinforcement kit
 Securstop master cylinder
 Alfin brakes (dual, tripple, or quad shoes)

Manufacturer: Frazer-Nash Class: C
Model: Two Litre

DESCRIPTION:

2-Seater, Various body styles: "Sebring, "Targa Floria", Roadsters, and "Lemans Coupe" (fixed head)

Dry Weight:

ENGINE: Type 6 cyl ohv in line
Bore & stroke 66mm x 96mm
Capacity 1971 cc
Comp ratio 7.5:1, 9.0:1, 10:1
Head material Aluminum Alloy
Port size Intake 1.250"; Exhaust 1.250"
Piston material ... Aluminum Alloy
Piston weight 288.976 grams
Timing data:
Intake Open 40° BTDC, Close 80° ABDC
Exhaust ...Open 80° BBDC, Close 40° ATDC
Valve lift:
Valve head dia:
Intake 1.532"
Exhaust ...1.308"
Valve spring
Carburation Three Solex 32B1

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.918 1.827
2 1.825 1.408
3 1.292 1.189
4 1.0 1.0
5

Final drive ratios: 3.5, 3.6, 3.9, 4.1

CHASSIS

Wheelbase 96"
Track dimension, front 48"
Track dimension, rear 50"
Shock absorber Telescopic
Steering ratio 2 turns
Brakes Drum type (188 in sq lining area)
Tire size 5.50 x 16

APPROVED OPTIONAL EQUIPMENT

Knock-on wire wheels
25 gal fuel tank
Adjustable friction-telescopic shock absorbers
Alfin brake drums (11 x 2-1/4) with air scoops

Manufacturer: Jensen Class: D
Model: 541R

DESCRIPTION:

2-4 Seater Fiberglass Coupe
Dry Weight: 3018 lbs (Approx)

ENGINE: Type 6 cyl ohv in line
Bore & stroke 3.437" x 4.375"
Capacity 3993 cc (243.4 cu in)
Comp ratio 7.4:1
Head material Cast Iron
Port size Intake: 1.920"; Exhaust 1.40" x 1.80" (siamesed)
Piston material ... Aluminum alloy
Piston weight
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 40° BBDC, Close 10° ATDC
Valve lift: 0.392
Valve head dia:
Intake 1.73"
Exhaust ...1.42"
Valve spring 138 lb/in
Carburation Three SU H-4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 11.98
2 7.02
3 4.84
4 3.54
5 2.75 (OD)

Final drive ratios: 3.54

CHASSIS

Wheelbase 105"
Track dimension, front 52"
Track dimension, rear 52"
Shock absorber Front-Lever, Rear-Telescopic
Steering ratio 14.3:1
Brakes Dunlop disc
Tire size 6.40 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Lancia Class: H

Model: Appia GT

DESCRIPTION:

2-Seater Zagato Coupe

Dry Weight: 1850 lbs

ENGINE: Type V-4
Bore & stroke 68mm x 75mm
Capacity 1090 cc
Comp ratio 8:1
Head material Aluminum
Port size Intake: 25mm, Exhaust 25mm
Piston material ... Aluminum
Piston weight 0.255Kg
Timing data:
Intake Open 15° BTDC, Close 52° ABDC
Exhaust ...Open 52° BBDC, Close 15° ATDC
Valve lift: 8.25mm
Valve head dia:
Intake 31mm
Exhaust ...27mm
Valve spring 18.3Kg
Carburation One Weber 36 DCLD3

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 4.098
2 2.382
3 1.562
4 1.0
5

Final drive ratios: 45/11

CHASSIS

Wheelbase 2510mm
Track dimension, front 1178mm
Track dimension, rear 1182mm
Shock absorber Lancia
Steering ratio 51/4
Brakes
Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Lancia Class: D
Model: Aurelia GT, Spyder

DESCRIPTION:

Dry Weight: lbs
ENGINE: Type V-6
Bore & stroke 78mm x 85.5mm
Capacity 2451 cc
Comp ratio 8.4:1
Head material Aluminum
Port size Intake: 29mm, Exhaust 28mm
Piston material ... Aluminum
Piston weight
Timing data:
Intake Open 22° BTDC, Close 82° ABDC
Exhaust ...Open 55° BBDC, Close 23° ATDC
Valve lift: 7.435mm
Valve head dia:
Intake 40mm
Exhaust ...35mm
Valve spring 27.5Kg
Carburation Weber 40 DCL5

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.093
2 2.054
3 1.415
4 1.0
5

Final drive ratios: 48/13

CHASSIS

Wheelbase 2450mm (Spyder) 2650mm (GT)
Track dimension, front 1280mm
Track dimension, rear 1300mm
Shock absorber Telescopic
Steering ratio 49/4
Brakes
Tire size 165 x 400

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Lotus Class: E
Model: Elite

DESCRIPTION:

2-Seater Fiberglass Coupe

Dry Weight: 1512 lbs

ENGINE: Type 4 cyl ohc in line
Bore & stroke 3.0" x 2.625"
Capacity 1220 cc
Comp ratio 10.0:1
Head material Aluminum
Port size Intake 1.125", Exhaust 1.125"
Piston material ... Aluminum
Piston weight 12.5 oz
Timing data:
Intake Open 12° BTDC, Close 56° ABDC
Exhaust ...Open 56° BBDC, Close 12° ATDC
Valve lift: 0.360" (intake), 0.310" (exhaust)
Valve head dia:
Intake 1.35"
Exhaust ...1.25"
Valve spring 225 lb/in
Carburation One or Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	2.45	3.67
2	1.62	2.20
3	1.262	1.32
4	1.0	1.0
5		

Final drive ratios: 3.7, 4.22, 4.55, 4.875, 5.375

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber Telescopic
Steering ratio 3:1
Brakes Girling disc
Tire size 4.50 x 15 / 4.80 x 15 / 5.00 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Lotus Class: C
 Model: Elite (Stage III)

DESCRIPTION:

2-Seater Fiberglass Coupe
 Dry Weight: 1512 lbs

ENGINE: Type 4 cyl ohc in line
 Bore & stroke 3.0" x 2.625"
 Capacity 1220 cc
 Comp ratio 11:1
 Head material Aluminum
 Port size Intake 1.15", Exhaust 1.15"
 Piston material ... Aluminum
 Piston weight 15 oz
 Timing data:
 Intake Open 30° BTDC, Close 60° ABDC
 Exhaust ...Open 60° BBDC, Close 30° ATDC
 Valve lift: 0.360"
 Valve head dia:
 Intake 1.35"
 Exhaust ...1.2"
 Valve spring 230 lb/in
 Carburation Two SU HS-4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
 1 2.53 2.45 3.67
 2 1.71 1.62 2.20
 3 1.23 1.262 1.32
 4 1.0 1.0 1.0
 5

Final drive ratios: 3.7, 4.22, 4.55, 4.875, 5.375

CHASSIS

Wheelbase
 Track dimension, front
 Track dimension, rear
 Shock absorber Telescopic
 Steering ratio 3:1
 Brakes Girling disc
 Tire size 4.50 x 15 / 4.80 x 15 / 5.00 x 15

APPROVED OPTIONAL EQUIPMENT

5-Bearing camshaft
 Long range fuel tank

Manufacturer: Lotus Class: G
Model: Mark 7 America

DESCRIPTION:

Open - 2-Seater
Dry Weight: 900 lbs

ENGINE: Type BMC Type A (Sprite) OHV 4 cyl inline
Bore & stroke 63mm x 76mm
Capacity 948 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake: 1.125", Exhaust 1-13/16" x 1.0"
Piston material ... Aluminum
Piston weight
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 40° BBDC, Close 10° ATDC
Valve lift: 0.28"
Valve head dia:
Intake 1-3/32"
Exhaust ...1.0"
Valve spring 52 lb @ 1.2968", 85 lb @ 1.012"
Carburation Two SU H1

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.627	3.0
2	2.374	1.99
3	1.412	1.35
4	1.0	1.0
5		

Final drive ratios: 4.11, 4.55, 4.875

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber Telescopic
Steering ratio 3:1
Brakes
Tire size 5.60 x 13, 5.90 x 13

APPROVED OPTIONAL EQUIPMENT

Long range fuel tank (8 gal)
Large Sump (Q.2341)
Valve springs (2A.950)
Distributor (2A.951)

Manufacturer: Lotus Class: C
Model: 7 Super Classic

DESCRIPTION:

Open - 2-Seater
Dry Weight: 900 lbs

ENGINE: Type Cosworth Ford 109E
Bore & stroke 3.187" x 2.562"
Capacity 87.8 cu in
Comp ratio 9.5:1
Head material Cast Iron
Port size Intake 1.0", Exhaust 1.0"
Piston material ... Aluminum
Piston weight

Timing data:
Intake Open 50° BTDC, Close 86° ABDC
Exhaust ...Open 86° BBDC, Close 50° ATDC
Valve lift: 0.390"
Valve head dia:
Intake 1.3"
Exhaust ...1.2"
Valve spring 220 lb/in
Carburation Two Weber 40 DCOE-2

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 4.118 3.0 3.627
2 2.396 1.99 2.374
3 1.412 1.35 1.412
4 1.0 1.0 1.0
5

Final drive ratios: 4.1, 4.5, 4.875

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber Telescopic
Steering ratio 3:1
Brakes
Tire size 5.60 x 13, 5.90 x 13

APPROVED OPTIONAL EQUIPMENT

Long range fuel tank
HD Valve springs (250 lbs)

Manufacturer: Mercedes-Benz Class: F

Model: 190 SL

DESCRIPTION:

2-Seater Convertible

Dry Weight: 2332 lbs

ENGINE: Type 4 cyl ohc
Bore & stroke 3.34" x 3.29"
Capacity 1897 cc
Comp ratio 8.5:1
Head material Light Metal
Port size Intake 1.957" sq; Exhaust 1.407" sq
Piston material ... Light Metal
Piston weight 1.41 lbs
Timing data:
Intake Open 44° BTDC, Close 87° ABDC
Exhaust ...Open 81° BBDC, Close 42° ATDC
Valve lift: 0.374" (intake), 0.315 (exhaust)
Valve head dia:
Intake 1.74"
Exhaust ...1.46"
Valve spring
Carburation Two Solex 44PHH

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.52
2	2.32
3	1.52
4	1.0
5	

Final drive ratios: 3.9 = 39/10

CHASSIS

Wheelbase 94-1/2"
Track dimension, front 56-5/16"
Track dimension, rear 57-7/8"
Shock absorber Telescopic
Steering ratio 18.5
Brakes
Tire size 6.40 x 13

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Mercedes-Benz Class: B
Model: 300 SL Coupe

DESCRIPTION:

2-Seater Roadster
Dry Weight: 2930 lbs

ENGINE: Type 6 cyl ohc in line
Bore & stroke 3.35" x 3.47"
Capacity 2996 cc
Comp ratio 8.55:1
Head material Light Metal
Port size Intake 2.356" sq; Exhaust 1.557" sq
Piston material ... Light Metal
Piston weight 1.52 lbs
Timing data:
Intake Open 54° BTDC, Close 92° ABDC
Exhaust ...Open 74° BBDC, Close 36° ATDC
Valve lift: 0.37" (intake), 0.33" (exhaust)
Valve head dia:
Intake 1.93"
Exhaust ...1.65"
Valve spring
Carburation Fuel Injection (Bosch #PES6K170/320R3)

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.34
2 1.97
3 1.39
4 1.0
5

Final drive ratios: 3.64 (40/11)

CHASSIS

Wheelbase 94.48"
Track dimension, front 54.5"
Track dimension, rear 56.5"
Shock absorber
Steering ratio 13.8:1, 11.8:1
Brakes
Tire size 6.50 x 15

APPROVED OPTIONAL EQUIPMENT

Alternate axle ratios: 3.25(39/12), 3.42(41/12), 3.89(35/9), 4.11(38/9)

Manufacturer: Mercedes-Benz Class: B
Model: 300 SL Roadster

DESCRIPTION:

2-Seater Roadster
Dry Weight: 2750 lbs

ENGINE: Type 6 cyl ohc in line
Bore & stroke 3.35" x 3.47"
Capacity 2996 cc
Comp ratio 8.55:1, 9.5:1
Head material Light Metal
Port size Intake 2.356" sq; Exhaust 1.557" sq
Piston material ... Light Metal
Piston weight 1.52 lbs
Timing data:
Intake Open 54° BTDC, Close 92° ABDC
Exhaust ...Open 74° BBDC, Close 36° ATDC
Valve lift: 0.37" (intake), 0.33" (exhaust)
Valve head dia:
Intake 1.93"
Exhaust ...1.65"
Valve spring
Carburation Fuel Injection (Bosch #PES6K170/320R3)

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.34
2 1.97
3 1.39
4 1.0
5

Final drive ratios: 3.89 (35/9)

CHASSIS

Wheelbase 94.48"
Track dimension, front 55"
Track dimension, rear 57"
Shock absorber Telescopic
Steering ratio 16.7
Brakes
Tire size 6.70 x 15, 6.50 x 15

APPROVED OPTIONAL EQUIPMENT

Alternate axle ratios: 3.25(39/12), 3.42(41/12), 3.64(40/11), 4.11(38/9)

Manufacturer: MG Class: H
 Model: TC, TD, Mk II

DESCRIPTION:

2-Seater Roadster

Dry Weight:

ENGINE: Type 4 cyl ohv in line
 Bore & stroke 66.5mm x 90mm
 Capacity 1250 cc
 Comp ratio 7.25:1
 Head material Cast Iron
 Port size Intake and Exhaust: 30 x 30mm
 Piston material ... Aluminum
 Piston weight 9-1/2 oz
 Timing data:
 Intake Open 11° BTDC, Close 57° ABDC
 Exhaust ...Open 52° BBDC, Close 24° ATDC
 Valve lift: 8mm
 Valve head dia:
 Intake 33mm
 Exhaust ...31mm
 Valve spring 93 lb shut, 123 lb open
 Carburation Two SU 1-1/4"

TRANSMISSION AND DRIVE TRAIN:

Ratios: TC TD, Mk II
 1 3.38 3.5
 2 1.95 2.07
 3 1.35 1.385
 4 1.0 1.0
 5

Final drive ratios: 4.875(39/8), 5.125(41/8)
 TC Only: 5.428(38/7); TD, MkII Only: 4.55(41/9)

CHASSIS

Wheelbase 94"
 Track dimension, front 45" (TC); 47-3/8" (TD)
 Track dimension, rear 45" (TC); 50" (TD)
 Shock absorber Lever
 Steering ratio 11:1 (TC); 13.75:1 (TD)
 Brakes
 Tire size 4.50 x 15, 5.50 x 15

APPROVED OPTIONAL EQUIPMENT

9.3:1 Compression ratio
 36mm Inlet valves
 34mm Exhaust valves
 150 lbs (open) valves
 AEG #122 camshaft
 1-1/2" SU carburetors
 Dual fuel pumps
 Dual fuel lines
 6 qt sump
 15" wire wheels (5.50x15) (TC)(TD,MkII equipped with disc wheels only)
 Andrex shock absorbers (MkII)

Manufacturer: MG Class: H
Model: TF 1250

DESCRIPTION:

2-Seater Roadster
Dry Weight:
ENGINE: Type 4 cyl ohv in line
Bore & stroke 66.5mm x 90mm
Capacity 1250 cc
Comp ratio 8.1:1
Head material Cast Iron
Port size Intake and Exhaust: 32 x 320mm
Piston material ... Aluminum
Piston weight 9-1/2 oz
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 45° BBDC, Close 5° ATDC
Valve lift: 8.3mm
Valve head dia:
Intake 36mm
Exhaust ...34mm
Valve spring 114 lb shut, 150 lb open
Carburation Two SU 1-1/2"

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.5
2 2.07
3 1.385
4 1.0
5
Final drive ratios: 4.55(41/9), 4.875(39/8), 5.125(41/8)

CHASSIS

Wheelbase 94"
Track dimension, front 47-3/8"
Track dimension, rear 50"
Shock absorber Girling or Armstrong piston
Steering ratio 13.15:1
Brakes
Tire size 5.50 x 15

APPROVED OPTIONAL EQUIPMENT

9.3:1 Compression ratio
AEG #122 camshaft
1-1/2" SU carburetors
Duel fuel pumps
Dual fuel lines
6 qt sump
Wire wheels

Manufacturer: MG Class: G
Model: TF 1500

DESCRIPTION:

2-Seater Roadster

Dry Weight:

ENGINE: Type 4 cyl ohv in line
Bore & stroke 72mm x 90mm
Capacity 1466 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake and Exhaust: 32 x 32mm
Piston material ... Aluminum
Piston weight
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 45° BBDC, Close 5° ATDC
Valve lift: 8.3mm
Valve head dia:
Intake 36mm
Exhaust ...34mm
Valve spring 114 lb shut, 150 lb open
Carburation Two SU 1-1/2"

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.5
2 2.07
3 1.385
4 1.0
5

Final drive ratios: 4.55(41/9), 4.875(39/8), 5.125(41/8)

CHASSIS

Wheelbase 94"
Track dimension, front 47-3/8"
Track dimension, rear 50"
Shock absorber Girling or Armstrong piston
Steering ratio 13.75:1
Brakes
Tire size 5.50 x 15

APPROVED OPTIONAL EQUIPMENT

9.3:1 Compression ratio
Wire wheels
Duel fuel pumps
Dual fuel lines
6 qt sump
Competition clutch (AHH.5457)

Manufacturer: MG Class: G
Model: Midget

DESCRIPTION:

2-Seater Roadster
Dry Weight: 1280 lbs

ENGINE: Type BMC Type A OHV 4 cyl in line
Bore & stroke 63mm x 76mm
Capacity 948 cc
Comp ratio 9:1
Head material Cast Iron
Port size Intake: 26mm, Exhaust 25mm
Piston material ... Aluminum
Piston weight
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ... Open 51° BBDC, Close 21° ATDC
Valve lift: 7.97mm
Valve head dia:
Intake 29.36mm
Exhaust ... 25.4mm
Valve spring 52 lb @ 1.2968", 85 lb @ 1.012"
Carburation Two SU H2

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.2
2 1.916
3 1.357
4 1.0
5
Final drive ratios: 3.73:1, 3.909, 4.22:1, 4.55:1, 4.875, 5.375

CHASSIS

Wheelbase 80"
Track dimension, front 45-1/4"
Track dimension, rear 44-1/4"
Shock absorber Lever
Steering ratio 2-1/3 turns
Brakes
Tire size 5.20 x 13

APPROVED OPTIONAL EQUIPMENT

Close ratio gear box (Q.2354)
Anti-roll bar (Q.2315)
Large sump (Q.2341)
Front springs (Q.2334)
Rear springs (Q.2335) or (AHA5468)
Fuel tank (Q.2336)
Exhaust manifold (Q.2345) or (AHA5448)
Electric fuel pump (H.3592)(AUA-56)
Competition exhaust system (Q.234/2347)
Crankshaft-Sebring type (Q.262/2629)
Crankshaft (AEA 440)
Alfin brake drums (Q.2491)
8" front brakes (Q.2353)
Disc brakes (Q.2337, Q.2549, Q.2552)
Pistons (2A.946)
Valve springs (2A.950, AEA401)
2 x 1-1/4" SU carburetors (Q.2343)
2 x 1-1/2" SU carburetors (Q.2504/5)
Manifold (Q.2344)
Cylinder head (Q.2302)
Oil cooler (Q.2342)

Manufacturer: MG Class: G
Model: Midget

APPROVED OPTIONAL EQUIPMENT CONT.

Cold air box (Q.2350)
Polished connecting rods (Q.2346)
Flywheel (Q.2348) or (AEA 408)
Clutch (Q.2349) or (AEJ 31)
Distributor (2A.951)
Light weight seats (Q.2609)
Wire wheels (Q.2424/31)
Large inlet valves (Q.2494)
Large exhaust valves (Q.2495)
Exhaust valves (AEA 400)
Camshaft (2A.948) In open 16°BTDC, close 56°ABDC; lift 0.31"
Ex open 51°BBDC, close 21°ATDC; clearance 0.015"
Camshaft (Q.2629) In open 20°BTDC, close 80°ABDC; lift 0.38"
Ex open 50°BBDC, close 50°ATDC; clearance 0.015"
Cylinder head Mk II
Double valve springs (Q.2628)
Limited slip differential (HAC23)
Blanking sleeve (11G176)
Valve spring collars (AEA 402-432)

Manufacturer: MG Class: F
Model: MGA (1500)

DESCRIPTION:

2-Seater Coupe and Roadster

Dry Weight: 2013 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 73mm x 89mm
Capacity 1489 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake 1-3/8"; Exhaust 1-1/16" x 1-3/16"
Piston material ... Aluminum
Piston weight 10 oz 8 drms
Timing data:
Intake Open 16° BTDC, Close 56° ABDC
Exhaust ...Open 51° BBDC, Close 21° ATDC
Valve lift: 0.357"
Valve head dia:
Intake 1.5"
Exhaust ...1.281"
Valve spring Outer 60-1/2 lbs, Inner 30 lbs (fitted)
Carburation Two Solex 1-1/2"

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.64	2.45
2	2.214	1.62
3	1.374	1.268
4	1.0	1.0
5		

Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.8

CHASSIS

Wheelbase 94"
Track dimension, front 47-1/2"
Track dimension, rear 48-3/4"
Shock absorber Armstrong Piston
Steering ratio 13.5:1
Brakes 10" Drums
Tire size 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

MG camshaft (1H.603)
Exhaust valves (1H.1025)
Oil cooler kit (AJA.5291)
9.0:1 pistons (1H.1178)
Wire wheels (AHH.8000/8001)
Competition clutch assembly (AHH.5457)
10.0:1 pistons (1H.1108)
1-3/4" bore SU carburetors and manifold
Heavy valve springs (1H.1111/1112)
Distributor (1H.1036)
20 gal fuel tank (AHH.5496)
Connecting rods (AEH.22/23)
Double fuel pump (AUA.73)
Limited slip differential (HAC.24)

Manufacturer: MG Class: F
Model: MGA (1600)

DESCRIPTION:

2-Seater Coupe and Roadster

Dry Weight: 2013 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 75.39mm x 88.9mm
Capacity 1588 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake 1-1/8" dia; Exhaust 1-3/16" x 1-3/16"
Piston material ... Aluminum
Piston weight 10 oz 8 drms
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 40° BBDC, Close 10° ATDC
Valve lift: 0.35"
Valve head dia:
Intake 1.5"
Exhaust ...1.281"
Valve spring Outer 60.5 lbs, Inner 30 lbs (fitted)
Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.637	2.45
2	2.215	1.62
3	1.373	1.268
4	1.0	1.0
5		

Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.8

CHASSIS

Wheelbase 94"
Track dimension, front 47.5"
Track dimension, rear 48.75"
Shock absorber Lever Arm
Steering ratio 13.9:1
Brakes Front: Disc (Pad area = 21.6" sq)
Rear: Drum (Lining area = 65.48" sq)
Tire size 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

MG camshaft (1H.603)
Exhaust valves (1H.1025)
Oil cooler kit (ARH.113)
Heavy valve springs (1H.1111/1112)
Wire wheels (AHH.8000/8001)
20 gal fuel tank (AHH.5496)
17 gal fuel tank
Disc brakes on rear wheels
Double fuel pump
15 gal fuel tank (AHH.5863)
Anti-roll bar
Inlet manifold (AEH.200)
1-3/4" Carburetors (AVC.780)
9.25:1 pistons (12H.173)
Connecting rods (AEH.642 or 644)
Competition clutch assembly (AHH.5457)
Limited slip differential (HAC.24)

Manufacturer: MG Class: F
Model: MGA 1600 Mk II

DESCRIPTION:

2-Seater Coupe and Roadster
Dry Weight: 2015 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 76.2mm x 88.9mm
Capacity 1622 cc
Comp ratio 8.9:1
Head material Cast Iron
Port size Intake 1-1/8" dia; Exhaust 1-13/16"
Piston material ... Aluminum
Piston weight

Timing data:

Intake Open 16° BTDC, Close 52° ABDC
Exhaust ...Open 52° BBDC, Close 21° ATDC

-or-

Intake Open 24° BTDC, Close 64° ABDC
Exhaust ...Open 59° BBDC, Close 29° ATDC

Valve lift: 0.35"

Valve head dia:

Intake 1.562" or 1.567"
Exhaust ...1.343" or 1.348"

Valve spring Outer 58-60 lbs, Inner 30-32 lbs

Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.637	2.45
2	2.214	1.62
3	1.374	1.268
4	1.0	1.0
5		

Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.875

CHASSIS

Wheelbase 94"
Track dimension, front 47.5" (disc), 47.875" (wire)
Track dimension, rear 48.75" (disc), 48.75" (wire)
Shock absorber Lever Arm
Steering ratio 13.5:1
Brakes Front: Disc, Rear: Drum
Tire size 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

Blanking sleeve (Thermo-bypass) II G 176
1-3/4" (H6) Carburetors (AVC.780)
Inlet Manifold (AEH.200)
Heavy valve springs (1H.1111/1112)
Oil cooler kit (8G.2282)
Competition clutch assembly (AHH.5457)
Close ratio gears
HD Anti-roll bar(AHH.5940)
HD Wire wheels, 60 spoke/steel rim (AHH.8001)
Fuel tank - 25 gal (AHH.5590)
Fuel tank - 18 gal (AHH.5863)
Limited slip differential (HAC.24)
Twin branch exhaust system (AH.6123)
Competition flywheel (AEH.442)
Wide overlap racing camshaft (AEH.714)

Manufacturer: MG Class: E
Model: MGA Twin Cam

DESCRIPTION:

2-Seater Coupe and Roadster

Dry Weight: 2105 lbs

ENGINE: Type 4 cyl dohc in line
Bore & stroke 75.47mm x 89mm
Capacity 1588 cc
Comp ratio 9.9:1
Head material Aluminum Alloy
Port size
Piston material ... Aluminum Alloy
Piston weight
Timing data:
Intake Open 20° BTDC, Close 50° ABDC
Exhaust ...Open 50° BBDC, Close 20° ATDC
Valve lift: 0.375"
Valve head dia:
Intake 1.59"
Exhaust ...1.44"
Valve spring
Carburation Two SU H6

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.64	2.45
2	2.214	1.62
3	1.374	1.268
4	1.0	1.0
5		

Final drive ratios: 3.9, 4.1, 4.3, 4.5, 4.8

CHASSIS

Wheelbase 94"
Track dimension, front 47.5"
Track dimension, rear 48.75"
Shock absorber Lever
Steering ratio
Brakes
Tire size 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Oil cooler (AJA.5291)
Connecting Rod (AEH.22/23)
Double fuel pump (AUA.73)
17 gal fuel tank
15 gal fuel tank
20 gal fuel tank (AHH.5496)
Limited slip differential (HAC.24)

Manufacturer: Morgan Class: H
Model: 4/4 Series II

DESCRIPTION:

2-Seater Roadster

Dry Weight: 1465 lbs

ENGINE: Type 4 cyl side valve (Ford 100E)

Bore & stroke 63.5mm x 92.5mm

Capacity 1172 cc

Comp ratio 7:1

Head material Cast Iron

Port size

Piston material ...

Piston weight

Timing data:

Intake Open 10° BTDC, Close 50° ABDC

Exhaust ...Open 44° BBDC, Close 10° ATDC

Valve lift: 0.2893", 0.2904"

Valve head dia:

Intake 1.16"

Exhaust ...1.06"

Valve spring

Carburation One Solex 21mm choke (Down draught)

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.93

2 2.205

3 1.0

4

5

Final drive ratios: 4.4

CHASSIS

Wheelbase 96"

Track dimension, front 47"

Track dimension, rear 47"

Shock absorber

Steering ratio 2-1/4

Brakes

Tire size 5.00 x 16, 5.20 x 15 (wire wheels)

APPROVED OPTIONAL EQUIPMENT

Aluminum cylinder head (8:1)

Dual 1-1/4" carburetors (SU)

Wire wheels (15")

Manufacturer: Morgan Class: G
Model: 4/4 Series III

DESCRIPTION:

2-Seater Roadster
Dry Weight: 1450 lbs

ENGINE: Type 4 cyl ohv in line (Ford 105E)
Bore & stroke 80.96mm x 48.41mm
Capacity 996 cc
Comp ratio 8.9:1
Head material Cast Iron
Port size Intake-1.283", Exhaust-1.088"
Piston material ... Aluminum
Piston weight 0.876 lbs (with rings)
Timing data:
Intake Open 10° BTDC, Close 50° ABDC
Exhaust ...Open 44° BBDC, Close 10° ATDC
Valve lift: 0.2893", 0.2904"
Valve head dia:
Intake 1.370"
Exhaust ...1.192"
Valve spring
Carburation One or two Solex DD

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 18.1
2 10.54
3 6.21
4 4.4
5

Final drive ratios: 4.4

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber
Steering ratio 2-1/4
Brakes Girling hydraulic 9 in drums
Tire size 5.20 x 15, 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

Disc brakes on front wheels

Manufacturer: Morgan Class: E
Model: Plus 4 (1954-1957)

DESCRIPTION:

2-Seater Steel-bodied Roadster
Dry Weight: 1900 lbs

ENGINE: Type 4 cyl ohv in line (TR2-TR3)
Bore & stroke 83mm x 92mm
Capacity 1991 cc
Comp ratio 8.5:1, 9.2:1
Head material Cast Iron
Port size Intake-1.5", Exhaust-1.25"x1.06"
Piston material ... Aluminum Alloy
Piston weight 22 oz complete
Timing data:
Intake Open 15° BTDC, Close 55° ABDC
Exhaust ...Open 55° BBDC, Close 15° ATDC
Valve lift: 0.376", 0.425"
Valve head dia:
Intake 1-9/16"
Exhaust ...1-5/16"
Valve spring 166 lbs open
Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 12.85 13.5
2 7.38 8.0
3 5.24 5.4
4 3.73 4.1
5
Final drive ratios: 3.73(41/11), 4.1(41/10)

CHASSIS

Wheelbase 96"
Track dimension, front 47"
Track dimension, rear 47"
Shock absorber
Steering ratio 1-3/4 turns
Brakes
Tire size 5.00/5.25x16, 5.50x16,
5.60x15(wire wheels)

APPROVED OPTIONAL EQUIPMENT

15" Dunlop wire wheels
11" Disc brakes on front wheels
Electric fuel pump (in addition to mechanical pump)
Oversize liners (122166)
Oversize pistons (122208)
Cylinder head gasket (2054481)

Manufacturer: Morgan Class: C and E
Model: Plus 4 (1957-1961)

DESCRIPTION:

2-Seater Steel-bodied Roadster

Dry Weight:

ENGINE: Type 4 cyl ohv in line (TR3)
Bore & stroke 83mm x 92mm (86mm x 92mm)
Capacity 1991 cc (2196 cc)
Comp ratio 8.5:1, 9.2:1
Head material Cast Iron
Port size Intake-1.5", Exhaust-1.25"x1.06"
Piston material ... Aluminum Alloy
Piston weight 22 oz complete
Timing data:

Intake Open 15° BTDC, Close 55° ABDC
Exhaust ...Open 55° BBDC, Close 15° ATDC

-or-

Intake Open 43° BTDC, Close 76° ABDC
Exhaust ...Open 76° BBDC, Close 43° ATDC

Valve lift: 0.376" or 10.16mm

Valve head dia:

Intake 1-9/16"

Exhaust ...1-5/16"

Valve spring 166 lbs open

Carburation Two SU H6

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	12.85	13.5
2	7.38	8.0
3	5.24	5.4
4	3.73	4.1
5		

Final drive ratios: 3.73, 4.1

CHASSIS

Wheelbase 96"

Track dimension, front 47"

Track dimension, rear 47"

Shock absorber

Steering ratio 1-3/4 turns

Brakes

Tire size 5.00/5.25x16, 5.50x16,
5.60x15(wire wheels), 5.00x15

APPROVED OPTIONAL EQUIPMENT (Allowed in both Class C and E)

15" Dunlop wire wheels

11" Disc brakes on front wheels

Electric fuel pump (in addition to mechanical pump)

Oversize liners (122166)

Oversize pistons (122208)

Cylinder head gasket (2054481)

Bore becomes 86mm

APPROVED OPTIONAL EQUIPMENT (Only permitted in Class C, prohibited in class E)

4 Branch exhaust system

Special inlet manifold

Aluminum sump

Oil cooler

High-lift camshaft

Competition push rods

Competition valve springs

Aluminum bodywork (Dry weight becomes 1764 lbs)

2 Weber 42 DCOE or 45 DCOE Carburetors

Manufacturer: NSU Class: H
Model: Sports Prinz

DESCRIPTION:

Bertone Coupe (Steel)
Dry Weight: 1065 lbs

ENGINE: Type 2 cyl (ohc)
Bore & stroke 75mm x 66mm (76mm x 66mm)
Capacity 583cc (598cc)
Comp ratio 7.6:1, 8.1:1
Head material Aluminum Alloy
Port size Intake 28.5mm, Exhaust 28mm
Piston material ... Aluminum Alloy
Piston weight 416 grams, 341 grams
Timing data:
Intake Open 50° BTDC, Close 70° ABDC
Exhaust ...Open 70° BBDC, Close 50° ATDC
-or-
(Intake Open 48° BTDC, Close 72° ABDC)
(Exhaust ...Open 78° BBDC, Close 42° ATDC)
Valve lift: 7.5mm (10.5mm)
Valve head dia:
Intake 35mm
Exhaust ...32mm
Valve spring Outer 35Kg (38.6Kg), Inner 15.5Kg (16.3Kg)
Carburation One Bing 7/28/20 (Solex 34 PCI)

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 4.14
2 2.21
3 1.41
4 1.0
5

Final drive ratios: 2.31

CHASSIS

Wheelbase 78.25"
Track dimension, front 47.25"
Track dimension, rear 47.25"
Shock absorber Telescopic
Steering ratio 16.85:1 (16.15:1)
Brakes Drums - total lining area - 404 cm sq
Tire size 4.40 x 12 (4.80 x 12)

APPROVED OPTIONAL EQUIPMENT

1962 Model - All specifications same as above, except as noted in parenthesis

Manufacturer: Panhard Class: H
Model: Dyna Junior

DESCRIPTION:

2-Seater Convertible
Dry Weight: 1400 lbs

ENGINE: Type 2 cyl ohv opposed, air-cooled
Bore & stroke 85mm x 75mm
Capacity 850 cc
Comp ratio 7.8:1
Power output 40 bhp @ 5000 RPM
Torque 47 ft/lb @ 4000 RMP
Carburation Two dual throat DD Solex

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	16.33
2	10.35
3	6.33
4	4.55
5	

Final drive ratios: 4.55

CHASSIS

Wheelbase	83.8"
Track dimension, front	48"
Track dimension, rear	
Shock absorber	
Steering ratio	
Brakes	Lockheed Hydraulic
Tire size	145x400, 4.50x16, 5.20x15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Porsche Class: G
Model: 356/1300

DESCRIPTION:

Steel Coupe and Cabriolet

Dry Weight:

ENGINE: Type 4 cyl opposed
Bore & stroke 3.15" x 2.52"
Capacity 1286 cc
Comp ratio 6.5:1, 7.5:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm (at inner valve seat)
Piston material ... Aluminum Alloy
Piston weight 12.5 oz
Timing data:
Intake Open 2°30' BTDC, Close 37°30' ABDC
Exhaust ...Open 37°30' BBDC, Close 2°30' ATDC
Valve lift: Intake 0.35", Exhaust 0.32"
Valve head dia:
Intake 1.5"
Exhaust ...1.2"
Valve spring Outer 83 lb @ 1.25", Inner 33 lb @ 1.20" (+/-10%)
Carburation Two Solex 32PBI

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.35	11.34	13.33
2	17.30	16.31	18.29
3	23.26	22.27	24.25
4	27.22	25.24	26.23
5			

Final drive ratios: 4.375(35/8), 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 50.8"
Track dimension, rear 49.2"
Shock absorber Fichtel and Sachs, Boge
Steering ratio 14.15:1
Brakes
Tire size 5.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Porsche
Model: 356/1300S (Super)

Class: G

DESCRIPTION:

Steel Coupe and Cabriolet

Dry Weight:

ENGINE: Type 4 cyl opposed
Bore & stroke 2.94" x 2.92"
Capacity 1290cc
Comp ratio 8.2:1, 9.2:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm (at inner valve seat)
Piston material ... Aluminum Alloy
Piston weight 12.5 oz
Timing data:
Intake Open 19° BTDC, Close 54° ABDC
Exhaust ...Open 54° BBDC, Close 19° ATDC
Valve lift: Intake 0.40", Exhaust 0.36"
Valve head dia:
Intake 1.5"
Exhaust ...1.2"
Valve spring Outer 83 lb @ 1.25", Inner 33 lb @ 1.20" (+/-10%)
Carburation Two Solex 32PBI or 40PBIC

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.35	11.34	13.33
2	17.30	16.31	18.29
3	23.26	22.27	24.25
4	26.23	27.22	25.24
5			

Final drive ratios: 4.375(35/8), 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 50.8"
Track dimension, rear 49.2"
Shock absorber Telescopic
Steering ratio 14.15:1
Brakes
Tire size 5.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Porsche Class: G
Model: 356A/1300-1300S

DESCRIPTION:

Steel Coupe and Cabriolet

Dry Weight:

ENGINE: Type 4 cyl opposed
Bore & stroke 2.94" x 2.92"
Capacity 1290cc
Comp ratio 6.5:1, 7.5:1, 8.2:1, 9.2:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm (at inner valve seat)
Piston material ... Aluminum Alloy
Piston weight 12.5 oz
Timing data:
Intake Open 15° BTDC, Close 50° ABDC
Exhaust ...Open 50° BBDC, Close 15° ATDC
-or-
Intake Open 5° BTDC, Close 43° ABDC
Exhaust ...Open 43° BBDC, Close 5° ATDC
Valve lift: Intake 0.337", Exhaust 0.319"
or Intake 0.40", Exhaust 0.36"
Valve head dia:
Intake 1.5"
Exhaust ...1.2"
Valve spring Outer 83 lb @ 1.25", Inner 33 lb @ 1.20" (+/-10%)
Carburation Two Solex 32PBI, 32PBIC, or 40PBIC

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.35	11.34	13.33
2	17.30	16.31	18.29
3	23.26	22.27	24.25
4	27.22	25.24	26.23
5			

Final drive ratios: 4.375(35/8), 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 51.4"
Track dimension, rear 50.1"
Shock absorber Boge, Koni, Fichtel and Sachs
Steering ratio 16:1
Brakes
Tire size 5.60 x 15, 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Compensating spring (rear axle)
Limited slip differential
80 litre fuel tank
Bucket sports seats
Center-lock wheels

Manufacturer: Porsche Class: F
Model: 356/1500 (Normal)

DESCRIPTION:

Steel Coupe, Cabriolet and Roadster
Dry Weight:

ENGINE: Type 4 cyl opposed
Bore & stroke 3.15" x 2.91"
Capacity 1488 cc
Comp ratio 7:1, 8:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm
Piston material ... Aluminum Alloy
Piston weight 12.5 oz
Timing data:
Intake Open 2°30' BTDC, Close 37°30' ABDC
Exhaust ...Open 37°30' BBDC, Close 2°30' ATDC
Valve lift: 0.32"
Valve head dia:
Intake 1.5"
Exhaust ...1.2"
Valve spring Outer 83 lb @ 1.25", Inner 33 lb @ 1.20" (+/-10%)
Carburation Two Solex 32PBI or 40PBIC

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 11.35 11.34 13.33
2 17.30 16.31 18.29
3 23.26 22.27 24.25
4 27.22 25.24 26.23
5

Final drive ratios: 4.375(35/8), 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 50.8"
Track dimension, rear 49.2"
Shock absorber Fichtel and Sachs, Boge
Steering ratio 14.15:1
Brakes
Tire size 5.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Porsche Class: D
Model: 356/1500S (Super)

DESCRIPTION:

Steel Coupe, Cabriolet and Roadster

Dry Weight:

ENGINE: Type 4 cyl opposed
Bore & stroke 3.15" x 2.91"
Capacity 1488 cc
Comp ratio 8.2:1, 8.7:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm
Piston material ... Aluminum Alloy
Piston weight 12.5 oz

Timing data:

Intake Open 19° BTDC, Close 54° ABDC

Exhaust ...Open 54° BBDC, Close 19° ATDC

Valve lift:

Valve head dia:

Intake 1.5"

Exhaust ...1.2"

Valve spring Outer 83 lb @ 1.25", Inner 33 lb @ 1.20" (+/-10%)

Carburation Two Solex 40PBIC

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.35	11.34	13.33
2	17.30	16.31	18.29
3	23.26	22.27	24.25
4	27.22	25.24	26.23
5			

Final drive ratios: 4.375(35/8), 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 50.8"
Track dimension, rear 49.2"
Shock absorber Fichtel and Sachs, Boge
Steering ratio 14.15:1
Brakes
Tire size 5.00 x 16

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Porsche Class: B
 Model: 356A/1500GS, 1500GT "Carrera"

DESCRIPTION:

Steel Coupe and Roadster
 (Some have aluminum doors and deck lids)

ENGINE: Type 4 cyl opposed - 4 ohc
 Bore & stroke 3.35" x 2.59"
 Capacity 1498 cc
 Comp ratio 9:1, 10:1
 Head material Aluminum Alloy
 Port size Intake 45mm (1.772"), Exhaust 38mm (1.495")
 Piston material ... Aluminum Alloy
 Piston weight 17.07 oz (with rings)
 Timing data: (Intake cam lobe: 0.505")
 Intake Open 38° BTDC, Close 78° ABDC
 Exhaust ...Open 78° BBDC, Close 38° ATDC
 Valve lift:
 Valve head dia:
 Intake 1.89"
 Exhaust ...1.615"
 Valve spring Outer 84 lb @ 1.062" (37Kg @ 27.0mm), +/-10%
 Inner 58 lb @ 1.000" (26Kg @ 25.4mm), +/-10%
 Carburation Two Solex 40PJJ

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11.34	13.33	11.35
2	17.30	16.31	18.29
3	22.27	24.25	23.26
4	25.24	26.23	27.22
5			

Final drive ratios: 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
 Track dimension, front 51.4"
 Track dimension, rear 50.1"
 Shock absorber Telescopic
 Steering ratio 16:1
 Brakes
 Tire size 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Carburetor velocity stacks
 Two Solex 40PJJ-4 Carburetors
 6V or 12V electrical system
 Compensating spring (rear axle)
 Two Weber 40 DCM, DCM1, DCM2 Carburetors
 Ventilated brake backing plates
 80 Litre fuel tank
 Induction venturi
 Bucket sports seats
 Center-lock wheels
 Stabilizer-16mm
 Sodium-cooled intake valves
 Limited-slip differential
 Light-weight wheels

Note: Flywheel weight -
 14.0 lbs
 (7.71 lb in Roller-crank engines)
 (17.0 lb in Plain bearing engines)

Manufacturer: Porsche Class: F
Model: 356A-356B/1600 (Normal)

DESCRIPTION:

Steel Coupe, Cabriolet, Roadster and Hard Top

Dry Weight:

ENGINE: Type 4 cyl ohv opposed
Bore & stroke 3.25" x 2.91"
Capacity 1582 cc
Comp ratio 7.5-8.0:1
Head material Aluminum Alloy
Port size Intake 35mm, Exhaust 28mm
Piston material ... Aluminum Alloy
Piston weight 12.34 oz (with rings)
Timing data:
Intake Open 5° BTDC, Close 43° ABDC
Exhaust ...Open 43° BBDC, Close 5° ATDC
Valve lift: Intake: 0.334", Exhaust 0.323"
Valve head dia:
Intake 1.5"
Exhaust ...1.22"
Valve spring Outer 83.7 lb @ 1.247" (38.2Kg @ 31.7mm)
Inner 34.2 lb @ 1.185" (15.5Kg @ 30.2mm)
Carburation Two Zenith 32NDIX or Pallas/Zenith NFIX

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11:34	12:33			
2	17:30	16:31	15:32	18:29	
3	23:26	22:27	20:27	18:29	
4	27:22	25:24	24:25	23:26	20:27
5					

Final drive ratios: 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 51.4"
Track dimension, rear 50.1"
Shock absorber Telescopic
Steering ratio 16:1
Brakes Drum type, total lining area = 121.4 in sq
Tire size 5.90 x 15, 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

Limited-slip differential
80 Litre fuel tank
Induction venturi
Center-lock wheels
Bucket sports seats
Compensating spring (rear axle)
Light-weight wheels
HD Sway bar (16mm)
Large front brakes (60mm wth ventilated backing plates)
Magnetic oil filter with centrifugal valve
Valve cover with ball check
Large oil pump
Centrifugal oil pickup

Notes: No Super pistons allowed in 1600 Normal
No Super-90 pistons allowed in 1600 Super
Connecting Rod weights: 1600 Normal = 14.98 oz
1600 Super = 15.16 oz
1600 Super-90 = 16.57 oz

Flywheel weights: 1600 Normal, Super, and Super-90 = 17.79 lbs

Manufacturer: Porsche Class: D
 Model: 356A-356B/1600S (Super)

DESCRIPTION:

Steel Coupe, Cabriolet, Roadster and Hard Top

Dry Weight:

ENGINE: Type 4 cyl ohv opposed
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Comp ratio 8.5-9.0:1
 Head material Aluminum Alloy
 Port size Intake 35mm, Exhaust 28mm
 Piston material ... Aluminum Alloy
 Piston weight 12.52 oz
 Timing data:
 Intake Open 15° BTDC, Close 50° ABDC
 Exhaust ...Open 50° BBDC, Close 15° ATDC
 -or-
 Intake Open 19° BTDC, Close 54° ABDC (Roller Crank)
 Exhaust ...Open 54° BBDC, Close 19° ATDC (engines only)
 Valve lift: Intake: 0.378", Exhaust 0.364"
 Valve head dia:
 Intake 1.5"
 Exhaust ...1.22"
 Valve spring Outer 83.7 lb @ 1.247" (38.2Kg @ 31.7mm)
 Inner 34.2 lb @ 1.185" (15.5Kg @ 30.2mm)
 Carburation Two Pallas/Zenith NFIX

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11:34	12:33			
2	17:30	16:31	15:32	18:29	
3	23:26	22:27	20:27	18:29	
4	27:22	25:24	24:25	23:26	20:27
5					

Final drive ratios: 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
 Track dimension, front 51.4"
 Track dimension, rear 50.1"
 Shock absorber Telescopic
 Steering ratio 16:1
 Brakes Drum type, total lining area = 121.4 in sq
 Tire size 5.90 x 15, 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

Limited-slip differential 80 Litre fuel tank
 Induction venturi Center-lock wheels
 Bucket sports seats
 Compensating spring (rear axle)
 Light-weight wheels
 HD Sway bar (16mm)
 Large front brakes (60mm wth ventilated backing plates)
 Magnetic oil filter with centrifugal valve
 Valve cover with ball check
 Large oil pump
 Centrifugal oil pickup
 Notes: No Super pistons allowed in 1600 Normal
 No Super-90 pistons allowed in 1600 Super
 Connecting Rod weights: 1600 Normal = 14.98 oz
 1600 Super = 15.16 oz
 1600 Super-90 = 16.57 oz
 Flywheel weights: 1600 Normal, Super, and Super-90 = 17.79 lbs

Manufacturer: Porsche Class: B
 Model: 356A-356B/1600GS & 1600GT

DESCRIPTION:

2-Seater Steel Coupe and Roadster

(Some have aluminum doors and deck lids)

ENGINE: Type 4 cyl opposed (4 ohc)
 Bore & stroke 3.45" x 2.6"
 Capacity 1588 cc
 Comp ratio 9.8:1
 Head material Aluminum Alloy
 Port size Intake 1.773", Exhaust 1.495"
 Piston material ... Aluminum Alloy
 Piston weight 1.035 lbs
 Timing data:
 Intake Open 40° BTDC, Close 80° ABDC
 Exhaust ...Open 80° BBDC, Close 40° ATDC
 Valve lift: Intake: 0.505", Exhaust 0.394"
 Valve head dia:
 Intake 1.89"
 Exhaust ...1.615"
 Valve spring Outer 84 lb @ 1.062" (37Kg @ 27.0mm), +/-10%
 Inner 58 lb @ 1.000" (26Kg @ 25.4mm), +/-10%
 Carburation Two Solex 44 PII-4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11:34	12:33					
2	17:30	16:31	15:32	18:29			
3	22:27	20:27	18:29	23:26			
4	25:24	23:26	27:22	27:23	23:26	20:27	24:25
5							

Final drive ratios: 6:31, 7:31, 7:34

CHASSIS

Wheelbase 82.7"
 Track dimension, front 51.4"
 Track dimension, rear 50.1"
 Shock absorber Telescopic
 Steering ratio 16:1
 Brakes Drum type, total lining area = 149 in sq
 Tire size 5.90 x 15, 165 x 15

APPROVED OPTIONAL EQUIPMENT

Carburetor velocity stacks
 Two Solex 40PJJ-4 Carburetors
 6V or 12V electrical system
 Compensating spring (rear axle)
 Two Weber 40 DCM, DCM1, DCM2 Carburetors
 Ventilated brake backing plates
 80 Litre fuel tank
 Induction venturi
 Bucket sports seats
 Center-lock wheels
 Stabilizer-16mm
 Sodium-cooled intake valves
 Limited-slip differential
 Light-weight wheels

Note: Flywheel weight -
 14.0 lbs, 7.71 lb - Roller-crank engines)
 17.0 lb - Plain bearing engines

Manufacturer: Porsche Class: C
Model: 356B/1600 Super 90

DESCRIPTION:

Steel Coupe, Cabriolet, Roadster and Hard Top

Dry Weight:

ENGINE: Type 4 cyl ohv opposed
Bore & stroke 3.25" x 2.91"
Capacity 1582 cc
Comp ratio 9.0-9.5:1
Head material Aluminum Alloy
Port size Intake 1.458", Exhaust 1.11" @ inner valve seat
Piston material ... Aluminum Alloy
Piston weight 13.08 oz
Timing data:
Intake Open 15° BTDC, Close 50° ABDC
Exhaust ...Open 50° BBDC, Close 15° ATDC
-or-
Intake Open 19° BTDC, Close 54° ABDC (Roller Crank)
Exhaust ...Open 54° BBDC, Close 19° ATDC (engines only)
Valve lift: Intake: 0.378", Exhaust 0.364"
Valve head dia:
Intake 1.575"
Exhaust ...1.22"
Valve spring Outer 83.7 lb @ 1.247" (38.2Kg @ 31.7mm)
Inner 34.2 lb @ 1.185" (15.5Kg @ 30.2mm)
Carburation Two Solex 40 PII-4

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	11:34	12:33			
2	17:30	16:31	15:32	18:29	
3	23:26	22:27	20:27	18:29	
4	27:22	25:24	24:25	23:26	20:27
5					

Final drive ratios: 4.428(31/7), 4.857(34/7), 5.167(31/6)

CHASSIS

Wheelbase 82.7"
Track dimension, front 50.8"
Track dimension, rear 49.2"
Shock absorber Telescopic
Steering ratio 16:1
Brakes Drum type, total lining area = 121.4 in sq
Tire size 5.90 x 15, 165 x 15

APPROVED OPTIONAL EQUIPMENT

Limited-slip differential 80 Litre fuel tank
Induction venturi Center-lock wheels
Bucket sports seats Compensating spring (rear axle)
Light-weight wheels
HD Sway bar (16mm)
Large front brakes (60mm wth ventilated backing plates)
Magnetic oil filter with centrifugal valve
Valve cover with ball check
Large oil pump
Centrifugal oil pickup

Notes: No Super pistons allowed in 1600 Normal
No Super-90 pistons allowed in 1600 Super
Connecting Rod weights: 1600 Normal = 14.98 oz
1600 Super = 15.16 oz
1600 Super-90 = 16.57 oz

Flywheel weights: 1600 Normal, Super, and Super-90 = 17.79 lbs

Manufacturer: Sunbeam Class: F
Model: Alpine Series I and II

DESCRIPTION:

2-Seater Roadster (Steel)

Dry Weight: 2082 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 3.11" x 3.0" (3.21" x 3.0" Series II)
Capacity 1494 cc (1592 cc Series II)
Comp ratio 9.2:1 (9.1:1 Series II)
Head material Aluminum Alloy
Port size Intake 1.31", Exhaust 1.06"
Piston material ... Aluminum Alloy
Piston weight 1.1 lbs

Timing data:

Intake Open 14° BTDC, Close 52° ABDC

Exhaust ...Open 56° BBDC, Close 10° ATDC

-or-

Intake Open 25° BTDC, Close 59° ABDC

Exhaust ...Open 63° BBDC, Close 21° ATDC

Valve lift: Intake 0.366", Exhaust 0.364"

Valve head dia:

Intake 1.436"/1.432"

Exhaust ...1.176"/1.172"

Valve spring Outer 56 lbs, Inner 25 lbs fitted

Carburation Two Zenith 36 WIP2

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 3.35 2.97

2 2.14 1.90

3 1.39 1.24

4 1.0 1.0

5

Final drive ratios: 3.89, 4.22, 4.55, 4.778, 5.22

CHASSIS

Wheelbase 86"

Track dimension, front 51"

Track dimension, rear 48.65"

Shock absorber Lever arm (rear), Telescopic (front)

Steering ratio 14.5:1

Brakes Disc (front) - Lining area = 20.6" sq,

Drum (rear) - Lining area = 60" sq

Tire size 5.60 x 13, 5.90 x 13

APPROVED OPTIONAL EQUIPMENT

Overdrive

Knock-off wire wheels

Camshaft (#1208620)

Flywheel (#1208623)

Cylinder head (#1208624) or (S.233193)

Front springs (#X66941) or (S.233185)

Front anti-roll bar (#X66774) or (S.2331xx)

25 gal fuel tank

Manufacturer: Sabra Class: F

Model:

DESCRIPTION:

2-Seater Convertible

Dry Weight: 1765 lbs

ENGINE: Type 4 cyl ohv in line (Ford Consul)

Bore & stroke 82.6mm x 79.5mm

Capacity 1703 cc

Comp ratio 8.8-9.5:1

Head material Cast Iron

Port size Inlet 1.5", Exhaust 1.01"

Piston material ... Aluminum

Piston weight 4.18 - 4.22

Timing data:

Intake Open 17° BTDC, Close 51° ABDC

Exhaust ...Open 49° BBDC, Close 19° ATDC

Valve lift: 0.349"

Valve head dia:

Intake 1.625"

Exhaust ...1.187"

Valve spring 106 lb @ 1.24"

Carburation Zenith Single DD

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1 2.53

2 1.71

3 1.23

4 1.0

5

Final drive ratios: 3.55, 3.9, 4.4

CHASSIS

Wheelbase 90"

Track dimension, front 48"

Track dimension, rear 48"

Shock absorber Telescopic

Steering ratio 2-1/2 turns

Brakes Disc front, drum rear

Tire size 155 x 15

APPROVED OPTIONAL EQUIPMENT

Two SU 1-1/2" carburetors

High-lift camshaft (200902)

Light flywheel (200779)

Wire wheels (200779)

15 gal fuel tank

Manufacturer: SIATA Class: D
Model: 208 S

DESCRIPTION:

Coupe and Spyder
Dry Weight:

ENGINE: Type V8 ohv
Bore & stroke 72mm x 61.3mm
Capacity 1996 cc
Comp ratio 8.5:1
Head material Aluminum Alloy
Port size
Piston material ... Aluminum Alloy
Piston weight
Timing data:
Intake Open 12° BTDC, Close 31° ABDC
Exhaust ...Open 39° BBDC, Close 10° ATDC
Valve lift: 8.5mm
Valve head dia:
Intake 33mm
Exhaust ...31mm
Valve spring
Carburation Two Weber 36 DCF3

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.69
2 1.77
3 1.26
4 1.0
5
Final drive ratios: 4.10(41/10), 4.45(40/9)

CHASSIS

Wheelbase 2400mm
Track dimension, front 1290mm
Track dimension, rear 1230mm
Shock absorber Telescopic RIV
Steering ratio 16.4:1
Brakes
Tire size 165 x 400, 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Manufacturer: Triumph Class: E
Model: TR-2, TR-3, TR-3A

DESCRIPTION:

2-Seater Steel Roadster
Dry Weight: 2000 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 3.268" x 3.622"
Capacity 1991 cc
Comp ratio 8.5:1, 9.2:1
Head material Cast Iron
Port size Intake 1.5" dia, Exhaust 1.25" x 1.06"
Piston material ... Alloy
Piston weight 1.434 lbs (with pin)
Timing data:
Intake Open 15° BTDC, Close 55° ABDC
Exhaust ...Open 55° BBDC, Close 15° ATDC
Valve lift: 0.376"
Valve head dia:
Intake 1.564"
Exhaust ...1.304"
Valve spring Inner & Outer: 166 lbs at open position
Carburation Two SU H4 or SU H6

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.38
2 2.00 2.64 (od) (sic-2.64 should have been 1.64)
3 1.325 1.09 (od)
4 1.00 0.82 (od)
5
Final drive ratios: 3.7(37/10), 4.1(41/10)

CHASSIS

Wheelbase 88"
Track dimension, front 45"
Track dimension, rear 45-1/2"
Shock absorber
Steering ratio 12:1
Brakes
Tire size 5.50 x 15, 155 x 15, 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Overdrive
Undershield
Aluminum Sump
Competition front spring
Anti-roll bar (Triumph part #508397)
Oversize pistons and liners: (Bore becomes 86mm)
Pistons: (#122208)
Liners: (#122166)
Cyl head casket: (#205481)
Wire wheels-60 spoke

Manufacturer: Triumph Class: E
Model: TR-4

DESCRIPTION:

2-Seater Steel Roadster
Dry Weight: 2072 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 86mm x 92mm
Capacity 2138 cc
Comp ratio 9.0
Head material Cast Iron
Port size Intake 1-5/8" dia, Exhaust 1-3/8" x 1-3/16"
Piston material ... Alloy
Piston weight 1.44 lbs (with pin)

Timing data:

Intake Open 15° BTDC, Close 55° ABDC
Exhaust ...Open 55° BBDC, Close 15° ATDC

-or-

Intake Open 31° BTDC, Close 67° ABDC
Exhaust ...Open 70° BBDC, Close 28° ATDC

Valve lift: 0.376" or 0.411"

Valve head dia:

Intake 1.56"
Exhaust ...1.30"

Valve spring Outer: 125lbs, Inner 69.5lbs, Aux Inner (Ex) 21.4lbs

Carburation Two SU H6

TRANSMISSION AND DRIVE TRAIN:

Ratios:

1	3.139
2	2.01
3	1.325
4	1.00
5	

Final drive ratios: 3.7(37/10), 4.1(41/10), 4.3, 4.625

CHASSIS

Wheelbase 88"
Track dimension, front 49" (disc), 50" (wire)
Track dimension, rear 48" (disc), 49" (wire)
Shock absorber Front-telescopic, Rear-lever
Steering ratio 12:1
Brakes
Tire size 5.50 x 15, 155 x 15, 5.90 x 15

APPROVED OPTIONAL EQUIPMENT

Competition valve springs (02065-TR4)
Overdrive (211020)
Wire wheels (60 spoke) (506169)
Aluminum sump (502126)
Competition front springs (201899)
Anti-roll bar (02052-TR4)
Undersize pistons and liners (1991 cc)
HD competition clutch (02051-TR4)
Oil radiator (02053-TR4)
Rear shock absorber kit (telescopic) (02054-TR4)
Limited slip differential (02055-TR4)
Competition push rods (02069-TR4)
Rear suspension torque rods (02056-TR4)
Competition exhaust system (02070-TR4)
HD Comp. valves
Cast alloy wheels (02057-TR4)
HD Steel comp. wheels (02058-TR4)

Manufacturer: Turner Class: D
Model: Climax

DESCRIPTION:

Open 2-Seater, Fiberglass body
Dry Weight: 1204 lbs

ENGINE: Type 4 cyl ohc in line
Bore & stroke 2.85" x 2.625"
Capacity 1097 cc
Comp ratio 9.8:1
Head material Aluminum Alloy
Port size Intake 1-1/8", Exhaust 1-1/8"
Piston material ... Aluminum Alloy
Piston weight
Timing data:
Intake Open 12° BTDC, Close 56° ABDC
Exhaust ...Open 56° BBDC, Close 12° ATDC
Valve lift: 0.310"
Valve head dia:
Intake 1.350"
Exhaust ...1.20"
Valve spring Outer 67 lb or 110.7lb, Inner 25lb or 45.3lb
Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 2.25
2 1.67
3 1.23
4 1.0
5
Final drive ratios: 4.2, 4.3, 4.55, 4.875, 5.125

CHASSIS

Wheelbase
Track dimension, front
Track dimension, rear
Shock absorber Lever (front), telescopic (rear)
Steering ratio 2-1/3 turns
Brakes
Tire size 5.20 x 15, 5.60 x 13

APPROVED OPTIONAL EQUIPMENT

Oil radiator
Sports camshaft with following timing:
Intake Open 30° BTDC, Close 60° ABDC
Exhaust ...Open 60° BBDC, Close 30° ATDC
Lift..... 0.360"
Z.F. limited slip differential
Borg Warner limited slip differential
Anti-roll bars
Wire wheels with knock-off hubs

Manufacturer: Turner Class: F
Model: 950 Sports

DESCRIPTION:

Open 2-Seater, Fiberglass body
Dry Weight: 1176 lbs

ENGINE: Type BMC 'A' 4 cyl ohc in line
Bore & stroke 63mm x 76mm
Capacity 948 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake 0.985", Exhaust 0.905"
Piston material ... Aluminum Alloy
Piston weight 5 oz
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 40° BBDC, Close 10° ATDC
Valve lift: 0.265"
Valve head dia:
Intake 1.075"
Exhaust ...1.0"
Valve spring Standard A-35
Carburation Two SU H1

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.628 2.25
2 2.374 1.67
3 1.412 1.23
4 1.0 1.0
5

Final drive ratios: 3.75, 4.2, 4.3, 4.55, 4.875, 5.125, 5.375

CHASSIS

Wheelbase 80.5"
Track dimension, front 45.5"
Track dimension, rear 44.75"
Shock absorber Lever (front), telescopic (rear)
Steering ratio 2-1/3 turns
Brakes Drums, 7 x 1.25"
Tire size 5.20 x 15, 5.20 x 13

APPROVED OPTIONAL EQUIPMENT

9.3 Compression pistons (flat top)
Sports camshaft with timing as follows:
Intake Open 50° BTDC, Close 70° ABDC
Exhaust ...Open 78° BBDC, Close 42° ATDC
Alexander alloy head
9" disc brakes on front
8 x 1.5" drum brakes on rear
SU H2 Carburetors
SU H4 Carburetors
Oil radiator
Wire wheels with knock-off hubs
Anti-roll bars
Heavy duty valve springs
Z.F. Limited slip differential

Manufacturer: TVR Class: E
Model: Grantura (MGA 1600)

DESCRIPTION:

2-Seater Coupe-Fiberglass
Curb Weight: 14 cwt

ENGINE: Type MGA 1600 4 cyl ohv in line
Bore & stroke 75.39mm x 88.9mm
Capacity 1588 cc
Comp ratio 8.3:1
Head material Cast Iron
Port size Intake 1-1/8" dia; Exhaust 1-3/16" x 1-3/16"
Piston material ... Aluminum
Piston weight 10 oz 8 drms
Timing data:
Intake Open 5° BTDC, Close 45° ABDC
Exhaust ...Open 40° BBDC, Close 10° ATDC
Valve lift: 0.35"
Valve head dia:
Intake 1.5"
Exhaust ...1.281"
Valve spring Outer 60.5 lbs, Inner 30 lbs (fitted)
Carburation Two SU H4

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.637
2 2.215
3 1.373
4 1.0
5

Final drive ratios: 4.3, 4.55, 4.875

CHASSIS

Wheelbase 84"
Track dimension, front 52"
Track dimension, rear 52"
Shock absorber Telescopic
Steering ratio 2 turns
Brakes Front: Disc, Rear: Drum (11 x 1-3/4")
Tire size 5.60 x 15

APPROVED OPTIONAL EQUIPMENT

None

Manufacturer: Volvo Class: E
Model: P1800

DESCRIPTION:

2-Seater Coupe (Steel)
Dry Weight: 2480 lbs

ENGINE: Type 4 cyl ohv in line
Bore & stroke 3.313" x 3.15"
Capacity 1780 cc
Comp ratio 9.5-10.5:1
Head material Cast Iron
Port size Intake 1.49", Exhaust 1.41"
Piston material ... Aluminum
Piston weight 15-18 oz
Timing data:
Intake Open 24° BTDC, Close 64° ABDC
Exhaust ...Open 62° BBDC, Close 26° ATDC
Valve lift: 0.350" or 0.400"
Valve head dia:
Intake 1.575"
Exhaust ...1.502"
Valve spring 145-150 lbs @ 1.20"
Carburation Two SU HS6

TRANSMISSION AND DRIVE TRAIN:

Ratios:
1 3.13
2 1.99
3 1.36
4 1.00
5
Final drive ratios: 4.1, 4.56, 4.88

CHASSIS

Wheelbase 96.5"
Track dimension, front 52"
Track dimension, rear 52"
Shock absorber Telescopic
Steering ratio 15.5:1
Brakes Front disc, rear drum
Tire size 165 x 380

APPROVED OPTIONAL EQUIPMENT

Overdrive (Ratio 0.756)
HD Stabilizer bar



General Competition Rules

1965 Edition

C. Modified Category

SCCA Modified Category automobiles shall generally be those which conform to current or obsolete regulations for "Sports Cars" defined in Appendix C of the International Sporting Code.

1. CLASSES — Automobiles in the Modified Category shall be divided into six classes according to the cylinder volumes of the engine:

C Over 3000 cc

D Over 2000 cc and below or equal to 3000 cc

E — Over 1600 cc and below or equal to 2000 cc

F — Over 1150 cc and below or equal to 1600 cc

G — Over 850 cc and below or equal to 1100 cc

H — Below or equal to 850 cc

Cars fitted with superchargers shall compete in the class immediately above the one in which they normally fall by virtue of their engine displacements.

SCCA Production Category cars to which a supercharger is fitted shall compete in the Modified Category class immediately above the one in which they would be classified according to their engine displacements.

2. FUEL — All Modified Category automobiles shall run only on pump fuel.
3. The following provisions of the current Appendix C shall apply for 1963 Modified Category automobiles.

Article 203 Altered as follows:

SELF STARTER

A self-starter fitted to the vehicle in proper working order is obligatory. It must be used at the start of the competition, and none of its parts may be removed during the event.

All other means of starting up the engine are prohibited, unless laid down in the supplementary regulations.

Article 204

BRAKING SAFETY

The braking system should function in such a way that the brake pedal normally controls the 4 wheels.

In case of a leak at any point of the piping or any failure in the braking transmission the brake pedal should operate on at least two wheels on the same axle.

Article 206 Altered as follows:

COACHWORK - SEATS

Coachwork must be completely finished and offer no make-shift element. They must offer at least TWO seats, but not necessarily located on either side of the longitudinal axis of the car, without prejudicing the normal system

of adaptation to the size of the driver.

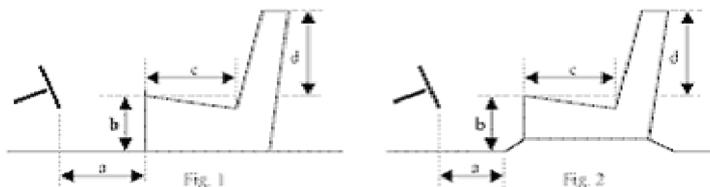
The inside minimum width shall be:

100 cm for cars with engine cylinder capacity inferior or equal to 1000 cc.
110 cm for car; with engine cylinder capacity exceeding 1000 cc.

This dimension shall be measured at the immediate rear of the steering wheel, perpendicular to the longitudinal axis of the car. It must be maintained on a minimum height of 25 cm.

The passengers place shall remain available during the whole of the event. It shall not be either partly or totally covered and shall offer the same conditions of comfort, room and protection as that of the driver's. However the passenger's place may be sheltered by means of a tonneau cover. Under no condition may the seats serve as a holder to a spare wheel or be combined with the fuel tank(s). Tanks shall be placed outside the cabin so as to protect the passengers of the car from any fumes or direct splashing of the fuel.

The drive train (shafts and universal joints) must not run openly throughout the cockpit, but under the floor boards or fitted in tubes or casings. The floor boards, tubes or casings must not be of a temporary nature but must be properly joined together and firmly fixed to the coachwork and the chassis. Front seats must fulfill the conditions setout hereafter (Figure 1 and 2).



a is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal axis and limiting from front to rear the open space on a level where the measurement taken.

For the driver's seat, *a* is measured on the floor level, or at the bottom of any recess if need be, from the perpendicular at the furthest pedal in its position of rest.

For the passenger seat. this measurement is taken at a height of 20 cm above

the floor, or at the bottom of the recesses, if need be.

In case of movable seats it is forbidden to alter the position of any seat while the cars are being measured.

b is measured vertically from the rear of *a* to the horizontal plane tangent to the highest part of the cushion as shown on the drawings.

c is measured in the horizontal plane defined above from the upper end of *b*, parallel to *a*, and in the middle of each axis of the chassis and tangent to the foremost point of the back of seats.

Back of seats must have a minimum height of 30 cm. (11.8 in.) measured vertically from rear of *c*.

The arrangement of the body must be such that:

$a + b + c = 1\text{ m } 10$ (43.3 in.) at least.

The minimum width for the foot space (for each person must be 25 cm (9.84 in.) measured perpendicularly to the longitudinal axis of the chassis plumb with the pedals.

Article 207 Altered as follows:

DOORS

All vehicles shall be equipped with at least one rigid door giving direct and unobstructed access to the seats, and measuring at least 15.7" x 7.9".

Article 209

MUDGUARDS

Mudguards of vehicles must not include temporary parts and they must be firmly affixed.

They must be placed exactly above the wheels and they must cover the effectively by surrounding at least a third of the circumference. It will, however, be permitted to make in each mudguard an opening not exceeding a maximum of 200 square cm (31 in²) to enable the driver to check the condition of his tires.

The width of mudguards must be such as to cover the tires completely when the wheels are parallel to the longitudinal axis of the car. In those cars where the mudguards are entirely or partly overhung by the structure of the body, the combination of mudguards and body, or the body alone, must nevertheless fulfill the above-mentioned requirements as to protection.

The rear extremities of the front and rear mudguards must not be higher above the ground than a horizontal line passing through the center of the wheel hub cap.

Mudguards fitted on the wheels and liable to turn when the wheels are steered are prohibited. They must therefore be solid with the body, there being no gap between them.

Article 211 Closed Cars

CLOSED CARS

Bodies of closed cars, convertible or not, must correspond at least to all the conditions indicated above for open cars, and must be established in such a way that they ensure adequate and safe visibility for the driver.

The minimum size of the panes must be such as to include a rectangle measuring:

- a. For the front and rear windows. 40 cm wide by 2 cm height (15.75 in. x 9.84 in.)
- b. For the back window: 50 cm (19.68 in.) total width, composed of one pane, or several panes inserted into separate frames. Height 10 cm (3.93 in) all along the width, measured vertically.

During races, either by means of open windows or by a special apparatus, a sufficient draught must exist to prevent gases from accumulating inside the car.

Lastly, the height of the roof, measured from the lowest part of the cushions of the rear and front seats shall be at least 85 cm (33.46 in.)

Article 213 Altered as follows:

WHEELS AND TIRES

There shall be no restrictions on the size of wheels or tires, provided they are identical for the right and left front axles, and identical for the right and left rear axles.

A usable spare wheel and tire identical in size to one of those mounted on the car shall be presented for safety inspection. Unless the Supplementary Regulations for a competition otherwise specify, this spare wheel and tire may be left in the assigned pit. Under no circumstances shall the passenger's space be used to carry the spare wheel and tire, nor must the normal working of the door be impaired.

Article 214 Altered as follows:

REAR-REFLECTING MIRRORS / LIGHTING AND WARNING APPARATUS

Vehicles must be fitted with:

- a. A rear-reflecting mirror with a reflecting surface of at least 50 cm² (7.75 in.²)
- b. An effective sound warning device able to be clearly heard over the noise of the engine.
- c. Headlights or driving lights capable of effectively illuminating the road ahead during night driving.
- d. A functional red brake signal light mounted on the rear of the car.

The following provisions of the current Appendix C shall not apply for 1963:

Article 201	Weight
Article 202	Chassis – Ground Clearance - Lock
Article 205	Fuel tanks

Article 208	Windscreen – Windscreen wiper
Article 210	Hoods (tops) shall not be required
Article 212	Luggage space
Article 215	Special provisions

D. Formula SCCA

Class A

1. A single seat, for open-wheeled racing car with firewall, floor, and safety equipment conforming to the SCCA GCR.
2. Displacement — over 1600 cc and below or equal to 3000 cc.
3. Minimum weight in running condition (i.e — includes coolant and lubricants; does not include fuel or driver); 1105 lbs
4. Cars must use pump fuel only.
5. Cars must be equipped with on-board self starter controlled by the driver in normal driving position.
6. The driver's seat must be capable of being entered without the removal of manipulation of any part or panel.
7. Cars shall be equipped with a dual braking system operated by a single control. In case of a failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.
8. Supercharging devices are not permitted.
9. Reverse gear is mandatory.

Class B

1. Single seat, four open-wheeled racing car with firewall, floor and safety equipment conforming to the GCR.
2. Displacement — over 1100 cc and below or equal to 1600 cc.
3. Engines – must be from cars homologated by FIA in Touring or Grand Touring Category.
4. Not more than five forward speeds; reverse gear mandatory.
5. Minimum weight in full running condition 848 pounds.
6. Cars must use pump fuel only.
7. Cars must be equipped with on-board self starter controlled by the driver in normal driving position.
8. The driver's seat must be capable of being entered without the removal or manipulation of any part or panel.
9. A double braking system operated by one pedal is compulsory. The pedal shall normally control the four wheels. In case of leakage at any point of the piping or any failure in the braking transmission system, the pedal must continue to actuate at least two wheels on the same axle.
10. Supercharging devices are not permitted.

Class C

1. Single seat, four open-wheeled racing car with firewall, floor and safety equipment conforming to the GCR.
2. Engine displacement below or equal to 1100 cc.
3. Minimum weight in full running conditions (i.e.—includes coolant and lubricants; does not include fuel and driver):

750 lb.

4. Cars must use pump fuel only.
5. Cars must be equipped with on-board self starter controlled by the driver in the normal driving position.
6. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel.
7. A double braking system operated by one pedal is compulsory. The pedal shall normally control the four wheels. In case of leakage at any point of the piping or any failure in the braking transmission system, the pedal must continue to actuate at least two wheels on the same axle.
8. Supercharging devices are not permitted.
9. Reverse gear is mandatory.

E. Formula VEE

1 - Definition

A formula for single-seat, open-wheel racing cars based on Volkswagen components, and restrictive in specifications so as to emphasize driver ability rather than design and preparation of the car.

No components, of the engine, power train, front suspension or brakes may be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorized.

2 - Weight and Dimensions

- Minimum weight, without fuel or driver — 825 lb
- Wheelbase, Minimum — 81.5"
- Wheelbase, Maximum — 83.5"
- Track, Front—Standard VW—51.4"
- Track, Rear—50.7"
- Overall length, Minimum — 123"
- Overall length, Maximum — 127"
- Body depth at firewall, Minimum — 25"
- Body width at firewall, Minimum — 34"

3 - Suspension

- a. The front suspension and steering shall be standard VW sedan. The following modifications are allowed:
 1. Removal of one torsion bar.
 2. The incorporation of a sway bar.
 3. Use of any shock absorber which can be mounted on the standard mounts.
 4. Relocation of the steering gear box to a central position, and replacement of the tie rods with others of a suitable length.
 5. Steering columns may be altered and any steering wheel may be used
 6. Use of any desired steering arm or adaptations.
- b. The rear suspension shall be of the "Single Trailing Arm" type, with coil springs and telescopic shock absorbers providing the springing medium.
- c. Wheels shall be standard 15" as used on the 1192 cc VW sedan.
- d. Any tire size may be fitted.

- e. Any lining material may be used on the standard brake shoes.

4 - Engine

The engine shall be a standard VW automotive power plant, as based on part numbers 111-100-021 and 113-100-025, and of 1192 cubic centimeter maximum displacement.

Allowed:

- a. Removal of the carburetor air cleaner and choke mechanism.
- b. Replacement of stock exhaust system with a separate exhaust pipe of constant diameter for each cylinder, to be routed as directly as possible to terminate at a common vertical plane behind the body, and not to extend more than four (4) inches behind the body.
- c. Lightening of the flywheel to a minimum of twelve pounds.
- d. Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance.
- e. Polishing of the intake and exhaust ports, provided such polishing does not enlarge the exhaust port beyond 33mm inside diameter, and the intake port beyond 29mm inside diameter.
- f. Matching of manifold flanges is permitted.
- g. Removal of any cooling duct component.
- h. Fitting of any standard VW carburetor originally supplied on above specified engines, and the use of any jets or VW venturi which may be fitted without alteration to the carburetor body.
- i. Fitting of any standard VW distributor.
- j. Removal of the intake manifold heat riser tube.
- k. Nothing must be done to interfere with the normal battery charging function of the generator
- l. The installation of baffles housed completely within the original oil sump and crankcase.

5 - Transaxle

The transmission-rear axle assembly shall be standard 1192cc VW. The synchromesh components must be in place and operating on at least three gears.

Allowed:

- a. Installation of any standard VW gear set which can be fitted without modification of any components of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation.
- b. Removal of the handbrake linkage.
- c. Alteration of the shock absorber mounts.

6 - Ballasting

No ballasting is permitted.

7 - Frame

The frame must be constructed of steel tubing and of such a design as to present no hazard to either the driver or other competitors.

8 - Body

The body must fully enclose the engine and may not fair in the wheels or suspension. Firewall, floor and safety equipment must conform to the General Competition Rules of the SCCA.



General Competition Rules

1967 Edition

5. AUTOMOBILES

5.1 Classification of Automobiles

Organizers of SCCA Regional, National and Interdivisional Championship events shall provide competitions for these classes:

Production Category:	Classes A through H
Sports Racing Category	Classes C through H
Sedan Category	Classes A through D
Formula SCCA	Classes A through
C	Formula VEE

Competitions for classes other than specified above shall not jeopardize a full schedule of competitions for the recognized classes. Organizers may also schedule extra competitions for other classes, provided specifications are clearly set forth in Supplementary Regulations, or otherwise made clear to entrants. All automobiles shall run in one category only during an event, unless otherwise permitted by the Supplementary Regulations.

Organizers of FIA-listed events may schedule competitions for any classes of automobiles recognized by the FIA.

5.2 Identification Marks

Each automobile shall carry identification numbers, class letters, or other marks required by the Supplementary Regulations. Numbers shall be placed on the front, rear, and both sides of each automobile so that they are legible. Numbers used shall be restricted to one or two digits and shall meet the approval of the Chief Timer and Scorer as well as the Chief Technical and Safety Inspector.

The Supplementary Regulations shall ordinarily require all automobiles to carry black numbers at least eight to ten inches high with 1-1/2 to 2" stroke on white background.

5.3 Advertisements on Automobiles

Advertising, names and symbols may be displayed on cars provided they are in good taste, do not interfere with identification marks, and do not exceed a total area of 20 square inches.

5.4 Mechanical Conditions of Automobiles

The Chief Technical and Safety Inspector shall have the responsibility for inspecting and certifying every automobile before it is allowed to take part in a competition or practice. An automobile which is disapproved, or which is driven in a competition or practice, or which is presented for recheck without the corrections specified by the Chief Technical and Safety Inspector may be disqualified from the event.

Automobiles which have been altered or damaged after they have been approved at technical and safety inspection shall be subject to re-inspection and approval.

All major body components such as front and rear hoods, fenders, doors and wind screen must be maintained in normal position throughout the competition.

5.4.1 Technical and Safety Inspection

The points covered at technical and safety inspection shall be:

- a) Eligibility for class entered — compliance with the GCR.
- b) Suitability for competition.
- c) Appearance — neat and clean. Specifically, automobiles that are dirty either externally or in the engine and passenger compartments, or that show bodywork damage, or that have not undergone proper repairs after any damage, or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition.
- d) Racing Tires — designated as such by the manufacturer, or recaps on such racing tires shall be required. Racing slicks are prohibited.
- e) Brakes — shall be pedal-operated, working directly on each wheel, and in perfect working order.
- f) Fenders — shall be securely mounted. Fender skirts and hub caps shall be removed.
- g) Exhaust system — shall exhaust gasses away from the body and to the rear of the driver. Closed cars shall run with at least one window open, or provide other ventilation.
- h) Hood and engine compartment — all parts shall be securely fastened.
- i) Front suspension and steering — shall be of suitable design and in proper order.
- j) Leakage and caps — no leakage of any fluid shall be allowed.
- k) Signal lights — each car shall have operating brake and tail lights, except for formulas SCCA and Vee.
- l) Seats — shall be securely mounted.
- m) Body restraints — Safety belts of 3" nylon in new or perfect condition with metal-to-metal, quick-release hardware shall be mandatory. Upper torso restraints (shoulder harnesses) of a type conforming to SCCA standards shall also be required in all automobiles.
- n) Passenger seat back — if a folding seat, it shall be securely bolted or strapped in place.
- o) Roll bars — each car shall be equipped with a roll bar to specifications of Appendix Z of the GCR.
- p) Tonneau covers may not cover the passenger seats but may cover the convertible top and boot.
- q) Fire wall and floor — shall prevent the passage of flame and debris to the driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids.
- r) Mirrors — shall provide driver visibility to the rear of both sides of the car.
- s) Fire extinguisher — shall be securely mounted in the cockpit, shall be dry chemical type of at least two-pound capacity.
- t) Flame resistant garments, crash helmets, goggles, or face shields — shall be approved at safety inspection and may also be checked upon the starting grid.
- u) Headlights — shall be protected to prevent shattering.

- v) Scatter-shields — The installation of scatter-shields or explosion-proof bell housings shall be required on all cars where the failure of the clutch or disintegration of the flywheel could create a hazard to the driver.
- w) Detachable hardtops — shall be removed.
- x) Safety fuel tanks — fuel tanks of cars in all categories may be substituted or modified to minimize fire hazard provided the capacity is not increased or the mounting location changed from that required by the rules for the classes and category involved.

APPENDIX A

AUTOMOBILES

1. Production Category

1.1 Definition

- a. The purpose of the Production Category shall be to provide a Club-wide program of speed events for the benefit and pleasure of SCCA members who desire to compete in series-produced sports cars, generally available for purchase by the public, and suitable for both normal road use and speed events participation, and who additionally desire to improve the performance of these cars within specific and uniform preparation limitations.

The SCCA shall publish a list of sports cars eligible to compete in the Production Category during the current calendar year. After this list has been established, no changes or additions in classification shall ordinarily be made.

- b. Production Category automobiles shall normally be those which are series-produced with normal road touring equipment in quantities of at least 500 within the last 12 month period. However, the SCCA may exclude an automobile from the Production Category even if made in greater quantities, if such automobiles are not considered suitable.
- c. Production Category automobiles shall be recognized according to the manufacturers' complete designation, including the name, model, model number and engine displacement.
- d. Production Category automobiles must be raced as they are normally delivered to the public through the manufacturers' sales outlets, except that they may be up-dated or back-dated within the specifications of a recognized make and model, and except for the modifications authorized by these Rules.
- e. The SCCA shall publish the specifications for each recognized Production Category model. This specification shall state the weight for each model, which weight shall normally correspond to the official weight listed on the model's recognition form, or else shall be obtained by taking the weights of a number of examples of the same model, selected at random, and weighed under the following conditions: With the spare wheel and tire for the size normally provided by the manufacturer, with full oil sump (or tank), and with full water tank if one is used but without fuel, tools, luggage or anyone aboard.

A weight tolerance of minus 5% as compared with the official weight will be granted Production Category automobiles, provided the reduced weight results from modifications permitted in these rules.

- f. Production Category automobiles shall be classified for racing purposes in groups of cars of similar performance.
- g. Production Category automobiles shall use Pump Fuel as defined in GCR Rule 2.9.

1.2 Authorized Modifications

The following modifications are authorized on all Production Category cars:

A. Bodywork

- 1. The make and number of lighting and signaling devices, provided they do not violate traffic regulations in the state of registry.
- 2. Fitting all accessories, gauges and indicators, and all inside modifications for the purpose of improving the comfort and convenience of the driver and passenger and to permit the installation of required safety equipment, provided they have no influence whatever on the mechanical performance and do not materially reduce the weight of the car. Floor mats may be removed. The removal of interior trim (gutting) is not permitted.
- 3. Raising hood for ventilation of engine compartment by use of hinge adjustment mechanism as installed by manufacturer. (Hood blocks or other modifications are not allowed). Additional hood straps or fasteners may be used. It is specifically not authorized to alter or open any hood, deck, or other body panels for purposes of additional ventilation. Sealing or shrouding the air flow area between the normal grill opening and the water radiator is permitted.
- 4. The use of any gas cap is permitted. One-way, anti-surge gas caps are recommended.
- 5. The top may be removed from open cars or else must be folded and securely fastened.
- 6. Windshield may be folded or removed provided a suitable aero screen is fitted. However, the entire windshield (i.e. both halves if a divided windshield) including all brackets and mounting fixtures must be removed if this substitution is made. Window glass and projecting hardware which might prove hazardous may be removed from the doors. The windshield wiper mechanism must remain in stalled as originally delivered, but the arms may be detached if necessary when the windshield is removed.
- 7. Bumpers may be removed, but if so, all projecting hardware such as brackets and fixtures must also be removed. No substitute bumpers are allowed. Hub caps and fender skirts must e removed. Grills ma not be removed.

B. Tires, Wheels, Suspension

- 1. The make and size of tires provided they fit the rims without change or additions and do not interfere with the bodywork under any con-

ditions of steering lock or rebound. In order to provide clearance for wheels and tires, the interior of fenders may be altered, but no modifications may be made to the exterior of fenders or the fender opening.

The tire tread may not extend beyond the fender opening at the highest point of the tire. On cars with independent suspension compliance with this provision shall be determined with the camber angles specified by the vehicle manufacturer for normal road use.

Spare tires may be removed, unless the Supplementary Rules for an event specify otherwise.

2. The use of any wheels of the same diameter and with a rim no more than 1.5 inches wider than the standard wheel listed by SCCA for the automobile. Changes in track resulting from the above wheels may not exceed plus or minus 2 inches from the track dimensions listed by SCCA for the automobile. Furthermore, the track dimensions shall remain equally disposed from the centerline of the automobile.

The use of center-lock wheels and hubs is permitted within this track restriction.

3. The make and type of shock absorbers, but not their numbers, or their system of operation (i.e. lever or telescopic), or their system and points of attachment.
4. The cooling of brakes by ventilation of backing plates or fitting of air ducts, provided no changes are made in the bodywork above a plane passing through the wheel hubs.
5. The make of brake linings and the fitting of dual master cylinders.
6. The modification or substitution of front spindles and/or rear axle shafts, and modifications or substitutions of hubs, bearings, bearing carriers, universal joints, and drive shafts. These changes may not result in any changes in tread dimensions as measured from the centerline of the car, or any changes in other suspension components, or the suspension geometry.
7. The addition or substitution of any anti-sway bar, camber compensating device, and traction master type torque rod, provided there is no other change in the standard suspension or drive-train components except as authorized elsewhere in these rules.

C. Electrical System

1. Make of spark plugs and ignition coil on condition that the system of ignition remains the one provided by the manufacturer. Transistor ignition is permissible provided the original distributor equipment is utilized.

An alternator may be used in place of the generator. Nothing must be done to interfere with the normal battery charging function of the generator or alternator.

2. Make or size of battery provided its voltage remains the same.

D. Engine and Drive-Train

1. Any alteration to the carburetors (or fuel injection) except changing

the number, model, type or size of the standard equipment, and, except that extensions or the addition of material to the exterior of the carburetor body is prohibited. Velocity stacks (intake air horns) may be used provided no modifications are made to the body or the framework of the car to accommodate their use.

2. Additional fuel pumps may be used provided they are only for supplying fuel to the carburetors and not for cooling purposes. If the mechanical fuel pump is replaced, a blanking plate may be used to cover the original mounting point.
3. Alterations to the fuel lines are permitted between the firewall and the engine. In addition it is permitted to install a fuel pump in the fuel line between the fuel tank and the firewall. Fuel blocks are not permitted.
4. It is permitted to lighten, balance, or modify in shape by tooling the series-produced and recognized components of the engine and drive-train, provided it is always possible to identify them positively as such; it is not permitted to add any material or mechanical extension.
5. Additional shims required for valve adjustment or for maintaining the geometry of a valve train after machining operations will be allowed.
6. The use of alternate engine and drive-train components which are normally expendable and considered replacement parts such as seals, bearings, valves, valve guides and valve seats provided they are the same type and dimension. Bushings may be installed where none are fitted as standard.
7. Compression ration may be increased by machining, using a thinner gasket, or doing without one.
8. Reboring the cylinders is authorized on condition that the greatest bore measurement specified for that make and model is not exceeded by more than 1.2mm (0.0472 in.).
9. Substitute pistons of any material or origin are authorized.
10. The substitution or addition of any valve springs of the same basic type (i.e. hairpin or helical) with which the car is normally equipped is authorized, and the substitution or addition of keepers and retainers.
11. The use of any exhaust manifold and exhaust pipe.
12. The addition of an oil filter when the model as equipped by the manufacturer has none, and the use of any single oil cooler for the engine.

Oil coolers must be mounted completely within/beneath the coachwork and may not be mounted inside the driver and passenger compartments.

13. The ratios of the gear box and rear axle when listed by the SCCA. Addition of a device for locking out reverse gear.
14. Installation of any type of vent or breather on the engine, transmission, or differential to prevent loss of lubricant and the use of oil catch tanks.
15. Any modifications to the clutch except changing the diameter of the unit originally specified for the model by the manufacturer.
16. The use of any limited slip differential, except that no substitution of the differential housing is permitted.

17. Springs or torsion bars of any kind may be replaced by others of unrestricted origin, but without changing the number supplied by the manufacturer, and on condition they can be fitted without alteration to the original supports and points of attachment.
18. Use of any pushrods.
19. Use of any oil pan (sump).
20. Use of any water radiator provided the standard radiator mounts are retained and there are no changes in body, chassis, or internal structure of the car to accommodate its use. Separate expansion tanks are not permitted except when provided as standard equipment.
21. On water cooled cars, thermostats may be modified, removed or replaced with blanking sleeves or restrictors.
22. Generator, crankshaft and water pump pulleys may be altered or replaced with others of unrestricted origin.
23. Use of any external crankshaft vibration dampener is allowed.
24. Use of any single differential oil cooler is authorized.

1.3 In 1967 Production Category automobiles shall be divided into classes based on relative performance as follows:

Class A

Abarth Simca 2000
 Shelby Cobra 427
 Griffith 200
 Shelby GT-500
 Porsche GTS/904
 Sting Ray 396
 Sting Ray 427

Class B

Aston Martin DB4
 Aston Martin DB5
 Aston Martin DB4 GT & GT Zagato
 Shelby Cobra 289
 Corvette 327
 Corvette 283
 Ferrari 250 GTO
 Ferrari 275 GTB
 Ferrari Berlinetta Lusso
 Ferrari 250 GT – SWB
 Ferrari GT – California, Coupe, & Cabriolet
 Ferrari 2 + 2
 Jaguar E 3.8 & 4.2
 Shelby GT-350
 Shelby GT-350 1-4V
 Sting Ray 327

Class C

Abarth Simca 1300
 Alfa Romeo TZ
 Datsun SRL 311U
 Ginetta G4-1500
 Lotus Elan

Lotus Super 7
Mercedes Benz 300 SL
Morgan Super Sports
Osca 1600 GT
Porsche 911S
Porsche Carrera 1500, 1600
Porsche 356B, C 2000 GS
Porsche 911
Sunbeam Tiger

Class D

AC Ace Bristol Aceca Bristol
Alfa-Romeo 2600 Sprint & Spider
Arnolt Bristol
Austin-Healey 3000
Daimler SP250
Elva Mk. III 1800 & Mk. IV 1800
Elva Mk. IV T1800
Fairthorpe Electron
Fiat Abarth 1000 DOHC
Ginetta G4-1000
GSM Delta
Jaguar XK 120, 140, 150
Marcos GT 1000
Speedwell GT 2A, 2B
Triumph TR4
Triumph TR4A – IRS
Turner Climax
TVR Mk. III 1800
TVR Climax
Yenko Stinger

Class E

Alfa Romeo Duetto
Alfa Romeo Giulia Spider Veloce
Alfa Romeo Giulia Sprint GT & GTC
Alfa Romeo Giulia Sprint Speciale
Austin-Healey 100-6
Elva Mk. IVT Ford
Elva Mk. I, II, III, 1622
Elva Mk. IV 1622
Fairthorpe Electron Minor
Lotus Elite
MGB
Morgan +4
Porsche 912
Porsche 356C/1600SC & 356B Super 90
Porsche 356 1500/1600 A, B, C
Triumph TR2, 3, 3A, 3B
Turner 1500
TVR Mk. III 1622
WSM GT

Class F

Alfa Romeo Giulietta Super Sprint & Spider
Alfa Romeo Giulietta Sprint Speciale & Zagato
Alfa Romeo Giulia Sprint & Spider
Alpine A110-1100
Austin-Healey 100-4
Datsun SP-311
Glas GT 1700
Lotus 7 & 7 America
Mercedes Benz 230 SL
MGA Twin Cam
MGA 1500, 1600, 1622
Morgan 4/4 Mk. V
Sabra Sport
Sunbeam Alpine
Volvo P1800

Class G

Alfa Romeo Giulietta Sprint & Spider
Abarth OTS 1000 Coupe
Alpine A108-1000
Austin-Healey Sprint 1100
Austin-Healey Sprint 1275
Austin-Healey AN8
Datsun SPL 310U
Fiat Abarth 700, 750 DOHC
Fiat Abarth 1000 Pushrod
Fiat 1500 Spider DOHC
Fiat 1500 Spider & Cabriolet
Glas 1300 GT
Honda S 800
Matra
MG Midget 1275
MG Midget 1100
MG Midget AN3
Porsche 1300
Rene Bonnet CRB
Triumph Spitfire
Turner 950S

Class H

Austin-Healey Sprite 948 Mk. I & II
DB HBR5 851-954
Fiat Abarth 850S, 750 GT, 750 MM
Fiat 1200 Spider
Honda S 600
MG Midget 948
MG TC, TD, TF, 1250
MG TF 1500
Morgan 4/4 Mk. IV
NSU/Wankel - Spider

2. SCCA Sports Racing Category (Formerly called SCCA Modified Category)

2.1 General

The SCCA Sports Racing Category shall be for automobiles which are designed and constructed for road racing competition, offering provisions for driver and a passenger, basically suitable for driving over normal roads. They shall conform to the following requirements.

2.2 Classification

Classification of cars shall be according to engine displacement as follows:

- C – Over 3000 cc
- D – Over 2000 cc and below or equal to 3000 cc
- E – Over 1600 cc and below or equal to 2000 cc
- F – Over 1150 cc and below or equal to 1600 cc
- G – Over 850 cc and below or equal to 1150 cc
- H – Below or equal to 850 cc

Supplementary regulations for an event or series of events may provide for combining any of these classes.

Supercharged cars shall be classified according to their displacement times a factor of 1.4.

2.3 Fuel

Only pump fuel as defined in GCR Rule 2.9 shall be used.

2.4 Self Starter

Engines shall be started with an automatic self starter and on-board power supply. Any other method of starting the engine at the start or during a competition is prohibited.

2.5 Brakes

These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels.

A separate hand brake (emergency brake) is not required.

2.6 Coachwork

Coachwork shall provide comfort and safety for driver and a passenger. All elements of the coachwork shall be completely and neatly designed and finished, with no temporary or makeshift elements. The body shall cover all mechanical components, except that the intake and exhaust pipes may protrude.

a. Cockpits and Seats –

There shall be seats for the driver and a passenger of equal dimension and comfort, and equally disposed on each side of the longitudinal axis of the car. Seats shall be firmly attached in the car, but may provide for adjustment for the size of the occupant.

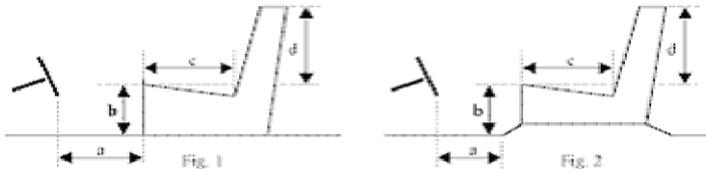
The passenger's space and seat shall remain available throughout the competition and shall not be encroached upon by any element of the car or equipment except as provided in these rules.

The passenger's compartment and seat shall not be sheltered by means of a tonneau cover of any type.

Driver and passenger space shall satisfy the following minimum dimensions:

The inside minimum width of the compartment shall be 40 inches measured at the immediate rear of the steering wheel hub and at right angles to the longitudinal axis of the car, and must be unobstructed and maintained at least 10 inches in a vertical plane.

Seats must fulfill the following minimum dimensions:



a is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal axis and defining from front to rear the open space on *a* level where such measurement is taken.

For the driver's seat, *a* is measured on the floor level, or at the bottom of any recess if need be, from the perpendicular of the furthest pedal in its position of rest.

For the passenger seat, this measurement is taken at a height of 8 inches above the floor, or at the bottom of the recesses, if need be.

In case of movable seats it is forbidden to alter the position of any seat while the car is being measured.

b is measured vertically from the rear of *a* to the horizontal plane tangent to the highest part of the cushion as shown on the drawings.

c is measured, in the horizontal plane defined above from the upper end of *b*, parallel to *a*, and tangent to the foremost point of back of seats.

The arrangement of body must be such that:

$$a + b + c = 43 \text{ in minimum}$$

The minimum width for the foot space for each person must be 10 inches measured at right angles to the longitudinal axis of the chassis.

b. Windshield —

All cars shall be equipped with a windscreen constructed of transparent material which shall provide equal and adequate protection for both the driver and passenger at all speeds. Windshield wipers are not required.

c. Visibility —

Coachwork shall provide visibility for driver and passenger forward and to both sides adequate for racing conditions. Rear view mirror(s) shall provide driver visibility to the rear of both sides of the car.

d. Doors —

Coachwork shall provide at least two rigid doors, thereby giving direct access to each of the seats. Each door shall accept a rectangle held in a vertical plane of at least 12 inches x 20 inches. These dimensions shall not include any area above the horizontal plane of the body and door panels. The door openings may not be obstructed in any way.

e. Fenders —

Fenders shall be firmly attached to the coachwork with no gap between body and fender

Fenders shall be placed above the tires and shall cover them effectively by surrounding at least a third of their circumference. The rear of each fender shall not be higher than a horizontal line passing through the axis of the wheel. The width of each fender shall extend beyond the side of the tires when the wheels are parallel to the longitudinal axis of the car.

In case the fenders constitute a part of the body, or are partly overhung by the structure of the body, the combination of fenders and body, or the body alone, shall meet the above requirements.

f. Loss of coachwork —

All major body components such as front and rear hoods, fenders, doors, and windscreen must be maintained in normal position throughout the event.

2.7 Lighting

The minimum lighting equipment shall be:

a) At least two headlights capable of effectively lighting the road ahead during night racing. These lights shall be at least as effective as lights normally fitted to touring automobiles.

b) At least one brake light and tail light mounted at the rear. The Supplementary Regulations for an event may require additional lighting equipment.

2.8 Wheels and Tires

There shall be no restriction on the size of wheels or tires, provided they are

identical for the right and left front axles, and identical for the right and left rear axles.

A spare wheel and tire are not required.

2.9 Safety Equipment

a. Fire extinguisher —

All cars shall carry during competition a dry chemical fire extinguisher of at least 2.5 lbs capacity. It must be securely mounted and may be located in the space provided for the a passenger.

b. Scatter Shields —

The installation of a scatter shield is required on those cars where the failure of the clutch or flywheel could, due to its location, create a hazard to the driver. In addition, any rotating part of the drive train shall not pass openly through the driver and passenger compartment, but must be under the floor or fitted in tubes or cassings firmly attached to the floor or chassis structure.

c. Roll bars —

Cars shall be equipped with a roll bar or structure to protect the driver in case the car overturns. It shall be firmly attached to the chassis structure and designed to withstand compression forces from the weight of the car as well as fore-and-aft loads from horizontal forces. Size, construction, and installation shall conform to current SCCA specifications.

d. Seat belt —

The car shall be provided with a 3 inch width safety belt of the metal-to-metal quick release type attached to the chassis structure designed to restrain the driver in his seat.

e. Exhaust system —

The exhaust system shall terminate behind the driver and passenger seats.

f. Firewall and floor —

Cars shall have an adequate firewall to prevent the passage of flame from the engine compartment or under the car to the cockpit. Openings in the firewall for the passage of engine controls, wires, and lines shall be of the minimum size necessary.

The floor of the cockpit shall be constructed to protect the driver by preventing the entry of gravel, oil, water, and debris from the road and engine. Bottom panels or belly panels shall be adequately vented to prevent the accumulation of liquids.

g. Bulkheads and Tanks —

No part of any fuel, oil, or water tank shall be exposed to any part of the driver and passenger compartment. Fuel tanks shall be vented to prevent the accumulation of fumes and to prevent fumes from passing into the driver or engine compartment.

Safety fuel tanks of a type comparable to those currently available from Firestone and Goodyear re highly recommended in all cars, and are required equipment in USRRC and Canadian-American Challenge Cups competition.

Fuel tanks shall be isolated by means of bulkheads so that in case of spillage, leakage, or a failure of the tank the fuel will not pass into the driver or engine compartment of around any part of the exhaust system.

Batteries shall be enclosed in a covered battery box to prevent leakage or spillage of fluid and shall be firmly attached in the car.

h. Closed cars —

Adequate ventilation shall be provided to prevent the accumulation of fumes inside the car.

3. Formula SCCA

3.1 Class A

1. A single seat, for open-wheeled racing car with firewall, floor, and safety equipment conforming to the GCR.
2. Displacement — over 1100 cc and below or equal to 3000 cc. Superchargers permitted on engines below or equal to 1500 cc.
3. Minimum weight in running condition (i.e — includes coolant and lubricants; does not include fuel or driver); 1105 lbs
4. Cars must use pump fuel only.
5. Cars must be equipped with on-board self starter controlled by the driver in normal driving position.
6. The driver's seat must be capable of being entered without the removal of manipulation of any part or panel.
7. Cars shall be equipped with a dual braking system operated by a single control. In case of a failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.
8. No part of the frame or body shall project beyond a plane connecting the vertical centerlines of the front and rear tires.

3.2 Class B

1. Single seat, four open-wheeled racing car with firewall, floor and safety equipment conforming to the GCR.
2. Displacement — over 1100 cc and below or equal to 1600 cc.
3. Engines — shall derive from automobiles recognized by FIA in Appendix J Group 1 (Series Production Touring), Group 2 (Touring), or Group 3 (Grand Touring), and shall conform to definitions and specifications shown on the FIA recognition form of the homologated car.

Modifications permitted shall be identical to those allowed for SCCA sedans (see Appendix A, section 5, 'SCCA Sedans'). Additionally, the following modifications are permitted:

- a. The use of any carburetor(s), fuel injection, or intake manifold(s).

- b. The use of any exhaust manifold(s).
 - c. The use of any oil sump.
 - d. The use of any oil pump.
 - e. The use of a dry sump lubrication system.
4. Transmission — no more than five forward speeds.
 5. Minimum weight in running conditions (i.e.—includes coolant and lubricants; does not include fuel or driver): 848 lbs.
 6. Cars must use pump fuel only.
 7. Cars must be equipped with on-board self starter controlled by the driver in the normal driving position.
 8. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel.
 9. Cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels.
 10. Supercharging devices are not permitted.
 11. No part of the frame or body shall project beyond a plane connecting the vertical center-lines of the front and rear tires.

3.3 Class C

1. Single seat, four open-wheeled racing car with firewall, floor and safety equipment conforming to the GCR.
2. Engine displacement below or equal to 1100 cc.
3. Minimum weight in full running conditions (i.e.—includes coolant and lubricants; does not include fuel and driver): 750 lb.
4. Cars must use pump fuel only.
5. Cars must be equipped with on-board self starter controlled by the driver in the normal driving position.
6. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel.
7. No part of the frame or body shall project beyond a plane connecting the vertical center-lines of the front and rear tires.
8. Cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels.
9. Supercharging devices are not permitted.

4. Formula VEE

4.1 Definition

A formula for single-seat, open-wheel racing cars based on standard Volkswagen 1200 series type I, U.S. model sedan components, and restrictive in specifications so as to emphasize driver ability rather than design and preparation of the car.

No components, of the engine, power train, front suspension or brakes may be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorized.

4.2 Weight and Dimensions

- Minimum weight, without fuel or driver — 825 lb
- Wheelbase, Minimum — 81.5"
- Wheelbase, Maximum — 83.5"
- Track, Front—Standard VW—51.4"
- Track, Rear—50.7"
- Overall length, Minimum — 123"
- Overall length, Maximum — 127"
- Body depth at firewall, Minimum — 25"
- Body width at firewall, Minimum — 34"

4.3 Suspension

- a. The front suspension and steering shall be standard VW sedan as defined herein. The following modifications are allowed:
 1. Removal of one torsion bar.
 2. The use of any anti-sway bar(s).
 3. Use of any shock absorber which can be mounted on the standard mounts.
 4. Relocation of the steering gear box to a central position, and replacement of the tie rods with others of a suitable length.
 5. Steering columns may be altered and any steering wheel may be used
 6. Use of any desired Pitman arm. Standard steering arms may be altered; however, no modification of the spindle is permitted.
- b. The rear suspension shall be of the "Single Trailing Arm" type, with coil springs and telescopic shock absorbers providing the springing medium. Camber control devices may be used.
- c. Wheels shall be standard 15" as used on the 1200 cc VW sedan.
- d. Any tire size may be fitted.

4.4 Brakes

- a. Brake drums, backing plates and wheel cylinders shall be standard VW sedan, as defined herein.
- b. These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels. Any master cylinder(s) may be used.
- c. A separate hand brake (emergency brake) is not required.

4.5 Engine

The engine shall be a standard VW powerplant, as normally fitted to VW sedans as defined herein.

Allowed:

- a. Removal of the carburetor air cleaner and choke mechanism.
- b. Replacement of standard exhaust system with any exhaust terminating 1" to 3" behind the rear most part of the body.
- c. Lightening of the flywheel to a minimum of twelve pounds.

- d. Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance.
- e. Polishing of the intake and exhaust ports, provided such polishing does not enlarge the exhaust port beyond 33mm inside diameter, and the intake port beyond 29mm inside diameter.
- f. Matching of manifold flanges is permitted.
- g. Removal of any cooling duct component.
- h. Fitting of any standard VW carburetor originally supplied on above specified engines, and the use of any jets or VW venturi which may be fitted without alteration to the carburetor body.
- i. Fitting of any standard VW distributor.
- j. Removal of the intake manifold heat riser tube.
- k. Nothing must be done to interfere with the normal battery charging function of the generator
- l. The installation of baffles housed completely within the original oil sump and crankcase.
- m. The use of an oil temperature indicating device in the crankcase.
- n. The use of any standard VW oil pump.
- o. The use of valve spring shims provided the fitted length of the spring is not less than the standard dimension.
- p. The following standard dimensions and tolerances of engine components are included as information and shall be observed:
 - Bore: 3.040"
 - Stroke: 2.520" \pm 0.005"
 - Exhaust Valve Dia.: 1.102" or 1.18"
 - Intake Valve Dia.: 1.18" or 1.24"
 - Min Capacity of one combustion chamber in head: 43.0 cc
 - Min Depth, top of cylinder barrel to top of piston: 0.039"

4.6 Transmission-Rear Axle

The transmission-rear axle assembly shall be standard VW sedan as defined herein. The synchromesh components must be in place and operating on at least three gears.

Allowed:

- a. Installation of any standard VW gear set which can be fitted without modification of any components of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation.
- b. Removal of the handbrake linkage.
- c. Alteration of the shock absorber mounts.
- d. Transmission may not be installed in an inverted position.
- e. The use of a limited-slip differential device is prohibited.

4.7 Ballasting

No ballasting is permitted.

4.8 Frame

The frame must be constructed of steel tubing and of such a design as to present no hazard to either the driver or other competitors.

4.9 Body

The body must enclose the engine and may not fair in the wheels or suspension. (The driver's seat must be capable of being entered without the removal or manipulation of any part or panel). Firewall, floor and safety equipment must conform to the General Competition Rules of the SCCA.

Air ducting may be utilized provided it is attached to the body or frame of the car. Ducting may not be made part of or attached in any way to the engine assembly.

4.10 Allowed Replacement Parts

The use of the following non-standard VW replacement parts is allowed. These parts must be normal replacement parts and shall not result in any unauthorized modification of any other component.

Allowed:

- a. Fasteners (nuts, bolts, screws, etc)
- b. Wiring
- c. Gaskets and Seals
- d. Brake lines and fuel line
- e. Spark plugs
- f. Piston rings
- g. Wheel bearings
- h. Connecting rod bearings and crankshaft main bearings of same type and size as standard VW
- i. Fan belt
- j. Brake shoes and brake-lining
- k. Valve guides

5. SCCA Sedans

5.1 Definitions

SCCA Sedans shall conform to the 1967 FIA Appendix J specifications for Series Production Touring Cars (Group 1) or Touring Cars (Group 2). Only automobiles homologated by FIA in these groups shall be eligible.

The maximum allowable wheelbase shall be 116". The maximum allowable engine displacement shall be 5000cc (305 cu in).

Entrants may be called upon to furnish proof of their automobile's eligibility by exhibiting a copy of the official FIA recognition form. If any question remains with respect to items not adequately covered by the recognition form, the scrutineers may refer to the maintenance manual, general catalog, or spare

parts catalog issued by the manufacturer for that model.

SCCA Sedans shall use pump fuel as defined in GCR 2.9.

Recognition forms and the complete text of Appendix J may be obtained from:

ACCUS-FIA
433 Main Street
Stamford, Conn 06901

The weight of the car as raced less fuel and driver must meet or exceed the weight given on the official recognition form.

5.2 Classes

Cars shall be classified according to engine displacement as follows:

- A. — over 2000 cc and below or equal to 5000 cc
- B. — over 1300 cc and below or equal to 2000 cc
- C. — over 1000 cc and below or equal to 1300 cc
- D. — below or equal to 1000 cc

5.3 Authorized Modifications

The following modifications shall be allowed or required in addition to those modifications included in Appendix J, Groups 1 and 2.

- a. Bumpers may be removed; however, if bumpers are removed all projecting hardware shall also be removed.
- b. Exhaust pipes and mufflers may be replaced with straight pipes.
- c. Rear Seat and seat back may be removed.
- d. The spare tire need not be carried.
- e. Oil catch tanks for engine, transmission and differential are recommended but not required.
- f. Roll bars are required; full roll cages are recommended. The restrictions on roll cages included in Appendix J shall not apply.
- g. Fuel filler openings must be located to the outside of the body and in such a position that spillage will not enter the interior of the car. The standard or optional fuel filler neck and cap may be replaced or modified, and for this purpose the coachwork may be modified as required.
- h. Doors may be bolted or pinned to prevent their opening in case of accident. Pins or straps may be added to engine hoods and trunk lids to supplement their latches.
- i. At least one door window must be fully open during competition.
- j. Floor mats may be removed.
- k. Substitute wheels of any type or material may be used provided there is no change in diameter, rim width or offset from that specified on the recognition form.
- l. Scattershields are required on all cars where the failure of the clutch or disintegration of the flywheel could create a hazard to the driver.

5.4 Appendix J

Following is the text of 1967 Appendix J, Groups 1 and 2:

Group 1 - Series Production Touring Cars

Article 255-Definition:

Touring cars built on series production terms. These cars shall compete in event without having undergone any preparation likely to improve their performance or their conditions of use. The only working authorized is that which is necessary to keep the cars in working order, or to replace parts damaged through wear or accident. The modifications and additions explicitly authorized are mentioned hereafter under article 257. Except for what is explicitly authorized any part damaged through wear or accident may only be replaced by an original part which must be exactly the same as the one which it is substituted.

Article 256-Minimum production and number of seats:

Series-production touring cars shall have been manufactured at the rate of at least 5000 identical units within 12 consecutive months and offer at least 4 seats, except if their engine cylinder capacity is inferior to 700cc in which case the manufacturer may deliver them as two seaters.

Article 257-Mountings and Modifications authorized:

a) Lighting devices: all lighting and signaling devices must comply with the regulations of the country where the event is taking place. Cars from other countries must be in this respect, in conformity with the Convention on International Road Traffic. The lighting devices included in normal equipment must be those originally installed by the manufacturer and must function as originally intended by the manufacturer for the particular model under consideration. As an example, when he transition from "Hi-Beam" to "Lo-Beam" headlamps is obtained by two light sources (filaments) inside a common reflector, this basic system shall not be modified.

Complete freedom is permitted regarding the headlamp lens, the reflector, and the lamps (bulbs).

In order to comply with the motor vehicle regulations of certain countries, is permissible to utilize the existing front parking lamps and modify them to incorporate both parking and blinking turn signal functions.

It is permitted to add at the front only two extra lighting devices to those normally provided by the manufacturer and mentioned on the recognition form.

The mounting of reverse-lights is authorized provided police regulations are respected but not the fitting of maneuverable search-lights on the roof or elsewhere.

Waivers may be granted to this specification on condition that they be explicitly provided for in the supplementary regulations of the event.

The mounting of additional headlights shall not entail any modification of the coachwork.

b) Fuel and oil tanks: must be those normally provided by the manufacturer for the model concerned, the capacities of which are mentioned on the recognition form. If, for the said model, tanks of different capacities are normally provided, only those mounted on the required number of cars necessary for recognition of the said model will be authorized.

The location and type of filling port for the fuel tank(s) may not be changed.

The use of a fuel tank with an increased capacity may be authorized by the ACN with the FIA's agreement, in the case of events organized under particular climatic conditions (on desert or tropical courses for instance).

c) Cooling circuit: if, for the said model, radiators of different capacities are normally provided, only those mounted on the required number of cars required for recognition of the said car, will be authorized.

The addition of a radiator screen is authorized. The radiator mask or blind may consist of a rigid sheet affixed behind the radiator grill.

The use of a radiator with an increased capacity may be authorized by the ACN with the FIA's agreement, in the case of events organized under particular climatic conditions (on desertic or tropical courses for instance). The make and model of thermostat are free; however, it must neither be removed nor relocated.

d) Feeding: the carburetor(s) or fuel injection pump(s) normally mounted on the recognized model and described on the recognition form may not be changed or removed.

The elements which control the quantity of fuel injected into the engine may be changed, but not those which control the quantity of air.

e) Electrical equipment: the tension (voltage) of the electrical equipment may not be changed.

The make and capacity (amperage) of battery and generator are free. The manufacturer may provide for one same minimum series the use either of a dynamo or of an alternator on condition that this is explicitly mentioned on the basic recognition form or on an alternate "variant" form.

The original battery may be replaced — by the manufacturer or the entrant himself — by another one of increased capacity provided however that the location remains unchanged. By location of the battery is meant the coachwork compartment in which the battery is originally mounted.

In the case of a 12 volt system, this voltage may be obtained either by one 12 or two series connected 6 volt units provided the original location is retained and no weight advantage has resulted from the modification as compared with the original manufacturer's installation.

Ignition coil, condenser, distributor and voltage regulator are free.

Spark plugs: make and type are free.

f) Transmission: for one same series of 5000 cars the following possibilities are given on the formal condition that they are those of the series-production and that they are normally sold to the purchaser and are entered on the recognition form.

The use of an automatic transmission is permitted provided this type of transmission is provided for by the manufacturer and listed on the recognition form. No restriction exists regarding minimum production quantities of this device.

— Gear-box: either two gear-boxes with the same number of ratios but different in their staging, or two gear-boxes with a different number of ratios and different in staging provided that at least 50% of the required minimum number of cars have been equipped with either one of the two gear-boxes. The fitting of an overdrive system in addition to the existing gear-box is authorized.

— Final drive: two different ratios

Should the manufacturer have provided a greater number of gear-box ratios and/or rear axle ratios, he must, to obtain recognition, have to prove that he has achieved the required minimum production of the car as many times as he has submitted two different gear-boxes and two different rear-axle ratios. An automatically controlled gear-box is not taken into consideration. Recognition of it and of its particular rear-axle ratio will always be granted in addition to the two sets of manually controlled gear-boxes.

The gear-box lever will have to be located as provided by the manufacturer and mentioned on the recognition form. Form and length are free.

The composition of the clutch lining is free provided the substitution meets the same dimensions as those of the lining originally installed with regard to friction surfaces.

g) Shock absorbers: the make and type are free. However, no addition is allowed, and neither their original destination nor their number, nor their system of operation may be modified. By system of operation is meant: hydraulic or friction shock absorbers of the telescopic lever type, whether the device has a double-acting or a simple-acting effect, and, in case of hydraulic shock absorbers, whether there is or not an additional gas chamber. The original supports may not be changed in any way.

h) Tyres: the make and type are free on condition that the tyres concerned are foreseen by the manufacturer to be fitted onto the original wheels without any modifications of the original rims and without need of an intermediary device. Any special or additional non-skid device for snow or ice may also be fitted.

i) Brakes: must be those provided by the manufacturer. The replacement of

worn linings is authorized and their system of attachment is free, provided the dimensions of inner friction surfaces remain unchanged, Servo-assistance is only permitted when duly recognized and at least 5000 identical cars having been made with this equipment.

The composition of brake lining is free provided the substitution meets the same dimensions as those of the lining originally installed with regard to the friction surfaces.

j) Supplementary accessories not included in the recognition: are authorized without restriction provided they have no influence whatsoever on the mechanical performance of the engine, such as those concerning the aesthetics or the inside comfort (lighting, heating, radio, etc. . .) or those enabling and easier or safer driving of the car (speed-pilot, windscreen wipers, etc. . .), provided they do not affect, even indirectly the mechanical performance of the engine, the steering, the transmission, the road holding and the braking.

The pedals must be those provided by the manufacturer (number, place, method of mounting), but it is allowed to change pedal pads or to fit heavier or wider pads.

k) Coachwork: none of the normal elements of the coachwork (dash-board, all inside quiltings whatever their location), none of the accessories normally mounted by the manufacturer on the most economical model may be removed or replaced.

However, the modifications deriving from the mounting of the supplementary accessories authorized in the preceding paragraph, such as those necessitated by the adding of a windscreen, washer (drilling a hole into the bonnet) or of a speedometer (housing in the dashboard) , will be allowed.

On same minimum series may comprehend various materials for seats, upholstery and inside quilting (cloth, leather, plastics, etc) and two different types of front seats (bench type or separate seats). These variants must be stated on the recognition form and in particular the different weights resulting from the mounting of different seats must be specified.

Bolts and nuts may be changed at will and incorporate locking systems such as cotter pins, safety wire, etc.

Transparent parts must, in case of damages, be replaced by others made of a material identical to the original one listed on the recognition form. They shall be completely interchangeable with those originally mounted. They must be mounted on the original supports and their original opening system must be maintained.

The original windshield may be replaced by one of the same material incorporating heating and defrosting elements.

Bumpers, embellishers, streamlining: bumpers are compulsory on all cars for which the manufacturer has normally provided them.. Wheel embellish-

ers may be removed. The addition of any protective device underneath the car is forbidden unless such a device is mentioned on the recognition form of the model in question or is authorized or made compulsory by the by the supplementary regulations of the event.

Group 2 - Touring Cars

Article 258-Definition:

Cars of limited series-production which may be submitted to certain modifications aiming at making them more adapted to competition. The list of the modifications and additions explicitly authorized is given hereafter under article 260.

Moreover, in this group may be classed cars of Group 1 which have been subject to modifications and/or additions exceeding the limits of Group 1. These cars will then enjoy the same freedom as provided for the present Group 2.

Article 259-Minimum production and number of seats:

Touring cars shall have been manufactured at the rate of at least 1000 units and be equipped with at least 4 seats; however, if their cylinder-capacity is equal or inferior to 700 cc, they may be delivered as two-seaters.

Article 260-Modifications and additions authorized:

All those already authorized in Group 1, plus the following ones:

a) Lighting devices: the mounting of additional headlights is authorized provided that a total 6 headlights is not exceeded (parking lights not included). Extra headlights may, if necessary, be fitted into the front part of the coachwork or into the grille, but such openings as those needed in this case must be completely fitted by the additional headlights.

b) Electrical system: the replacement of a dynamo by an alternator is authorized, provided the attachment system and driving method remain unchanged.

The installation of transistorized ignition systems is permitted provided it does not involve the modification of any mechanical part of the engine.

The relocation of the ignition coil is permitted if changing from a DC generator to an AC alternator necessitates this modification.

The voltage regulator and fuse panel may be relocated provided they remain within the same compartment in which they were originally installed.

c) Reboring: maximum tolerance: 1.2mm, but the resulting increase in cylinder capacity may not be such as to make the car pass into the above class. The reboring tolerance is valid for any type of engine (with or without sleeves).

d) Stabilizer: the fitting of a stabilizer is authorized.

e) Fan: complete freedom.

f) Air filter: may be changed or removed.

Dynamic air intakes may be installed on the carburetors provided this installation does not involve any body modifications such as cutting of additional holes.

g) Fuel pump: a mechanically controlled pump may be replaced by an electrically controlled one, the location of which may be different.

The type of fuel pump is free and the installation of a pump of greater capacity is authorized.

The installation of an additional pump is likewise permitted provided this additional unit is not connected to the fuel line.

h) Oil filter and cooler: an oil filter and/or oil cooler may be added when the model provided by the manufacturer has none, and the existing one may be altered.

i) Carburetor(s): the carburetor(s) provided by the manufacturer may be replaced by another (others) of a different diameter, provided:
—the number be the same as that provided by the manufacturer.
—they can be mounted on the inlet manifold of the engine with no need of any intermediary device and by using the original attachment parts.

j) Springs: (valves, clutch, suspension, etc . . .) may be replaced by others of unrestricted origin, but with no modification of the number provided by the manufacturer and on condition they can be fitted without alteration of the original supports.

k) Transmission: may be used all gear-boxes, manual or automatic, and all final drive ratios provided and delivered by the manufacturer for the model concerned, which have been granted recognition and are entered on the recognition form. The replacement of a manually controlled clutch with an automatic one, is authorized, whatever its operating system may be.

l) Differential: it may comprehend a device enabling to limit its normal functioning (limited slip control). This device must be entered on the recognition form or on an additional form (variant).

The use of a device which completely blocks the functioning of the differential may not be accepted unless it has been fitted on the same minimum number of cars as necessary for the recognition of the basic model.

m) Pistons and camshaft(s): all modifications of pistons are permitted. They may be lightened, their shape may be altered and they may even be replaced by others supplied or not by the manufacturer.

n) Cylinder block and head: the increase of compression ratio through machining of the cylinder head or block (or by using a thinner gasket or removing it) is authorized.

o) Muffler: the make and type are free, on condition that the original exhaust

manifold — and particularly its outlet port — remain entirely identical to the original part. The silencing effectiveness shall not be diminished. It shall, in any case, remain within the limits provided by the police regulations of the country where the event is run.

By exhaust manifold is meant the part collecting together the gasses from the individual exhaust ports.

p) Finishing off: all perfecting operations by finishing of machining the original mechanical parts, but not their replacement, except with regard to springs, pistons and camshaft(s) as specified above under sections j and m. The term “Mechanical Parts” covers all those included in the propulsion system, the steering system, the suspension and the braking system as well as accessories necessary for the normal operation of these systems. In other words, provided it is always possible to ascertain unquestionably the origin of the series-production part, it may be rectified, balanced, lightened, reduced, or modified with regard to the shape through tooling, to the exclusion of any addition of material or any mechanical extension or of any process involving a change of the characteristics of the molecular structure or of the surface of the metal.

q) Wheels and rims: must retain the dimensions provided by the manufacturer for his series-production and be mentioned on the recognition form.

One basic series may comprehend wheels of different types (solid or perforated disc wheels, spoke wheels, etc. . .), and different rims. But even when the recognition form mentions such differences, all four wheels must have the same diameter.

r) Brakes: the fitting of a dual pump or any type of device providing both a simultaneous action on the four wheels and divided action on the front and rear wheels is authorized.

The protective shields normally affixed to disc brakes may be altered and reworked but may not be removed.

The make and attachment system of linings are free, but no other change is authorized. In particular, the dimensions of inner friction surfaces must remain unchanged.

The mounting of a brake servo-assistance system is authorized.

s) Coachwork elements: the steering-wheel and the front seats may be replaced, provided seats of at least the same weight as the original ones be substituted for them.

In the event the original seats are replaced by different seats, the total weight of the new seats must be equal to that indicated on the recognition form, however, it is not compulsory that the two seats be of equal weight.

Modification, reinforcement and/or relocation of the jack sockets or pads is permitted.

t) Cables and lines: it is allowed to entirely modify the arrangement and location of all cables and lines providing for the passage of fluid elements (air, water, fuel, electric current).

These terms include the lines which are part of the suspension system. The material and the location of all lines may be changed and altered at will.

Manufacturer: Abarth
 Model: Abarth Simca 2000
 ENGINE:

Class: A

Manufacturer Abarth
 Type DOHC 4 cyl in line
 Bore & stroke 3.46" x 3.15"
 Capacity 1946 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.97"
 Exhaust ... 1.74"
 Carburation Two Weber 45 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.7"
 Gearbox

No. speeds forward:

Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.17	2.57		
2	2.00	1.89		
3	1.52	1.48		
4	1.30	1.26	1.31	
5	1.17	1.12	1.21	1.08
6	1.08	1.00	0.96	0.93

Overdrive

Make & Model: NA
 Ratio

Final drive ratios: 4.37, 3.70

CHASSIS:

Wheelbase 82.3"
 Track dimension, front50.1"
 Track dimension, rear50.2"
 Wheel Diameter 13"
 Rim Width 5"

BRAKES

STANDARD ALTERNATE

Front: 9.2" Disc
 Rear: 9.2" Disc

WEIGHT & CAPACITIES

Official weight:1470 lbs Radiator cap 10 Qt
 Oil sump cap 7.5 Qt
 Fuel tank cap

Manufacturer: AC Cars
 Model: AC Ace-Bristol and AC Aceca Bristol
 ENGINE:

Class: D

Manufacturer Bristol
 Type Pushrod 6 cyl in line
 Bore & stroke 2.60" x 3.78"
 Capacity 1971 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.54"
 Exhaust ... 1.31"
 Carburation Three Solex 32 PBI 6

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.4 2.7
 2 1.9 1.9
 3 1.4 1.3
 4 1.0 1.0
 5
 Overdrive
 Make & Model: Laycock
 Ratio
 Final drive ratios: 3.64, 3.91, 4.1, 4.3

CHASSIS

Wheelbase 90"
 Track dimension, front50"
 Track dimension, rear50"
 Wheel Diameter 15" or 16"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.6" Disc
 Rear: 11" Drum

WEIGHT & CAPACITIES

Official weight: 1685 lbs Radiator cap 11 Qt
 Oil sump cap
 Fuel tank cap 16 Gal
 Alt: 25 Gal

Manufacturer: Alfa Romeo
 Model: 2600 Sprint and Spider
 ENGINE:

Class: D

Manufacturer Alfa Romeo
 Type DOHC 6 cyl in line
 Bore & stroke 3.27" x 3.13"
 Capacity 2584 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.69"
 Exhaust ... 1.54"
 Carburation Three Solex 44 PHH

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54
 2 1.99 1.70
 3 1.35 1.26
 4 1.00 1.00
 5 0.79 0.85
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.10, 4.56, 4.78, 5.12

CHASSIS

Wheelbase 98.5"
 Track dimension, front55"
 Track dimension, rear54"
 Wheel Diameter 16"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 12.5" Disc
 Rear: 12.0" Drum Disc

WEIGHT & CAPACITIES

Official weight: Radiator cap 16 Qt
 2513 lbs-Spider Oil sump cap 9.5 Qt
 2620 lbs-Sprint Fuel tank cap 16 Gal
 Alt: 21 Gal

Manufacturer: Alfa Romeo
Model: Giulia Sprint & Spider
ENGINE:

Class: F

Manufacturer Alfa Romeo
Type DOHC 4 cyl in line
Bore & stroke 3.07" x 3.23"
Capacity 1570 cc
Head material Aluminum
Block material Aluminum
Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
Carburation One Solex 32 PAIA

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54 2.76 2.33
 2 1.99 1.70 1.78 1.58
 3 1.35 1.26 1.30 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.85 0.82 0.88

Overdrive

 Make & Model: None
 Ratio

Final drive ratios: 3.73, 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase 89" Spider; 92.5" Sprint
Track dimension, front51.6"
Track dimension, rear50"
Wheel Diameter 15"
Rim Width 4.5"

BRAKES

 STANDARD ALTERNATE
Front: 10.6" Disc 10.5" Drum (3 shoe)
Rear: 10.5" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 2010 lbs - Sprint Oil sump cap 6 Qt
 1809 lbs - Spider Fuel tank cap 15 Gal
 Alt: 21 Gal

Manufacturer: Alfa Romeo
 Model: Giulia Sprint GT and GTC
 ENGINE:

Class: E

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE or Two Solex PHH40/2

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54 2.76 2.33
 2 1.99 1.70 1.78 1.58
 3 1.35 1.26 1.30 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.86 0.82 0.88
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.73, 3.91, 4.10, 4.55, 4.78, 5.12, 5.38, 5.86

CHASSIS

Wheelbase 92.5"
 Track dimension, front51.6"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.3" Disc
 Rear: 9.7" Disc

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 1970 lbs - Coupe Oil sump cap 6 Qt
 2010 lbs - Conv Fuel tank cap 12 Gal
 Alt: 21 Gal

Manufacturer: Alfa Romeo
 Model: Giulia Sprint Speciale
 ENGINE:

Class: E

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54
 2 1.99 1.70
 3 1.35 1.26
 4 1.00 1.00
 5 0.79 0.85

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase 98.6"
 Track dimension, front51"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.6" Disc
 Rear: 10.5 Drum

WEIGHT & CAPACITIES

Official weight: 2104 lbs Radiator cap 8 Qt
 Oil sump cap 8 Qt
 Fuel tank cap 21 Gal
 Alt:

Manufacturer: Alfa Romeo
 Model: Giulia TZ
 ENGINE:

Class: C

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 45 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.26 2.54 2.76 3.30
 2 1.99 1.70 1.78 1.99
 3 1.36 1.26 1.30 1.35
 4 1.00 1.00 1.00 1.00
 5 0.79 0.85 0.82 0.79
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.72,3.91,4.10,4.55,4.78,5.12,5.38,5.86

CHASSIS

Wheelbase 86.6"
 Track dimension, front51.2"
 Track dimension, rear51.2"
 Wheel Diameter 15" or 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 11.5" Disc

WEIGHT & CAPACITIES

Official weight: 1364 lbs Radiator cap 8 Qt
 Oil sump cap 8 Qt
 Fuel tank cap 27 Gal
 Alt:

Manufacturer: Alfa Romeo
 Model: Giulietta Sprint Speciale & Zagato
 ENGINE:

Class: F

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 2.91" x 2.95"
 Capacity 1290 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.46"
 Exhaust ... 1.34"
 Carburation Two Weber 40 DCO or DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.26 2.54 3.26 Alt.
 2 1.99 1.70 1.96
 3 1.36 1.26 1.36
 4 1.00 1.00 1.00
 5 0.85 0.85
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.73, 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase 89"
 Track dimension, front51"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.3" Drum 10.6" Disc (Girling)
 Rear: 10" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 Zagato - 1688 lbs Oil sump cap 8 Qt
 Speciale - 2076 lbs Fuel tank cap 26.4 Gal

ALTERNATE SPECIFICATION

Manufacturer: Alfa Romeo
 Model: Giulietta Super Sprint & Spider
 ENGINE:

Class: F

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 2.91" x 2.95"
 Capacity 1290 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.46"
 Exhaust ... 1.34"
 Carburation Two Weber 40 DCO or DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54
 2 1.99 1.70
 3 1.35 1.26
 4 1.00 1.00
 5 0.79 0.85
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase Sprint-92.5"; Spider-89"
 Track dimension, front51"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10.3" Drum	10.6" Disc (Girling)
Rear:	10" Drum	

WEIGHT & CAPACITIES

Official weight:	Radiator cap	8 Qt
Sprint – 1906 lbs	Oil sump cap	7 Qt
Spider – 1768 lbs	Fuel tank cap	21 Gal-Sprint 16 Gal-Spider

ALTERNATE SPECIFICATION

21 Gal Fuel Tank – Spider

Manufacturer: Alfa Romeo
 Model: Spider Duetto
 ENGINE:

Class: E

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23" (See Note)
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE 27

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.76 2.54 2.33
 2 1.99 1.78 1.70 1.58
 3 1.35 1.30 1.26 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.82 0.86 0.88
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.5, 3.9, 4.1, 4.7, 5.1, 5.4, 5.8

CHASSIS

Wheelbase 88.6"
 Track dimension, front51.6"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.4" Disc 10.4" Disc
 Rear: 9.7" Disc 10.4" Disc

WEIGHT & CAPACITIES

Official weight: 2072 lbs Radiator cap 8 Qt
 Oil sump cap 6.8 Qt
 Fuel tank cap 12 Gal
 Alt: 24 Gal

ALTERNATE SPECIFICATIONS

10532.02.040.00 – steel flywheel
 Vacuum brake servo (Dunlop or Bonaldi)

Note: 1967 PCS Omitted bore and stroke (error)

Manufacturer: Alpine
 Model: A108 1000
 ENGINE:

Class: G

Manufacturer Renault
 Type Pushrod 4 cyl in line
 Bore & stroke 2.48" x 3.15"
 Capacity 998 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.34"
 Exhaust ... 1.18"
 Carburation One Weber 36 DCL

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox

	No. speeds forward:	4 or 5			
	Ratios:				
		Std.	Alt.	Alt.	Alt.
1	10/37				
2	17/41	15/40	18/40		
3	22/37	20/40	24/37		
4	25/32	23/35	28/33		
5	30/31	28/35	31/30	28/31	29/33

Overdrive

	Make & Model:	None			
	Ratio				

Final drive ratios: 3.67, 3.89, 4.14, 4.38, 4.71, 5.50

CHASSIS

Wheelbase 82.7"
 Track dimension, front48.2"
 Track dimension, rear48"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE

Front:
 Rear:

WEIGHT & CAPACITIES

Official weight: 1166 lbs
 Radiator cap
 Oil sump cap
 Fuel tank cap
 Alt:

Manufacturer: S. H. Arnolt
 Model: Arnolt-Bristol
 ENGINE:

Class: D

Manufacturer Bristol
 Type Pushrod 6 cyl in line
 Bore & stroke 2.60" x 3.78"
 Capacity 1971 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.67"
 Exhaust ... 1.44"
 Carburation Three Solex 32 BI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.92
 2 1.82
 3 1.29
 4 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.54, 3.70, 3.90, 4.22

CHASSIS

Wheelbase 96.25"
 Track dimension, front52.4"
 Track dimension, rear53.9"
 Wheel Diameter 16"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	11.25" Disc	12" Disc
Rear:	11.0" Drum	11" Alum-Iron

WEIGHT & CAPACITIES

Official weight:	1995 lbs	Radiator cap	7 Qt
		Oil sump cap	5 Qt
		Fuel tank cap	19 Gal
		Alt:	

Manufacturer: Aston Martin
 Model: DB5 Coupe & Convertible
 ENGINE:

Class: B

Manufacturer Aston Martin
 Type DOHC 6 cyl in line
 Bore & stroke 3.78" x 3.62"
 Capacity 3995 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 2.02"
 Exhaust ... 1.88"
 Carburation Three 2" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.92 2.73
 2 1.85 1.76
 3 1.25 1.23
 4 1.00 1.00
 5 0.83
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.31, 3.54, 3.73, 3.77, 4.09

CHASSIS

Wheelbase 98"
 Track dimension, front54"
 Track dimension, rear53.5"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.5" Disc
 Rear: 10.75" Disc

WEIGHT & CAPACITIES

Official weight: 2800 lbs Radiator cap 17 Qt
 Oil sump cap 13 Qt
 Fuel tank cap 23/19 Gal
 Alt:

Manufacturer: Austin Class: E
 Model: Austin Healey BN4, BN6 (100-6)
 ENGINE:

Manufacturer	BMC				
Type	Pushrod 6 cyl in line				
Bore & stroke	3.13" x 3.55"				
Capacity	2639 cc				
Head material	C.I.				
Block material	C.I.				
Valve head dia:					
Intake	1.69"				
Exhaust ...	1.42"				
Carburation	Two 1.5" or 1.75" SU				

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:	9"				
Gearbox					
No. speeds forward:	4				
Ratios:					
	Std.	Alt.	Alt.	Alt.	
1	3.08				
2	1.91				
3	1.33				
4	1.00				
5					
Overdrive					
Make & Model:	Laycock				
Ratio	0.78				
Final drive ratios:	3.3, 3.9, 4.1, 4.8				

CHASSIS

Wheelbase	92"				
Track dimension, front	48.75"				
Track dimension, rear	50"				
Wheel Diameter		15"			
Rim Width	4.5"				

BRAKES

	STANDARD		ALTERNATE		
Front:	11" Drum				
Rear:	11" Drum		See Below		

WEIGHT & CAPACITIES

Official weight:	2435 lbs		Radiator cap	12.5 Qt	
			Oil sump cap		
			Fuel tank cap	14.5 Gal	
			Alt:	25 Gal	

ALTERNATE SPECIFICATIONS

- H8257 Flywheel
- H8249 Disc brakes

Manufacturer: Austin
 Model: Austin Healey Sprite Mk I & Mk II (948)
 ENGINE:

Class: H

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 2.48" x 3.00"
 Capacity 948 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.10" or 1.16"
 Exhaust ... 1.00"
 Carburation Two 1.25" SU or Two 1.125" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.20 3.63 2.93 Alt.
 2 1.92 2.37 1.75
 3 1.36 1.41 1.24
 4 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.73, 3.91, 4.22, 4.55, 4.88, 5.38

CHASSIS

Wheelbase 80"
 Track dimension, front45.75"
 Track dimension, rear44.75"
 Wheel Diameter 13"
 Rim Width 3.5"

BRAKES

STANDARD ALTERNATE
 Front: 7" Drum
 Rear: 7" Drum

WEIGHT & CAPACITIES

Official weight: 1450 lbs Radiator cap 6 Qt
 Oil sump cap
 Fuel tank cap 7.5 Gal
 Alt:

ALTERNATE SPECIFICATIONS

8.2" disc brakes, front
 AEA 408 flywheel
 Q2491 Alfin brake drums
 Q2336 Large fuel tank
 Q2353 (ATA 7154) 8" front brakes

Manufacturer: Austin
 Model: Austin Healey Sprite MK IV (1275)
 ENGINE:

Class: G

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 2.78" x 3.21"
 Capacity 1275 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.31"
 Exhaust ... 1.16"
 Carburation Two 1.25" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 1 Std. Alt. Alt. Alt.
 3.20 3.63 2.93 2.57
 2 1.92 2.37 1.75 1.72
 3 1.36 1.41 1.24 1.26
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.73, 4.22, 4.55, 4.88, 5.13, 5.38

CHASSIS

Wheelbase 80"
 Track dimension, front46.3"
 Track dimension, rear44.7"
 Wheel Diameter 13"
 Rim Width 3.5"

BRAKES

 STANDARD ALTERNATE
 Front: 8.3" Disc
 Rear: 7" Drum

WEIGHT & CAPACITIES

Official weight: 1520 lbs Radiator cap 6 Qt
 Oil sump cap 4 Qt
 Fuel tank cap 7.2 Gal
 Alt:

ALTERNATE SPECIFICATIONS

Aux fuel tank – 7.3 Gal

Manufacturer: Chevrolet Motor Division
 Model: Corvette Sting Ray 327
 ENGINE:

Class: B

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.00" x 3.25"
 Capacity 327 cu in
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.94" or 1.72" or 2.02"
 Exhaust ... 1.50" or 1.6"
 Carburation Roch. Fl or one 4-bbl (Holley or Carter)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10" or 11"
 Gearbox
 No. speeds forward: 3 or 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.58 2.56 2.20 2.52
 2 1.48 1.91 1.64 1.88
 3 1.00 1.48 1.28 1.47
 4 1.00 1.00 1.00
 5

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.73,2.93,3.08,3.36,3.55,3.70,4.11,4.56

CHASSIS

Wheelbase 98"
 Track dimension, front58.9"
 Track dimension, rear59.7"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

	STANDARD	ALTERNATE
Front:	11.75" Disc	11" Drum
Rear:	11.75" Disc	11" Drum

WEIGHT & CAPACITIES

Official weight:	2906 lbs	Radiator cap	19 Qt
		Oil sump cap	5 Qt
		Fuel tank cap	20 Gal
		Alt: 42.5 Gal or 36.5 Gal	

ALTERNATE SPECIFICATIONS

Note: Hydraulic or solid lifters standard

Manufacturer: Chevrolet Motor Division
 Model: Corvette Sting Ray 396
 ENGINE:

Class: A

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.09" x 3.76"
 Capacity 396 cu in
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 2.19"
 Exhaust ... 1.72"
 Carburation One 1.67" Holley 3868826 4-bbl

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10"
 Gearbox
 No. speeds forward: 3 or 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.58 2.56 2.20
 2 1.48 1.91 1.64
 3 1.00 1.48 1.28
 4 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.73,2.93,3.08,3.36,3.55,3.70,4.11,4.56

CHASSIS

Wheelbase 98"
 Track dimension, front56.8"
 Track dimension, rear57.6"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

	STANDARD	ALTERNATE
Front:	11.75" Disc	11" Drum
Rear:	11.75" Disc	11" Drum

WEIGHT & CAPACITIES

Official weight:	3106 lbs	Radiator cap	19 Qt
		Oil sump cap	5 Qt
		Fuel tank cap	20 Gal
		Alt:	36.5 Gal

ALTERNATE SPECIFICATIONS

Note: Hydraulic or solid lifters standard

Manufacturer: Nissan
 Model: Datsun SPL-311 & SPL-311U
 ENGINE:

Class: F

Manufacturer Nissan
 Type OHV 4 cyl in line
 Bore & stroke 3.43" x 2.63"
 Capacity 1595 cc
 Head material C.I. or Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.66"
 Exhaust ... 1.26"
 Carburation Two Hitachi HJB 38W-3

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt*	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.38	2.45	3.66	3.28	2.96	2.96	2.68
2	2.01	1.62	2.18	1.92	1.86	1.86	1.70
3	1.31	1.27	1.42	1.26	1.31	1.31	1.26
4	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5						0.85	0.85

*uses Alt. case # 32101-12200

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 3.70, 3.89, 4.11, 4.38, 4.62, 5.12

CHASSIS

Wheelbase 89.8"
 Track dimension, front50.0"
 Track dimension, rear47.1"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1905 lbs
 Radiator cap 8.4 Qt
 Oil sump cap 4.3 Qt
 Fuel tank cap 11.4 Gal
 Alt: See Below

ALTERNATE SPECIFICATIONS

17201-00311 30 Gal fuel tank

Manufacturer: Nissan
 Model: Datsun SRL 311-U
 ENGINE:

Class: C

Manufacturer Nissan
 Type SOHC 4 cyl in line
 Bore & stroke 3.43" x 3.27"
 Capacity 1982 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.81"
 Exhaust ... 1.42"
 Carburation Two Nikuni 44 PHH

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.96 2.96
 2 1.86 1.86
 3 1.31 1.31
 4 1.00 1.00
 5 0.85 0.85
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.70,3.89,4.11,4.38,4.63,5.13,5.38

CHASSIS

Wheelbase 89.8"
 Track dimension, front50.0"
 Track dimension, rear47.2"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1925 lbs Radiator cap 8.8 Qt
 Oil sump cap 4.2 Qt
 Fuel tank cap 11.3 Gal
 Alt: 15.8 or 31.6 Gal

Manufacturer: Deutsch-Bonnet
 Model: DB HBR5 851 & 954
 ENGINE:

Class: H

Manufacturer D-B
 Type OHV 2 cyl
 Bore & stroke 3.35" x 2.95" or 3.54" x 2.95"
 Capacity 851 cc or 954 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.71"
 Exhaust ... 1.63"
 Carburation One or two Zenith 38 NDIX

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.2"
 Gearbox
 No. speeds forward:
 Ratios:
 Std. Alt. Alt. Alt.
 1
 2
 3
 4
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 5.82, 6.15

CHASSIS

Wheelbase 85"
 Track dimension, front49"
 Track dimension, rear49"
 Wheel Diameter 15" or 16"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	9" Drum	10" Drum
Rear:	9" Drum	10" Drum

WEIGHT & CAPACITIES

Official weight: 1326 lbs Radiator cap
 Oil sump cap
 Fuel tank cap
 Alt:

Manufacturer: Trojan Ltd
 Model: Elva Courier Mk III 1800 & Mk IV 1800
 ENGINE:

Class: D

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 3.16" x 3.50"
 Capacity 1798 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.57"
 Exhaust ... 1.35"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.64 2.44
 2 2.21 1.62
 3 1.37 1.27
 4 1.00 1.00
 5
 Overdrive
 Make & Model: Laycock
 Ratio
 Final drive ratios: 3.7, 3.9, 4.2, 4.5, 4.9

CHASSIS

Wheelbase 90"
 Track dimension, front50"
 Track dimension, rear51"
 Wheel Diameter 14" or 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 9" Disc 10.7" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1428 lbs Radiator cap 6.5 Qt
 Oil sump cap 5 Qt
 Fuel tank cap 11 Gal
 Alt: 20 Gal, 6.5 Gal

ALTERNATE SPECIFICATIONS:

AEH 746 Steel flywheel
 ATB 7224 MGA Rear axle assy.

Manufacturer: Trojan Ltd
 Model: Elva Courier Mk IV T Ford
 ENGINE:

Class: E

Manufacturer Ford
 Type OHV 4 cyl in line
 Bore & stroke 3.19" x 2.86"
 Capacity 1498 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.39"
 Exhaust ... 1.19"
 Carburation One Weber 28/36 DCDI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.54 2.92 2.51
 2 2.40 1.69 1.64
 3 1.41 1.28 1.23
 4 1.00 1.00 1.00
 5

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.9, 4.1, 4.5, 4.9

CHASSIS

Wheelbase 89"
 Track dimension, front50.5"
 Track dimension, rear51"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.7" Disc
 Rear: 10.7" Disc 10" Alfin drum

WEIGHT & CAPACITIES

Official weight: 1570 lbs Radiator cap 5 Qt
 Oil sump cap 4 Qt
 Fuel tank cap 8 Gal
 Alt: 20 Gal

Manufacturer: Trojan Ltd
 Model: Elva Courier Mk IV T Rdstr & Coupe
 ENGINE:

Class: D

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 3.16" x 3.50"
 Capacity 1798 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.57"
 Exhaust ... 1.35"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.64 2.44
 2 2.21 1.62
 3 1.37 1.27
 4 1.00 1.00
 5

Overdrive
 Make & Model: Laycock
 Ratio
 Final drive ratios: 3.7, 3.9, 4.2, 4.5, 4.9

CHASSIS

Wheelbase 90"
 Track dimension, front50"
 Track dimension, rear51"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.7" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 6.5 Qt
 1512 lbs - Roadster Oil sump cap 4 Qt
 1624 lbs - Coupe Fuel tank cap 8 Gal
 Alt: 20 Gal, 6.5 Gal

ALTERNATE SPECIFICATIONS:

AEH 746 Steel flywheel

Manufacturer: Ferrari Class: B
 Model: 250 GT Berlinetta, California, Coupe & Cabriolet
 ENGINE:

Manufacturer	Ferrari	
Type	SOHC V12	
Bore & stroke	2.87" x 2.32"	
Capacity	2953 cc	
Head material	Aluminum	
Block material	Aluminum	
Valve head dia:		
Intake	1.26"	
Exhaust ...	1.16"	
Carburation	ThrNee Weber 36 DCL or Six Weber 38 D	

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:	9"	
Gearbox		
No. speeds forward:	4	
Ratios:		
	Std.	Alt. Alt. Alt.
1	2.54	
2	1.70	
3	1.26	
4	1.00	
5		
Overdrive		
Make & Model:	Laycock	
Ratio	0.778	
Final drive ratios:	3.56, 3.67, 3.78, 4.00, 4.25, 4.57, 4.85	

CHASSIS

Wheelbase	102"	
Track dimension, front	53.5"	
Track dimension, rear	53"	
Wheel Diameter		15"
Rim Width	6"	

BRAKES

	STANDARD	ALTERNATE
Front:	Drum	Disc
Rear:	Drum	Disc

WEIGHT & CAPACITIES

Official weight:		
2315 lbs – Berl. & Calif.		
2712 lbs – Coupe		
2650 lbs - Cabriolet		
	Radiator cap	16 Qt
	Oil sump cap	10 Qt
	Fuel tank cap	30 Gal
	Alt:	

Manufacturer: Ferrari
 Model: 275 GTB Berlinetta
 ENGINE:

Class: B

Manufacturer Ferrari
 Type SOHC V12 Dry Sump
 Bore & stroke 3.03" x 2.31"
 Capacity 3286 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.28"
 Carburation Three Weber 40 DFI or six Weber 40 DCN-2

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9.5"
 Gearbox
 No. speeds forward: 6
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.07 2.47
 2 2.12 1.84
 3 1.57 1.45
 4 1.25 1.20
 5 1.04 1.04
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.18, 3.30, 3.44, 3.56, 3.67, 3.78,
 3.89, 4.00, 4.13, 4.25, 4.38, 4.57

CHASSIS

Wheelbase 94.6"
 Track dimension, front54.2"
 Track dimension, rear56.2"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

STANDARD ALTERNATE
 Front: 11.75" Disc
 Rear: 11.75" Disc

WEIGHT & CAPACITIES

Official weight: 2165 lbs Radiator cap 7.4 Qt
 Oil sump cap 17 Qt
 Fuel tank cap 37 Gal
 Alt:

Manufacturer: Fiat
 Model: 1200 Spider
 ENGINE:

Class: H

Manufacturer Fiat
 Type DHV 4 cyl in line
 Bore & stroke 2.84" x 2.95"
 Capacity 1221 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake
 Exhaust ...
 Carburation One 36 DCD

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.38 3.86
 2 2.09 2.38
 3 1.38 1.57
 4 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.30

CHASSIS

Wheelbase 92.1"
 Track dimension, front48.6"
 Track dimension, rear47.9"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

 STANDARD ALTERNATE
 Front: Drum Drum
 Rear:

WEIGHT & CAPACITIES

Official weight: 2030 lbs Radiator cap
 Oil sump cap
 Fuel tank cap 10 Gal
 Alt:

Manufacturer: Abarth
 Model: Fiat Abarth (DOHC)
 ENGINE:

Class: D

Manufacturer Fiat/Abarth
 Type DOHC 4 cyl in line
 Bore & stroke 2.56" x 2.91"
 Capacity 994.3 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.30"
 Exhaust ... 1.14"
 Carburation Two Weber 40 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.3"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.40					
2	2.11	2.06	1.83	1.89	1.75	
3	1.75	1.59	1.34	1.28	1.20	
4	1.34	1.28	1.24	1.20	1.11	1.04
5	1.11	1.04	1.00	1.07	0.86	0.83

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.9, 4.3, 4.6, 4.9, 5.1, 5.4

CHASSIS

Wheelbase 78.7"
 Track dimension, front47.6"
 Track dimension, rear47.6"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 8.3" Disc See below
 Rear: 8.3" Disc

WEIGHT & CAPACITIES

Official weight: 1238 lbs Radiator cap 5.5 Qt
 Oil sump cap
 Fuel tank cap 7 Gal
 Alt: 16 or 19

Gal

ALTERNATE SPECIFICATIONS

Alfin Brakes (2, 3, or 4 shoe)
 Front end reinforcement kit

Manufacturer: G.S.M.
Model: Delta
ENGINE:

Class: D

Manufacturer Ford 105E
Type OHV 4 cyl in line
Bore & stroke 3.19" x 1.91"
Capacity 997 cc
Head material C.I.
Block material C.I.
Valve head dia:
 Intake 1.37"
 Exhaust ... 1.19"
Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
Gearbox

No. speeds forward:	4			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	2.92	4.12		
2	1.70	2.40		
3	1.28	1.40		
4	1.00	1.00		
5				

Overdrive

Make & Model: None
Ratio

Final drive ratios: 3.88, 4.12, 4.43, 4.44

CHASSIS

Wheelbase 94.9"
Track dimension, front48.8"
Track dimension, rear47.6"
Wheel Diameter 13"
Rim Width 5.25"

BRAKES

STANDARD ALTERNATE
Front: Drum
Rear: Drum

WEIGHT & CAPACITIES

Official weight: 1085 lbs
Radiator cap 8 Qts
Oil sump cap 2.7 Qts
Fuel tank cap
Alt:

Manufacturer: Honda
 Model: S-600 Coupe and Convertible
 ENGINE:

Class: H

Manufacturer Honda
 Type DOHC 4 cyl in line
 Bore & stroke 2.19" x 2.56"
 Capacity 632 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.26"
 Exhaust ... 1.11"
 Carburation Four Keihin RP 35-29-4 (29 mm)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt. Alt. Alt. Alt.
 1 3.89 3.58 3.67 4.26 3.58 3.68 3.38 3.85
 4.01 2 2.19 2.15 1.83 2.31 1.80 1.88 1.72
 1.96 2.04
 3 1.43 1.56 1.50 1.50 1.44 1.55 1.38 1.57 1.64
 4 1.10 1.25 1.20 1.10 1.16 1.21 1.12 1.27 1.32
 5 1.05 1.04 1.00 1.04 0.96 1.09 1.14
 Overdrive
 Make & Model: None
 Ratio

Final drive: (Spiral bevel gear and chain)
 Final drive ratios: Gear: 3.15, Chain: 1.86 or 1.88

CHASSIS

Wheelbase 79"
 Track dimension, front45.5"
 Track dimension, rear44.5"
 Wheel Diameter 13"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.5" Drum
 Rear: 8.5" Drum

WEIGHT & CAPACITIES

Official weight:
 1603 lbs - Coupe Radiator cap ... 6.5 Qt
 1565 lbs - Conv Oil sump cap ... 4 Qt
 Fuel tank cap .. 9.5 Gal
 Alt: 15.5 & 13 Gal

ALTERNATE SPECIFICATIONS

AYS280-5520 Wheel cyl - front
 AYS280-5530 N Wheel cyl - rear

Manufacturer: Honda Motor Company
 Model: S-800 and S-800 Coupe
 ENGINE:

Class: G

Manufacturer Honda
 Type DOHC 4 cyl in line
 Bore & stroke 2.36" x 2.76"
 Capacity 791 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.40"
 Exhaust ... 1.24"
 Carburation Four Keihin Seiki C VB 36N-30A1

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.95	4.15	4.37	4.20	4.01	3.85	3.68
2	2.41	2.53	2.22	2.14	2.04	1.96	1.88
3	1.62	1.70	1.79	1.72	1.64	1.57	1.50
4	1.14	1.20	1.44	1.39	1.32	1.27	1.21
5			1.24	1.19	1.14	1.09	1.04

Overdrive
 Make & Model:
 Ratio

Final drive ratios: 4.72

CHASSIS

Wheelbase 78.8"
 Track dimension, front45.3"
 Track dimension, rear45.3"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 9.4" Disc
 Rear: 8.4" Drum

WEIGHT & CAPACITIES

Official weight:
 1704 lbs - Coupe
 1677 lbs - Conv
 Radiator cap ... 5.5 Qt
 Oil sump cap ... 3.9 Qt
 Fuel tank cap .. 9.2 Gal Conv
 Alt: 7.9 Gal Coupe

ALTERNATE SPECIFICATIONS

13.2 Gal fuel tank
 18.5 Gal fuel tank

Manufacturer: Jaguar
 Model: XK-E, 3.8 & 4.2, Coupe and Roadster
 ENGINE:

Class: B

Manufacturer Jaguar
 Type DOHC 6 cyl in line
 Bore & stroke 3.63" x 4.17" or 3.34" x 4.17"
 Capacity 4235 cc or 3781 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.75"
 Exhaust ... 1.625"
 Carburation Three 2" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.98 3.38 2.14 2.68
 2 1.74 1.86 1.65 1.74
 3 1.21 1.28 1.28 1.27
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.69, 2.79, 2.88, 2.93, 3.07, 3.31, 3.54
 3.77, 4.09, 4.27, 4.55, 4.78, 4.89, 5.38

CHASSIS

Wheelbase 96"
 Track dimension, front50"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 5"

BRAKES

	STANDARD	ALTERNATE
Front:	11" Disc	12" Disc
Rear:	10" Disc	11" Disc

WEIGHT & CAPACITIES

Official weight:	2460 lbs	Radiator cap	19 Qt
		Oil sump cap	9 Qt
		Fuel tank cap	17 Gal
		Alt:	29 or 37

Gal

ALTERNATE SPECIFICATIONS

XK 2528 Flywheel
 BD 19929/A Aluminum Bonnet (No change in official weight)

Manufacturer: Lotus Class: F
 Model: Lotus 7 & 7 America
 ENGINE:

Manufacturer	Ford 105E	BMC
Type	OHV 4 cyl in line	OHV 4 cyl in line
Bore & stroke	3.19" x 1.91"	2.48" x 3.00"
Capacity	997 cc	948 cc
Head material	C.I.	C.I.
Block material	C.I.	C.I.
Valve head dia:		
Intake	1.3"	1.16"
Exhaust ...	1.2"	1.00"
Carburation	Two 1.25" SU	2-1.25" or 1.125" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:	7.25"	6.25"
Gearbox		
No. speeds forward:	4	
Ratios:		
Std.	Alt.	Alt.
1	4.12	2.92
2	2.40	1.70
3	1.41	1.28
4	1.00	1.00
5		
Overdrive		
Make & Model:	None	
Ratio		
Final drive ratios:	4.11, 4.55, 4.88	

CHASSIS

Wheelbase	88"
Track dimension, front	47.5"
Track dimension, rear	48.5"
Wheel Diameter	13"
Rim Width	3.5"

BRAKES

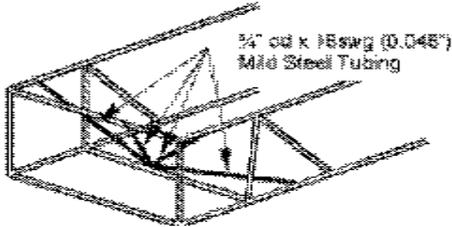
	STANDARD	ALTERNATE
Front:	8" Drum	
Rear:	7" Drum	

WEIGHT & CAPACITIES

Official weight:	890 lbs	Radiator cap	8 Qt
		Oil sump cap	4 Qt
		Fuel tank cap	9.5 Gal
		Alt:	

ALTERNATE SPECIFICATIONS

AEA 408 Flywheel
 CAO-B405/6 Front 9" disc brake kit results in 7/8" track increase)
 Authorized frame modifications:



Manufacturer: Lotus
 Model: Super 7
 ENGINE:

Class: C

Manufacturer	Ford/Cosworth 109E	Ford 116 E/122E
Type	OHV 4 cyl in line	OHV 4 cyl in line
Bore & stroke	3.19" x 2.56"	3.19" x 2.86"
Capacity	1340 cc	1498 cc
Head material	C.I.	C.I.
Block material	C.I.	C.I.
Valve head dia:		
Intake	1.3"	1.4"
Exhaust ...	1.2"	1.2"
Carburation	Two 40 DCO Weber	One Weber 40 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:	7.25"	8.0"
Gearbox		
No. speeds forward:	4	
Ratios:		
Std.	Alt.	Alt.
1	4.12	2.92
2	2.40	1.70
3	1.41	1.28
4	1.00	1.00
5		1.00

Overdrive

Make & Model:	None
Ratio	

Final drive ratios: 4.11, 4.55, 4.88

CHASSIS

Wheelbase	88"
Track dimension, front	47.5"
Track dimension, rear	48.5"
Wheel Diameter	13"
Rim Width	3.5"

BRAKES

	STANDARD	ALTERNATE
Front:	8" Drum	(see below)
Rear:	7" Drum	

WEIGHT & CAPACITIES

Official weight:	900 lbs	Radiator cap	8.0 Qt
		Oil sump cap	3.2 Qt
		Fuel tank cap	9.5 Gal
		Alt:	

ALTERNATE SPECIFICATIONS

OA0B405/6 Front disk brakes (9", results in 7/8" track increase)
 Authorized frame modification: See Lotus 7 and 7 America

Manufacturer: Daimler Benz
 Model: Mercedes Benz 230 SL
 ENGINE:

Class: F

Manufacturer Daimler-Benz
 Type SOHC 4 cyl in line
 Bore & stroke 3.23" x 2.87"
 Capacity 2306 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.54"
 Exhaust ... 1.38"
 Carburation Bosch fuel injection

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.97"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std* Alt. Alt. Alt. Alt.
 1 3.98 4.42 3.92 3.92 4.05
 2 2.52 2.28 2.22 1.98 2.23
 3 1.58 1.53 1.42 1.31 1.40
 4 1.00 1.00 1.00 1.00 1.00
 5 0.85 0.85

*Automatic
 Overdrive

Make & Model: None
 Ratio

Final drive ratios: 3.7, 3.9, 4.1, 4.56

CHASSIS

Wheelbase 94.5"
 Track dimension, front58"
 Track dimension, rear58.5"
 Wheel Diameter 14"
 Rim Width 6"

BRAKES

STANDARD ALTERNATE
 Front: 10" disc
 Rear: 9.1" drum

WEIGHT & CAPACITIES

Official weight: 2745 lbs Radiator cap
 Oil sump cap 6 Qt
 Fuel tank cap 17.2 Gal
 Alt: 21.5 Gal

ALTERNATE SPECIFICATIONS

Power steering

Manufacturer: Daimler Benz
 Model: Mercedes Benz 300 SL Coupe & Roadster
 ENGINE:

Class: C

Manufacturer Daimler-Benz
 Type SOHC 6 cyl in line
 Bore & stroke 3.35" x 3.47"
 Capacity 2996 cc
 Head material Aluminum
 Block material
 Valve head dia:
 Intake 1.93"
 Exhaust ... 1.65"
 Carburation Bosch fuel injection GK 170/32 or 3

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.34
 2 1.97
 3 1.39
 4 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.25, 3.42, 3.64, 3.89, 4.11

CHASSIS

Wheelbase 94.5"
 Track dimension, front55"
 Track dimension, rear57"
 Wheel Diameter 15"
 Rim Width

BRAKES

	STANDARD	ALTERNATE
Front:	drum	disc
Rear:	drum	disc

WEIGHT & CAPACITIES

Official weight:	Radiator cap	21 Qt
Coupe: 2930 lbs	Dry sump cap	11.5 Qt
Roadster: 2750 lbs	Fuel tank cap	26.4 Gal
	Alt:	

Note: Engine is equipped with Dry Sump

Manufacturer: MG Car Co.
 Model: MG TC, TD, TF-1250
 ENGINE:

Class: H

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 2.618" x 3.543"
 Capacity 1250 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.42"
 Exhaust ... 1.34"
 Carburation Two 1.25" or 1.50" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox

No. speeds forward:	4			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	3.50	3.38		
2	2.07	1.96		
3	1.38	1.35		
4	1.00	1.00		
5				

Overdrive

Make & Model:	None			
Ratio				

Final drive ratios: 4.55, 4.88, 5.12, 5.43

CHASSIS

Wheelbase 94"
 Track dimension, front47.4" (TC: 45")
 Track dimension, rear50.0" (TC: 45")
 Wheel Diameter 15" or 19"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.75" Drum
 Rear: 8.75" Drum

WEIGHT & CAPACITIES

Official weight:

Radiator cap	7 Qt
Oil sump cap	
Fuel tank cap	15 Gal
Alt:	

ALTERNATE SPECIFICATIONS

Manufacturer: MG Car Co.
 Model: MG TF-1500
 ENGINE:

Class: H

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 2.835" x 3.543"
 Capacity 1466 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.42"
 Exhaust ... 1.34"
 Carburation Two 1.50" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.50
 2 2.07
 3 1.38
 4 1.00
 5

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.55, 4.88, 5.12

CHASSIS

Wheelbase 94"
 Track dimension, front47.4"
 Track dimension, rear50.0"
 Wheel Diameter 15"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.75" Drum
 Rear: 8.75" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 6 Qt
 Oil sump cap
 Fuel tank cap 15 Gal
 Alt:

Manufacturer: MG
 Model: MG-A 1500, 1600 & 1622
 ENGINE:

Class: F

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 3.00"x3.50" or 2.97"x3.50" or 2.88"x3.5"
 Capacity 1622 cc or 1588 cc or 1489 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.56 or 1.50"
 Exhaust ... 1.34" or 1.28"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.64 2.54
 2 2.21 1.62
 3 1.37 1.27
 4 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.88

CHASSIS

Wheelbase 94"
 Track dimension, front47.5"
 Track dimension, rear48.75"
 Wheel Diameter 15"
 Rim Width 4"

BRAKES

	STANDARD	ALTERNATE
Front:	11" Disc	10" Drum
Rear:	10" Drum	—

WEIGHT & CAPACITIES

Official weight:	1875 lbs	Radiator cap	6 Qt
		Oil sump cap	5 Qt
		Fuel tank cap	12 Gal
		Alt:	(See below)

ALTERNATE SPECIFICATIONS

4 wheel disc brakes
 AHH 5863 18-gal fuel tank
 AHH 5990 20-gal fuel tank
 AHH 5496 25-gal fuel tank
 AEH 442 Steel flywheel

Manufacturer: Morgan Motor Company
 Model: Morgan Super Sports
 ENGINE:

Class: C

Manufacturer Triumph
 Type OHV 4 cyl in line
 Bore & stroke 3.39" x 3.62"
 Capacity 2138 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.56"
 Exhaust ... 1.30"
 Carburation Two Weber 42 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.38 2.98 3.38 Alt.
 2 1.98 1.76 1.86
 3 1.14 1.21 1.37
 4 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.8, 3.56, 3.73, 4.1, 4.55

CHASSIS

Wheelbase 96"
 Track dimension, front48"
 Track dimension, rear48.8"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11" Disc
 Rear: 9" Drum

WEIGHTS & CAPACITIES

Official weight: 1680 lbs Radiator cap 10 Qt
 Oil sump cap 6.5 Qt
 Fuel tank cap 14 Gal
 Alt: 22 Gal

Manufacturer: Porsche
 Model: 356 C/1600 SC and 356B Super 90
 ENGINE:

Class: E

Manufacturer Porsche
 Type OHV 4 cyl opposed
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50" or 1.57"
 Exhaust ... 1.34"
 Carburation Two Solex 40 PII-4 or PJJ-4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt. Alt.
 1 3.09 2.75
 2 2.13 1.94 1.76 1.61
 3 1.61 1.47 1.35 1.23 1.13
 4 1.35 1.13 1.04 0.96 0.89 0.85 0.82
 5
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.86, 5.17

CHASSIS

Wheelbase 82.7"
 Track dimension, front51.4"
 Track dimension, rear50.1"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10.8" Disc	11" Drum
Rear:	11.2" Disc	11" Drum

WEIGHT & CAPACITIES

Official weight:	Radiator cap	
1804 lbs - Coupe	Oil sump cap	5.5 Qt
1737 lbs - Roadster	Fuel tank cap	13 Gal
	Alt:	19 or 21

Gal

ALTERNATE SPECIFICATIONS

644.42.095 - 60mm front brakes & vent backing plate
 644.511.010.18 - Aluminum front hood
 644.512.010.18 - Aluminum rear hood
 644.531.004.10 - Aluminum door
 644.531.003.10 - Aluminum door

Manufacturer: Porsche Class: G
 Model: 356, 356A – 1300 and 1300S Coupe & Cabriolet
 ENGINE:

Manufacturer Porsche
 Type OHV 4 cyl opposed
 Bore & stroke 2.94" x 2.92" or 3.15" x 2.52"
 Capacity 1290 cc or 1286 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.20"
 Carburation Two Solex 40 PBIC or 32 PBIC or 32 PBI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward:
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.09	2.75					
2	2.13	1.94	1.76	1.61			
3	1.61	1.47	1.35	1.23	1.13		
4	1.35	1.14	1.04	0.96	0.89	0.85	0.82
5							

 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 6/31, 7/31, 7/34

CHASSIS

Wheelbase 82.7"
 Track dimension, front50.8"
 Track dimension, rear49.2"
 Wheel Diameter 15" or 16"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11" Drum
 Rear: 11" Drum

WEIGHT & CAPACITIES

Official weight:
 1804 lbs - Coupe Radiator cap
 1824 lbs - Cabriolet Oil sump cap 5.5 Qt
 Fuel tank cap 13 Gal
 Alt: 21 Gal

ALTERNATE SPECIFICATIONS

60mm front brakes & vent backing plate

Manufacturer: Porsche
 Model: 356B and 356C GS
 ENGINE:

Class: C

Manufacturer Porsche
 Type DOHC 4 cyl opposed
 Bore & stroke 3.62" x 2.91"
 Capacity 1966 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.89"
 Exhaust ... 1.61"
 Carburation Two Solex 40 PII-4 or Two Weber 46 IDM

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt. Alt.
 1 3.09 2.75
 2 2.13 1.94 1.76 1.61
 3 1.61 1.47 1.35 1.23 1.13
 4 1.35 1.13 1.04 0.96 0.89 0.84 0.82
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.86, 5.17

CHASSIS

Wheelbase 82.7"
 Track dimension, front51.4"
 Track dimension, rear50.1"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.8" Disc
 Rear: 11.2" Disc

WEIGHT & CAPACITIES

Official weight: 1710 lbs Oil sump cap
 Fuel tank cap

ALTERNATE SPECIFICATIONS

644.201.01.07 - Fuel tank, 13 Gal
 644.201.019.11 - Fuel tank, 27 Gal
 644.42.045 - Drum brakes, 11"
 644.42.095 - 60mm front drum brakes
 644.531.004.10 - Aluminum door
 644.511.003.10 - Aluminum door
 644.511.010.15 - Aluminum front hood
 644.512.001.10 - Aluminum rear hoo

Manufacturer: Porsche
 Model: 911
 ENGINE:

Class: C

Manufacturer Porsche
 Type SOHC 6 cyl opposed
 Bore & stroke 3.15" x 2.60"
 Capacity 1991 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.54"
 Exhaust ... 1.38"
 Carburation Two Weber 40 IDA/IDS 3C or six Solex 40 PI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.								
1	2.83	2.64	2.40	3.09						
2	1.78	2.00	1.83	1.55	1.68	1.60	1.89			
3	1.22	1.48	1.36	1.13	1.32	1.43	1.55			
4	0.96	1.22	1.12	1.32	1.04	1.08	1.00	0.93	0.89	
5	0.82	1.04	0.96	1.22	0.76	1.13	0.93	0.89	0.86	
0.79										

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.83, 6.29

CHASSIS

Wheelbase 87"
 Track dimension, front53"
 Track dimension, rear52"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 11.3" Disc

WEIGHT & CAPACITIES

Official weight: 2120 lbs Radiator cap
 Oil sump cap12 Qts (Dry)
 Fuel tank cap15.5

Gal

Alt:

ALTERNATE SPECIFICATIONS

901.351.043/4.20 - Large brake caliper – front
 901.352.043/4.20 - Large brake caliper – rear
 904.352.401.10 - 288mm rear disc brakes
 901.201.001.30 - 26 Gal fuel tank

Manufacturer: Porsche
 Model: 911S
 ENGINE:

Class: C

Manufacturer Porsche
 Type SOHC 6 cyl opposed
 Bore & stroke 3.15" x 2.60"
 Capacity 1991 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.67"
 Exhaust ... 1.51"
 Carburation Two Weber 40 IDA/IDS 3C

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.							
1	2.83	2.64	2.40	3.09					
2	1.78	2.00	1.83	1.55	1.68	1.60	1.89		
3	1.22	1.48	1.36	1.13	1.32	1.43	1.55		
4	0.96	1.22	1.12	1.32	1.04	1.08	1.00	0.93	0.89
5	0.82	1.04	0.96	1.22	0.76	1.13	0.93	0.89	0.86

0.79

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83

CHASSIS

Wheelbase 87"
 Track dimension, front53.3"
 Track dimension, rear52.2"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 11.3" Disc

WEIGHT & CAPACITIES

Official weight: 2150 lbs Radiator cap
 Oil sump cap12 Qts (Dry)
 Fuel tank cap15.5

Gal

Alt:

ALTERNATE SPECIFICATIONS

901.201.001-30 - 26 Gal fuel tank

Manufacturer: Porsche
 Model: 912
 ENGINE:

Class: E

Manufacturer Porsche
 Type OHV
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.34"
 Carburation Two Solex 40 PII-4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5

Ratios:

	Std.	Alt.								
1	2.83	2.64	2.40	3.09						
2	1.78	2.00	1.83	1.55	1.68	1.60	1.89			
3	1.22	1.48	1.36	1.13	1.32	1.43	1.55			
4	0.96	1.22	1.12	1.32	1.04	1.08	1.00	0.93	0.89	
5	0.82	1.04	0.96	1.22	0.76	1.13	0.93	0.89	0.86	

0.79

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.83, 5.15, 6.29

CHASSIS

Wheelbase 87"
 Track dimension, front53"
 Track dimension, rear52"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.3" Disc
 Rear: 11.4" Disc

WEIGHT & CAPACITIES

Official weight: 2000 lbs Radiator cap
 Oil sump cap 5.5 Qt
 Fuel tank cap 16.4 Gal
 Alt:

ALTERNATE SPECIFICATIONS

901.201.001.30 - 26 Gal fuel tank
 901.351/352.401.15 - Ventilated disc brakes

Manufacturer: Shelby American
 Model: Shelby Cobra 289
 ENGINE:

Class: B

Manufacturer Ford
 Type OHV V8
 Bore & stroke 4.00" x 2.87"
 Capacity 4727 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.88"
 Exhaust ... 1.63"
 Carburation One 4 bbl (Carter, Holley or Ford)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.20 2.23 2.20 Alt.
 2 1.63 1.61 1.48
 3 1.31 1.20 1.18
 4 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.07, 3.31, 3.54, 3.77, 4 .09, 4.27, 4.55

CHASSIS

Wheelbase 90"
 Track dimension, front52"
 Track dimension, rear53.5"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

STANDARD ALTERNATE
 Front: 11.4" Disc
 Rear: 11.2" Disc

WEIGHT & CAPACITIES

Official weight: 2150 lbs Radiator cap 12 Qt
 Oil sump cap 6.5 Qt
 Fuel tank cap 18 Gal
 Alt: 37 Gal

Manufacturer: Shelby American
 Model: Shelby Cobra 427
 ENGINE:

Class: A

Manufacturer Ford
 Type OHV V8
 Bore & stroke 4.24" x 3.79"
 Capacity 6997 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 2.20"
 Exhaust ... 1.75"
 Carburation One Holley 1.76" 4 bbl

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 11.5
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.32 2.32 2.22
 2 1.69 1.54 1.43
 3 1.29 1.19 1.19
 4 1.00 1.00 1.00
 5

Alt.

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.09, 3.31, 3.54, 3.77, 4.09

CHASSIS

Wheelbase 90"
 Track dimension, front54.25"
 Track dimension, rear57.5"
 Wheel Diameter 15"
 Rim Width 7.5"

BRAKES

 STANDARD ALTERNATE
 Front: 11.4" Disc
 Rear: 11.2" Disc

WEIGHT & CAPACITIES

Official weight: 2450 lbs Radiator cap 20 Qt
 Oil sump cap
 Fuel tank cap 42 Gal
 Alt:

Manufacturer: Shelby American
 Model: Shelby GT-350 (2 passenger fastback)
 ENGINE:

Class: B

Manufacturer Ford
 Type OHV V8
 Bore & stroke 4.00" x 2.87"
 Capacity 4727 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.88"
 Exhaust ... 1.63"
 Carburation One Holley C4AF-9510-DA 4 bbl 1.7"

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt.
 1 2.26 2.20 2.32 2.32 2.22
 2 1.62 1.64 1.69 1.54 1.43
 3 1.20 1.31 1.29 1.19 1.19
 4 1.00 1.00 1.00 1.00 1.00
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.00,3.10,3.25,3.40,3.50,3.70,3.89,
 4.11,4.29,4.33,4.57,4.71,4.86,5.14,5.43

CHASSIS

Wheelbase 108"
 Track dimension, front58.9"
 Track dimension, rear57.5"
 Wheel Diameter 15"
 Rim Width 7"

BRAKES

STANDARD ALTERNATE
 Front: 11.3" Disc
 Rear: 10.0" Drum

WEIGHT & CAPACITIES

Official weight: 2700 lbs Radiator cap 18 Qt
 Oil sump cap 6.5 Qt
 Fuel tank cap 16 Gal
 Alt: 37 Gal

ALTERNATE SPECIFICATIONS

3 speed automatic transmission (ratios: 2.46, 1.46, 1.00)
 10" Drum brakes – front
 11.0" Disc brakes – front (Girling 16P)
 Servo assisted brakes
 S1MS – A, Aluminum flywheel

Manufacturer: Speedwell
 Model: GT SGT-2A and SGT 2B
 ENGINE:

Class: D

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 2.64" x 3.00"
 Capacity 1080 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.38"
 Exhaust ... 1.13"
 Carburation One Weber 45 DCOE or Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.57 3.63 3.20 Alt.
 2 1.68 2.37 1.92
 3 1.23 1.41 1.36
 4 1.00 1.00 1.00
 5

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.7, 3.9, 4.2, 4.5, 4.9, 5.1, 5.4

CHASSIS

Wheelbase 80"
 Track dimension, front47"
 Track dimension, rear48"
 Wheel Diameter 13"
 Rim Width 3.5"

BRAKES

 STANDARD ALTERNATE
 Front: 8" Drum 8.6" Disc
 Rear: 7" Drum

WEIGHT & CAPACITIES

Official weight: 1150 lbs Radiator cap 6 Qt
 Oil sump cap 5.5 Qt
 Fuel tank cap 22 Gal
 Alt:

Manufacturer: Roots Class: F
 Model: Sunbeam Alpine I,II,III,IV,V & Harrington Le Mans
 ENGINE:

Manufacturer Roots
 Type OHV 4 cyl in line
 Bore & stroke 3.12"x3.25" or 3.21"x3.00" or 3.11"x3.00"
 Capacity 1725 cc or 1592 cc or 1494 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:

 Intake 1.50" or 1.48" or 1.432" or 1.436"
 Exhaust ... 1.21" or 1.18" or 1.172" or 1.176"
 Carburation Two Zenith-Stromberg 150 CD (See below)

TRANSMISSION AND DRIVE TRAIN:
 Clutch Diameter: 8"
 Gearbox

No. speeds forward:	4			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	3.35	3.32	2.97	2.97
2	2.14	1.90	1.90	1.60
3	1.39	1.24	1.23	1.24
4	1.00	1.00	1.00	1.00
5				

Overdrive

Make & Model:	Laycock
Ratio	0.803
Final drive ratios:	3.89, 4.22, 4.44, 4.86

CHASSIS

Wheelbase	86"
Track dimension, front	51.5"
Track dimension, rear	50.5"
Wheel Diameter	13"
Rim Width	4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10" Disc	
Rear:	9" Drum	

WEIGHT & CAPACITIES

Official weight:	1970 lbs	Radiator cap	9 Qt
		Oil sump cap	5 Qt
		Fuel tank cap	14 Gal
		Alt:	

ALTERNATE SPECIFICATIONS

- 1 Solex 32 PAIA
- 1 Zenith 36 WIP2
- S233196 – Aux fuel tank, 25 gal

Manufacturer: Roots
 Model: Sunbeam Tiger
 ENGINE:

Class: C

Manufacturer Ford
 Type OHV V8
 Bore & stroke 3.80" x 2.87"
 Capacity 4262 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.677" or 1.582"
 Exhaust ... 1.457" or 1.381"
 Carburation One Ford-Holley C30FAJ/B

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.4"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.32 2.20 2.20 2.36
 2 1.69 1.63 1.48 1.63
 3 1.29 1.31 1.18 1.21
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.88, 3.07, 3.32, 3.54, 3.70,
 3.92, 4.09, 4.27, 4.55

CHASSIS

Wheelbase 86"
 Track dimension, front51.75"
 Track dimension, rear48.50"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10" Disc
 Rear: 9" Drum 10" Disc (Lat 46)

WEIGHT & CAPACITIES

Official weight: 2400 lbs Radiator cap 10 Qt
 Oil sump cap 5 Qt
 Fuel tank cap 14 Gal
 Alt:

ALTERNATE SPECIFICATIONS

Lat 33 - 37 Gal fuel tank

Manufacturer: Standard Triumph
 Model: TR-4, TR-4A (Beam axle)
 ENGINE:

Class: D

Manufacturer Triumph
 Type OHV 4 cyl in line
 Bore & stroke 3.386" x 3.62"
 Capacity 2138 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.56"
 Exhaust ... 1.30"
 Carburation Two 1.75" SU or Stromberg

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9" or 8.75"
 Gearbox

No. speeds forward: 4

Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.14			
2	2.01			
3	1.33			
4	1.00			
5				

Overdrive

Make & Model: Laycock
 Ratio 0.821

Final drive ratios: 3.7, 4.1, 4.3, 4.55

CHASSIS

Wheelbase 88"
 Track dimension, front50"
 Track dimension, rear49"
 Wheel Diameter 15"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE

Front: 11" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 2000 lbs	Radiator cap	8 Qt
	Oil sump cap	6.5 Qt
	Fuel tank cap	14 Gal
	Alt:	32 Gal

ALTERNATE SPECIFICATIONS

Vacuum brake servo
 Lightweight flywheel
 Steel or Alfin drums – rear – 9" or 10"

Manufacturer: Turner
 Model: Turner Climax
 ENGINE:

Class: D

Manufacturer Coventry Climax
 Type SOHC 4 cyl in line
 Bore & stroke 2.85" x 2.625"
 Capacity 1097 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.35"
 Exhaust ... 1.20"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.25
 2 1.67
 3 1.23
 4 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.2, 4.3, 4.55, 4.88, 5.12

CHASSIS

Wheelbase 80.5"
 Track dimension, front45.5"
 Track dimension, rear44.75"
 Wheel Diameter 13" or 15"
 Rim Width 4.5"

BRAKES

 STANDARD ALTERNATE
 Front:
 Rear:

WEIGHT & CAPACITIES

Official weight: 1204 lbs Radiator cap
 Oil sump cap
 Fuel tank cap
 Alt:

Manufacturer: Grantura Engineering
 Model: TVR Climax
 ENGINE:

Class: D

Manufacturer Coventry Climax FWE
 Type SOHC, 4 cyl in line
 Bore & stroke 3.00" x 2.625"
 Capacity 1216 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.35"
 Exhaust ... 1.25"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox

No. speeds forward:

Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.64			
2	2.21			
3	1.37			
4	1.00			
5				

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 4.3, 4.55, 4.88

CHASSIS

Wheelbase 84"
 Track dimension, front52"
 Track dimension, rear52"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.75" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1404 lbs Radiator cap 8.5 Qt
 Oil sump cap
 Fuel tank cap 12 Gal
 Alt:

ALTERNATE SPECIFICATIONS

Moto-vac brake booster
 Large fuel tank

Manufacturer: Grantura Engineering
 Model: TVR Mk III 1622
 ENGINE:

Class: E

Manufacturer BMC (MG-A)
 Type OHV 4 cyl in line
 Bore & stroke 3.00" x 3.50"
 Capacity 1622 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.56"
 Exhaust ... 1.34"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward:
 Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.64	2.45		
2	2.21	1.62		
3	1.37	1.27		
4	1.00	1.00		
5				

Overdrive
 Make & Model: Laycock
 Ratio 0.802
 Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.88, 5.1

CHASSIS

Wheelbase 85.5"
 Track dimension, front51"
 Track dimension, rear52.5"
 Wheel Diameter 14" or 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.75" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1526 lbs
 Radiator cap 6 Qt
 Oil sump cap 5 Qt
 Fuel tank cap 12 Gal
 Alt:

ALTERNATE SPECIFICATIONS

COMP17 - Vacuum brake booster
 COMP9 - 6 Gal fuel tank



General Competition Rules

1972 Edition

1973 Revised

5. AUTOMOBILES

5.1 CLASSIFICATION OF AUTOMOBILES

Organizers of SCCA Regional, National and Interdivisional Championship events shall provide competitions for these classes:

Production Category	Classes A through H
Sports Racing Category	Classes A through D
Sedan Category	Classes A through C
Formula SCCA	Classes A through C
Formula Vee	
Super Vee	
Formula F	

Competitions for classes other than specified above shall not jeopardize a full schedule of competitions for the recognized classes. Organizers may also schedule extra competitions for other classes, provided specifications are clearly set forth in Supplementary Regulations, or otherwise made clear to entrants.

All automobiles shall run in one class/category only during an event, unless otherwise permitted in the Supplementary Regulations.

5.2 Regulations

General Regulations for all cars in SCCA-sanctioned events and the specific regulations for National Championship classes are contained in the GCR, Appendix A.

5.3 Vehicle Log Books

A standard SCCA vehicle log book will be used by all competitors in Regional and National events.

Only one log book will be issued for each vehicle (other than by way of extension or replacement) and the possession of two log books for one vehicle at one time shall be deemed an offense against these rules.

The log book shall be issued by the Regional Executive or his designated representative. Each vehicle will have an identity number corresponding to that of its log book permanently stamped on its roll bar.

The first digit(s) corresponding to the Region's identity number shall be separated from the balance of the numbers by a dash (-). The vehicle number system beginning with (001) shall be issued consecutively as the vehicles are registered during a thorough inspection.

A complete description of the vehicle, its safety roll bar and the required photographs will be entered in the places provided. All changes of ownership of the vehicle must be recorded as provided.

At each event, this log book must be presented at Scrutineering with the signature of the driver/entrant for that event in the space provided. During Scrutineering all deviations regarding both safety and legality will be noted by the Scrutineer. If a waiver for the event is permitted the duration of the waiver must be noted and complied with by the competitor.

If a car is protested during an event, the results of this protest must be

noted.

In the event the vehicle is involved in an accident or is damaged due to a mechanical failure, the damage shall be noted in the vehicle log book by the accident investigator or other designated official.

In the event the vehicle log book is not available at Scrutineering, the vehicle shall be accepted for competition only after a thorough inspection during which all details required for the issuance of a log book will be recorded.

APPENDIX A

AUTOMOBILES

1. GENERAL REGULATIONS

1.1 Eligibility

To compete in an SCCA-sanctioned event, cars shall meet the following requirements as well as the specifications of the class and category in which they are entered.

1.2 Fuel

All cars shall use pump fuel as defined in GCR 2.11 unless a specific exemption is made in the rules for a particular category of automobile.

1.3 Identification Marks

Each automobile shall carry identification numbers, class letters, or other marks required by the Supplementary Regulations. Numbers shall be placed on the front, rear and both sides of each automobile so that they are legible. Numbers used shall be restricted to one or two digits and shall meet the approval of the Chief Timer and Scorer.

The Supplementary Regulations shall ordinarily require all automobiles to carry numbers, at least eight to ten inches high with 1 ½" stroke on a contrasting background. Each automobile competing in an SCCA-sanctioned speed event must prominently display the official SCCA emblem, 4" diameter size on both sides of the automobile.

1.4 Advertisements on Automobiles

Advertising, names and symbols may be displayed on cars provided they are in good taste and do not interfere with identification marks.

1.5 Mechanical Condition of Automobiles

The Chief Technical and Safety Inspector shall have the responsibility for inspecting and certifying every automobile before it is allowed to take part in a competition or practice. An automobile which is disapproved, or which is driven in a competition or practice, or which is presented for recheck without the corrections specified by the Chief Technical and Safety Inspector may be disqualified from the event.

Automobiles which have been altered or damaged after they have

been approved at technical and safety inspection shall be subject to reinspection and approval.

All major body components such as front and rear hoods, fenders, doors and wind screen must be maintained in normal position throughout the competitions.

1.5.1 Technical and Safety Inspection

The points covered at technical and safety inspection shall be:

- a) Eligibility for class entered – compliance with the GCR.
- b) Suitability for competition.
- c) Appearance – neat and clean. Specifically, automobiles that are dirty either externally or in the engine and passenger compartments, or that show bodywork damage, or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition.
- d) Racing Tires – designated as such by the manufacturer, or recaps on such racing tires shall be required.
- e) Brakes – shall be pedal operated, working directly on each wheel, and in perfect working order. Rolling brake tests are prohibited.
- f) Fenders – Shall be securely mounted. Fender skirts and hub caps shall be removed.
- g) Exhaust system – Shall be directed away from the body and shall terminate behind the driver. Closed cars shall run with at least one window open, or provide other ventilation.
- h) Hood and engine compartment – all parts shall be securely fastened.
- i) Suspension and steering – shall be of suitable design and in proper order. All Heim type spherical rod ends used on major suspension and steering components of Formula and Sports Racing cars must be retained either by the design of the mounting brackets or by a larger area captive washer.
- j) Leakage and caps – no leakage of any fluid shall be allowed. Monza (flip top) gas caps are prohibited.
- k) Brake lights – except for formula cars, all cars shall have two operating brake lights.
- l) Seats – shall be securely mounted.
- m) Seat belts and shoulder harness conforming to specifications of Appendix Y of the GCR.
- n) Passenger seat back – if a folding seat, it shall be securely bolted or strapped in place.
- o) Roll bars – each car shall be equipped with a roll bar to specification of Appendix Z of the GCR.
- p) Tonneau covers and boot covers are prohibited.
- q) Fire wall and floor – shall prevent the passage of flame and debris to the driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids.
- r) Mirrors – shall provide driver visibility to the rear of both sides of the car.
- s) Fire Extinguisher – shall be dry chemical type, "Halon 1301

or 1211" type of the following minimum capacities:

a.) Dry Chemical: 2 pounds (Potassium bicarbonate Purple K, or multipurpose ammonium phosphate and barium sulphate.)

b.) Halon 1301 & 1211: 1 ¼ pounds for hand-held manual operation units. 2 ½ pounds for in-car integrated installations (manual or automatic release.)

A minimum of 5 lbs is recommended for all in-car integrated systems.

Except for in-car, integrated installations, fire extinguishers shall be securely mounted in the cockpit. On formula cars, fire extinguishers may be mounted in an accessible location outside of the cockpit. Positive indication must be provided that the fire extinguisher or system is adequately charged. Integrated systems are recommended in all cars.

- t) Flame resistant garments, crash helmets, goggles, or face shields – shall be approved at safety inspection and may also be checked upon the starting grid. (Ref.: GCR 4.8)
- u) Scattershields – The installation of scattershields or explosion-proof bell housings shall be required on all cars where the failure of the clutch or flywheel could create a hazard to the driver. Chain drive cards must be fitted with a protective case/shield to retain the chain in case of failure.
- v) Detachable hardtops and detachable doors (i.e. Lotus Seven) must be removed.
- w) Oil catch tanks – all engine crankcase breathers whether directly or indirectly ventilating the crank-case, and all transmission/transaxle breathers must be equipped with oil catch tanks. Minimum catch tank capacity shall be on U.S. quart, each for the engine and transmission/transaxle. If a single catch tank is used for both the engine and the transmission/transaxle, the minimum capacity shall be two U.S. quarts. Oil catch tanks may not be mounted in the driver/passenger compartment.
- x) Master Switch

All cars, except Showroom Sports Cars and Showroom Stock Sedans, must be equipped with a general circuit breaker (master switch) easily accessible from outside the car. This circuit breaker will cut all electrical circuits (ignition, fuel pumps, lights, alternator, etc.) but not an on board fire extinguisher. It shall be clearly marked by the international marking (spark and blue triangle) (Note: regions order from Denver) and mounted in a standard location. The standard locations will be as follows:

- A. Formula and Sports Racing Cars – In close proximity to the right hand upright member of the roll bar, but in a location so that it cannot be operated accidentally. It can be mounted on a bracket welded to the inside of the upright

member or mounted so that the operating lever or knob is outside of the body panel immediately inboard of the upright member. This is the standard location on Formula cars built to the Constructors Association's requirements for Formula I.

- B. Closed Sports Racers Production Cars, Coupes and Sedans – In front of the windshield on either the cowl or on top of the fender, but close enough to the windshield to be accessible if the car is overturned. Alternatively it may be mounted below the center of the rear window.
- C. Open Production Cars – May exercise a choice among the above locations.
- y) Steering wheel lock devices – shall be removed.
- z) Wood rim steering wheels are prohibited.

1.5.2 Batteries

If the battery is located in the driver/passenger compartment, it must be in a leakproof container or be fitted with leakproof caps. The hot terminal must be insulated on all cars.

2. PRODUCTION CATEGORY

2.1 Definition

- a. The purpose of the Production Category shall be to provide a Club-wide program of speed events for the benefit and pleasure of SCCA members who desire to compete in a series-produced sports cars, generally available for purchase by the public, and suitable for both normal road use, and speed events participation, and who additionally desire to improve the performance of these cars within specific and uniform preparation limitations. The SCCA shall publish a list of sports cars eligible to compete in the Production Category during the current calendar year. After this list has been established, no changes or additions in classification shall be made.
- b. Production Category automobiles shall normally be those which are series-produced with normal road touring equipment in quantities of at least 1000 within a 12 month period and approved by E.P.A. and D.O.T. for sale in the United States. However, the SCCA may exclude any automobiles from the Production Category even if made in greater quantities, if such automobiles are not considered suitable.
- c. Production Category automobiles shall be recognized according to the manufacturers' complete designation, include the name, model, model number and engine displacement. The SCCA shall publish the Production Car Specifications containing the official recognized specifications for each car eligible to compete in the Production Category during the calendar year.
- d. Production Category automobiles must be raced as they are normally delivered to the public through the manufacturers' sales outlets, except that they may be up-dated or back-dated

within the specifications of a recognized make and model, as listed on a single page of the SCCA Production Car Specifications and except for the modifications authorized by these Rules.

- e. The SCCA shall publish the specifications for each recognized Production Category model. This specification shall state the weight for each model, which weight shall normally correspond to the official weight listed on the model's recognition form, or else shall be obtained by taking the average of the actual weights of a number of examples of the same model, selected at random, and weighed under the following conditions: With the spare wheel and tire of the size normally provided by the manufacturer, with full oil sump (or tank), and with full water tank if one is used but without fuel, tools, luggage or anyone on board.

A weight tolerance of minus 5% as compared with the official weight will be granted Production Category automobiles, provided the reduced weight results from modifications permitted in these Rules. Cars must meet or exceed the official weight less 5% as raced, but without fuel and driver.

Track is to be measured as raced, at the hub center line, with the car at race ride height, without driver.

- f. Production Category automobiles shall be classified for racing purposes in groups of cars of similar performance.
- g. On closed Production Category cars, at least one main door window must be fully open during competition.

2.2 Authorized Modifications

The following modifications are authorized on all Production Category cars: (Modifications may not be made unless specifically authorized herein.)

A. Bodywork

1. Fitting all accessories, gauges and indicators, and all inside modifications for the purpose of improving the comfort and convenience of the driver and to permit the installation of required safety equipment, provided they have no influence whatever on the mechanical performance and do not materially reduce the weight of the car. Floor mats may be removed. The removal of interior trim except door panels is permitted. The driver's seat may be replaced with any suitable seat. Passenger seats may be removed completely. Seat head rests may be removed. Seat mountings may be reinforced.
2. Raising hood for ventilation of engine compartment by use of hinge adjustment mechanism as installed by manufacturer. (Hood blocks or other modifications are not allowed.) Additional hood straps or fasteners may be used. It is specifically not authorized to alter or open any hood, deck, or other body panels for purposes of additional ventilation. Sealing or shrouding the air flow area

between the normal grille opening and the water radiator is permitted. The radiator shroud may be altered.

3. The use of any gas cap, except Monza (flip type), is permitted. One-way, anti-surge caps are recommended. The filler cap may be relocated directly on the fuel tank. The filler neck/hose may be removed and resulting hole(s) may be covered.
4. The top may be removed from open cars or else must be folded and securely fastened.
5. The windshield on open cars may be folded or removed provided a suitable windscreen is fitted, not exceeding the height or width of the standard windshield and not extending rearward past a vertical plane at the rear most part of the standard windshield nor forward of the front most part of the standard windshield/windscreen frame. The windscreen must be made of transparent material. If the standard windshield is removed, the entire windshield (that is, both halves of a divided windshield) including all brackets and mount fixtures must be removed. The windshield wiper arms, motor(s) and mechanisms may be completely removed. On open cars, all window glass, channels, vent windows and window winding mechanisms may be removed. On closed cars, window glass, channels, vent windows and window-winding mechanisms may be removed from the side doors.
6. Bumpers may be removed, except when it (they) are an integral part of the coachwork (example Porsche 911). If the bumper is removed, all projecting hardware such as brackets and fixtures must all be removed. No substitute bumpers are allowed. Hub caps and fender skirts must be removed. Grilles may not be removed.
7. Glass and/or plastic, headlight, front parking light, front signal light, lenses and bulbs must be removed. The resulting openings may be used for ducting of air to the engine, front brakes and /or oil coolers. The openings must be covered with wire mesh screen maximum weave ¼" wire cloth. This screen must be of the same contour as the original lens and mounted so that the headlight bezel/rim remains in place and presents a stock appearance. Side marker light assemblies must be removed and the resulting openings covered with a plate not exceeding the dimensions of the original parts. If the headlight openings are not used for ducting air, they must be completely covered with a flat panel or panels conforming to the shape of the original lenses. These panels must be metal, fiber-glass mat, cycolac or other approved material and must be mounted in the original location of the standard lenses. Other lighting parts and operating ancillaries may be removed. Resulting holes must be completely covered. Plastic or glass headlight covers must be removed,

and may be replaced with metal or fiberglass duplicates, mounted in the original location of the standard covers.

8. The fitting of a spoiler to the front of the car, provided that, no changes are made in the bodywork for this purpose, and that it does not extend, to the side, beyond the centerlines of the front wheels, nor more than three (3) inches below the lowest part of the front body panel, nor above a horizontal plane passing through the wheel hub centerlines, nor forward of the most forward part of the front body panel.
9. The addition of a bulkhead between the driver/passenger compartment and the compartment containing the fuel tank.

B. Tires, Wheels, Suspension

1. The make and size of tires provided they fit the rims without change or additions and do not interfere with the bodywork under any conditions or steering lock or rebound. In order to provide clearance for tires and wheels, the interior fender panels may be altered but not substituted with an alternate material. The authorized modifications may not result in any additional openings between the wheel well and the engine, passenger or luggage compartments. The exterior contour of the fenders may be altered only to provide for tire clearance, provided that the fender opening profile, viewed from the side of the automobile is not changed.

The tire tread may not extend beyond the fender opening at the highest point of the tire.

Spare tires may be removed, unless the Supplementary Rules for an event specify otherwise.

2. The use of any wheels of the same diameter and with a rim no more than 1.5 inches wider than the standard wheel listed by SCCA for the automobile. Changes in track resulting from use of the above wheels may not exceed plus or minus 2 inches from the track dimension listed by SCCA for the automobile, measured as raced, at the hub center line with the car at race ride height, without driver.

Furthermore, the track dimensions shall remain equally disposed from the center line of the automobile. Wheel spacers may be used within the above dimensional restrictions.

The use of center-lock wheels and hubs is permitted within this track restriction.

3. The make and type of shock absorbers, but not their numbers, or their system of operation (i.e., lever or telescopic), or their system and points of attachment.
4. The cooling of brakes by the ventilation of backing plates or fitting of air ducts provided no changes are made in

the bodywork for this purpose. Disc brake dust shields may be altered or removed. Front mounted ducting and/or spoilers shall not extend, to the side, beyond the centerlines of the front wheels, no more than three (3) inches below the lowest part of the front body panel, nor above a plane passing through the wheel hub centerlines, nor forward of the most forward part of the front body panel. Rear brake ducts may extend in a forward direction only, and shall extend a maximum of 24 inches from the rear brake disc/drums.

5. The make of brake linings and the use of any brake lines. The fitting of any single or dual master cylinder(s). A servo assist may be added, if none is fitted as standard. The standard servo assist may be modified, removed, or replaced.
6. The modification or substitution of front spindles and/or rear axle shafts, and modifications or substitutions of hubs, bearings, bearing carriers, universal joints, and drive shafts. These changes may not result in any changes in tread dimensions as measured from the centerline of the car, or any changes in other suspension components, or the suspension geometry.
7. The use of alternate suspension bushings of the same type and size. Offset bushings are permitted.
8. The addition or substitution of any anti-roll bar, camber-compensating device and/or axle locating device provided there is no other change in the standard suspension or drive train components except as authorized elsewhere in these rules. Such devices may not pass through any interior or exterior body panel, or frame member.
9. Springs or torsion bars of any kind may be replaced by others of unrestricted origin, but without changing the number supplied by the manufacturer and on the condition they can be fitted without alteration to the original supports and points of attachment. On independent suspension systems utilizing a hub, located by a strut, incorporating a shock absorber surrounded by a coil spring, (i.e., MacPherson strut, Chapman strut, etc.) the spring mounting points on the strut/shock absorber may be modified and/or relocated on the strut/shock absorber provided that the strut/shock absorber remains inside the coil spring. The points of attachment of the strut/shock absorber unit to the chassis, may not be relocated. All components between the chassis and hub are considered to be part of the strut/shock absorber, unit, except for brake components. Spacers (lowering blocks) may be used between leaf springs and the points of attachment to the axle housing.
10. The removal of the handbrake and operating mechanism.
11. Nuts, bolts, studs, washers, etc., may be substituted.

12. The improvement of the effectiveness, for racing purposes, of energy-absorbing steering columns providing that the energy-absorbing characteristics are not reduced.

C. Electrical System

1. Make of spark plugs and ignition coil on condition that the system of ignition remains the one provided by the manufacturer. Transistor ignition is permissible provided the original distributor equipment is utilized.
The standard generator or alternator may be replaced by either a generator or alternator of different make and capacity providing the location and driving method remains unchanged.
Internal modifications to the distributor are permitted. The vacuum actuating mechanism may be removed.
2. Make or size of battery provided its voltage and location remains unchanged.
3. The wiring harness may be altered or replaced.
4. Horns may be completely removed.

D. Engine Drive-Train

1. Induction System
 - a. Carbureted engines: Any alteration to the carburetors except changing the number, model, type, size (measured at the throttle butterfly) or butterfly location of the standard equipment and except that extensions or the addition of material to the exterior of the carburetor body is prohibited.
 - b. Fuel injection engines: any alteration to the standard fuel injection components except:
 - Changing the location, type, or number of the air throttles (butterfly, slide, etc.) or changing the inside dimensions of the air duct at the air throttle.
 - The addition of material to the intake manifold.
 - Changing the number or location of the injection nozzles.
 - Changing the make and model of the fuel metering and/or fuel distribution unit. The fuel metering and/or fuel distribution unit may be modified without restriction provided that it can be positively identified as that fitted as standard equipment.
Velocity stacks (air intake horns) or cold air box(es) and air supply duct(s) may be used on any induction system provided no modifications are made to the body or frame of the car to accommodate their use.
Air cleaners may be removed.
2. Additional fuel pumps may be used provided they are only for supplying fuel to the carburetors and not for cooling purposes. If the mechanical fuel pump is replaced, a blanking plate may be used to cover the original mounting

- point.
3. Any alternate fuel line may be used provided it does not pass through the driver/passenger compartment and provided the number of fuel lines remains unchanged between the tank and the firewall. In addition, it is permitted to install a fuel pump in the fuel line between the fuel tank and the firewall.
 4. It is permitted to lighten, balance, or modify in shape by tooling components of the engine and drive-train, provided it is always possible to identify them positively as such. It is not permitted to add any material or mechanical extension unless authorized in these rules.
Mechanical (i.e., shot or glass peening) heat, chemical (including plating) treatment of these components is permitted, provided it is always possible to identify the components positively as the original equipment.
The engine fan may be completely removed.
 5. Additional shims required for valve adjustment or for maintaining the geometry of a valve train after machining operations will be allowed.
 6. The use of alternate engine and drive-train components which are normally expendable and considered replacement parts such as seals, bearings, valves, valve guides and valve seats, provided they are of the same type, quantity and dimensions. Bushings may be installed where none are fitted as standard provided that they are concentric and that the center line of the bushed part is not changed. Gaskets may be replaced with others of unrestricted origin, but not thicker than the standard gaskets.
 7. The compression ratio may be increased by machining, using any head gasket or doing without one.
 8. Nuts, bolts, studs, washers, etc., may be substituted.
 9. Reboring the cylinders is authorized on condition that the greatest bore measurement specified for that make and model is not exceeded by more than 1.2 mm (.0472 in.)
 10. Substitute pistons of any material or origin are authorized.
 11. The substitution or additions of any valve springs of the same basic type (i.e., hairpin or helical) with which the car is normally equipped is authorized and the substitution or addition of keepers and retainers.
 12. The use of any exhaust manifold and exhaust pipe.
 13. The use of any engine oil filter(s).
 14. The ratios of the gear box and rear axle when listed by the SCCA. Addition of a device for locking out reverse gear.
 15. Installation of any type of vent or breather on the engine, transmission, or differential to prevent loss of lubricant and the use of oil catch tanks on the transmission and differential.

16. Any modifications to the clutch except increasing the diameter of the unit originally specified for the model by the manufacturer. The number of discs may not be changed.
17. The use of any limited slip or locked differential except that no substitution of the differential housing is permitted.
18. Springs or torsion bars of any kind may be replaced by others of unrestricted origin, but without changing the number supplied by the manufacturer, and on condition they can be fitted without alteration to the original supports and points of attachment.
19. Use of any pushrods.
20. Use of any oil pan (sump) and/or any oil pump pickup.
21. Use of any water radiator provided the standard radiator mounts are retained and there are no changes in body, chassis, or internal structure of the car to accommodate its use. Separate expansion tank provided it is mounted within the engine compartment.
22. Thermostats may be modified, removed or replaced with blanking sleeves or restrictors.
23. Generator, crankshaft and water pump pulleys may be altered or replaced with others of unrestricted origin.
24. Use of any external crankshaft vibration dampener is allowed.
25. The use of any engine, transmission and/or differential oil cooler(s) provided it (they) are mounted completely within or under the coachwork but not within the driver/passenger compartment. Oil pump(s) may be added for the differential and/or transmission oil coolers. Air ducts may be fitted to the oil cooler(s) provided they do not extend more than 12 inches in any direction from the cooler fins. Front mounted ducting and/or spoilers shall not extend, to the side, beyond the centerlines of the front wheels, nor more than three (3) inches below the lowest part of the front body panel, nor above a plane passing through the wheel hub centerlines, nor forward of the most forward part of the front body panel.
26. The use of any flywheel provided the diameter is the same as the unit originally specified for the model by the manufacturer and provided the crankshaft attachment points are not changed. Dowel pins may be added.
27. Exhaust emission control air pumps and associated lines and nozzles cannot be modified in any way except that they may be completely removed. When these air nozzles are removed from a cylinder head, the holes must be completely plugged.
28. Any camshaft(s) may be used. Any tappets (cam followers) of the same type and diameter may be used.

E. Safety Fuel Tanks

1. General
Fuel tanks in Production Category cars may be substituted with safety fuel tanks conforming to the SCCA safety fuel tank standards as specified in Appendix X of the GCR.
2. Capacity
There shall be no restriction of fuel capacity when installing safety fuel tanks and the installation of more than one of the standard 22, 15 or 8 gallon tanks is permitted.
3. Location
Location of the safety fuel tank shall be as close as possible to the location of the standard tank(s) except when safety aspects or dimensional limitations make this unfeasible or impossible. In no case shall the location of the safety tank in the automobile be more than 12" from the standard tank(s), nor shall the tank be located in the driver/passenger compartment.
4. Installation, Fittings, Lines
Internal body panels may be modified to accommodate the installation of safety fuel tanks as long as modification serves no other purpose.

Filler caps, fuel pick-up openings and lines, breather vents and fuel filler lines shall be so designed and installed that if the car is partially or totally inverted, fuel shall not escape. If the fuel filler cap is located directly on the fuel tank, a check valve shall not be required provided the filler cap is of a positive locking type and does not incorporate an unchecked breather opening. If the fuel filler cap is not located directly on the fuel tank, a check valve must be incorporated in the fuel tank to prevent fuel escaping if the cap and filler neck is torn from the tank.

Fuel tank breathers must vent outside the car.

It is recommended that all lines and filler openings be incorporated in a single fitting located at the top of the fuel tank.

2.3 In 1973 production category automobiles shall be divided into classes based on relative performance as follows

Class A

Abarth Simca 2000
Cobra 427
Corvette Sting Ray Roadster & Coupe 350, 1970, 1971
Corvette Sting Ray Roadster Coupe 396, 427, 454 thru 1973
DeTomaso Pantera 351, 1972-73
Griffith 200
Porsche GTS/904

Class B

Alfa Romeo Montreal
AMX Sports Coupe 290 thru 1969

AMX Sports Coupe 343 thru 1969
Cobra 289
Corvette 283, 327 (1962)
Corvette Sting Ray Roadster 327, 350, 1963 thru 1973
Ferrari 365 GTB 4 Daytona
Jaguar Series 3 (V-12)
Porsche 911E Coupe/Targa, Cabriolet 1969
Porsche 911S Coupe/Targa, Cabriolet 1969
Porsche 911E Coupe/Targa, Cabriolet 1970-1971
Porsche 911S Coupe/Targa, Cabriolet 1970-1971
Shelby GT 350 thru 1966
Shelby GT 350 I-4V, 1967
Shelby Cobra GT 350 Coupe, 1969

Class C

Alfa Romeo TZ
Datsun SRL 311U (Mikuni)
Datsun 240Z Sports (Hitachi & Mikuni) thru 1973
Ferrari Dino 246 GT
Jaguar F 3.8 & 4.2
Lotus Elan thru S-4 (Roadster, Coupe & Drophead)
Lotus Europa Twin Cam
Lotus Elan Plus Two
Lotus Seven Series Four
MGC, MGC GT
Porsche Carrera 1500 1600
Porsche 911, 911S, 911L (Coupes) thru 1968
Porsche 911T Coupe/Targa, Cabriolet 1969
Porsche 911T Coupe/Targa, Cabriolet 1970 1971
Porsche 911T E.S. Coupe/Targa, Cabriolet 1972
Porsche 914/6 thru 1972
Sunbeam Tiger 260
Triumph T-250
Triumph TR-5
Triumph TR-6 thru 1972

Class D

Alfa Romeo Duetto 1750 thru 1971
Alfa Romeo 2000 Spider
Austin Healey 3000
Daimler SP-250
Datsun SRL 311U (Hitachi)
Elva MK III 1800 & MK IV 1800
Elva MK IV T 1800
Jaguar KX 120, 140, 150
Jensen Healey
Lotus Super Seven
Lotus Europa MK 46, 54 (65)
Porsche 9145
Triumph GT-6 & GT-6 Plus
Triumph GT-6 Mark III (2 carb.) thru 1972
Triumph GT-6 Mark III (1973 Swing Axle)
Triumph TR-4
Triumph TR-4A IRS
TVR Mk III 1800
Yenko Stinger

Class E

Alfa Romeo Duetto 1600
Alfa Romeo Grulia Spider Veloce 1600
Alfa Romeo Grulia GT & GTZ
Austin Healey 100-6
Elva Mark I, II, III, 1662
Elva Mark IV 1622
Fiat 124 Sport Spider 1600 (2 carb.)
MGB MGB GT
Morgan +4
Opel GT 1900
Porsche 912 Coupe/Targa, Cabriolet thru 1968
Porsche 912 Coupe/Targa, Cabriolet thru 1969
Porsche 914/4 thru 1973
Porsche 356C/1600SC & 356B Super 90
Porsche 356 1500/1600 A B C
Saab Sonnet V thru III
Triumph TR-2, 3, 3A, 3B
Turner 1500
TVR Mk III 1622
TVR Vixen 1600 Ford
Volvo 1800 (1990 cc) 1969, 1800E, 1800ES thru 1973

Class F

Alfa Romeo Guilietta Super 1300
Alfa Romeo Sprint Speciale
Alfa Romeo Guilia Sprint & Super 1600
Alfa Romeo Spider 1300 Junior
Alfa Romeo Junior Z
Alpine A100 1100
Austin Healey 100-4, 100M
Austin Healey Sprite 1275
Datsun SPL 311 & SPL 311U
Fiat 124 Sport Spider thru 1970, 1600-1971-1973 (one carb.)
Fiat Abarth OT 1300/124 Coupe
Lotus 7 & America
MGA 1500, 1600, 1622
MGA Twin Cam
MG Midget 1275 thru 1973
Morgan 4/4 Mk V
Sunbeam Alpine
Triumph Spitfire Mk III thru 1970
Triumph Spitfire Mk IV thru 1972
Triumph Spitfire 1500
Volvo P 1800 S (1780 cc)

Class G

Alfa Romeo Sprint & Spider 1300
Austin Healey Sprite 1100 AN 8 (1100)
Datsun SP 310U
Fiat Abarth OTS 1000 Coupe
Fiat Abarth 1000 Pushrod
Fiat Abarth OT 1000 Spider
Honda S800
Matra

MG Midget AN2, AN3
Porsche 1300
Rene Bonnet CRB
Triumph Spitfire Mk I & II
Turner 950S

Class H

Austin Healey Sprite Sprite 948Mk I & II
Fiat 850 Spider, Racer thru 1973
Fiat Abarth 850S, 750 GT, 750 MM
Honda S600
MG Midget 948
MGTC, TD, TF 1250
MG TF 1500
Morgan 4/4 Mk IV
Opel GT 1100 thru 1971

3. SCCA Sports Racing Category

3.1 The SCCA Sports Racing Category shall be for automobiles which are designed and constructed for road racing competition, offering provisions for drive and a passenger, basically suitable for driving over normal roads. They shall conform to the following requirements.

Sports racing category cars built prior to Jan. 1, 1966 need not comply with the minimum door and cockpit width dimensions specified herein, but must comply with all other requirements.

3.2 **Classification** – Cars with reciprocating piston engines of two or four cycles shall be classified according to engine displacement as follows:

- A. Over 2000 cc
- B. Over 1300 cc and below or equal to 2000 cc
- C. Over 850 cc and below or equal to 1300 cc
- D. Below or equal to 850 cc

Supplementary regulations for an event or series of events may provide for combining any of these classes.

Supercharged cars shall be classified according to their displacement times a factor of 1.4.

Rotary Piston Engines

Car with rotary piston engines covered by the NSU-Wankel patents shall be classified on the basis of a piston displacement equivalent of twice the volume determined by the difference between the maximum and minimum capacity of the working chamber.

Other Designs:

Turbine and steam powered engines are prohibited.

3.3 Self Starter

Cars shall be equipped with an automatic self starter and on-board power supply.

3.4 Brakes

These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels.

A separate hand brake (emergency brake) is not required.

3.5 Coachwork

All parts of the car licked by the air stream and situated above a plan passing through the center of the wheel hubs.

All external parts of the car which extend above the highest point of either the front or rear wheels (with tires) with the exception of units definitely associated with the functioning of the engine or transmission and the roll bar.

Coachwork shall provide comfort and safety for driver and a passenger. All elements of the coachwork shall be completely and neatly designed and finished, with no temporary or makeshift element. The body shall cover all mechanical components, except that the intake and exhaust may protrude.

Any specific part of the car which has an aerodynamic influence on the stability of the vehicle must be mounted on the entirely sprung part of the car and shall be firmly fixed while the car is in motion.

Neither the safety roll bar nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating a vertical thrust.

All external projections swinging in a horizontal plane shall have a minimum radius of 1.5 cm. The leading edge of any aerofoil fixed to the front of the car shall not be sharp.

The highest point of any forward facing gap in the coachwork shall not be situated above a horizontal plane 80 cm above the lowest point of the entirely sprung structure of the car.

The maximum width of the coachwork shall not exceed by more than 20 cm the maximum width measured between the two vertical planes tangent to the outer face of the front or rear wheels.

No elements of the car shall extend more than 3.94 inches (10 cm) beyond a vertical plane tangent to the outerface of the front and rear wheels.

a. Cockpit and Seats –

There shall be seats of equal dimension and comfort for the driver and a passenger equally disposed on each side of the longitudinal axis of the car. Seats shall be firmly attached in the car, but may provide for adjustment for the size of the occupant.

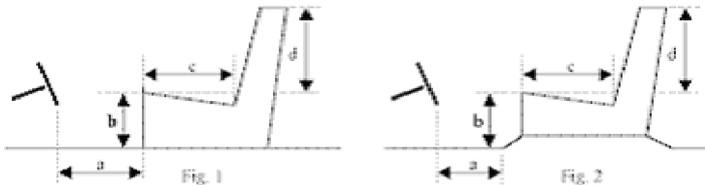
The windscreen and body surrounding the driver and passenger compartment shall be symmetrical about the longitudinal axis of the car.

The passenger's space and seat shall remain usable throughout the competition and shall not be encroached upon by any element of the car or equipment except as provided in these rules.

Driver and passenger space shall satisfy the following minimum dimensions:

- The inside minimum width of the compartment shall be 40 inches measured at the immediate rear of the steering wheel hub and at right angles to the longitudinal axis of the car, and must be

unobstructed and maintained at least 10 inches in a vertical plane. Seats must fulfill the following minimum dimensions:



“a” is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal and defining from front to rear the open space on a level where such measurement is taken.

For the driver’s seat, “a” is measured on the floor level, or at the bottom of any recess if need be, from the perpendicular of the furthest pedal in the position of rest.

For the passenger seat, the measurement is taken at a height of 8 inches above the floor, or at the bottom of the recesses, if need be.

In case of movable seats it is forbidden to alter the position of any seat while the car is being measured.

“b” is measured vertically from the rear of a to the horizontal plane tangent to the highest part of the cushion as shown on the drawings.

“c” is measured, in the horizontal plane defined above from the upper end of “b”, parallel to “a”, and tangent to the foremost point of back of seats.

The arrangement of the body must be such that:

$$a + b + c = 43 \text{ in. minimum}$$

The minimum width for the foot space for each person must be 10 inches measured at right angles to the longitudinal axis of the chassis.

b. Bulkheads and Tanks –

Fuel tanks shall be isolated by means of bulkheads and so vented that in case of spillage, leakage, or a failure of the tank, fuel and fumes will not pass into the driver or engine compartment or around

any part of the exhaust system.

No part of any oil or water tank shall be exposed to any part of the driver and passenger compartment.

Safety fuel cells specifically approved by the SCCA (Ref: Appendix X) are highly recommended in all cars, and are required equipment in Canadian-American Challenge Cup competitions.

c. Windshield –

All cars shall be equipped with a windscreen constructed of transparent material which shall provide equal and adequate protection for both the driver and passenger at all speeds. Windshield wipers are not required. The windscreen shall be symmetrical about the longitudinal axis of the car when viewed from above.

d. Visibility

Coachwork shall provide visibility for driver and passenger forward and to both sides adequate to racing conditions. Rear view mirror(s) shall provide driver visibility to the rear of both sides of the car.

c. Doors

Coachwork shall provide at least two rigid doors, thereby giving direct access to each of the seats. Each door shall accept a rectangle held in a vertical plane of at least 12 inches x 20 inches. These dimensions shall not include any area above the horizontal plane of the body and door panels. The door openings may not be obstructed in any way.

f. Fenders

Fenders shall be firmly attached to the coachwork with no gap between body and fender,

Fenders shall be placed above the tires and shall cover them effectively by surrounding at least a third of their circumference. Expanded metal or screen is not considered to be an effective covering. The rear of each fender shall not be higher than a horizontal line passing through the axis of the wheel. The width of each fender shall extend beyond the side of the tires when the wheels are parallel to the longitudinal axis of the car.

In case the fenders constitute a part of the body, or are partly overhung by the structure of the body, the combination of fenders and body, or the body alone, shall meet the above requirements.

g. Loss of coachwork

All major body components such as front and rear hoods, fenders, doors and windscreen must be maintained in normal position throughout the event.

3.6 Wheels and Tire

There shall be no restriction on the size of wheels except for minimum diameter of ten (10) inches or tires provided they are identical for the right and left front axles, and identical for the right left rear axles.

3.7 Safety Equipment

Shall comply with GCR Appendix A, Section 1.5.1.

In addition:

- a. Batteries shall be enclosed in a covered battery box to prevent leakage or spillage of fluid, and shall be firmly attached to the car.
- b. Glass headlight lenses and bulbs on the front of the car are prohibited.
- c. All Sports Racing category cars must provide protection for the lower torso and legs of the driver by means of tubing and/or monocoque structure.

4. FORMULA SCCA

A. General

1. A single seat, four open-wheeled racing car with firewall, floor, and safety equipment conforming to the GCR, Appendix A, 1.5.1.
2. Cars must be equipped with on-board self-starter controlled by the driver in normal driving position.
3. The driver's seat must be capable of being entered without the removal or manipulation of any part of panel.
4. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.
5. Superchargers are not permitted except 4.1 Section A.1 (under 3000 cc unrestricted engines).
6. Power may not be applied to more than two wheels.
7. The following aerodynamic restrictions will apply: Coachwork: All external parts of the car which are in the air stream and situated above a plane passing through the center of the wheel hubs, with the exception of the units definitely associated with the functioning of the engine or transmission of the safety roll bar.
 - a. No part of the coachwork, with the exception of the safety roll bar, shall exceed in height a horizontal plane, 80 cm (31.5 inches) above the lowest point of the entirely sprung structure of the car.
 - b. Behind the front wheels, the coachwork shall not exceed a maximum width of 110 cm (45.307 inches) with the exception of lateral fuel tanks which cannot protrude beyond a vertical plane passing through the centerline of the tires.
 - c. The coachwork ahead of the front wheels may be extended to an overall maximum width of 150 cm (59.055 inches) provided it does not extend beyond the outsides of the front tires.
 - d. Any part of the coachwork ahead of the front wheels exceeding an overall width of 110 cm (43.307 inches) shall not extend above the height of the front wheel rims.
 - e. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle must be mounted on the entirely sprung part of the car and shall be firmly fixed while the car is in motion.
 - f. Neither the safety roll bar nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating a vertical thrust.
 - g. The leading edge of an aerofoil fixed to the front of the car shall

not be sharp. Minimum radius – 1.5 cm (0.6 inches).

- h. The fuel filler cap must be recessed within the coachwork line.

4.1 Class A

A. Engines

1. 3000 cc unrestricted.
 - a. Engines of unrestricted origin over 1100 cc below or equal to 3000 cc.
 - b. Superchargers permitted on engines below or equal to 1500 cc.
 - c. Rotary piston engines: cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement equivalence. This equivalence is twice the volume determined by the difference between the maximum and minimum capacity of the working chamber.
2. 5000 cc restricted.
 - a. Engines approved by the SCCA, pushrod operated valve mechanism, and produced in quantities of at least 1000 per year.
 - b. Engines may be modified or altered as desired except as follows:
 - 1) Maximum displacement shall be 5000 cc and may be obtained by alteration of bore and/or stroke as desired.
 - 2) Cylinder block and/or cylinder head(s) may not be substituted.
 - 3) The location of the camshaft may not be changed.
 - 4) The number of main bearings may not be changed.
 - c. Engines approved for Formula SCCA. Class A are as follows:

Manufacturer	Orig. Disp (c.i.)
American Motors	287
American Motors	290
American Motors	327
American Motors	343
American Motors	360
American Motors	390
American Motors	401
Buick	215 (Alum.)
Buick	300
Buick	340
Buick	350
Buick	400
Chevrolet	283
Chevrolet	302
Chevrolet	307
Chevrolet	327
Chevrolet	350
Chevrolet	400
Chrysler	307
Chrysler	318

Chrysler	340
Dodge	273
Dodge	318
Dodge	340
Dodge	361
Ford	260
Ford	289
Ford	302 (Boss, not tunnel port)
Ford	351 (Windsor)
Ford	351 (Cleveland)
Ford	351 (Boss)
Ford	352
Ford	390
Holden	308
Kaiser Jeep	327
Mercury	260
Mercury	302 (not tunnel port)
Mercury	351 (same as Ford)
Mercury	390
Oldsmobile	215 (Alum.)
Oldsmobile	330
Oldsmobile	350
Plymouth	273
Plymouth	318
Plymouth	340
Plymouth	361
Pontiac	326
Pontiac	350
Pontiac	400

B. Minimum Weight

(Minimum weights include coolant and lubricants; do not include fuel and drive.)

3000 cc unrestricted engine cars	1,105 lbs
5000 cc unrestricted engine cars	1,350 lbs

C. Fuel Tank Capacity

3000 cc unrestricted engine cars	26 US gallons
5000 cc restricted engine cars	30 US gallons

(Note: SCCA approved safety fuel tanks are required.)

(See Appendix X.)

4.2 Class B

A. Engines

1. Displacement – over 1100 cc and below or equal to 1600 cc.
Cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement

equivalence. This equivalence is twice the volume determined by the difference between the maximum and minimum capacity of the working-chamber.

2. Engines shall derive from automobiles recognized by FIA in Appendix J. Group 1 (series production touring), Group 2 (touring), or Group 3 (grand touring) approved by the SCCA, and shall conform to definitions and specifications shown on the FIA Recognition Form of the homologated car, except as permitted below.

The SCCA shall publish a list of approved engines at the beginning of the year. The following engines are approved for 1973: Lotus Ford 1600 Twin Cam, Alfa Romeo 1600 Twin Cam (incl. GTA), Porsche Pushrod 1582, Datsun 1600 SOHC, BMW 1600 SOHC, Ford 1500 Pushrod, Ford 1600 Pushrod, Fiat 124 DOHC 1438, Renault Gordini 1600, Ford Cortina 1600 SOHC, Toyota 1600 Pushrod, Fiat 1592 DOHC, Toyota 1588 DOHC.

3. The following modifications are permitted.
 - a. The use of any carburetor(s), fuel injection on intake manifold(s).
 - b. The use of an exhaust manifold(s).
 - c. The use of any oil sump.
 - d. The use of any oil pump(s).
 - e. The use of a dry sump lubrication system.
 - f. The use of any crankshaft of the stroke specified in the homologation forms for the engine.
 - g. Main bearing caps may be reinforced or substituted.
 - h. The make and location of the ignition coil and condenser may be changed.
 - i. Any distributor and/or transistor ignition may be used provided its installation does not require any modification of the engine.
 - j. Any make or type of spark plug may be used.
 - k. The use of any starter is permitted provided it can be fitted without any modification to the engine.
 - l. Substitution of the clutch and flywheel is allowed provided there is no increase in clutch diameter. The use of dowel pins is permitted.
 - m. Any pistons and piston pins may be used.
 - n. Any camshaft(s) may be used.
 - o. Cam followers may be altered or substituted.
 - p. It is permitted to lighten, balance or modify in shape by tooling, the standard of optional components of the engine, provided it is always possible to identify them positively as such. It is not permitted to add any material to these components unless specifically authorized.
 - q. Engines may be rebored a maximum of 1.2 mm (0.047") over the standard size provided the resulting increase in total displacement does not exceed 1600 cc.
 - r. The use of any alternate engine components considered replacement parts such as seals, bearings, valve guides, nuts,

bolts, studs, washers, and gaskets are allowed provided they are of the same type and dimension. Bushings may be added where none are fitted as standard provided that they are concentric and that the centerline of the bushed part is not changed. Water and oil passages may be restricted or plugged. The substitution of valve springs, valve spring retainers and keepers is permitted. Any pushrods may be used.

- s. Generator, crankshaft and water pump pulleys may be altered or replaced with others of unrestricted origin. The use of any crankshaft vibration dampener is permitted
- t. The compression ratio may be increased by machining, using any head gasket(s) or eliminating of head gasket(s).
- u. The installation of any engine vent or breather is permitted.
- v. Generator or alternator is free, and optional.
- w. The use of any rocker arms or rocker arm supports.
- x. Use of any connecting rod of the same basic material.
- y. Valves are free in both size and material, provided the valve centerline is not altered.
- z. Exhaust emission control air pumps and associated lines and nozzles cannot be modified in any way except they may be completely removed. When these air nozzles are removed from a cylinder head, the holes must be completely plugged.

B. Transmission

No more than five forward speeds.

C. Minimum Weight

Minimum weight in running condition (i.e., includes coolant and lubricants; does not include fuel or driver) 930 lbs.

D. Fuel Tank Capacity

Maximum fuel tank capacity: 19 US gallons.

4.3 Class C

A. Engines

Engine displacement below or equal to 1100 cc. Cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement equivalence.

This equivalence is twice the volume determined by the difference between the maximum and minimum capacity of the working-chamber.

B. Minimum Weight

Minimum weight in full running condition (i.e., includes coolant and lubricants; does not include fuel and driver): 750 lbs.

C. Fuel Tank Capacity

Maximum fuel tank capacity: 16 US gallons.

5. FORMULA VEE

5.1 Definition

A formula for single-seat, open-wheel racing cars based on standard Volkswagen 1200 series type 1, U.S. model sedan (imported by VW) components, and restrictive in specifications so as to emphasize driver ability rather than design and preparation of the car.

No component, of the engine, power train, front suspension or brakes may be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorized.

Engine components must be assembled in standard configuration. Exceeding the wear limits specified in the VW manual or other official VW guides is not prohibited provided that tolerances, dimensions and specifications stated in the GCR are met.

5.2 Weight and Dimensions

Minimum weight, without fuel or driver – 825 lbs

Wheelbase, Minimum – 81.5"

Wheelbase, Maximum – 83.5"

Track, Front – Standard VW – 51.4"

Track, Rear – 49.8" + 1/8" – 5/8"

Overall length, Minimum – 123"

Overall length, Maximum – 127"

Body depth at firewall, Minimum – 25"

Body width at firewall, Maximum – 34"

5.3 Suspension

- a. The front suspension and steering shall be standard VW sedan as defined herein. The following modifications are allowed.
 1. Removal of one torsion bar.
 2. The use of any anti-sway bar(s) mounting hardware and trailing arm locating spacers.
 3. The use of any shock absorber(s) which can be mounted directly on the standard mounts. Spring shocks are prohibited.
 4. Relocation of the steering gear box to a central position, and replacement of the tie rods with others of a suitable length.
 5. Steering column may be altered or replaced and any steering wheel may be used.
 6. Use of any desired Pitman arm. Standard steering arms may be altered; however, no modification of the spindle is permitted.
 7. Modification of the standard front torsion bar(s).
 8. The rubber portion only of the bump stop may be altered or removed.
 9. Caster and toe in/out settings are free.
- b. The rear axle assembly shall be standard VW sedan as defined herein with axle location provided by a single training arm on each axle. The rear axle tube may be rotated about its axis. Coil springs shall provide the primary springing medium, with telescopic shock absorbers mounted inside the springs. Cables, straps, or other positive stops may be used to limit positive camber. An anti-roll bar or camber control device may also be used. When said anti-roll bar or camber control device is removed the required coil springs must continue to perform functionally.
- c. Wheels shall be standard 15" x 4J as used on the 1200 cc or 1300 cc VW sedan as defined herein.
- d. Any tire size may be fitted.

5.4 Brakes

- a. Brake drums, backing plates and wheel cylinders shall be standard VW sedan, as defined herein. Ribbed-type rear brake drums (part no. 113-501 615 D or F) may be used in place of the 1200 series rear brake drums.
- b. These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels. Any mater cylinder(s) may be used.
- c. A separate hand brake (emergency brake) is not required. Removal of the hand brake and operating mechanism is permitted.

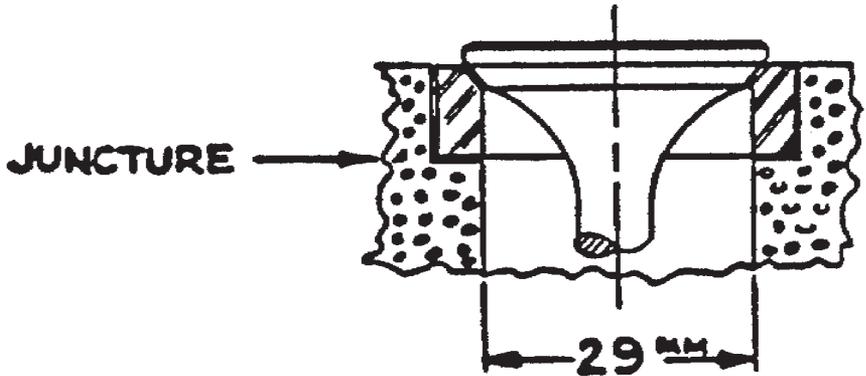
5.5 Engine

The engine shall be a standard VW powerplant, as normally fitted to VW sedans as defined herein. Any engine part(s), listed by the manufacturer (VW) as a current superseding, replacement part for the standard VW 1200 series, type I, U.S. model sedan and interchangeable with the original part(s) may be used.

The engine/transmission shall be mounted in the chassis with the transmission to the rear.

Allowed:

- a. Removal of the carburetor air cleaner and choke mechanism.
- b. Replacement of standard exhaust system with any exhaust system terminating 1" to 3" behind the rear most part of the body.
- c. Lightening of the flywheel to a minimum of twelve pounds.
- d. Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance. The crankshaft may be ground and the case may be machined to accommodate the use of standard factory oversize/undersize crankshaft bearings, provided the crankshaft location is not changed.
- e. Polishing of the intake and exhaust ports, provided such polishing does not enlarge the exhaust port beyond 33 mm, inside diameter, and the intake port beyond 29 mm, inside diameter. The measurements are to be taken at the juncture of the seat insert and the aluminum port material, and at the manifold face. Valve seat angles must be machined as specified in the official VW Workshop Manual.



- f. Matching or manifold flanges is permitted.
- g. Complete or partial removal of any cooling duct component, except the fan housing. Fan belt origin is unrestricted. The use of a fan belt is optional.
- h. Fitting of any standard VW carburetor originally supplied on above specified engines (Sole 28 PCI or PICT) and the use of any jets or VW venture which may be fitted without alteration to the carburetor body. The venture must be fitted in the standard position, but its internal diameter may be machined. The carburetor may be rotated 180° about its vertical axis. A velocity stack may be fitted to the carburetor. Modification of the float is allowed as long as no change is made to the float chamber and/or float valve.
- i. Fitting of any standard VW distributor.
- j. Removal of the intake manifold heat riser tube. Removal of metal from the interior of the intake manifold, provided that the following dimensions are not exceeded:
 - Downtube 1.132" O.D. at 2.5" below carb. Flange.
 - Horizontal tube 0.994" O.D.
- k. Removal of the armature, brushes, brush holders, and field coils from the generator.
- l. The installation of baffles housed completely within the original oil sump and crankcase.
- m. The use of oil temperature indicating device in the crankcase.
- n. The use of any standard VW oil pump.
- o. The use of valve spring shims.
- p. The following standard dimensions and tolerances of engine components are included as information and shall be observed:
 - Maximum bore: 3,040"
 - Stroke: 2.520" ± 0.005"
 - Minimum capacity of one combustion chamber in head: 3.0 cc.
 - Minimum depth, top of cylinder barrel to top of piston: 0.039".
 The above dimensions may be achieved by machining any previously

machined surface, provided that the total surface is machine on the same plane as the previously machined surface.

- q. The use of any VW clutch of the same diameter as fitted to standard VW sedan as defined herein. The standard clutch operating arm may be modified to allow its attachment in any appropriate position.
- r. An oil sump extension may be fitted between the crankcase and the oil strainer cover plate, provided the extension does not extend horizontally beyond the edge of the oil strainer cover plate and the capacity does not exceed 250cc. The oil pump pickup pipe may be extended into the sump extension.
- s. Replacement of oil galley plugs with threaded plugs.
- t. The following standard dimensions are included for information only and shall be observed:
 - Exhaust valve diameter: 1.102" or 1.18"
 - Intake valve diameter: 1.18" or 1.24"
- u. The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed.
- v. A VW "D" camshaft, part nos. 113-109-015D, 113-109-17D, 113-109-019D, 113-109-021D, 113-109-023D, 113-109-025D, 113-109-027D must be used. The camshaft profile shall be checked using the official procedure published by SCCA. Cam timing \pm one (1) degree.

5.6 Transmission-Rear Axle

The transmission-rear axle assembly shall be standard VW sedan, as defined herein. The synchromesh components must be in place and operating on at least three gears. Reverse gear must be operable from the driver's seat.

Allowed:

- a. Installation of any standard VW gear set which can be fitted without modification of any component of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation.

Fully synchromeshed transmission:

Gear	Part No.	No. of Teeth	Ratio
1 st	113 311 251A	10:38	3.80
2 nd	113 311 261 17:35	2.06	
3 rd	113 311 275 22:29	1.32	
	113 311 275B	23:29	1.26
	113 311 275A	23:28	1.22
4 th	211 311 341 28:23	0.82	
	113 311 341 27:24	0.89	
Ring & Pinion	211 517 143A	8:35	4.375
	311 517 143B	8:33	4.125

Partly synchromeshed transmission:

Gear	Part No.	No. of Teeth	Ratio
1 st	113 309 251 10:36	3.60	
2 nd	113 309 261A	17:33	1.94
	113 309 261 17:32	1.88	
3 rd	113 309 275 23:28	1.22	
	113 309 275A	22:27	1.23
4 th	113 309 341A	28:23	0.82
Ring & Pinion	113 517 141B	7:31	4.43

Part Numbers

There are different part numbers for various gears in addition to the ones listed here. This in general indicates changes on the parts such as:

Gear	Part No.	Ratio	Difference
4 th	113 311 341	0.82	with Key Way
	113 311 341A	0.82	with Splines
Ring & Pinion	113 517 143	4.125	6 mtg. bolts
	311 517 143	4.125	8 mtg. bolts

However, there are no other standard ratios than the ones listed here. A gear removed out of a transmission can be identified by the number of teeth.

- b. Alteration of the shock absorber mounts.
- c. Transmission may not be installed in an inverted position.
- d. The use of a limited-slip differential device is prohibited.

5.7 Ballasting

Ballasting is not permitted.

5.8 Frame

The frame/chassis shall be constructed of steel tubing of a maximum diameter or width of four inches and be of a safe and suitable design. There may be no frame/chassis rigidity or strength derived by means other than the frame tubes. Stressed skin, monocoque or semi-monocoque construction is not permitted, except that:

- a. the firewall panel may be rigidly attached to the frame tubes; and
- b. The undertray (belly pan) may be rigidly attached to the frame, provided that the curvature of the undertray, measured vertically from its lowest point to the highest point of its attachment to frame members at its sides, may not exceed one inch.

5.9 Body

The body must enclose the engine by surrounding it from a point no higher than the lower edge of each valve cover and extending from the front of the engine to its rear on each side. The top of the rear deck must extend from the back to the firewall to a point 16 inches to the rear of

the centerline of the rear axles, but may have air intake openings.

The rear trailing arms, coil springs, and shock absorbers may not be faired in by covering or shrouding them away from the airstream. Specifically, the front mounting point of radius pad may be inside the trailing edge of the side body panel so long as the panel does not extend back over the trailing arm itself.

The driver's seat must be capable of being entered without the removal or manipulation of any part or panel. Firewall, floor and safety equipment must conform to the General Competition Rules of the SCCA.

The front suspension uprights (shock absorber mounts), shock absorbers and/or trailing arms may not be faired in by covering or shrouding away from the airstream.

No part of the frame or body shall project beyond a plane connecting the vertical centerline of the front and rear tires.

Air ducting may be utilized, provided it is attached to the body or frame of the car. Ducting may not be made part of or attached in any way to the engine assembly. Wings (airfoils) are prohibited.

Fuel filler necks, caps or lids may not protrude beyond the bodywork of the car.

5.10 The use of the following non-standard replacement parts is permitted provided that no unauthorized modification of any other component results.

Allowed:

- a. Fasteners (nuts, bolts, screws, etc.)
- b. Wiring.
- c. Gaskets and seals.
- d. Brake lines and fuel line.
- e. Spark plugs.
- f. Piston rings.
- g. Wheel bearings.
- h. Connecting rod bearings and crankshaft main bearings of some type and size as standard VW.
- i. Brake shoes and brake-lining.
- j. Valve guides.

5.11 Battery

The use of any single 6 volt battery is permitted.

6. SCCA SEDANS

6.A Class A

6.A.1 Automobile Eligibility

Class A Sedans shall be those makes and models of cars of over 2500 cc displacement which are recognized and homologated as follows:

- a. Homologated by FAI in Group 1 or 2 prior to December 31, 1968 (Forms available from ACCUS-FIA).
- b. Recognized by SCCA in Sedan category prior to December 31, 1969 (Forms available from SCCA)
- c. Recognized by ACCUS-FIA as eligible for SCCA Sedan category after January 1, 1970 (Forms available from ACCUS-FIA or SCCA).
- d. Regardless of ACCUS-FIA or SCCA recognition as above, the following categories or cars shall not be eligible as SCCA Sedans:
 1. Cars with a wheelbase of more than 116".
 2. Convertibles or sun roofs.
 3. Independent rear suspension on cars with engine displacement of over 2500 cc.

6.A.2 Recognition Forms

All cars recognized by the FIA or the SCCA are described in detail on a Recognition Form, thereby enabling identification of make and model, its specifications, and approved optional equipment. In order to be valid, the Recognition Form must carry the approval of the FIA, ACCUS-FIA, or SCCA whichever is applicable.

Entrants of SCCA Sedans must have in their possession the Recognition Form for the make and model entered, and shall make these forms available to the Scrutineers on request. If the Recognition Form is not made available to the Scrutineers, the Race Officials may refuse to allow participation of that car.

In case of doubt involving specifications not adequately described on the Recognition Form, the Scrutineers may refer to maintenance books, spare parts books, general catalogs published by the manufacturer for that make and model, or other cars of the same make and model.

It is the responsibility of the competitor to obtain the complete Recognition Forms concerning his car.

ACCUS-FIA

330 Vanderbilt Motor Parkway
Hauppauge, Long Island, NY 11787

SCCA

P.O. Box 22476
Denver, CO 80222

6.A.3 Required Modifications

The following modifications are required on all cars.

- a. All cars must meet the requirements specified in Appendix A, Section 1.5.1 of the GCR. It is recommended the tall Class A

Sedans be equipped with a full roll cage as described in Appendix Z, Section H of the GCR.

- b. Fuel filler neck and cap must be of standard U.S. automotive production and must be located as provided by the manufacturer or as required in Trans-Am Competition.
 - c. At least one main door window must be fully open during competition. An open vent window will not suffice.
 - d. The minimum weight shall not be less than 3200 pounds with full fuel tank and without driver. Ballast is permitted, but if utilized must be securely mounted within the coachwork.
 - e. There must be a metal bulkhead separating the driver/passenger compartment from the compartment containing the fuel tank. Such bulkhead must be added if the standard vehicle has none.
 - f. Any steering system locking mechanism which is fitted by the manufacturer must be removed.
 - g. Windshield safety clips 3" x 1" x 1/8" must be installed. Three clips must be bolted or riveted to the body at the top of the windshield and must extend over the edge of the windshield. Two clips must be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips must be spaced a minimum of 12" apart. Rear window must be secured with two straps 1" wide, 1/8" thick, bolted or riveted to the body both at the top and bottom of the rear glass.
 - h. The headlight and parking/front signal light assemblies must be removed. The resulting openings may be used for ducting of air to the engine, front brakes and/or oil coolers. The openings must be covered with wire mesh screen, maximum weave 1/4" wire cloth. This screen must be of the same contour as the original lens and mounted so that the headlight bezel/rim remains in place and presents a stock appearance.
- Side marker light assemblies must be removed and the resulting openings covered with a plate which does not exceed the dimensions of the original parts.

If the headlight openings are not used for ducting air, they must be completely covered with a plate whose dimensions do not exceed the dimensions of the original parts and mounted so that the headlight bezel/rim remains in place.

6.A.4 Authorized Modifications

A. General

- 1. It is not permitted to make any changes, alterations or modifications to the standard automobile, its coachwork and chassis or any component as produced by the manufacturer, unless such modifications are required under 6.A.3 above or specifically authorized by these rules.
- 2. Any springs (including torsion bars) on the automobile such as clutch, suspension, etc., may be replaced by others of unrestricted origin, but with no change in the number provided by the manufacturer and on condition they can be fitted without alteration of the original supports or attachments, except as

specifically authorized by the rules.

B. Chassis and Coachwork

1. Bumpers may be removed providing all projecting hardware also is removed. In Trans-Am competition, all cars must be equipped with standard bumpers mounted in standard position.
2. Rear seat and seatback may be removed. The passenger seat may be removed. The driver seat may be replaced with any suitable seat. A racing type bucket seat providing lateral support for the torso is recommended. Seat mountings may be reinforced.
3. Doors may be bolted or pinned to prevent their opening in case of accident. Pins or straps may be added to engine hoods and trunk lids to supplement or replace the latches. Standard hinges may not be removed.
4. Floor mats may be removed.
5. In order to provide clearance for wheels, tires and install brake and oil cooler ducting, the interior of fenders may be altered except for the removal wholly or partially of panels separating the wheel wells from the engine, passenger and/or luggage compartments. The inner fender panels may be replaced with any panel of the same material and thickness as original that provides the required separation. The exterior contour of the fenders may be altered to provide for tire clearance provided the fender opening profile, viewed from side of automobile and the material, are not changed. The tire tread shall not extend beyond the fender opening at the highest point of the tire.
6. The headliner may be removed.
7. Jacking points may be strengthened, their location may be changed or extra ones may be added.
8. The steering wheels may be replaced, and the rake of the steering column may be altered. A collapsible type of steering column equivalent to Federal Motor Vehicle Safety Standard No. 204 is strongly recommended.
9. Inside door handles, window cranks, window mechanism, and side glass may be removed. Door trim panels, and upholstery shall not be removed.
10. Front Spoiler:
 - a. A standard front spoiler recognized as being produced in the required quantity may be used.
 - b. Automobiles which are produced in standard form without a front spoiler may use a spoiler provided it meets the following requirements.
 1. It must be mounted to the front underside body panel below and to the rear of the front bumper location.
 2. The maximum front spoiler width shall be limited to the car's front wheel centerlines (the front track dimension).
 3. The vertical dimension from the lowest point on the front lower panel to the lowest point of the spoiler shall not exceed four inches.

4. It shall not extend above a horizontal plane passing through the centerline of the wheel hubs.
- c. Standard front spoilers may be altered provided the dimensions specified above are not exceeded.
- d. Openings may be made on the front spoiler for the purpose of ducting air to the front brakes.
- e. Oil cooler and front brake ducting may not exceed the dimensions specified above.

Rear Spoilers

- a. A standard rear spoiler recognized as being produced in the required quantity may be used.
11. The replacement, addition, or removal of accessories, gauges, switches, indicators, and other interior modifications for the convenience of the driver and to permit the installation of required safety equipment is authorized, provided such modifications have no influence whatever on the mechanical performance of the car. Such modifications do not include the substitution or replacement of any element or the coachwork or chassis.
12. The windshield wiper mechanism must remain installed and functional as originally delivered, but the wiper arms may be removed.

C. Tires, Wheels, Suspension

1. Wheels
 - a. Substitute wheels of any type or material may be used provided that the following dimensions are met:
 - b. Rim width – maximum 8 inches
 - c. Diameter – 14 inch or 15 inch (all four wheels must be of the same diameter).
 - d. Track – maximum 64 inches, front and rear measured at a horizontal plane through the hub centerline. The track dimension shall remain equally disposed from the centerline of the automobile.
 - e. Wheels must be attached with not less than 5 studs of equal dimension, equally spaced and equidistant from the rotating axis of the wheel.
2. Spare wheel and tire may be removed.
3. The modification or substitution of front spindles and/or axle shafts, and modifications or substitutions of hubs and bearings is permitted.
4. The addition or substitution of anti-sway bars is authorized. Torque arms, panhard rods and other similar axle location devices may be used. These devices may extend into the driver/passenger compartment, but must be completely separated and sealed from the driver/passenger compartment by metal panels.
5. It is not permitted to alter the number of shock absorbers, or their systems of operation (i.e., lever or telescopic). The

- make of shock absorber and its points of attachment may be changed.
6. Suspension bushings may be replaced by others of a different material provided they are the same type and size. Offset bushings are permitted, including adjustable type.
 7. Quick change/knock-off type wheels are not allowed.
 8. Spacers (lowering blocks) may be used between leaf springs and their points of attachment on the axle housing. The type and location of the axle mounting for the leaf spring is free.
 9. Rear spring mounting location on the chassis may be moved inboard to obtain tire clearance, provided chassis sub-frames are not altered. Mounts may not be relocated in a fore and aft direction. Both springs must be located an equal distance from the longitudinal centerline of the car.
 10. Production front suspension control arms must be used, but may be reinforced for safety. Length of control arms may not be changed. Control arm mounting location at the chassis may be changed.
 11. Steering arms, Pitman arms, steering linkage component parts may be reinforced or substituted.
 12. The wheelbase of the automobile may not be changed or relocated in a fore/aft direction.
 13. The improvement of the effectiveness, for racing purposes, of energy-absorbing steering columns provided that the energy-absorbing characteristics are not reduced.

D. Electrical System

1. The standard battery may be replaced by one of different make and capacity. The voltage of the battery and electrical system may not be changed. The battery may be relocated to the trunk, but if so, must be enclosed in a protective box (i.e., marine type) and securely mounted.
2. The standard generator or alternator may be replaced by either a generator or an alternator of different make and capacity, provided the driving method remains unchanged. Mounting brackets may be modified or replaced. Any voltage regulator may be used.
3. The make and location of the ignition coil and condenser may be changed.
4. Any distributor may be used provided its installation does not require any modification of the engi

ne. Magneto ignition is prohibited unless listed on the recognition form of the automobile.

5. Transistor ignition is permitted provided its installation does not require any modification of the engine.

6. Any make or type of spark plugs may be used.
7. Additional relays and/or fuses may be installed.
8. The use of any starter is permitted provided it can be fitted without modification to the engine.
9. Wiring harness may be changed or modified.

E. Engine and Drive Train

1. Any exhaust manifold or exhaust headers may be used. Exhaust pipes and mufflers may be replaced with straight pipe(s). The exhaust tail pipes may be partially recessed into the floor panel and lower rocker panel. The exhaust system must terminate behind the driver's seat and must be directed away from the body.
2. Substitution or modification of the clutch and/or flywheel is permitted provided there is no change in the diameter of the flywheel. The use of dowel pins is permitted.
3. Exhaust emission control air pumps and associated lines and nozzles cannot be modified in any way except that they may be completely removed. When these air nozzles are removed from the cylinder head, the holes must be completely plugged.
4. It is permitted to change bore and/or change stroke without limitation except that the resultant displacement may not exceed 305 cu. in.
5. Crankshaft main bearing caps may be substituted and additional main bearing caps may be used provided that no material is added to the block for their attachment. Additional main bearing cap bolts may be used provided that no material is added to the block for their attachment.
6. The connecting rods may be replaced with any steel or cast iron connecting rods.
7. Any crankshaft may be substituted provided the angles of the crank throws remain the same as the production crankshaft and the engine firing order remains unchanged.
8. The cooling fan may be modified, substituted or removed.
9. Any pistons and piston pins may be used.
10. Any camshaft(s) may be used.
11. Cam followers may be substituted, except that roller cam followers may not be used unless fitted in production.
12. Any rocker arms and rocker arm supports may be used.
13. It is permitted to lighten balance or modify in shape by tooling, the standard or optional components of the engine and drive train provided it is always possible to identify them positively as such. Material may not be added to these components unless specifically authorized.
14. The use of alternate engine and drive train components con-

sidered replacement parts such as seals, bearings, valves, valve guides, valve seats, nuts, bolts, studs, washers and gaskets is permitted provided they are of the same type and dimension. Concentric bushings may be installed, excepting in the ports, where none are fitted as standard, but shall not alter the location of any engine or drive train component. Oil and water passages may be restricted or plugged.

The substitution of valve spring retainers and keepers is permitted. Valve springs are free (including number) as long as the type and location remain unchanged. Any pushrods may be used.

15. Generator, crankshaft, and water pump pulleys may be altered or replaced with others of unrestricted origin. The use of any crankshaft vibration dampener is allowed.
16. The compression ratio may be increased by machining, using any head gasket(s) or elimination of head gasket(s).
17. Any oil pan (sump), oil pump(s) or oil pick-up is allowed. Dry sump systems are permitted provided the oil tank is located forward of the engine compartment firewall.
18. The rear axle tube may be modified or replaced provided the manufacturer's system of suspension is retained. Any final drive housing, gear ratio, limited slip or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited.
19. Any transmission ratios may be used in the standard or recognized optional transmission. The number of forward and reverse gears may not be changed.
20. Any modification may be made in the linkage between the clutch pedal and the clutch housing including the replacement of mechanical linkage with a hydraulic system.
21. A heavy duty propeller shaft (drive shaft) may be used in place of the standard shaft.
22. The installation of any vent or breather on the engine, transmission or differential is permitted.
23. Any engine oil filter(s) may be used.

F. Cooling System

1. The use of any engine, transmission and differential oil coolers is permitted provided it (they) are mounted completely within or under the coachwork, but not in the driver/passenger compartment. Associated oil cooler pumps and lines are permitted for the transmission and differential. Air ducts may be fitted to the oil cooler(s) provided they do not extend more than 12 inches in any direction from the oil cooler fins.
2. The use of any water radiator is allowed provided there are no changes in the coachwork of the automobile to accommodate its use. Separate expansion or header tanks are

permitted, provided they are mounted in the engine compartment.

3. Sealing or shrouding the air flow area between the normal grille and the water radiator is permitted.
4. On water cooled cars, thermostats may be modified or replaced with blanking sleeves or restrictors.

G. Fuel Induction System

1. Any intake manifold may be used.
2. A single SCCA approved four-barrel carburetor (Holley model 4150) with a throttle bore size at the butterfly no larger than 1-11/16" diameter must be used. Extensions or addition of material, except for throttle linkage to the exterior of the carburetor body is prohibited.
3. Any oil filter may be used or the filter may be removed. Dynamic air intakes may be fitted on the carburetor. Air may be ducted to the carburetor provided the ducting is contained within the engine compartment and the air is supplied through normal openings in the coachwork, or as specifically authorized in 6.A.3.h.
4. Any fuel pump(s) may be used and the location of the pump(s) may be changed. Fuel pumps shall not be located in the driver/passenger compartment.
5. Fuel lines are restricted to a maximum of ½" inside diameter. Only a single fuel supply line may be used between the engine firewall and the bulkhead separating the driver/passenger compartment and the compartment in which the fuel tank is mounted. Lines returning fuel from engine to tank are prohibited except where fitted as standard. These fuel lines may pass through the driver/passenger compartment if completely covered and protected by a supplemental metal cover or alternatively be of Aeroquip metal braided hose.

H. Brakes

1. The use of any dual master cylinders and/or pressure equalizing device is permitted.
2. Servo-assist systems are free.
3. Backing plates or dirt shields may be ventilated or removed and brake air ducts may be fitted provided they extend in a forward direction only and no changes are made in the bodywork. Rear brake ducts may extend a maximum of 24" from the disc or drum.
4. The handbrake may be partially or entirely removed.
5. Any brake lines may be used. They may be relocated and may be given additional protection.
6. Brake discs, calipers and/or drums are free provided they are mounted in the same location as the standard brakes.

I. Safety Fuel Cells

1. The use of safety fuel cells conforming to specifications

detailed in Appendix X is recommended for the SCCA sedan category.

6.B Classes B and C

Class B – over 1300 cc and below or equal to 2500 cc

Class C – below or equal to 1300 cc

6.B.1 Recognition:

The SCCA will publish a list of those cars eligible to compete in the under-2.5-liter sedan category in the current GCR. No additional automobiles will be added during the current year.

The SCCA may, at any time, discontinue the eligibility of any previously recognized make and model or disapprove any specification or item of optional equipment.

6.B.2 Recognition Forms:

The SCCA will publish a recognition form for each eligible automobile. This form will be compiled from information supplied by the manufacturer through FIA homologation procedures, maintenance books, spare parts books and general catalogs. This form will be the official description of that make and model and it is the responsibility of the competitor to obtain and have in his possession the recognition form for his car. This recognition form must be made available to the Scrutineers and failure to do so may result in a refusal to permit participation in the event.

In case of doubt involving specifications not adequately described on the recognition form, the Scrutineers may refer to maintenance books, spare parts books, general catalogs, published by the manufacturer for that make and model, or other cars of the same make and model.

The recognition forms for all eligible cars in Classes B and C are available at \$5.00 each from:

SCCA
P.O. Box 22476
Denver, CO 80222

Cars must meet or exceed the minimum racing weight as listed on the SCCA Sedan Recognition Form. Weight of the car is as raced out without fuel and driver. Minimum racing weights are computed for the SCCA Sedan Recognition Form by means of the following formula:

Class B

Rotary Piston	1.0 lb/cc
Push Rod Non Crossflow	1.0 lb/cc
Push Rod/Crossflow	1.05 lb/cc
SOHC/Non Crossflow	1.1 lb/cc
SOHC/Crossflow	1.15 lb/cc
DOHC	1.2 lb/cc

Class C

Push Rod, Non Crossflow	1.2 lb/cc
Push Rod/Crossflow	1.25 lb/cc
SOHC/Non Crossflow	1.3 lb/cc
SOHC/Crossflow	1.35 lb/cc
DOHC	1.4 lb/cc

Additional 0.1 lb/cc factor is added to the above for each valve in excess of two per cylinder. Two stroke engines shall be computed on the same basis as pushrod/crossflow engines.

Cars with rotary piston engines covered by the NSU-Wankel patents shall be classified on the basis of a piston displacement equivalent of twice the volume determined by the difference between the maximum and minimum capacity of the working chamber.

Minimum weight for Class C: 1000 lbs.

Ballast may be added as required, but must be securely mounted. Component parts of the automobile such as hood, door, decklid may be lightened provided external appearance is not altered and structural rigidity is maintained. Alternate lightweight panels are permitted only when shown on recognition forms.

SCCA Under 2.5 Liter Sedans

Recognition forms are available for the following automobiles:

Form No.

- A1-2 Alfa Romeo Guilia 1300 and 1300TI
- A1-3 Alfa Romeo GT 1300 Junior
- A1-4 Alfa Romea GTA Junior 1300
- A1-6 Alfa Romeo 1600/1750/2000 GTV
- A2-2 Auto Union Audi 100
- B1-1 BMW 1600-2 and 1602
- B1-2 BMW 2000TI
- B1-3 BMW 2002 and 2002 TI
- B1-4 BMW 2500
- B2-1 Austin/Morris 850
- B2-2 Mini Cooper 997
- B2-3 Mini Cooper 998
- B2-4 Mini Cooper "S" 1071
- B2-5 Mini Cooper "S" 1275
- B2-6 Austin America 1275
- B2-7 Austin/Morris Marina 1800
- B3-1 Triumph T2000
- B3-2 Triumph 2 Litre Vitesse
- B3-3 Triumph 2.5 P.I. Saloon
- C1-1 Chevrolet Vega

C2-1 Chrysler Colt
 C2-2 Chrysler Cricket
 D1-1 Datsun B(L) 100 (1200)
 D1-2 Datsun PL510 (1600)
 D1-3 Datsun H(L) 510 (1800)
 D1-4 Datsun 610 (1800)
 F1-1 Ford Escort Super and 1300 GT
 F1-2 Ford Cortina GT 1499/1598 1967
 F1-3 Ford Lotus Cortina TC 1964/65/66
 F1-4 Ford Lotus Cortina TC 1967
 F1-5 Ford Escort Mexico
 F1-6 Ford Capri 1600
 F1-7 Ford Capri 2000
 F1-8 Ford Pinto 1600
 F1-9 Ford Pinto 2000
 F1-10 Ford New Anglia 997 and Ford 123/124E Anglia Super 1200
 F2-1 Fiat 600 D
 F2-2 Fiat 650 Sport Coupe
 F2-3 Fiat 124 1200
 F2-4 Fiat 124 Sport Coupe 1438
 F2-5 Fiat 124 Sport Coupe 1608
 F2-6 Fiat 124 Special
 F2-7 Fiat 128
 F2-8 Fiat 128 SL Coupe 1300
 F3-1 Subaru 1300
 F3-2 Subaru 1400 Sedan and Coupe
 N1-1 NSU 1000 (NSU-TTS)
 N1-2 NSU TT1200
 O1-2 Opel Rallye Kadett
 O1-3 Opel 1900 Sport Coupe (57R)
 O1-4 Opel 1900 Models 51 & 53
 R1-1 Renault 8-R1130
 R1-2 Renault R8 Major R1132
 R1-3 Renault R8 Gordini R1135
 R1-4 Renault 12
 R1-5 Renault 17TS
 R2-1 Sunbeam Imp/Singer Chamois
 S1-1 Saab 96 Sedan
 S1-2 Saab Sedan V4

- S1-3 Saab Sedan V4 (1698cc)
- S1-4 Saab 99E
- S2-1 Simca 1000 Type SD
- T1-1 Toyota Corolla 1100
- T1-2 Toyota Corolla 1200
- T1-3 Toyota Corolla 1600
- T1-4 Toyota Corona MK II
- T1-5 Toyota Celica
- T1-6 Toyota Carina 1600
- T2-1 Mazda RX-2
- T2-2 Mazda SIZ4A RX-3
- VW1-1 VW 1300 1955/56
- VW1-2 VW 1300 1967
- VW1-3 VW 1500/1600 1967/68/69
- VW1-4 VW 1600 1970
- V2-1 Volvo P-544
- V2-2 Volvo 122S
- V2-3 Volvo 142S and 142E

The F.M.V.S.S. certification plate riveted to the car on 1972 and subsequent model years shall not be removed.

6.B.3 Required Modifications:

The following modifications are required on all cars:

- a. All cars must meet the requirements specified in Appendix A, Section 1.5.1 of the GCR. It is recommended that all sedans be equipped with a roll cage as described in Appendix Z, Section H of the GCR.
- b. At least one main window must be fully open during competition. An open vent window does not suffice.
- c. There must be a metal bulkhead separating the driver/passenger compartment from the compartment containing the fuel tank.
- d. Any steering system lock mechanism which is fitted by the manufacturer must be removed.
- e. Windshield safety clips 3" x 1" x 1/8" must be installed. Three clips must be bolted or riveted to the body at the top of the windshield and must extend over the edge of the windshield. Two clips must be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips must be spaced a minimum of 12" apart. Rear window must be secured with two strap 1" wide, 1/8" thick, bolted or riveted to the body both at the top and bottom of the rear glass.
- f. The headlight and parking/front signal light assemblies must be removed. The resulting openings may be used for ducting air to the engine, front brakes and/or oil coolers. The opening must be covered with a wire mesh screen, maximum weave of 1/4" wire

cloth. This screen must be of the same contour as the original lens and mounted so that the headlight bezel/rim remains in place and presents a stock appearance. Side marker light assemblies must be removed and the resulting opening covered with a plate which does not exceed the dimensions of the original parts. In cases where the headlight openings are not used for ducting air, the opening must be covered with a plate whose dimensions do not exceed the dimensions of the original parts and mounted so that the headlight bezel/rim remains in place and presents a stock appearance.

- g. The fuel filler neck and cap must be standard as provided by the manufacturer or of standard U.S. automotive production and located as required for Trans Am 25 competition.

6.B.4 Authorized Modifications

A. General

1. It is not permitted to make any changes, alterations or modifications to the standard automobile, its coachwork and chassis or any component as produced by the manufacturer, unless such modifications are required under 6.3 above or specifically authorized by these rules.
2. Any springs (including torsion bars) such as clutch, suspension, etc. may be replaced by others of unrestricted origin but with no change in the number provided by the manufacturer and on condition they can be fitted without alteration of the original supports or attachments, except as specifically authorized by these rules.

B. Chassis and Coachwork

1. Bumpers may be removed providing all projecting hardware also is removed. In Trans-Am competition, all cars must be equipped with standard bumpers mounted in standard position.
2. A front spoiler may be mounted provided it meets the following requirements:
 - a. It must be mounted to front underside body panel below and to the rear of the front bumper location.
 - b. Its width shall be limited to the front wheel track width centerline (front track dimension).
 - c. The vertical dimension from the lowest point on the front lower panel to the lowest point on the spoiler shall not exceed three inches.
 - d. Openings in the spoiler are permitted for the purpose of ducting air to the brakes and/or oil cooler(s).
 - e. It shall not extend above a horizontal plane passing through the centerline of the wheel hubs.
 - f. Oil cooler and front brake ducting may not exceed the dimensions specified above.
3. Rear seat and seatback may be removed. The passenger seat may be removed. The driver seat may be replaced with any suitable seat. A racing type bucket seat providing lateral

support for the torso is recommended. Seat mountings may be reinforced.

4. Doors may be bolted or pinned to prevent their opening in case of accident. Pins or straps may be added to engine hoods and trunk lids to supplement or replace the latches. Standard hinges may not be removed.
5. Floor mats may be removed.
6. In order to provide clearance for wheels and tires, and install brake and oil cooler ducting, the interior of fenders may be altered, except for the removal wholly or partially of panels separating the wheel wells from the engine, passenger and/or luggage compartments. The inner fender panels may be replaced with any panel of the same material and thickness as original that provides the required separation.
The exterior contour of the fenders may be altered to provide for tire clearance, but the fender opening profile, viewed from side of automobile may not be changed. Fender flares of additional and/or alternate material are permitted when shown on SCCA recognition form.

The tire tread shall not extend beyond the fender opening at the highest point of the tire.

7. The headliner may be removed.
8. Jacking points may be strengthened, their location may be changed, or extra ones added.
9. The steering wheel may be replaced and the rake of the steering column may be altered. A collapsible type of steering column equivalent to Federal Motor Vehicle Safety Standard No. 204 is strongly recommended.
10. Inside door handles, window cranks, winding mechanism and side door glass may be removed. Door upholstery trim panels shall not be removed.
11. The replacement, addition or removal of accessories, gauges, indicators and other interior modifications for the convenience of the driver and to permit the installation of required safety equipment is authorized, provided such modifications have no influence whatever on the mechanical performance of the car. Such modifications do not include the substitution or replacement of any element of the coachwork or chassis.
12. The windshield wiper mechanism must remain installed and functional as originally delivered, but the wiper arms may be removed.

C. Tires, Wheels and Suspension

1. **Wheels**
Substitute wheels of any type or material may be used, provided their dimensions and the track they determine are within the limits specified on the SCCA Recognition Form for the automobile, however, all four wheels must be of the same diameter.
 - a. Rim width:

Class B – Maximum 7

Class C – Maximum 6

- b. Diameter
As listed on SCCA recognition form
 - c. Track:
Maximum track as listed on SCCA recognition form measured at a horizontal plane through the hub centerline. The track dimension must remain equally disposed from the centerline of the automobile.
2. Spare wheel and tire may be removed.
 3. The modification or substitution of front spindles and/or rear axle shafts, and modifications or substitution of hubs, bearings, bearing carriers and universal joints is permitted.
 4. The addition or substitution of anti-sway bars is authorized. Traction master type torque rods, pan-hard rods and other similar rear axle location devices may be used, but shall not extend through body or chassis panels.
 5. Any make or type of shock absorber may be used. It is not permitted to alter the number of shock absorbers or their systems of operation (i.e., lever or telescopic). The shock absorber points of attachment on the rear of the car may be changed.
 6. On McPherson strut type of suspension, the spring mounting attachment to the housing may be modified or relocated provided that the strut/shock absorber remains inside the coil spring. The strut attachment point at the chassis may be changed.
 7. Suspension bushings may be replaced by others of a different material provided they are the same type and size. Offset bushings are permitted, including adjustable type.
 8. Quick change/knock-off type wheels are not allowed.
 9. Spacers (lowering blocks) may be used between leaf springs and their point of attachment on the axle housing. The type and location of axle mounting for the leaf spring is free.
 10. Production suspension control arms must be used, but may be reinforced for safety. Length of control arms may not be changed. Control arm mounting location at the chassis may be changed. Steering arms, Pitman arms, steering linkage component parts may be modified, reinforced or substituted.
 11. The wheelbase of the automobile shall not be changed or relocated in afore aft direction.

D. Electrical Systems

1. The standard battery may be replaced by one of different make and capacity. The voltage of the battery and electrical system may not be changed. The battery may be located in the trunk, but if so, must be enclosed in a non-conductive protective box (i.e. marine type) and securely mounted.
2. The standard generator or alternator may be replaced by either a generator or an alternator of different make and

capacity, provided the driving method remains unchanged. Mounting brackets may be modified or replaced. Any voltage regulator may be used.

3. The make and location of the ignition coil and condenser may be changed.
4. Any distributor may be used provided its installation does not require any modification of the engine. Magneto ignition is prohibited unless listed on the recognition form of the automobile.
5. Transistor ignition is permitted provided its installation does not require any modification to the engine.
6. Any make or type of spark plugs may be used.
7. Additional relays and/or fuses may be installed.
8. The use of any starter is permitted provided it can be fitted without modification to the engine.
9. Wiring harness may be changed or modified.

E. Engine, Reciprocating

1. Any exhaust manifold or exhaust headers may be used. Exhaust pipes and mufflers may be replaced with straight pipe(s). The exhaust system must terminate behind the driver seat and must be directed away from the body. The exhaust tail pipes may be partially recessed into the floor panel and lower rocker panel.
2. Substitution or modification of the clutch and/or flywheel is permitted provided no changes are made in the diameter of the flywheel. The use of dowel pins is permitted.
3. Exhaust emission control air pumps and associated lines and nozzles cannot be modified in any way except that they may be completely removed. When these air nozzles are removed from a cylinder head, the holes must be completely plugged.
4. Engines may be rebored a maximum of 1.2 mm (0.047") over the standard bore size listed on the recognition form provided the resulting increase in displacement does not result in a total displacement exceeding the class limit.
5. The crankshaft may be replaced with another of the same basic material, but no changes in stroke or journal dimensions are permitted.
6. Substitution of main bearing caps is permitted.
7. The connecting rods may be replaced with any connecting rod of the same basic material.
8. The cooling fan may be modified, substituted or removed.
9. Any pistons and piston pins may be used.
10. Any camshaft(s) may be used.
11. Cam followers may be substituted, except that roller cam followers may not be used unless fitted in production.
12. Valves are free including size and material, but the valve center lines may not be altered.
13. It is permitted to lighten, balance or modify in shape by tooling the standard or optional components of the engine and

drive train, provided it is always possible to identify them, positively as such. Material may not be added to these components unless they are fully authorized.

14. The use of alternate engine and drive train components, considered replacement parts, such as seals, bearing, valve guides, nuts, bolts, studs, washers and gaskets is permitted provided they are of the type and dimension. Concentric bushings may be installed excepting in the case where none are fitted as standard but shall not alter the location of any engine or drive train component. Oil and water passages may be restricted or plugged.

The substitution of valve spring retainers and keepers is permitted. Valve springs are free (including number) as long as the type and location remains unchanged. Any pushrods may be used. Any rocker arm of the same basic material may be used.

15. Generator crankshaft and water pump pulleys may be altered or replaced with others of unrestricted origin. The use of any crankshaft vibration dampener is allowed.
16. The compression ratio may be increased by machining, using any head gasket(s) or elimination of head gasket(s).
17. Any oil pan (sump) may be used. The use of any oil pump pick-up is allowed provided there is no modification required to the oil pump. An alternate oil pump may be used if listed on the SCCA Recognition Form. Dry sump systems are prohibited unless fitted as standard production and listed on the recognition form.
18. Any oil filter(s) may be used.

F. Engine, Rotary Piston

1. Any exhaust manifold or exhaust headers may be used. Exhaust pipes and mufflers may be replaced with straight pipe(s). The exhaust system must terminate behind the driver seat. The exhaust tail pipes may be partially recessed into the floor panel and lower rocker panel.
2. Substitution or modification of the clutch and/or flywheel is permitted provided no changes are made in the diameter of the flywheel. The use of dowel pins is permitted.
3. Exhaust emission control air pumps and associated lines and nozzles cannot be modified in any way except that they may be completely removed. When these air nozzles are removed from a cylinder head, the holes must be completely plugged.
4. Engines may not change the capacity of the working chamber(s).
5. The eccentric shaft may be replaced with another of the same basic material, but no changes in eccentricity or journal dimensions are permitted.
6. The rotor is free providing the number of lobes remains unchanged.

7. The rotor housing is free providing no changes in the shape (epitrochoidal curve) of the working chamber is permitted.
8. It is permitted to lighten, balance or modify in shape (except as restricted elsewhere) by tooling the standard or optional components of the engine and drive train, providing it always possible to identify them positively as such. Material may not be added to these components unless specifically authorized.
9. The use of alternate engine and drive train components considered replacement parts such as seals, bearings, nuts, bolts, studs, washers and gaskets is permitted provided they are of the same type and dimensions. Concentric bushings may be installed where none are fitted as standard, excepting the ports, but shall not alter the location of any engine or drive train component. Oil and water passages may be restricted or plugged.
10. Any oil pan (sump) may be used. The use of any oil pump pick-up is allowed provided there is no modification required to the oil pump. An alternate oil pump may be used if listed on the SCCA Recognition Form. Dry sump systems are prohibited unless fitted as standard production and listed on the recognition form.
11. The cooling fan may be modified substituted or removed.
12. Generator, crankshaft and water pump pulleys may be altered or replaced with others of unrestricted original.

G. Drive Line

1. The rear axle tube may be modified or replaced provided the manufacturer's system of suspension is retained. Any final drive housing, gear ratio, limited slip or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited.
2. Any transmission ratios may be used in the standard or recognized optional transmission. The number and direction of gears shall not be changed.
3. Any modifications may be made in the linkage between the clutch pedal and the clutch housing including the replacement of mechanical linkage with a hydraulic system.
4. Heavy duty propeller shaft(s) drive shaft(s) may be used in place of standard shaft(s).
5. The installation of any vent or breather on the engine, transmission or differential is permitted.

H. Cooling System

1. The use of any engine, transmission and differential oil cooler(s) is permitted provided it (they) are mounted completely within or under the coachwork, but not in the driver/passenger compartment. Association oil cooler pumps and lines are permitted for the transmission and differential. Air ducts may be fitted to the oil cooler(s) provided they do not extend more than 12 inches in any direction from the oil

- cooler fins.
2. The use of any water radiator is allowed provided there are no changes in the coachwork of the automobile to accommodate its use. Separate expansion or header tanks are permitted provided they are mounted in the engine compartment.
 3. Sealing or shrouding the air flow area between the normal grille opening and the water radiator is permitted.
 4. On water cooled cars, thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

I. Fuel Induction System

1. For reciprocating engines, carburetor(s) and intake manifold(s) are free provided the intake manifold(s) can be attached to the head(s) without modification of the head(s). For rotary engine, the carburetor(s) and intake manifold(s) are free providing the intake manifold(s) can be attached to the end covers without modification to the end covers. The freedom given to the rotor housing shall extend in regards the attachment of the intake manifold(s) thereto.

For both engine types, no portion of the intake manifold(s) may extend into the ports of the cylinder head. Supercharging is not permitted.

2. Automobiles recognized as being equipped with fuel injection in standard production may make any modification to that injection except changing the make and model of the fuel metering and/or fuel distribution unit.
3. No changes may be made in the internal or external coachwork, chassis or firewall for the installation of the induction system.
4. Any linkage may be used between the throttle(s) and the accelerator pedal.
5. Any air filter may be used or the filter may be removed. Dynamic air intakes may be fitted on the carburetors. Air may be ducted to the carburetors provided the ducting is contained within the engine compartment and the air is supplied through normal openings in the coachwork.
6. Any fuel pump(s) may be used and the location of the pump(s) may be changed. Fuel pumps shall not be located in the driver/passenger compartment.
7. Fuel lines are restricted to a maximum of $\frac{1}{2}$ " inside diameter. Only a single fuel supply line may be used between the engine firewall and the bulkhead separating the driver/passenger compartment and the compartment in which the fuel tank is mounted. Lines returning fuel from engine to the tank are prohibited except where fitted as standard. These fuel lines may pass through the driver/passenger compartment if completely covered and protected by a supplemental metal cover or alternatively be a metal braided(aeroquip) line.

J. Brakes

1. The use of any dual master cylinder and/or pressure equalizing device is permitted.
2. Servo-assist systems are free.
3. Backing plates or dirt shields may be ventilated or removed. Brake air ducts may be fitted provided they extend in a forward direction only and no changes are made in the coachwork. Rear brake ducts may extend a maximum of 24" from disc or drum.
4. The handbrake may be partially or entirely removed.
5. Any brake lines may be used. They may be relocated and may be given additional protection.
6. Brake discs, calipers and/or drums are free provided they are mounted in the same location as the standard brakes.

K. Safety Fuel Cells

1. It is recommended that the fuel tanks in the sedan category be substituted with safety fuel cells conforming to the SCCA safety fuel cell standards as specified in Appendix X. Fuel cells shall be located in the same compartment as the standard fuel tank.

7. FORMULA F

7.1 Definition

A formula for single-seat, open-wheel racing cars using standard Ford 1600 "crossflow" pushrod engines and with firewall, floor and safety equipment conforming to the GCR.

7.2 Engine

A. General

The engine shall be standard Ford 1600 pushrod "crossflow" as installed in the following vehicles:

Original version: Cortina 1600 GT (through 1970 model)

Upated version: Cortina 1600 GT (1971)

Components shall not be interchanged between the original and upated versions of the engine. Regulations contained herein apply to both versions of the engine unless specifically state otherwise.

The engine may not be altered, modified or changed in any respect unless specifically authorized herein.

1. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded and the maximum dept of the combustion chamber is maintained.
2. Standard Ford replacement valve guides and standard Ford replacement valves, with oversize stems, may be used as normal repair/maintenance procedures. Specifications under f, "Valves", must be

observed. It is permitted to recut or replace valve seats and/or lap valves to valve seats to standard Ford specifications.

Exhaust emission control, air pumps and associated lines and nozzles must be completely removed. When these air nozzles are removed from a cylinder head, the holes must be completely plugged.

Balancing of all moving parts of the engines is permitted provided that such balancing does not remove more material than is necessary to achieve such balance. It is permitted to polish parts of the engine providing the contour of the part is not altered and can be recognized as the original part.

Maximum compression ratio

10.0 to 1 Original engine

9.3 to 1 Uprated engine

Minimum upswept volume per cylinder

44.4 cc (original engine with standard pistons)

45.1 cc (original engine with .030" o/s pistons)

48.2 cc (uprated engine with standard pistons)

B. Block

Bore: May be enlarged for clearance between cylinders and piston.

Cylinder lines may be fitted. The top surface of the block may be milled or surface ground to obtain the maximum compression ratio specified above. Any steel center main bearing cap may be used.

C. Cylinder Head

Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:

Inlet: 1.42"

Exhaust: 1.16"

Combustion chamber (Original engine only):

Minimum depth: 0.115"

Maximum length: 3.15"

Minimum volume per cylinder 7.8 cc

Reshaping is prohibited.

The standard head gasket shall be used. Head gaskets may be interchanged between the original and uprated versions of the engine.

D. Inlet Manifold

The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:

Original Engine

Uprated Engine

Maximum size		
At head face:		
Cyl 1 & 4	1.48" x 1.28"	1.24"
Cyl 2 & 3	1.25"	1.25"
Maximum size		
At carburetor		
Flange:	3.060" x 1.389"	Max length: 3.80"
		Primary choke end radius .709"
		Secondary choke end radius: .787"

The carburetor face of the inlet manifold may be machined to the horizontal to compensate for fore/aft tilt of the carburetor.

The water passages in the inlet manifold may be plugged.

E. Pistons

Standard 0.015" oversize or 0.030" oversize pistons may be used in the original engine. Only standard size pistons may be used in the approved engine.

	Original Engine	Uprated Engine
Maximum Diameter		
Standard:	3.189"	3.189"
0.015" o/s	3.204"	not permitted
0.030" o/s	3.219"	not permitted
Depth of bowl (±.005")	0.500"	0.500"
Minimum volume		
Of bowl:	31.50 cc	
Maximum length		
Of bowl:	2.28"	
Centerline of wrist		
Pin to crown:	1.737" ± .002"	1.737" ± .002"
Overall height:	3.30"	3.30"
Minimum weight		
w/rings & pin:	573 grams	555 grams
Weight of pin:	115 ± 2 grams	

Piston Rings are free provided that:

- 1) One oil control and two compression rings are used.
- 2) No modification is made to the piston for the installation of rings.

F. Valves

	Original	Uprated
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	Engine	Engine
Distance apart at Centers:	1.540" ± 0.20"	1.540" ± 0.20"
Max. Diameter:		
Inlet:	1.502"	1.560"
Exhaust:	1.252"	1.340"
Overall Length		
Inlet:	4.280" ± .006"	4.367 ± .020"
Exhaust:	4.260" ± .006"	4.355 ± .020"

Reshaping of the valves is specifically prohibited.

G. Camshaft

The camshaft lobe profile shall not be altered. The following specifications are provided for checking purposes:

Lobes, heel to toe:	Inlet	1.311" Maximum
	Exhaust	1.312" Maximum
Lobes, base circle radius:	Inlet	0.540"
	Exhaust	0.545"
Lift at top of pushrod:	Inlet	0.231" ± .002" Max.
	Exhaust	0.232" ± .002" Max.
Lift at spring cap:	Inlet	0.356" Max.
(Zero tappet setting)	Exhaust	0.358" Maximum

Note: Recontouring of the valve stem contact pad of the rocker arm is permitted, provided the maximum lift at the spring cap is not exceeded.

Timing:

Inlet valve fully open: 109° ATDC ± 3°

Exhaust valve fully open: 109° BTDC ± 3°

Offset camshaft/sprocket dowels are permitted to achieve the required camshaft timing.

Camshaft timing and lobe centers shall be checked using the official procedure published by SCCA.

H. Valve Springs

Valve springs and valve spring shims are free except that:

- 1) No more than one spring may be used per valve.
- 2) The standard spring cap and retainers must be used. (Cap diameter: 1.07")

I. Pushrods

Original Engine	Upated Engine
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Minimum stem
Diameter: 0.25"
Overall length: 7.64" Minimum
Minimum weight 50 grams

J. Connecting Rods

Minimum weight: Both engines: 640 grams

(Note: Weights include cap, bolts and small end bush but not big end bearing shells.)

K. Crankshaft

Weight: Original Engine: 23 lbs. 8 oz. Minimum
Up-rated Engine: 24 lbs. 8 oz. Minimum

Stroke (at piston): 3.056" ± .004"

Crankshaft pulley: Free

Either crankshaft may be used in either engine.

L. Flywheel

Weight with ring gear and dowels:

Original Engine: 18 lbs. Minimum

Up-rated Engine: 20 lbs. Minimum

The flywheel can be machined to achieve the minimum allowed weight.

M. Carburetor

Original Engine:

Weber 32 DFM or DFD

Venturi diameter: Primary: 26 mm
Secondary: 27 mm

Up-rated (KENT) Engine:

Weber 32/36 DGV-FA

Venturi diameter: Primary: 26mm
Secondary: 27 mm

Permitted modifications:

- a. The fitting of any jets (including accelerator pump discharge nozzle) which may be fitted without modification to the carburetor body.
- b. Modification or substitution of external throttle linkage.
- c. The fitting of external anti-surge pipes.
- d. The removal of the air cleaner.
- e. The fitting of a velocity stack (intake air horn).
- f. The removal of the choke butterflies and linkage.

N. Fuel Pump: Free

O. Exhaust Manifold: Free

P. Lubrication System

Oil pump and sump: Free

Dry sump system is permitted.

Q. Cooling System

Radiator, fan and water pump: Free

Pump/fan/generator drive belt: Free

R. Electrical Equipment

Distributor: Standard Autolite or Lucas. The vacuum advance mechanism may be removed. Transistorized ignition is prohibited. All other electrical components are free.

S. Miscellaneous

- 1) The timing chain/sprocket cover may be altered or replaced.
- 2) The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component:
 - a. Fasteners (nuts, bolts, screws, studs, etc.)
 - b. Gaskets, except head gasket, carburetor to inlet manifold gasket and inlet manifold to head gasket.
 - c. Washers.
 - d. Seals.
 - e. Connecting rod, crankshaft and camshaft bearings of the same size and type as original. Normal oversize/undersize bearings are permitted.
 - f. Spark plugs.
- 3) Mechanical tachometer drive is permitted.
- 4) The crankcase breather may be altered or removed.
- 5) The rocker cover may be altered to provide for crankcase ventilation and the filler cap may be altered or replaced.
- 6) The crankshaft and main bearing caps may be treated with salt-bath nitriding covered under SAE specification AMS 2755A (Tufftriding, etc.)
- 7) The use of any oil or lubricants.
- 8) Valve or rocker covers may be substituted, provided that the replacement cover afford no additional function than that of the original stock cover.

7.3 Transmission

Any transmission may be used with not more than four forward gears and an operational reverse gear.

7.4 Final Drive

Any final drive unit may be used except:

- a. Drive shall be to rear wheels only.
- b. Limited slip and locked differentials are prohibited.

7.5 Clutch

The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel.

7.6 Chassis

The chassis shall be of tubular steel construction with no stress bearing panels except the undertray and a single transverse bulkhead. The curvature of the undertray shall not exceed 1 inch. Tubes may transport liquid. Monocoque construction is prohibited.

7.7 Suspension and Running Gear

All components shall be of steel with the exception of springs, hub adaptors, rear hub carriers, bearings and bushings.

Wheel spacers shall not exceed 1.5".

Shock absorbers are free.

7.8 Body

- a. No part of the frame or body shall project beyond a plane connecting the vertical centerlines of the front and rear tires.
- b. The driver's seat must be capable of being entered without the removal or manipulation of any part or panel.
- c. Wings, dive planes and airfoils are prohibited.
- d. Fuel filler necks, caps or lids may not protrude beyond the bodywork of the car.
- e. Coach work, including fuel tanks, shall not exceed a maximum width of 95cm (37.4"), not including side mounted radiators, at any point.

7.9 Brakes

Free, except that disc brakes are restricted to cast iron calipers.

7.10 Wheels

Wheels shall be 13" pressed steel disc type with a maximum rim width of 5.5". Wheels must be of standard manufacture, but the offset of the center disc may be altered.

7.11 Minimum Weight

Minimum weight including coolant and lubricants, but not including fuel and driver:

Cars with original engine: 881.6 lbs

Cars with uprated KENT engine: 930.0 lbs

8. FORMULA SUPER VEE

8.1 Definition

A formula for single-seat, open wheel racing cars based on standard Volkswagen 1600 components.

No part of the required engine, drive line, brakes or suspension may be altered, modified, changed or be of other than VW manufacture unless specifically authorized herein.

8.2 Weight and Dimensions

- a. Minimum weight – 882 lbs., as raced, without fuel and driver. Ballast is not permitted.
- b. Wheel base – Free.

- c. Front track – Free.
- d. Rear track – Maximum 56" (measured with 0° camber).

8.3 Suspension

- a. Front suspension is free with the exception of the following standard VW Type 1, 2 or 3 parts:
 - 1. Steering knuckles (upright)
 - 2. Wheel hubs
 - 3. Brake drums, wheel cylinders and backing plates or brake discs and calipers. Splash shields may be removed from disc brakes.
- b. Rear suspension is free with the exception of the following standard VW Type 1, 2 or 3 parts:
 - 1. Axle shafts
 - 2. "U" joints
 - 3. Wheel hubs
 - 4. Brake drums, discs, calipers, wheel cylinders and backing plates. Backing plates may be altered for brake cooling. ATE caliper type FV/002 also permitted.

8.4 Wheels

- a. Wheels are free except that:
 - 1. Diameter shall be 13", 14" or 15"
 - 2. Rim width shall not exceed 6 inches
 - 3. The bolt pattern shall enable the wheel to be attached directly to the VW hub without the use of an intermediate adapter.
 - 4. Wheels shall be identical for the right and left front axles and identical for the right and left rear axles.
- b. Wheel spacers may be installed between the front wheels and hubs, but may not exceed ½ inch per wheel. Spacers are not permitted between the rear wheels and hubs.
- c. Wheel attachment bolts may be replaced with studs.

8.5 Brakes

- a. Brake lining and/or brake pad material is free.
- b. Cars must be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least 2 wheels. Brake master cylinders are free.

8.6 Engine

The engine shall be a standard VW 1600 from Volkswagen Type 1, 2 or 3 vehicles or a 1600 cc 127V (Type 4) industrial engine and shall be installed forward of the transmission. The following modifications are permitted:

- a. Induction system
The induction system is free within the following restrictions:
 - 1. Maximum number of throats: 4
 - 2. Maximum throat diameter at the throttle butterfly: 40 mm (1.575")
 - 3. Fuel injection is prohibited

4. Turbocharging and/or supercharging are prohibited.
- b. Exhaust system free, but pipes must terminate behind the driver and extend no more than 28 inches rearward of the rear axle centerline. The last 4 inches must be horizontal and be between 12" and 24" from the ground.
 - c. The flywheel may be lightened to a minimum weight of 12 lbs.
 - d. It is permitted to lighten, balance, or modify in shape by tooling components of the engine, provided it is always possible to identify them positively as such. It is not permitted to add any material or mechanical extension unless authorized in these rules.
 - e. The fan may be altered or removed. The fan housing may be altered or replaced. Cooling ducts may be altered, removed or replaced. The cooling fan may not direct air to the carburetor inlet.
 - f. Any standard VW distributor may be used.
 - g. Generator/alternator – free or may be removed.
 - h. Any oil baffles housed within the original sump may be used. Oil capacity may be increased by sump extension or oil filter(s). Dry sump systems are permitted.
 - i. The substitution of valve spring retainers and the use of any valve spring(s) or the same type is authorized.
 - j. The following standard dimensions of engine components are included as information and shall be observed.

Bore (Max.):	3.375" (Type 1, 2, 3)
	3.4528" (Type 127V)
Stroke:	2.720" ± .005" (Type 1, 2, 3)
	2.598" ± .005" (Type 127V)
Intake Valve:	1.516" maximum diameter
Exhaust Valve:	1.299" maximum diameter
 - k. Camshaft including timing gear – free.
 - l. The use of any cam followers except for roller type.
 - m. The use of any standard VW rocker arms.
 - n. Any standard VW clutch. Any clutch lining may be used.
 - o. Any oil cooler is permitted.
 - p. Any push rods.
 - q. The use of alternate pulleys on the crankshaft, fan and/or generator.
 - r. The use of alternate valve covers.
 - s. The addition of dowel pins between the flywheel and crankshaft.

8.7

Transmission – Final Drive

Any transmission/final drive assembly utilizing a VW Type 1, 2 or 3 case with four forward speeds and an operational reverse gear may be used. The case may not be installed in an inverted position. Reverse gear must be operable from the driver's seat.

The final drive/differential unit is free except that limited slip and locked differentials are prohibited. The gear carrier and gearshift housing may be modified or replaced to permit the installation of a

“quick-change” final drive assembly.

The final drive covers (side plates) may be modified or replaced.

8.8 Body

- a. No part of car body with the exception of the roll bar shall be higher than 80 cm (31.5 inches) measured from the lowest point of completely sprung structure of the car.
- b. The cockpit opening must have the following minimum dimensions:
 1. Length: 60 cm (23.622 inches)
 2. Width: 45 cm (17.717 inches)
This width must extend over a length of 30 cm (11.811 inches) measured from the rearmost points of the seat backrest toward the front.
 3. The driver’s seat must be capable of being entered without the removal or manipulation of any part of panel.
- c. Bodywork in front of the front wheels and lower than the top of the front wheel rim shall not exceed a maximum width of 135 cm (53.15 inches).
- d. Bodywork in front of the front wheels and higher than the top of the front wheel rim shall not exceed a maximum width of 110 cm (43.307 inches).
- e. Bodywork behind the front wheels shall not extend beyond a plane connecting the vertical center lines of the front and rear tires.
- f. The material and shape of the bodywork are unrestricted, provided the body is symmetrical to the longitudinal axis of the vehicle and covers the entire length of the engine. The body shall not protrude beyond the rearmost point of the gearshift linkage. The carburetor may project outside of the bodywork.
- g. Wings and other airfoil devices which have the principal effect of creating aerodynamic downthrust are prohibited.
Airfoil: Any device or part of a car (excepting normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downthrust. Within this definite may be included forward facing gaps or openings in the bodywork, but shall not include spoilers in the form of raised surfaces, continuous with the body surface, and not wider than the body surface.
- h. Canards, diveplanes and “sports car noses” are permitted within the dimensional restrictions of items c and d.
- i. Spoilers in the form of raised surfaces continuous with the body surface and complying with bodywork dimensional restrictions, are permitted.

8.9 Fuel Tank

Fuel tanks must be SCCA approved safety fuel cell(s). The total capacity shall not exceed 10 U.S. gallons. Fuel cells shall be separated from the engine compartment by the firewall and located to the rear

of the front wheel centerline.

8.10 The use of the following non-standard VW parts is permitted:

- a. Fasteners (nuts, bolts, screws, etc.)
- b. Wiring
- c. Gaskets and seals
- d. Brake and fuel lines
- e. Spark plugs
- f. Piston rings
- g. Wheel bearings
- h. Rod and main bearings of the same type
- i. Fan belt
- j. Brake shoes, pads and linings
- k. Valves (std valve head diameter must be maintained)
- l. Valve guides
- m. Valve seats
- n. Springs
- o. Battery
- p. Coil
- q. Fuel pump
- r. Oil pump(s)
- s. Ignition point set
- t. Oil and lubricants

9. SHOWROOM STOCK SEDANS

9.1 Automobile Eligibility

Sedans selected by SCCA being standard models with no options, being less than \$3,000 P.O.E. and have been imported in the U.S.A. in a minimum quantity of 5,000 units in the previous 12 month period. Selected Sedans must be of the current or previous year's model and manufacture.

Automobiles may be added or deleted from the list of selected Sedans at any time at the sole discretion of SCCA.

Sedans selected for competition beginning January 1, 1973 are as follows:

Austin Morris Marina	1800 cc
Chevrolet Vega	2300 cc
Datsun 510 (1972 only)	1600 cc
Datsun 610 (4 door)	
Dodge Colt	1600 cc
Fiat 124S	1437 cc
Ford Pinto	2000 cc
Opel 1900 Sedan (2 dr or 4 dr)	1900 cc
Plymouth Cricket	
Renault R12	1565 cc
VW Super Beetle & Beetle	1600 cc
SAAB 96 Sedan	

Subaru 1400 Sedan

Toyota Corona

1900 cc or 2000 cc

9.2 Preparation

The only modifications permitted and required are as follows:

- a. Installation of SCCA approved roll bar as specified in Appendix Z of the GCR. Roll bars to be bolted, not welded, into the automobile.
- b. Installation of all required SCCA safety equipment, including safety harness and fire extinguisher.
- c. Removal of hub caps, jack and tools. Spare wheel and tire must remain installed in its original position.
- d. Headlights to be taped.
- e. Any markings to be readily removable.
- f. Tires must be D.O.T. approved and the same size as standard equipment on the automobile, on D.O.T. approved radial tires having not more than 165 section designation or the following approved equivalents:

13 INCH	15 INCH
6.00R - 13	5.60R - 15
165 - 13	165 - 15
165R - 13	165R - 15
AR78 - 13	AR78 - 15

- g. Seat backs to be securely fastened.
- h. Items covered at technical inspection will include only those items mentioned in these rules, plus safety rules. Scattershields are not required.

NO OTHER MODIFICATIONS PERMITTED.

9.3 Competition Rules

- a. Sedans will not compete for national points in 1973.
- b. They may not practice or compete with other categories or classes, except Showroom Sports Cars, at Drivers' Schools or Regionals unless approved by the Chief Steward of the event. They may not compete concurrently with any other class or category, except Showroom Sports Cars, a National Championship event. They should normally run as the last event of the day in conjunction with Showroom Sports Cars.
- c. Driver Eligibility – Drivers holding Novice Permits (school requirements completed), Regional or National Licenses may enter, regardless of the level of the event run in conjunction with.

9.4 Protests

- a. Protests against legality will be accepted as described in GCR Chapter 8. However, burden of proof of stock condition is on the protesting driver. The protested driver shall have seven days to produce documented evidence to prove legality of his car specifications.
- b. Competing cars may be claimed within the result protest period for \$500 plus the official P.O.E. list price and applicable tax and license fees for the area in which the event is held. Claimant must be a driver in the race. In the event of one or more claim-

ants, they shall draw lots as supervised by the Stewards of the Meeting.

10. SHOWROOM SPORTS CARS

10.1 Automobile Eligibility

Production sports cars selected by SCCA, being standard models, with no options, and imported in the U.S.A. in a minimum quantity of 5000 units. Selected sports cars must be of the current or previous year's model and manufacture.

Automobiles may be added or deleted from the list of selected sports cars, at any time, at the sole discretion of SCCA.

Sports cars selected for competition beginning January 1, 1973, are as follows:

Fiat 124 Spider	1592 cc or 1608 cc
MGB and MGB-GT	1800 cc
MG Midget	1275 cc
Opel GT	1900 cc
Porsche 914/4	1679 cc
Triumph GT-6 Mark III	2000 cc
VW Karmann Ghia Coupe or Convertible	1679 cc

10.2 Preparation

The only modifications permitted and required are as follows:

- a. Installation of SCCA approved roll bar as specified in Appendix Z of the GCR. Roll bars to be bolted, not welded, into the automobile.
- b. Installation of all required SCCA safety equipment, including safety harness and fire extinguisher.
- c. Removal of hub caps, jack and tools. Spare wheel and tire must remain installed in its original position.
- d. Headlights to be taped.
- e. Any markings to be readily removable.
- f. Tires must be D.O.T. approved and the same size as standard equipment on the automobile, or D.O.T. approved radial tires having not more than 165 section designation or the following approved equivalents:

13 INCH	15 INCH
6.00R - 13	5.60R - 15
165 - 13	165 - 15
165R - 13	165R - 15
AR78 - 13	AR78 - 15

Racing tires or recapped tires are prohibited. The same size tires must be used on all four wheels.

- g. Seat backs to be securely fastened.
- h. Cars with convertible tops must have them stowed, as provided for by the manufacturer and windows in the fully down position. Removable hardtops must be removed completely from the cars.

- i. Items covered at technical inspection will include only those items mentioned in these rules, in addition to safety rules. Scattershields are not required.

NO OTHER MODIFICATIONS PERMITTED.

10.3 Competiton Rules

- a. Sports cars will not compete for national points in 1973.
- b. They may not practice or compete with other categories or classes, except Showroom Stock Sedans, at Drivers' schools or regional events, unless approved by the Chief Steward of the event. They may not compete concurrently with any other class or category, except Showroom Stock Sedans, at a national championship event. They should normally run in conjunction with Showroom Stock Sedans at the last event of the day.
- c. Driver Eligibility – Drivers holding Novice Permits (school requirements completed), Regional or National Licenses may enter, regardless of the level of the event run in conjunction with.

10.4 Protests

- a. Protests against legality will be accepted as described in GCR, Chapter 8. However, the burden of proof of stock condition is on the protesting driver. The protested driver shall have seven days to produce documentary evidence to prove legality of his car specifications.
- b. Competing cars may be claimed, within the results protest period, for \$500.00 plus the official P.O.E. list price and applicable tax and license fees for the area in which the event is held. Claimant must be a driver in the race. In the event of one or more claimants, they shall draw lots, as supervised by the Stewards of the Meeting.

Manufacturer: Abarth
 Model: Abarth Simca 2000
 ENGINE:

Class: A

Manufacturer Abarth
 Type DOHC 4 cyl in line
 Bore & stroke 3.46" x 3.15"
 Capacity 1946 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.97"
 Exhaust ... 1.74"
 Carburation Two Weber 45 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.7"
 Gearbox

No. speeds forward:

Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.17	2.57		
2	2.00	1.89		
3	1.52	1.48		
4	1.30	1.26	1.31	
5	1.17	1.12	1.21	1.08
6	1.08	1.00	0.96	0.93

Overdrive

Make & Model: NA
 Ratio

Final drive ratios: 4.37, 3.70

CHASSIS:

Wheelbase 82.3"
 Track dimension, front50.1"
 Track dimension, rear50.2"
 Wheel Diameter 13"
 Rim Width 5"

BRAKES

STANDARD ALTERNATE

Front: 9.2" Disc
 Rear: 9.2" Disc

WEIGHT & CAPACITIES

Official weight:1470 lbs Radiator cap 10 Qt
 Fuel tank cap 22 gal.
 Alt.: 7 gal, 15 gal, 29

gal.

Manufacturer: AC Cars
 Model: AC Ace-Bristol
 ENGINE:

Class: D

Manufacturer Bristol
 Type Pushrod 6 cyl in line
 Bore & stroke 2.60" x 3.78"
 Capacity 1971 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.54"
 Exhaust ... 1.31"
 Carburation Three Solex 32 PBI 6

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox

No. speeds forward:	4			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	3.4	2.7		
2	1.9	1.9		
3	1.4	1.3		
4	1.0	1.0		
5				

Overdrive

Make & Model: Laycock
 Ratio

Final drive ratios: 3.64, 3.91, 4.1, 4.3

CHASSIS

Wheelbase 90"
 Track dimension, front50"
 Track dimension, rear50"
 Wheel Diameter 15" or 16"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE

Front: 11.6" Disc

Rear: 11" Drum

WEIGHT & CAPACITIES

Official weight: 1685 lbs	Radiator cap	11 Qt
	Fuel tank cap	16 Gal
	Alt:	25 Gal

Manufacturer: Alfa Romeo Class: F

Model: Giulietta Sprint Speciale & Zagato

ENGINE:

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 2.91" x 2.95
 Capacity 1290 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.46"
 Exhaust ... 1.34"
 Carburation Two Weber 40 DCOE or DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.26 2.54 3.26 Alt.
 2 1.99 1.70 1.96
 3 1.36 1.26 1.36
 4 1.00 1.00 1.00
 5 0.85 0.85
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.73, 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase 89"
 Track dimension, front51"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.3" Drum 10.6" Disc (Girling)
 Rear: 10" Drum

WEIGHT & CAPACITIES

Official weight: 1688 lbs - Zagato Radiator cap 8 Qt
 2076 lbs - Speciale Fuel tank cap 26.4 Gal
 Alt:

Manufacturer: Alfa Romeo
 Model: Spider 1300 Junior
 ENGINE:

Class: F

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 2.91" x 2.95"
 Capacity 1290 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.46"
 Exhaust ... 1.34"
 Carburation Two Weber 40 DCOE 28

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.87"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54 2.76 2.33
 2 1.99 1.70 1.78 1.58
 3 1.35 1.26 1.30 1.28
 4 1.00 1.00 1.00 1.00
 5 0.79 0.86 0.88
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.10, 4.56, 4.78, 5.12, 5.37, 5.86, 6.14

CHASSIS

Wheelbase 88.6"
 Track dimension, front52.1"
 Track dimension, rear50.1"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.5" Disc
 Rear: 10.5" Disc

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 2032lbs Fuel tank cap 12.2 Gal
 Alt: 15.8 gal, 21.1 gal

Manufacturer: Alfa Romeo
 Model: Junior Z
 ENGINE:

Class: F

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 2.91" x 2.95"
 Capacity 1290 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.457"
 Exhaust ... 1.339"

Carburation ...Two type H Weber DCOE 28 40mm or 40mm dellorto DHLA

40

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:

Gearbox

	No. speeds forward:	5				
	Ratios:					
	Std.	Alt.	Alt.	Alt.	Alt.	
1	3.30	2.54	2.33	2.54	3.30	
2	1.99	1.70	1.58	1.70	1.99	
3	1.35	1.26	1.21	1.26	1.35	
4	1.00	1.00	1.00	1.00	1.00	
5	0.86	0.86	0.88	0.79	0.79	

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 4.10, 4.56, 4.78, 5.12, 5.37, 5.86, 6.14

CHASSIS

Wheelbase 88.6"
 Track dimension, front52.1"
 Track dimension, rear50.1"
 Wheel Diameter 14"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.52" Disc 9.85" Disc
 Rear: 10.52" Disc

WEIGHT & CAPACITIES

Official weight: 2030 lbs Radiator cap
 Fuel tank cap 12 Gal
 Alt: 23.7 or 30.3 gal

Manufacturer: Alfa Romeo
 Model: Giulia TZ
 ENGINE:

Class: C

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 45 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.26 2.54 2.76 3.30
 2 1.99 1.70 1.78 1.99
 3 1.36 1.26 1.30 1.35
 4 1.00 1.00 1.00 1.00
 5 0.79 0.85 0.82 0.79
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.72,3.91,4.10,4.55,4.78,5.12,5.38,5.86

CHASSIS

Wheelbase 86.6"
 Track dimension, front51.2"
 Track dimension, rear51.2"
 Wheel Diameter 15" or 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 11.5" Disc

WEIGHT & CAPACITIES

Official weight: 1364 lbs Radiator cap 8 Qt
 Fuel tank cap 27 Gal
 Alt:

Manufacturer: Alfa Romeo
 Model: Giulia Spider Veloce
 ENGINE:

Class: E

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54 2.76 2.33
 2 1.99 1.70 1.78 1.58
 3 1.35 1.26 1.30 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.85 0.82 0.88

Overdrive

 Make & Model: None
 Ratio

Final drive ratios: 3.73, 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase 88.6"
 Track dimension, front51"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.6" Disc
 Rear: 10.5" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 1841 lbs Fuel tank cap 15 Gal

ALTERNATE SPECIFICATION

21 Gal Fuel Tank

Manufacturer: Alfa Romeo
 Model: Giulia Sprint & Spider
 ENGINE:

Class: F

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23"
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation One Solex 32 PAIA

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.54 2.76 2.33
 2 1.99 1.70 1.78 1.58
 3 1.35 1.26 1.30 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.85 0.82 0.88

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 3.73, 4.10, 4.55, 4.78, 5.12

CHASSIS

Wheelbase Sprint-92.5"; Spider-89"
 Track dimension, front51.6"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.6" Disc 10.5" Drum (3 shoe)
 Rear: 10.5" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 8 Qt
 Sprint - 2010 lbs Fuel tank cap 15 Gal
 Spider - 1809 lbs Alt. tank 21 Gal

Manufacturer: Alfa Romeo
 Model: Spider Duetto
 ENGINE:

Class: E

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.07" x 3.23" (See Note)
 Capacity 1570 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE 27

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.30 2.76 2.54 2.33
 2 1.99 1.78 1.70 1.58
 3 1.35 1.30 1.26 1.21
 4 1.00 1.00 1.00 1.00
 5 0.79 0.82 0.86 0.88
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.5, 3.9, 4.1, 4.7, 5.1, 5.4, 5.8

CHASSIS

Wheelbase 88.6"
 Track dimension, front51.6"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10.4" Disc	10.4" Disc
Rear:	9.7" Disc	10.4" Disc

WEIGHT & CAPACITIES

Official weight: 2072 lbs	Radiator cap	8 Qt
	Fuel tank cap	12 Gal
	Alt:	24 Gal

ALTERNATE SPECIFICATIONS

Vacuum brake servo (Dunlop or Bonaldi)

Manufacturer: Alfa Romeo Class: D
 Model: Alfa Romeo 1750 Spider Veloce thru 1971
 ENGINE:

Manufacturer Alfa Romeo
 Type DOHC 4 cyl in line
 Bore & stroke 3.15" x 3.48"
 Capacity 1779 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:

 Intake 1.62"
 Exhaust ... 1.46"
 Carburation Two Weber 40 DCOE 32 or PI 5081 Alfa FI 40mm

TRANSMISSION AND DRIVE TRAIN:
 Clutch Diameter: 8.5"
 Gearbox

No. speeds forward:	5			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	3.30	2.76	2.54	2.33
2	1.99	1.78	1.70	1.58
3	1.35	1.30	1.26	1.21
4	1.00	1.00	1.00	1.00
5	0.79	0.82	0.86	0.88

Overdrive

Make & Model:	None
Ratio	

Final drive ratios: 4.10, 4.55, 4.78, 5.12, 5.37, 5.86, 6.14, 6.8

CHASSIS

Wheelbase 88.6"
 Track dimension, front 52.1"
 Track dimension, rear 50.1"
 Wheel Diameter 14"
 Rim Width 5.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10.7" Disc	
Rear:	10.5" Disc	

WEIGHT & CAPACITIES

Official weight:	2116 lbs	Radiator cap 10.25
Qt		Fuel tank cap 12.2
Gal		Alt: 15.8, 21.1, 23.8 Gal

ALT. CARB: 2 Zenith 175 CDSE

Manufacturer: Alfa Romeo S.P.A.
Model: Alfa Romeo Spider 2000
ENGINE:

Class: D

Manufacturer Alfa Romeo
Type DOHC 4 cyl in line
Bore & stroke 84mm x 88.5mm
Capacity 1962 cc
Head material Aluminum
Block material Aluminum
Valve head dia:
 Intake 1.73"
 Exhaust ... 1.57"

CarburationTwo Zenith 175 CDSE ot Two Solex C40 DDH ot Two
40 Del 'Orto or 40mm Spica fuel injection

DHLA

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
Gearbox

No. speeds forward: 5
Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.30	2.76	2.54	2.33
2	1.99	1.78	1.70	1.58
3	1.25	1.30	1.26	1.21
4	1.00	1.00	1.00	1.00
5	0.79	0.82	0.86	0.88

Overdrive

Make & Model: None
Ratio

Final drive ratios: 4.10, 4.55, 4.78, 5.12, 5.37, 5.86, 6.14, 6.8

CHASSIS

Wheelbase 88.6"
Track dimension, front52.1"
Track dimension, rear50.1"
Wheel Diameter 14"
Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
Front: 10.7" Disc
Rear: 10.5" Disc

WEIGHT & CAPACITIES

Official weight: 2116 lbs Radiator cap
Fuel tank cap13.4

Gal

Manufacturer: Austin
 Model: Austin Healey BN1, BN2 (100-4) (100M)
 ENGINE:

Class: F

Manufacturer BMC
 Type Pushrod 4 cyl in line
 Bore & stroke 3.44" x 4.38"
 Capacity 2660 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.73"
 Exhaust ... 1.42"
 Carburation Two 1.5" SU or Two 1.75" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9"
 Gearbox
 No. speeds forward: 3 or 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.25 3.08
 2 1.47 1.91
 3 1.00 1.33
 4 1.00
 5
 Overdrive
 Make & Model: Laycock
 Ratio 0.78
 Final drive ratios: 3.54, 3.67, 3.91, 4.10, 4.12, 4.8

CHASSIS

Wheelbase 90"
 Track dimension, front48.75"
 Track dimension, rear50"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11" Drum
 Rear: 11" Drum See Below

WEIGHT & CAPACITIES

Official weight: 2176 lbs Radiator cap 12 Qt
 Fuel tank cap 14 Gal
 Alt: 25 Gal

ALTERNATE SPECIFICATIONS

7H1719 Alfin brake drums
 H8249 Disc brakes
 Louvered hood

Revised 4/72

Manufacturer: Chevrolet Motor Division Class: B
 Model: Corvette Sting Ray 350 Roadster & Coupe (69-71)
 ENGINE: *

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.00" x 3.480"
 Capacity 350 cu in
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 2.02"
 Exhaust ... 1.60"

Carburation Rochester 7029207 (1.39" Pri. 2.25" Sec.)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.4" or 11.0"
 Gearbox

No. speeds forward:	4			
Ratios:				
	Std.	Alt.	Alt.	Alt.
1	2.20	2.52		
2	1.64	1.88		
3	1.27	1.47		
4	1.00	1.00		
5				

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 2.46, 2.60, 2.73, 2.92, 3.08, 3.36, 3.55, 3.70,
 3.90, 4.11, 4.56, 4.88, 5.14

CHASSIS

Wheelbase 98"
 Track dimension, front 58.7"
 Track dimension, rear 59.4"
 Wheel Diameter 15"
 Rim Width 8"

BRAKES

STANDARD **ALTERNATE**
 Front: 11.75" Disc
 Rear: 11.75" Disc

WEIGHT & CAPACITIES

Official weight: 2906 lbs Radiator cap 19 Qt
Fuel tank cap 20 Gal
Alt: 42 Gal

ALTERNATE SPECIFICATIONS

J-56 Brake System

* Includes L-46 Engine; does not include LT-1

Manufacturer: Chevrolet Motor Division
 Model: Corvette Sting Ray 396
 ENGINE:

Class: A

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.09" x 3.76"
 Capacity 396 cu in
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 2.19"
 Exhaust ... 1.72"
 Carburation One 1.67" Holley 3868826 4-bbl

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10"
 Gearbox
 No. speeds forward: 3 or 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.58 2.56 2.20 Alt.
 2 1.48 1.91 1.64
 3 1.00 1.48 1.28
 4 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 2.73,2.93,3.08,3.36,3.55,3.70,4.11,4.56

CHASSIS

Wheelbase 98"
 Track dimension, front56.8"
 Track dimension, rear57.6"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

	STANDARD	ALTERNATE
Front:	11.75" Disc	11" Drum
Rear:	11.75" Disc	11" Drum

WEIGHT & CAPACITIES

Official weight:	3106 lbs	Radiator cap	19 Qt
		Fuel tank cap	20 Gal
		Alt:	36.5 Gal

ALTERNATE SPECIFICATIONS

Note: Hydraulic or solid lifters standard

Manufacturer: Chevrolet Motor Division Class: A
 Model: Corvette Sting Ray 427 Roadster and Coupe (68-69)

ENGINE:

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.25" x 3.76"
 Capacity 427 cu in
 Head material C.I. or Aluminum
 Block material C.I. or Aluminum
 Valve head dia:
 Intake 2.20"
 Exhaust ... 1.885"
 Carburation One Holley 4-bbl 1.750" R-4054A or R-4296A

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.4" or 11.0"
 Gearbox
 No. speeds forward: 4 or 3
 Ratios:
 Std. Alt. Alt. Alt.(Auto)
 1 2.20 2.52 1.48 2.48
 2 1.64 1.88 1.48
 3 1.27 1.47 1.00
 4 1.00 1.00
 5

Overdrive

Make & Model: None
 Ratio
 Final drive ratios: 2.46, 2.60, 2.73, 2.92, 3.08, 3.36, 3.55, 3.70, 4.11, 4.49, 5.14, 3.90

56

CHASSIS

Wheelbase 98"
 Track dimension, front 58.7"
 Track dimension, rear 59.4"
 Wheel Diameter 15"
 Rim Width 8"

BRAKES

STANDARD ALTERNATE
 Front: 11.75" Disc
 Rear: 11.75" Disc

WEIGHT & CAPACITIES

Official weight: 2881 lbs Radiator cap 23 Qt
 Fuel tank cap 20 Gal
 Alt: 4 42 Gal

ALTERNATE SPECIFICATIONS

RPO J56 HD Brakes
 R4055A one Holley 2 bbl 1.50" Pri
 R3659A two Holley 2 bbl 1.75" Sec.
 Includes L-88 engine

Manufacturer: Chevrolet Motor Division Class: AP
 Model: Corvette Sting Ray 454 Roadster & Coupe (70-71)
 ENGINE:

Manufacturer Chevrolet
 Type OHV - V8
 Bore & stroke 4.25" x 4.00"
 Capacity 454 cu in
 Head material C.I. or Aluminum
 Block material C.I.
 Valve head dia:
 Intake 2.20"
 Exhaust ... 1.88"
 Carburation R-4494A Holley 4 bbl 1.750" Pri. 1.75" Sec.

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.4"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Auto
 1 2.20 2.52 2.48
 2 1.64 1.88 1.48
 3 1.27 1.47 1.00
 4 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.24,2.60,2.73,2.93,3.08,3.36,3.55,3.70,3.90,4.4.56,4.88,5.14

11, CHASSIS

Wheelbase 98"
 Track dimension, front58.7"
 Track dimension, rear59.4"
 Wheel Diameter 15"
 Rim Width 8"

BRAKES

STANDARD ALTERNATE
 Front: 11.75" Disc
 Rear: 11.75" Disc

WEIGHT & CAPACITIES

Official weight:2956 lbs Roadster Radiator cap
 2948 lbs Coupe Fuel tank cap 20 Gal
 Alt: 42 Gal or 32 Gal

ALTERNATE SPECIFICATIONS

RPO J56 HD Brakes
 Specifications include M-20, M-21, and M-22 Transmissions

Manufacturer: Nissan
 Model: Datsun SPL-311 & SPL-311U
 ENGINE:

Class: F

Manufacturer Nissan
 Type OHV 4 cyl in line
 Bore & stroke 3.43" x 2.63"
 Capacity 1595 cc
 Head material C.I. or Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.66" or 1.69"
 Exhaust ... 1.26" or 1.38"
 Carburation Two Hitachi HJB 38W-3 1.5"

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt*	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.38	2.45	3.66	3.28	2.96	2.96	2.68
2	2.01	1.62	2.18	1.92	1.86	1.86	1.70
3	1.31	1.27	1.42	1.26	1.31	1.31	1.26
4	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5					0.85	0.85	0.85

*uses Alt. case # 32101-12200

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 3.89, 4.11, 4.38, 4.62, 5.12, 3.70, 4.875, 5.375, 5.855, 6.14, 6.83

CHASSIS

Wheelbase 89.8"
 Track dimension, front50.2"
 Track dimension, rear47.2"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1905 lbs Radiator cap 8.4 Qt
 Fuel tank cap 11.4 Gal
 Alt: See Below

ALTERNATE SPECIFICATIONS

17201-00311 30 Gal fuel tank
 15.8 Gal tank
 31.6 Gal tank

Manufacturer: Trojan Ltd
 Model: Elva Courier Mk IV T Ford
 ENGINE:

Class: E

Manufacturer Ford
 Type OHV 4 cyl in line
 Bore & stroke 3.19" x 2.86"
 Capacity 1498 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.39"
 Exhaust ... 1.19"
 Carburation One Weber 28/36 DCDI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.54 2.92 2.51
 2 2.40 1.69 1.64
 3 1.41 1.28 1.23
 4 1.00 1.00 1.00
 5

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.9, 4.1, 4.5, 4.9

CHASSIS

Wheelbase 89"
 Track dimension, front50.5"
 Track dimension, rear51"
 Wheel Diameter 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11" Disc
 Rear: 11" Disc 10" Alfin drum

WEIGHT & CAPACITIES

Official weight: 1570 lbs Radiator cap 5 Qt
 Fuel tank cap 8 Gal
 Alt: 20 Gal

Manufacturer: Trojan Ltd
 Model: Elva Courier Mk IV (1622)
 ENGINE:

Class: E

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 3.00" x 3.50"
 Capacity 1622 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.57"
 Exhaust ... 1.33"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.64 2.44
 2 2.21 1.62
 3 1.37 1.27
 4 1.00 1.00
 5
 Overdrive
 Make & Model: Laycock
 Ratio
 Final drive ratios: 3.7, 3.9, 4.2, 4.55, 4.88

CHASSIS

Wheelbase 90"
 Track dimension, front50"
 Track dimension, rear51"
 Wheel Diameter 13" or 14"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 9" Disc 11" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 6.5 Qt
 1436 lbs Fuel tank cap 11 Gal

ALTERNATE SPECIFICATIONS:

AEH 7252 competition flywheel
 ATB 7224 MGA axle housing assembly

Manufacturer: Ferrari
 Model: Dino 246 GT
 ENGINE:

Class: C

Manufacturer Ferrari
 Type DOHC V-6
 Bore & stroke 3.65" x 2.36"
 Capacity 147.5 cu. in.
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.674"
 Exhaust ... 1.45"
 Carburation Three Weber 40 DCNF/13 40mm Pri. 32mm Sec.

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9"
 Gearbox
 No. speeds forward: 5
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.31 2.31
 2 1.76 1.88
 3 1.43 1.58
 4 1.20 1.36
 5 1.03 1.28

Overdrive

 Make & Model:
 Ratio None
 Final drive ratios: 3.82, 3.15

CHASSIS

Wheelbase 92.5"
 Track dimension, front56.15"
 Track dimension, rear56.3"
 Wheel Diameter 14"
 Rim Width 6.5"

BRAKES

 STANDARD ALTERNATE
 Front: 10.65" Disc
 Rear: 10.9" Disc

WEIGHT & CAPACITIES

Official weight: 2160 lbs Radiator cap
 Fuel tank cap 18.5 Gal
 Alt:

Manufacturer: Fiat
 Model: Fiat 850 Spider, Racer through 1972
 ENGINE:

Class: H

Manufacturer Fiat
 Type OHV 4 cyl in line
 Bore & stroke 2.56" x 2.5" or 2.56" x 2.68"
 Capacity 51.44 cu. in. or 55.1 cu. in.
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.146"
 Exhaust ... 1.028"
 Carburation One Weber 30 DICA downdraft or One Weber
 4226434 1.18" Pri. 1.18" Sec.

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.3"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt.
 1 3.64 3.64 3.64 2.06
 2 2.06 2.06 2.06 1.43
 3 1.41 1.41 1.47 1.03
 4 0.96 1.12 1.17 0.87
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.875, 5.57, 4.62, 4.11, 4.37, 5.37

CHASSIS

Wheelbase 79.8"
 Track dimension, front46.1"
 Track dimension, rear48.1"
 Wheel Diameter 13"
 Rim Width 5.0"

BRAKES

STANDARD ALTERNATE
 Front: 8.9" Disc 9.25" Disc
 Rear: 7.3" Drum

WEIGHT & CAPACITIES

Official weight: 1543 lbs Radiator cap 8.0 Qt
 Fuel tank cap 7.9 Gal
 Alt:

ALTERNATE SPECIFICATIONS

4091650 Girling Disc Brake Caliper

Manufacturer: Abarth
 Model: Fiat Abarth OTS 1000 Coupe
 ENGINE:

Class: G

Manufacturer Fiat/Abarth
 Type OHV 4 cyl in line
 Bore & stroke 2.56" x 2.91"
 Capacity 982.2 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.15"
 Exhaust ... 1.03"
 Carburation One Weber 30 DIC-1 or 36 DCL7

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.29"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.636	1.338	2.845	3.384		
2	2.055	1.175	1.189	1.166	1.947	2.437
3	1.409	1.333	1.200	1.636	1.470	1.430
4	0.963	1.089	1.1	1.1037	1.166	1.030
5	0.866	0.806				

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.11, 4.63, 4.88, 3.70

CHASSIS

Wheelbase 79.8"
 Track dimension, front48.0"
 Track dimension, rear50.0"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 8.9" Disc
 Rear: 7.3" Drum 8.9" Disc

WEIGHT & CAPACITIES

Official weight: 1532 lbs
 Radiator cap 15.8 Pts
 Fuel tank cap 7.9 Gal
 Alt: 16.6 Gal

Manufacturer: Abarth
 Model: Fiat Abarth OT 1000 Spider
 ENGINE:

Class: G

Manufacturer Fiat/Abarth
 Type OHV 4 cyl in line
 Bore & stroke 2.56" x 2.91"
 Capacity 982.2 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.146"
 Exhaust ... 1.028"
 Carburation One Weber 36 DCD7 2 bbl 36mm Pri. 36mm Sec.

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.3"
 Gearbox
 No. speeds forward: 4 or 5

	Ratios:					
	Std.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.636	2.85	3.38	3.38	2.92	3.09
2	2.055	1.95	2.06	2.44	1.93	1.77
3	1.409	1.47	1.43	1.33	1.50	1.36
4	0.963	1.17	1.03	1.04	1.22	1.12
5			0.87	0.81	1.04	1.00

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 3.7, 4.11, 4.63, 4.88, 3.50, 5.43, 5.12, 4.37,

3.88

CHASSIS

Wheelbase 79.8"
 Track dimension, front48.0"
 Track dimension, rear50.0"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 8.9" Disc
 Rear: 7.3" Drum 8.9" Disc

WEIGHT & CAPACITIES

Official weight: 1520 lbs
 Radiator cap 7.9 Qts
 Fuel tank cap 7.99 Gal
 Alt: 15.6 Gal

Manufacturer: Abarth
 Model: Fiat Abarth OT 1300/124 Coupe
 ENGINE:

Class: F

Manufacturer Fiat/Abarth
 Type OHV 4 cyl in line
 Bore & stroke 2.972" x 2.815"
 Capacity 78.08 cu. in.
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.54"
 Exhaust ... 1.37"
 Carburation One Weber 45 DCOE (45mm)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.3"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt.
 1 3.64 2.85 3.38 3.38
 2 2.06 1.95 2.06 2.44
 3 1.41 1.47 1.43 1.33
 4 0.96 1.17 1.03 1.04
 5 0.87 0.81

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.11, 4.63, 4.88, 3.70

CHASSIS

Wheelbase 79.8"
 Track dimension, front48.0"
 Track dimension, rear50.0"
 Wheel Diameter 13"
 Rim Width 5.5"

BRAKES

 STANDARD ALTERNATE
 Front: 8.9" Disc
 Rear: 7.3" Drum 8.9" Disc

WEIGHT & CAPACITIES

Official weight: 1548 lbs Radiator cap 10.0 Qts
 Fuel tank cap 7.9 Gal
 Alt: 15.6 Gal

Manufacturer: Honda
 Model: S-600 Coupe and Convertible
 ENGINE:

Class: H

Manufacturer Honda
 Type DOHC 4 cyl in line
 Bore & stroke 2.19" x 2.56"
 Capacity 632 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.26"
 Exhaust ... 1.11"
 Carburation Four Keihin RP 35-29-4 (29 mm)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.							
1	3.89	3.58	3.67	4.26	3.58	3.68	3.38	3.85	
4.01	2	2.19	2.15		1.83	2.31	1.80	1.88	1.72
1.96	2.04								
3	1.43	1.56	1.50	1.50	1.44	1.55	1.38	1.57	1.64
4	1.10	1.25	1.20	1.10	1.16	1.21	1.12	1.27	1.32
5		1.05	1.04		1.00	1.04	0.96	1.09	1.14

 Overdrive
 Make & Model: None
 Ratio

Final drive: (Spiral bevel gear and chain)
 Final drive ratios: Gear: 3.15, Chain: 1.86 or 1.88

CHASSIS

Wheelbase 79"
 Track dimension, front45.5"
 Track dimension, rear44.5"
 Wheel Diameter 13"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.5" Drum
 Rear: 8.5" Drum

WEIGHT & CAPACITIES

Official weight:
 1603 lbs - Coupe Radiator cap ... 6.5 Qt
 1565 lbs - Conv Fuel tank cap .. 9.5 Gal
 Alt: 15.5 & 13 Gal

ALTERNATE SPECIFICATIONS

AYS280-5520 Wheel cyl - front
 AYS280-5530 N Wheel cyl - rear

Manufacturer: Honda Motor Company
 Model: S-800 and S-800 Coupe
 ENGINE:

Class: G

Manufacturer Honda
 Type DOHC 4 cyl in line
 Bore & stroke 2.36" x 2.76"
 Capacity 791 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.40"
 Exhaust ... 1.24"
 Carburation Four Keihin Seiki C VB 36N-30A1

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.95	4.15	4.37	4.20	4.01	3.85	3.68
2	2.41	2.53	2.22	2.14	2.04	1.96	1.88
3	1.62	1.70	1.79	1.72	1.64	1.57	1.50
4	1.14	1.20	1.44	1.39	1.32	1.27	1.21
5			1.24	1.19	1.14	1.09	1.04

Overdrive

Make & Model:
 Ratio

Final drive ratios: 4.72

CHASSIS

Wheelbase 78.8"
 Track dimension, front45.3"
 Track dimension, rear45.3"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD

ALTERNATE

Front: 9.4" Disc
 Rear: 8.4" Drum

WEIGHT & CAPACITIES

Official weight:
 1576 lbs - Coupe
 1534 lbs - Conv
 Radiator cap ... 5.5 Qt
 Fuel tank cap .. 9.2 Gal Conv
 Alt: 7.9 Gal Coupe

ALTERNATE SPECIFICATIONS

13.2 Gal fuel tank
 18.5 Gal fuel tank

Manufacturer: Jaguar
 Model: XK-E, 3.8 & 4.2, Coupe and Roadster
 ENGINE:

Class: C

Manufacturer Jaguar
 Type DOHC 6 cyl in line
 Bore & stroke 3.63" x 4.17" or 3.34" x 4.17"
 Capacity 4235 cc or 3781 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.75"
 Exhaust ... 1.625"
 Carburation Three 2" SU or Two 1.75" Zenith Stromberg

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt.
 1 2.98 3.38 2.14 2.68 2.93
 2 1.74 1.86 1.65 1.74 1.91
 3 1.21 1.28 1.28 1.27 1.39
 4 1.00 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.69, 2.79, 2.88, 2.93, 3.07, 3.31, 3.54
 3.77, 4.09, 4.27, 4.55, 4.78, 4.89, 5.38

CHASSIS

Wheelbase 96"
 Track dimension, front51"
 Track dimension, rear51"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

	STANDARD	ALTERNATE
Front:	11 3/16" Disc	12" Disc
Rear:	10 3/8" Disc	11" Disc

WEIGHT & CAPACITIES

Official weight:	2460 lbs	Radiator cap	19 Qt
	2520 lbs - Coupe	Fuel tank cap	17 Gal
		Alt:	29 or 37

Gal

ALTERNATE SPECIFICATIONS

BD 19929/A Aluminum Bonnet (No change in official weight)

Manufacturer: Lotus Class: F
 Model: Lotus 7 & 7 America
 ENGINE:

**Note: Parts may not be interchangeable between the two engine/clutch/transmission units

Manufacturer	Ford 105E	BMC
Type	OHV 4 cyl in line	OHV 4 cyl in line
Bore & stroke	3.19" x 1.91"	2.48" x 3.00"
Capacity	997 cc	948 cc
Head material	C.I.	C.I.
Block material	C.I.	C.I.
Valve head dia:		
Intake	1.3"	1.16"
Exhaust ...	1.2"	1.00"
Carburation	Two 1.25" SU	2-1.25" or 1.125" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.25" 6.25"
 Gearbox

No. speeds forward: 4
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.
1	4.12	2.92	3.64	2.57	2.65	3.20
2	2.40	1.70	2.37	1.68	1.68	1.92
3	1.41	1.28	1.41	1.23	1.23	1.36
4	1.00	1.00	1.00	1.00	1.00	1.00
5						

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 4.11, 4.55, 4.88

CHASSIS

Wheelbase 88"
 Track dimension, front47.5"
 Track dimension, rear48.5"
 Wheel Diameter 13"
 Rim Width 3.5"

BRAKES

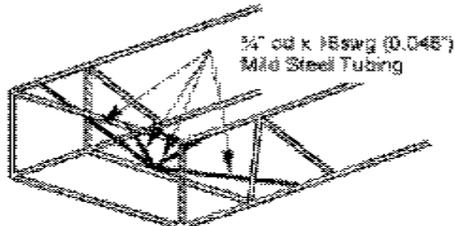
STANDARD ALTERNATE
 Front: 8" Drum
 Rear: 7" Drum

WEIGHT & CAPACITIES

Official weight: 890 lbs Radiator cap 8 Qt
Fuel tank cap 9.5 Gal
 Alt:

ALTERNATE SPECIFICATIONS

CAO-B405/6 Front 9" disc brake kit results in 7/8" track increase)
 Authorized frame modifications:



Manufacturer: American Motors
 Model: AMX Sports Coupe (290) thru 1969
 ENGINE:

Class: B

Manufacturer American Motors
 Type OHV - V8
 Bore & stroke 3.75" x 3.28"
 Capacity 290 cu. In.
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.787"
 Exhaust ... 1.406"
 Carburation Carter AFB 4bbl 1.44" Pri. 1.69" Sec *

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.0" or 10.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.23 2.43 2.64 2.36
 2 1.77 1.76 2.10 1.62
 3 1.35 1.47 1.46 1.29
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 2.87, 3.15, 3.54, 3.73, 3.91, 4.10, 4.44, 5.00

CHASSIS

Wheelbase 97.0"
 Track dimension, front58.8"
 Track dimension, rear57.0"
 Wheel Diameter 14"
 Rim Width 6"

BRAKES
 NATE

STANDARD	ALTERNATE	ALTER-
Front: 10.0" Drum	11.75" Disc	11.75" Disc
Rear: 10.0" Drum	11.75" Disc	

WEIGHT & CAPACITIES

Official weight: 2920 lbs
 Radiator cap 14 Qt
 Fuel tank cap 19 Gal
 Alt. tank cap 22 Gal

ALTERNATE SPECIFICATIONS

15 x 6" wheels

* Standard Cast Iron intake manifold only

Manufacturer: Lotus Class: C

Model: Lotus Elan 1600, S-2, S-4 (Roadster, Coupe & Drophead)

ENGINE:

Manufacturer Lotus/Ford
Type DOHC 4 cyl in line
Bore & stroke 3.25" x 2.864"
Capacity 1558 cc
Head material Aluminum
Block material C.I.
Valve head dia:
 Intake 1.566"
 Exhaust ... 1.32"
Carburation Two Weber 40 DCOE or Two Del 'Orto HLA 40

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.0"
Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.54 2.51 2.97 2.51
 2 2.40 1.70 2.01 1.64
 3 1.41 1.23 1.40 1.23
 4 1.00 1.00 1.00 1.00
 5

Overdrive

Make & Model: None
Ratio

Final drive ratios: 3.55, 3.77, 3.90, 4.12, 4.43, 4.7

CHASSIS

Wheelbase 84"
Track dimension, front47"
Track dimension, rear48.5"
Wheel Diameter 13"
Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
Front: 9.0" Disc 9.63" Disc
Rear: 10" Disc 9.25" Disc

WEIGHT & CAPACITIES

Official weight: 1320 lbs Radiator cap 8 Qt
Rdstr & Coupe 1368 lbs Fuel tank cap 12 Gal
Alt:

ALTERNATE SPECIFICATIONS:

Two Stromberg 175 CD 2 1.75"
26L-702A 10.5 Gal auxillary fuel tank
26C-059/60A Alloy brake calipers, front

Manufacturer: Lotus
 Model: Super 7
 ENGINE:

Class: D

** Notes: Parts may not be interchanged between the two engine/clutch/transmission units

Manufacturer	Ford/Cosworth 109E	Ford 116 E/122E
Type	OHV 4 cyl in line	OHV 4 cyl in line
Bore & stroke	3.19" x 2.56"	3.19" x 2.86"
Capacity	1340 cc	1498 cc
Head material	C.I.	C.I.
Block material	C.I.	C.I.
Valve head dia:		
Intake	1.3"	1.4"
Exhaust ...	1.2"	1.2"
Carburation	Two 40 DCO Weber	One Weber 40 DCO

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:	7.25"	8.0"
Gearbox		
No. speeds forward:	4	
Ratios:		
Std.	Alt.	Alt.
1	4.12	2.92
2	2.40	1.70
3	1.41	1.28
4	1.00	1.00
5		
Overdrive		
Make & Model:	None	
Ratio		
Final drive ratios:	4.11, 4.55, 4.88	

CHASSIS

Wheelbase	88"
Track dimension, front	47.5"
Track dimension, rear	48.5"
Wheel Diameter	13"
Rim Width	3.5"

BRAKES

	STANDARD	ALTERNATE
Front:	8" Drum	(see below)
Rear:	7" Drum	

WEIGHT & CAPACITIES

Official weight:	900 lbs	Radiator cap	8.0 Qt
		Fuel tank cap	9.5 Gal
		Alt:	

ALTERNATE SPECIFICATIONS

OA0B405/6 Front disk brakes (9", results in 7/8" track increase)
 Authorized frame modification: See Lotus 7 and 7 America
 Cosworth Main bearing caps & rocker pedestals (109E only)

Manufacturer: Lotus
 Model: Lotus Elan +2
 ENGINE:

Class: C

Manufacturer Lotus/Ford
 Type DOHC 4 cyl in line
 Bore & stroke 3.25" x 2.864"
 Capacity 1558 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.53"
 Exhaust ... 1.32"
 Carburation Two Weber 40 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.0"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.54 2.51 2.97 2.51
 2 2.40 1.70 2.01 1.64
 3 1.41 1.23 1.40 1.23
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.55, 3.77, 3.90, 4.12, 4.43, 4.7

CHASSIS

Wheelbase 96"
 Track dimension, front54"
 Track dimension, rear55"
 Wheel Diameter 13"
 Rim Width 5.5"

BRAKES

	STANDARD	ALTERNATE
Front:	9.0" Disc	9.63" Disc
Rear:	10" Disc	9.25" Disc

WEIGHT & CAPACITIES

Official weight:	1470 lbs	Radiator cap	8 Qt
		Fuel tank cap	15.6 Gal
		Alt:	

ALTERNATE SPECIFICATIONS:

26C-059/60A Alloy brake calipers, front

Manufacturer: Lotus
 Model: Lotus Mark 46, 54, 65 Europa
 ENGINE:

Class: D

Manufacturer Renault
 Type OHV 4 cyl. in line
 Bore & stroke 2.99" x 3.19" or 3.03" x 3.31"
 Capacity 89.7 cu. in. or 95.5 cu. in
 Head material Aluminum
 Block material Aluminum/steel
 Valve head dia:
 Intake 1.478"
 Exhaust ... 1.227"
 Carburation Solek 1 3/8" DIDS2 DIDS5 2 bbl or One Weber
 45 DCOE

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.0"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.61 2.88 2.24
 2 2.25 1.75 1.50
 3 1.48 1.20 1.12
 4 1.032 0.96 0.90
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.55, 3.78, 4.25

CHASSIS

Wheelbase 91"
 Track dimension, front53"
 Track dimension, rear53"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 9.0" Disc 9.63" Disc
 Rear: 8" Drum

WEIGHT & CAPACITIES

Official weight: 1235 lbs Radiator cap 10.8 Qt
 Fuel tank cap 8.4 Gal
 Alt: 16.8 Gal

Revised 4/72

Manufacturer: MG Car Co.
 Model: MG TC, TD, TF-1250
 ENGINE:

Class: H

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 2.618" x 3.543"
 Capacity 1250 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.42"
 Exhaust ... 1.34"
 Carburation Two 1.25" or 1.50" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox

	No. speeds forward:	4			
	Ratios:				
		Std.	Alt.	Alt.	Alt.
	1	3.50	3.38		
	2	2.07	1.96		
	3	1.38	1.35		
	4	1.00	1.00		
	5				

Overdrive

	Make & Model:	None
	Ratio	
	Final drive ratios:	4.55, 4.88, 5.12, 5.43

CHASSIS

Wheelbase 94"
 Track dimension, front47.4" (TC: 45")
 Track dimension, rear50.0" (TC: 45")
 Wheel Diameter 15" or 19"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.75" Drum
 Rear: 8.75" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 7 Qt
 Fuel tank cap 15 Gal

Manufacturer: MG Car Co.
 Model: MG TF-1500
 ENGINE:

Class: H

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 2.835" x 3.543"
 Capacity 1466 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.42"
 Exhaust ... 1.34"
 Carburation Two 1.50" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.50
 2 2.07
 3 1.38
 4 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.55, 4.88, 5.12

CHASSIS

Wheelbase 94"
 Track dimension, front47.4"
 Track dimension, rear50.0"
 Wheel Diameter 15"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 8.75" Drum
 Rear: 8.75" Drum

WEIGHT & CAPACITIES

Official weight: Radiator cap 6 Qt
 Fuel tank cap 15 Gal
 Alt:

Manufacturer: MG Car Co.
 Model: MG-B + MGB-GT
 ENGINE:

Class: E

Manufacturer MG
 Type OHV 4 cyl in line
 Bore & stroke 3.16" x 3.50"
 Capacity 1798 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.57"
 Exhaust ... 1.35"
 Carburation Two 1.5" SU HS-4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.64 2.44 3.44 2.45
 2 2.21 1.62 2.17 1.82
 3 1.37 1.27 1.38 1.31
 4 1.00 1.00 1.00 1.00
 5

Overdrive
 Make & Model: Laycock
 Ratio 0.802, 0.88, 0.79
 Final drive ratios: 3.91, 4.10, 4.30, 4.55, 4.88, 5.125, 5.38, 3.70,
 4.22, 3.30, 3.07, 2.74, 3.58

CHASSIS

Wheelbase 91"
 Track dimension, front49.5"
 Track dimension, rear49.6"
 Wheel Diameter 14"
 Rim Width 5.0"

BRAKES

 STANDARD ALTERNATE
 Front: 10.75" Disc
 Rear: 10" Drum

WEIGHT & CAPACITIES

Official weight: 1950 lbs Radiator cap 6 Qt
 GT 2004 lbs Fuel tank cap 14.3 gal
 Alt: 28.5 gal

ALTERNATE SPECIFICATIONS

8G8732 Servo brake kit
 AHH 7239 Aux 20-gal fuel tank
 17H 8152 0.75" rear wheel cyls

Manufacturer: MG Car Co.
 Model: MG-C and MG-C GT
 ENGINE:

Class: C

Manufacturer MG
 Type OHV 6 cyl in line
 Bore & stroke 3.28" x 3.54"
 Capacity 2912 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.75"
 Exhaust ... 1.56"
 Carburation Two 1.75" HS-6 SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9.16"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt.
 1 3.44 2.98 2.98 2.45 2.98
 2 2.17 2.06 1.70 1.82 1.70
 3 1.38 1.31 1.31 1.31 1.31
 4 1.00 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: Laycock
 Ratio 0.82
 Final drive ratios: 3.07, 3.307, 3.7, 3.91, 4.22, 2.74, 4.55, 3.58,

4.88
CHASSIS

Wheelbase 91.0"
 Track dimension, front50.125"
 Track dimension, rear49.2"
 Wheel Diameter 15"
 Rim Width 5"

BRAKES STANDARD ALTERNATE
 Front: 11" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: Rdstr:2217 lbs Radiator cap 10.8 Qt
 Coupe: 2277 lbs Fuel tank cap 14.3 gal
 Alt. 28.5 gal

Manufacturer: Porsche
 Model: 356 C/1600 SC and 356B Super 90, Cabriolet
 ENGINE:

Class: E

Manufacturer Porsche
 Type OHV 4 cyl opposed
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50" or 1.57"
 Exhaust ... 1.34"
 Carburation Two Solex 40 PII-4 or PJJ-4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt. Alt.
 1 3.09 2.75
 2 2.13 1.94 1.76 1.61
 3 1.61 1.47 1.35 1.23 1.13
 4 1.35 1.13 1.04 0.96 0.89 0.85 0.82
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.86, 5.17

CHASSIS

Wheelbase 82.7"
 Track dimension, front51.4"
 Track dimension, rear50.1"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	10.8" Disc	11" Drum
Rear:	11.2" Disc	11" Drum

WEIGHT & CAPACITIES

Official weight:	Radiator cap
1804 lbs - Coupe	Fuel tank cap 13 Gal
1737 lbs - Roadster	Alt: 19 or 21

Gal

1824 lbs - Cabriolet

ALTERNATE SPECIFICATIONS

644.42.095 - 60mm front brakes & vent backing plate
 644.511.010.18 - Aluminum front hood
 644.512.010.18 - Aluminum rear hood
 644.531.004.10 - Aluminum door
 644.531.003.10 - Aluminum door

No change in official weight with the above parts

Manufacturer: Porsche Class: G
 Model: 356, 356A – 1300 and 1300S Coupe & Cabriolet
 ENGINE:

Manufacturer Porsche
 Type OHV 4 cyl opposed
 Bore & stroke 2.94" x 2.92" or 3.15" x 2.52"
 Capacity 1290 cc or 1286 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.20"
 Carburation Two Solex 40 PBIC or 32 PBIC or 32 PBI

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter:
 Gearbox
 No. speeds forward:
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt. Alt.
 1 3.09 2.75
 2 2.13 1.94 1.76 1.61
 3 1.61 1.47 1.35 1.23 1.13
 4 1.35 1.14 1.04 0.96 0.89 0.85 0.82
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 6/31, 7/31, 7/34

CHASSIS

Wheelbase 82.7"
 Track dimension, front50.8"
 Track dimension, rear49.2"
 Wheel Diameter 15" or 16"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 11" Drum
 Rear: 11" Drum

WEIGHT & CAPACITIES

Official weight:
 1804 lbs - Coupe Radiator cap
 1824 lbs - Cabriolet Fuel tank cap 13 Gal
 Alt: 21 Gal

ALTERNATE SPECIFICATIONS

60mm front brakes & vent backing plate

Manufacturer: Porsche
Model: Carrera (1500 and 1600)

Class: C

ENGINE:

Manufacturer Porsche
Type DOHC 4 cyl opposed
Bore & stroke 3.35" x 2.59" or 3.45" x 2.59"
Capacity 1498 cc or 1588 cc
Head material Aluminum
Block material Aluminum
Valve head dia:
 Intake 1.89"
 Exhaust ... 1.62"
Carburation Two Solex 40 PJJ, Solex 40PJJ-4, Solex 44P11-4
or Weber 40 DCM

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
Gearbox

		No. speeds forward:	4				
		Ratios:					
	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	11/34	13/33	12/33				
2	17/30	16/31	16/31	15/32	18/29		
3	22/27	24/25	20/27	18/29	23/26		
4	25/24	26/23	23/26	27/22	27/23		
5							

Overdrive

Make & Model: None
Ratio
Final drive ratios: 6/31, 7/31, 7/34

CHASSIS

Wheelbase 82.7"
Track dimension, front 51.4"
Track dimension, rear 50.1"
Wheel Diameter 15"
Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
Front: 11" Drum
Rear: 11" Drum

WEIGHT & CAPACITIES

Official weight: Coupe - 1860 lbs Radiator cap
Speedster - 1680 lbs Fuel tank cap

13 gal

Alt.

ALTERNATE SPECIFICATIONS

644.201.001.20 - 21 gal fuel tank
644.42.095 - 60mm front drum brakes & vent. backing plates
644.511.010.18 - Aluminum front hood
644.512.010.18 - Aluminum rear hood
644.531.004.10 - Aluminum door
644.531.003.10 - Aluminum door
No change in official weight with the above parts
695.350.001.10 - 10.8"/11.2" Disc brake
547.108.107.01 - Weber 46ID
547.108.108.01 - Weber 46ID

Manufacturer: Porsche
 Model: 911E Coupe/Targa Cabriolet 1969
 ENGINE:

Class: B

Manufacturer Porsche
 Type SOHC 6 cyl opposed
 Bore & stroke 3.15" x 2.60"
 Capacity 1991 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.65"
 Exhaust ... 1.50"
 Carburation Bosch Fuel Injection 38mm Bosch PED 6 KL Pump

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.								
1	3.90	2.83	2.64	2.40						
2	1.89	2.00	1.78	1.60	1.55	1.68	1.60	1.83	2.19	
3	1.32	1.55	1.43	1.22	1.13		1.48	1.36		
4	1.04	1.32	1.08	1.00	0.86	0.79	0.89	0.96	1.26	
5	0.79	1.22	0.93	0.82	0.89	1.17	0.93			
1.13										

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 89.3"
 Track dimension, front53.62"
 Track dimension, rear52.87"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 11.4" Disc

WEIGHT & CAPACITIES

Official weight: 2017 lbs Radiator cap
 Fuel tank cap16.4

Gal

Alt: 28.4 Gal

Manufacturer: Porsche
 Model: 911S Coupe / Targa Cabriolet 1969
 ENGINE:

Class: B

Manufacturer Porsche
 Type SOHC 6 cyl opposed
 Bore & stroke 3.15" x 2.60"
 Capacity 1991 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.77"
 Exhaust ... 1.54"
 Carburation Bosch Fuel Injection 38mm Bosch PED 6 KL Pump

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.							
1	3.90	2.83	2.64	2.40					
2	1.89	2.00	1.78	1.60	1.55	1.68	1.60	1.83	2.19
3	1.32	1.55	1.43	1.22	1.13		1.48	1.36	
4	1.04	1.32	1.08	1.00	0.86	0.79	0.89	0.96	1.26
5	0.79	1.22	0.93	0.82	0.89	1.17	0.93		

1.13

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 89.2"
 Track dimension, front54.1"
 Track dimension, rear53.3"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

STANDARD ALTERNATE
 Front: 11.2" Disc
 Rear: 11.3" Disc

WEIGHT & CAPACITIES

Official weight: 2017 lbs Radiator cap
 Fuel tank cap16.4

Gal

Alt: 26.4 Gal

ALTERNATE SPECIFICATIONS

Manufacturer: Porsche
 Model: 912 Coupe/Targa - Cabriolet 1969
 ENGINE:

Class: E

Manufacturer Porsche
 Type OHV
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.34"
 Carburation Two Solex 40 PII-4 Downdraft

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.87"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.							
1	3.90	2.83	2.64	2.40					
2	1.89	2.00	1.78	1.60	1.55	1.68	1.60	1.83	2.19
3	1.32	1.55	1.43	1.22	1.13		1.48	1.36	
4	1.04	1.32	1.08	1.00	0.86	0.79	0.89	0.96	1.26
5	0.79	1.22	0.93	0.82	0.89	1.17	0.93		

1.13

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83, 5.15

CHASSIS

Wheelbase 89.2"
 Track dimension, front53.62"
 Track dimension, rear52.87"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 11.4" Disc

WEIGHT & CAPACITIES

Official weight: 1914 lbs
 Radiator cap
 Fuel tank cap 16.4 Gal
 Alt: 26.4 Gal

ALTERNATE SPECIFICATIONS

Manufacturer: Porsche Class: B

Model: Porsche 911E Coupe/Targa - Cabriolet 1970, 1971

ENGINE:

Manufacturer Porsche
 Type SOHC 6 cyl. opposed
 Bore & stroke 3.31" x 2.60"
 Capacity 2195 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.81"
 Exhaust ... 1.57"
 Carburation Bosch Fuel Injection 38mm PED 6 KL Pump

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.86"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.09	2.64	2.40	3.09	2.19		
2	1.78	1.89	1.60	1.63	1.83	1.68	1.55
3	1.22	1.32	1.22	1.04	1.48	1.43	1.36
1.13							
4	0.93	1.04	1.00	0.76	1.22	1.17	1.13
1.08							
5	0.76	0.79	0.82		0.96	0.89	0.86

Note: 4th and 5th gear interchangeable

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 89.3"
 Track dimension, front54.09"
 Track dimension, rear53.34"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

Front: 11.1" Disc
 Rear: 11.4" Disc
 STANDARD ALTERNATE

WEIGHT & CAPACITIES

Official weight: 2134 lbs
 Radiator cap
 Fuel tank cap 16.4 Gal
 Alt: 23.8 / 29.1 Gal

ALTERNATE SPECIFICATIONS

Sleeves: cast iron

Manufacturer: Porsche Class: B

Model: Porsche 911S Coupe/Targa - Cabriolet 1970, 1971

ENGINE:

Manufacturer Porsche
 Type SOHC 6 cyl. opposed
 Bore & stroke 3.31" x 2.60"
 Capacity 2195 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.81"
 Exhaust ... 1.57"
 Carburation Bosch Fuel Injection 42mm PED 6 KL Pump

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.86"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.09	2.64	2.40	3.09	2.19		Alt.
2	1.78	1.89	1.60	1.63	1.83	1.68	1.55
3	1.22	1.32	1.22	1.04	1.48	1.43	1.36
1.13							
4	0.93	1.04	1.00	0.76	1.22	1.17	1.13
1.08							
5	0.76	0.79	0.82		0.96	0.89	0.86

Note: 4th and 5th gear interchangeable

Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 89.3"
 Track dimension, front54.1"
 Track dimension, rear53.3"
 Wheel Diameter 15"
 Rim Width 6"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 11.4" Disc

WEIGHT & CAPACITIES

Official weight: 1984 lbs Radiator cap
 Fuel tank cap 16.4 Gal
 Alt: 23.8 / 29.1 Gal

ALTERNATE SPECIFICATIONS

Sleeves: cast iron

Manufacturer: Porsche Class: C

Model: Porsche 911T Coupe/Targa - Cabriolet 1970, 1971

ENGINE:

Manufacturer Porsche
 Type SOHC 6 cyl. opposed
 Bore & stroke 3.31" x 2.60"
 Capacity 2195 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.81"
 Exhaust ... 1.57"
 Carburation Solex/Zenith Model 40 Tin Downdraft (two)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.86"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.	Alt.	Alt.	Alt.	Alt.	Alt.
1	3.09	2.64	2.40	3.09	2.19		
2	1.78	1.89	1.60	1.63	1.83	1.68	1.55
3	1.22	1.32	1.22	1.04	1.48	1.43	1.36
1.13							
4	0.93	1.04	1.00	0.76	1.22	1.17	1.13
1.08							
5	0.76	0.79	0.82		0.96	0.89	0.86

Note: 4th and 5th gear interchangeable

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 89.3"
 Track dimension, front53.62"
 Track dimension, rear52.87"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 11.4" Disc

WEIGHT & CAPACITIES

Official weight: 2134 lbs Radiator cap
 Fuel tank cap 16.4 Gal
 Alt: 23.8 / 29.1 Gal

ALTERNATE SPECIFICATIONS

Sleeves: cast iron

Manufacturer: Porsche
 Model: 912 Coupe thru 1968
 ENGINE:

Class: E

Manufacturer Porsche
 Type OHV
 Bore & stroke 3.25" x 2.91"
 Capacity 1582 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.34"
 Carburation Two Solex 40 PII-4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward: 4 or 5
 Ratios:

	Std.	Alt.									
1	3.09	2.83		2.64	2.40						
2	2.00	1.89		1.83	1.78	1.68	1.60	1.55	2.19		
3	1.55	1.48		1.43	1.36	1.32	1.22	1.13			
4	1.32	1.22	0.86	1.13	1.08	1.04	1.00	0.96	0.93	0.89	
5	1.22	1.13	1.26	1.04	0.96	0.93	0.89	0.86	0.82		
0.79	1.17										

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.43, 4.83, 5.15, 6.29

CHASSIS

Wheelbase 87"
 Track dimension, front52.2"
 Track dimension, rear51.4"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.1" Disc
 Rear: 11.2" Disc

WEIGHT & CAPACITIES

Official weight: 2000 lbs Radiator cap
 Fuel tank cap 16.3 Gal

ALTERNATE SPECIFICATIONS

901.201.001.30 - 26 Gal fuel tank
 901.351/352.401.15 - Vented disc brakes

Manufacturer: Porsche
 Model: 914 through 1972
 ENGINE:

Class: E

Manufacturer Porsche
 Type 4 cyl opposed
 Bore & stroke 3.54" x 2.60"
 Capacity 1679 cc
 Head material Aluminum
 Block material Aluminum
 Valve head dia:
 Intake 1.55"
 Exhaust ... 1.30"

Carburation Bosch Fuel Injection 40mm or Two Solex 40 PII 4

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox

No. speeds forward: 4 or 5

Ratios:

	Std.	Alt.						
1	3.09	2.64	2.40	2.83	2.19			
2	1.76	1.89	1.60	2.00	1.83	1.68	1.55	
3	1.22	1.32	1.22	1.55	1.48	1.43	1.36	1.13
4	0.93	1.04	1.00	1.32	1.22	1.17	1.13	1.08
5	0.76	0.79	0.82	1.22	0.96	0.88	0.86	

Overdrive

Make & Model: None
 Ratio

Final drive ratios: 4.43, 4.83, 5.33

CHASSIS

Wheelbase 96.5"
 Track dimension, front52.72"
 Track dimension, rear54.33"
 Wheel Diameter 15"
 Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
 Front: 11.05" Disc
 Rear: 11.1" Disc

WEIGHT & CAPACITIES

Official weight: 1962 lbs Radiator cap
 Fuel tank cap 16.4 Gal

ALTERNATE SPECIFICATIONS

Sleeves: cast iron

Manufacturer: Rene Bonnet
 Model: C.R.B./1
 ENGINE:

Class: G

Manufacturer Renault
 Type OHV 4 cyl in line
 Bore & stroke 2.76" x 2.83"
 Capacity 1108 cc
 Head material Aluminum
 Block material C.I.
 Valve head dia:
 Intake 1.38" or 1.22"
 Exhaust ... 1.26" or 1.06"
 Carburation Two Weber 40 DCOE or 2-Solex PAIA 3 or
 2-Zenith 38NDIX or one Zenith 32NDIX or CD

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.1"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt. Alt. Alt.
 1 3.97 2.67 1.92 2.50 2.70 4.00
 2 2.26 1.69 1.70 1.70 1.49 2.70
 3 1.38 1.26 1.00 1.00 1.17 1.38
 4 1.00 1.00 0.85 0.85 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 3.66, 3.89, 4.13, 4.38, 4.85, 5.82

CHASSIS

Wheelbase 94.5"
 Track dimension, front49.6"
 Track dimension, rear49.4"
 Wheel Diameter 13" or 15"
 Rim Width 4"

BRAKES

STANDARD ALTERNATE
 Front: 10.2" Disc
 Rear: 10.2" Disc

WEIGHT & CAPACITIES

Official weight: 1350 lbs Radiator cap 10 Qt
 Fuel tank cap 12.5 Gal
 Alt: 18.5 Gal

ALTERNATE SPECIFICATIONS

Dual caliper disc brakes – Bendix
 Gordini head

Manufacturer: SAAB
 Model: SAAB Sonnet V4,97 Sonnet III
 ENGINE:

Class: E

Manufacturer Ford
 Type OHV - V4
 Bore & stroke 3.54" x 2.32" or 3.54" x 2.63"
 Capacity 91.4 cu. in. or 103.6 cu. in.
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.46" or 1.48"
 Exhaust ... 1.26" or 1.28"
 Carburation Solex 28-32 Posit-4 32mm or
 Autolite DD 1 bbl 1.26"

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.48 3.14 2.64
 2 2.09 1.86 1.60
 3 1.30 1.30 1.19
 4 0.84 0.92 0.92
 5

Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 4.67, 4.88, 5.14, 5.43, 5.83

CHASSIS

Wheelbase 84.6"
 Track dimension, front48.5"
 Track dimension, rear48.5"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.5" Disc
 Rear: 8.0" Drum

WEIGHT & CAPACITIES

Official weight: 1700 lbs Radiator cap 7.6 Qt
 Fuel tank cap 15.8 Gal
 Alt. 14.5 Gal

Manufacturer: Shelby American
 Model: Shelby GT-500 Coupe 1969
 ENGINE:

Class: A

Manufacturer Ford
 Type OHV V8
 Bore & stroke 4.132" x 3.984"
 Capacity 6997 cc (428 cu in)
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 2.097"
 Exhaust ... 1.66"
 Carburation One Holley 4 bbl R-4345A 1.687"

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 11.5
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt.* Alt.*
 1 2.32 2.32 2.46
 2 1.69 1.54 1.46
 3 1.29 1.19 1.00
 4 1.00 1.00
 5

* Automatic
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.00, 3.10, 3.25, 3.40, 3.50, 3.70
 3.89, 4.11, 4.33, 4.57

CHASSIS

Wheelbase 108"
 Track dimension, front59"
 Track dimension, rear58.5"
 Wheel Diameter 15"
 Rim Width 7"

BRAKES

STANDARD ALTERNATE
 Front: 11.3" Disc 11.3" Disc Kelsey Hayes, 1.625" Whl. Cyl.
 Rear: 10.0" Drum 10" Drum 2.5" Shoes, 0.906" Whl. Cyl.

WEIGHT & CAPACITIES

Official weight: 2850 lbs Radiator cap 20.5
 Fuel tank cap 18 Gal
 Alt: 32 Gal

ALTERNATE SPECIFICATIONS

Manufacturer: Roots Class: F

Model: Sunbeam Alpine I,II,III,IV,V & Harrington Le Mans

ENGINE:

Manufacturer Roots
Type OHV 4 cyl in line
Bore & stroke 3.12"x3.25" or 3.21"x3.00" or 3.11"x3.00"
Capacity 1725 cc or 1592 cc or 1494 cc
Head material Aluminum
Block material C.I.
Valve head dia:
 Intake 1.50" or 1.48" or 1.432" or 1.436"
 Exhaust ... 1.21" or 1.18" or 1.172" or 1.176"
Carburation Two Zenith-Stromberg 150 CD (See below)

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.35 3.32 2.97 2.97
 2 2.14 1.90 1.90 1.60
 3 1.39 1.24 1.23 1.24
 4 1.00 1.00 1.00 1.00
 5

Overdrive

 Make & Model: Laycock
 Ratio 0.803
Final drive ratios: 3.89, 4.22, 4.44, 4.86

CHASSIS

Wheelbase 86"
Track dimension, front51.5"
Track dimension, rear50.5"
Wheel Diameter 13"
Rim Width 4.5"

BRAKES

 STANDARD ALTERNATE
Front: 10" Disc
Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1970 lbs Radiator cap 9 Qt
Fuel tank cap 14 Gal
Alt:

ALTERNATE SPECIFICATIONS

1 Solex 32 PAIA
1 Zenith 36 WIP2
S233196 – Aux fuel tank, 25 gal

Manufacturer: Roots
 Model: Sunbeam Tiger 260
 ENGINE:

Class: C

Manufacturer Ford
 Type OHV V8
 Bore & stroke 3.80" x 2.87"
 Capacity 4262 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.677" or 1.582"
 Exhaust ... 1.457" or 1.381"
 Carburation One Ford 2 bbl C30FAB, C30F-9510-E, C40F-

9510-E

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 10.4"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.32 2.20 2.20 2.36
 2 1.69 1.63 1.48 1.63
 3 1.29 1.31 1.18 1.21
 4 1.00 1.00 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 2.88, 3.07, 3.32, 3.54, 3.70,
 3.92, 4.09, 4.27, 4.55

CHASSIS

Wheelbase 86"
 Track dimension, front51.75"
 Track dimension, rear48.50"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10" Disc
 Rear: 9" Drum 10" Disc (Lat 46)

WEIGHT & CAPACITIES

Official weight: 2400 lbs Radiator cap 10 Qt
 Fuel tank cap 14 Gal
 Alt:

ALTERNATE SPECIFICATIONS

Lat 33 - 37 Gal fuel tank

Manufacturer: Standard Triumph
 Model: Triumph Spitfire Mk III
 ENGINE:

Class: F

Manufacturer Triumph
 Type OHV 4 cyl in line
 Bore & stroke 2.9" x 2.99"
 Capacity 1296 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.3"
 Exhaust ... 1.17"
 Carburation Two 1.25" Stromberg

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.75 2.93
 2 2.16 1.78
 3 1.39 1.25
 4 1.00 1.00
 5

Overdrive
 Make & Model: Laycock D
 Ratio 0.802
 Final drive ratios: 4.1, 4.55, 4.87

CHASSIS

Wheelbase 83"
 Track dimension, front50"
 Track dimension, rear49"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

	STANDARD	ALTERNATE
Front:	9" Disc	9.7" Disc
Rear:	7" Drum	8.0" Drum

WEIGHT & CAPACITIES

Official weight:	1490 lbs	Radiator cap	6 Qt
		Fuel tank cap	9.9 Gal
		Alt:	

ALTERNATE SPECIFICATRIONS

Two 1.25" SU
 One 1.5" CDSE Stromberg

Manufacturer: Standard Triumph
 Model: Triumph GT 6 Mark 3
 ENGINE:

Class: D

Manufacturer Triumph
 Type OHV 6 cyl in line
 Bore & stroke 2.94" x 2.99"
 Capacity 1998 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:

Intake 1.438"
 Exhaust ... 1.26"

Carburation Two 1.5" Stromberg 309003 or Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8.5"
 Gearbox

No. speeds forward: 4

Ratios:

	Std.	Alt.	Alt.	Alt.
1	2.65	1.80		
2	1.78	1.49		
3	1.25	1.24		
4	1.00	1.00		
5				

Overdrive

Make & Model: Laycock D
 Ratio 0.802

Final drive ratios: 3.2, 3.89, 4.1, 4.55

CHASSIS

Wheelbase 83"
 Track dimension, front49"
 Track dimension, rear49"
 Wheel Diameter 13"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE

Front: 9.7" Disc
 Rear: 8.0" Drum

WEIGHT & CAPACITIES

Official weight: 1845 lbs Radiator cap
 Fuel tank cap
 Alt:

Manufacturer: Turner
 Model: 950 S
 ENGINE:

Class: G

Manufacturer BMC
 Type OHV 4 cyl in line
 Bore & stroke 2.48" x 3.00"
 Capacity 948 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.10" or 1.16"
 Exhaust ... 1.00"
 Carburation Two 1.125" or 1.25" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 6.25"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 3.63 2.25
 2 2.37 1.67
 3 1.41 1.23
 4 1.00 1.00
 5
 Overdrive
 Make & Model: None
 Ratio

Final drive ratios: 3.75, 4.22, 4.3, 4.55, 4.88, 5.12

CHASSIS

Wheelbase 80.5"
 Track dimension, front45.5"
 Track dimension, rear44.75"
 Wheel Diameter 13" or 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 9" Disc Drum
 Rear: 8" Drum

WEIGHT & CAPACITIES

Official weight: 1176 lbs Radiator cap
 Fuel tank cap
 Alt:

ALTERNATE SPECIFICATIONS

Manufacturer: TVR Engineering Ltd.
 Model: TVR Vixen
 ENGINE:

Class: E

Manufacturer Ford
 Type OHV, 4 cyl in line
 Bore & stroke 3.19" x 3.06"
 Capacity 1599 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.50"
 Exhaust ... 1.25"
 Carburation Single Weber 32 DFM 26/27 mm

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 7.5"
 Gearbox
 No. speeds forward: 4
 Ratios:
 Std. Alt. Alt. Alt.
 1 2.97
 2 2.01
 3 1.40
 4 1.00
 5
 Overdrive
 Make & Model: None
 Ratio
 Final drive ratios: 3.9, 4.1, 4.5, 4.8

CHASSIS

Wheelbase 85.5"
 Track dimension, front51.75"
 Track dimension, rear54.25"
 Wheel Diameter 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1800 lbs Radiator cap 7 Qt
 Fuel tank cap 18 Gal
 Alt: 10 or 30

Gal

Manufacturer: Grantura Engineering
 Model: TVR Mk III 1622
 ENGINE:

Class: E

Manufacturer BMC (MG-A)
 Type OHV 4 cyl in line
 Bore & stroke 3.00" x 3.50"
 Capacity 1622 cc
 Head material C.I.
 Block material C.I.
 Valve head dia:
 Intake 1.56"
 Exhaust ... 1.34"
 Carburation Two 1.5" SU

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 8"
 Gearbox
 No. speeds forward:
 Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.64	2.45		
2	2.21	1.62		
3	1.37	1.27		
4	1.00	1.00		
5				

Overdrive
 Make & Model: Laycock
 Ratio 0.802
 Final drive ratios: 3.9, 4.1, 4.3, 4.55, 4.88, 5.1

CHASSIS

Wheelbase 85.5"
 Track dimension, front51"
 Track dimension, rear52.5"
 Wheel Diameter 14" or 15"
 Rim Width 4.5"

BRAKES

STANDARD ALTERNATE
 Front: 10.75" Disc
 Rear: 9" Drum

WEIGHT & CAPACITIES

Official weight: 1526 lbs Radiator cap 6 Qt
 Fuel tank cap 12 Gal
 Alt:

ALTERNATE SPECIFICATIONS

COMP17 - Vacuum brake booster
 COMP9 - 6 Gal fuel tank

Manufacturer: Yenko Sportscars
Model: Stinger Coupe
ENGINE:

Class: D

Manufacturer Chevrolet
Type OHV 6 cyl in line
Bore & stroke 3.44" x 2.94"
Capacity 164 cu in
Head material Aluminum
Block material Aluminum
Valve head dia:

Intake 1.72"
Exhaust ... 1.36"

Carburation Four Rochester 7025023 and 7026026 1 bbl

TRANSMISSION AND DRIVE TRAIN:

Clutch Diameter: 9.12"
Gearbox

No. speeds forward: 4

Ratios:

	Std.	Alt.	Alt.	Alt.
1	3.11	2.54		
2	2.20	1.80		
3	1.47	1.32		
4	1.00	1.00		
5				

Overdrive

Make & Model: None
Ratio

Final drive ratios: 3.27, 3.55, 3.89

CHASSIS

Wheelbase 108"
Track dimension, front55"
Track dimension, rear57.2"
Wheel Diameter 13"
Rim Width 5.5"

BRAKES

STANDARD ALTERNATE
Front: 9.5" Drum
Rear: 9.5" Drum

WEIGHT & CAPACITIES

Official weight: 2153 lbs Radiator cap
Fuel tank cap 14 Gal
Alt: 28 Gal

ALTERNATE SPECIFICATIONS

YS - 1.459 Aux fuel tank (10 Gal)
Delco-Moraine power brakes