



# INTERNATIONAL MOTOR SPORTS ASSOCIATION, INC.

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## 1993 IMSA GTP

- Type 3 & 4 engines with twin turbochargers-  
38 m.m. I.D. each.

These limits must be achieved by use of an IMSA approved restrictor plate with a minimum thickness of 3 m.m located no farther than 50 m.m. from the forward face of the compressor wheel blades. The inlet diameter must be maintained for the full thickness of the plate and the plate must be easily removable for inspection.

### 11.6.1 Definition

IMSA has developed rules for cars known as GTP (Grand Touring Prototype) cars. GTP cars shall be two-seaters conceived primarily for competition in closed-circuit races. They shall carry equipment for normal road use as well as all contemporary safety devices. There shall also be a division of GTP called GTP Light for cars with smaller engines.

GTP cars need not meet any minimum production requirement nor be offered for sale to the public. Car identification will be by engine manufacturer first, then the manufacturer of the chassis, if different. FIA Group C cars meeting 1992 FIA car preparation regulations are also eligible to compete for full Camel GTP points at a weight of 1850 pounds.

### 11.6.2 Engine Eligibility

#### A. GTP Engine Eligibility

IMSA will regulate the eligibility of engines for use in GTP cars. Eligible engines may derive from these origins:

Type 1 - 2-valve conventional engines.

Type 2 - 4-valve conventional production engines up to 6.0 liters.

Type 3 - Type 1 engines with a single turbocharger equipped with a 54mm restrictor or with twin turbochargers equipped with 38mm restrictors. Maximum displacement 3.0 liters.

Type 4 - Type 2 engines with a single turbocharger equipped with a 54mm restrictor or twin turbochargers equipped with 38mm restrictors. Maximum displacement 3.0 liters.

Type 5 - Rotary engines (13J, 26B)

#### B. GTP Light Engine Eligibility

Type 1 - 2 valve conventional engines with a maximum displacement of 3.4 liters.

Type 2 - 4 valve conventional production engines with a maximum displacement of 3.0 liters and a maximum of 6 cylinders. Type 2 race engines are restricted to a maximum displacement of 3.0 liters with a maximum of 4 cylinders in line.

Types 3&4 - Turbocharged and supercharged engines are not eligible in GTP Light.

Type 5 - Two Rotor Rotary Engines (12A, 13B),  
Three Rotor Rotary Engines (13G, 20B)

### 11.6.3 Engine Modifications

A. Free, except as follows:

1. Type 2 production engines and all Type 1 engines must use the production block or an IMSA approved alternate block.

2. Type 1 engines may use modified or alternate cylinder heads that retain the original number and location of valves, camshafts and spark plugs.

3. Type 2 production engines must use the production cylinder heads that retain the original number and location of valves, camshafts and spark plugs. The heads may be modified but material may not be added.

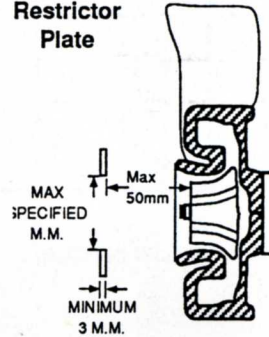
4. All turbocharged engines must adhere to the following:

a. Only single stage air to air intercooling is allowed.

b. Turbochargers are limited to maximum inlet diameters through which all engine intake air must pass as follows:

- Type 3 & 4 engines with a single turbo -  
54. m.m. I.D.

### Restrictor Plate



c. Ceramic turbocharger components, variable diameter turbocharger inlets and/or adjustable internal vanes on turbochargers are not permitted.

d. Turbocharged cars may not be equipped with any device which allows the boost pressure to be adjusted or the electronic management system controlling the boost pressure to be altered by the driver or crew while the car is in motion.

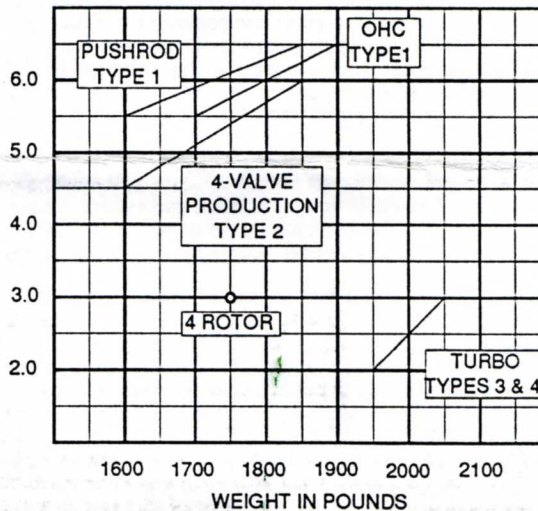
5. Variable length induction runners are not permitted in Camel Light.

6. Pneumatically operated or assisted intake & exhaust valves are not permitted.

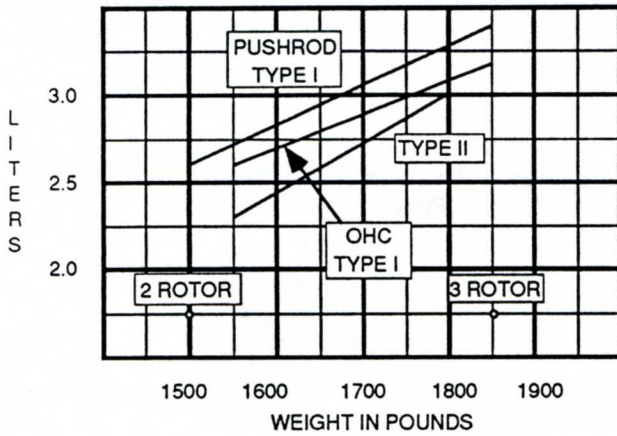
### 11.6.4 Minimum Weights/Maximum Displacements

Minimum weight for a car in race-ready trim, without driver or fuel on board, is determined by engine type and displacement in accordance with the following graphs, also see Notes.

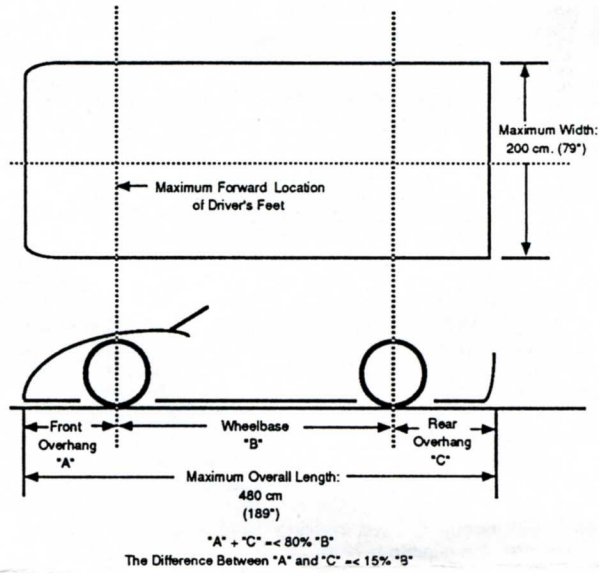
LITERS 1993 GTP WEIGHT AND DISPLACEMENT



**1993 GTP LIGHTS  
WEIGHT AND DISPLACEMENT**



**GT Prototype Diagrams**



**11.6.5 Chassis - Body (Refer to Diagram)-Miscellaneous**

- a. Wheelbase: Free. See following rules on overhangs and body lengths.
- b. Overall Length: Maximum: 480 cm (189 in.).
- c. Overall Width: Maximum: 200 cm (79 in.).
- d. Overhangs (inclusive of any bumpers):  
-Front plus rear overhangs must not exceed 80% of wheelbase.

-Difference between front and rear overhangs must not exceed 15% of wheelbase.

- e. Ground Clearance: No minimum ride height, however; it is not permitted to improve the aerodynamic efficiency of the car by installing any device (skirts) between the bottom of the car and the ground.

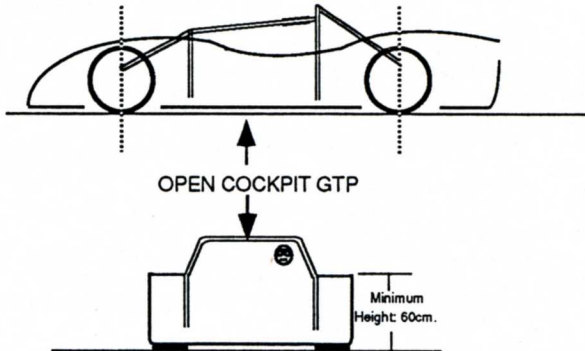
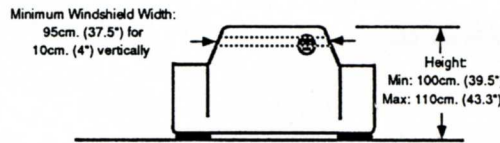
- f. Height: Minimum: 100 cm (39.5 in.); Maximum: 110 cm (43.3 in.) above ground level measured with full tanks and driver aboard taken from the highest point of the coachwork or roll bar. Open cockpit cars must additionally maintain a minimum height of 60 cm above ground level around the perimeter of the cockpit opening (not including the windscreen).

- g. Inside Room: Two seats of similar construction and of equal dimensions must be mounted in the cockpit. Driver and passenger seats must be able to be occupied simultaneously, and shall be located symmetrically on either side of the centerline of the car. Cool suit, radio, fire extinguishers and ignition control box may be mounted in the cockpit. No other component may intrude into these spaces. These components must not interfere with the ability to occupy the passenger seat except that the cool suit box, if removable, may be placed in the passenger seat. Driver's feet must be located aft of the vertical plane formed by the front axles.

- h. On enclosed cockpit cars, two doors must be provided giving ready access to driver and passenger seats. Both doors must swing open on hinges mounted on front door posts, and must have release mechanisms operable from both inside and outside the car. Minimum dimensions for the lower part of the doors: 50 cm (20 in.) horizontal and 30 cm (12 in.) vertical. Doors must not obstruct the lateral vision of the driver.

- i. On enclosed cockpit cars, windshield shall be constructed of laminated glass, provide normal functions of visibility, protection and aerodynamics, and have a minimum lateral width over a 10 cm (4 in.) band at driver's eye level of 95 cm (37.5 in.). Alternate material windshields may be used provided documentation exists that they are made of FAA material spec. MILP 5425D or MILP 46144C and are supplied by a manufacturer from the FAA PMA list.

Open cockpit cars must be fitted with a continuous single-curve transparent windshield symmetrically spanning the entire front of the cockpit opening. Minimum vertical height: 4 inches above the plane of cockpit opening perimeter maintained for at least 36 inches. Open cockpits must be symmetrical with the longitudinal axis of the car as viewed from above and a minimum rectangular cockpit opening of 27 1/2 inches longitudinally by 36 1/2 inches laterally must be maintained at all times. The corners of the cockpit opening may be rounded with a maximum of two inch radius.



- k. All cars must be equipped with at least one rear view mirror mounted on each side of the car. Each mirror must be a minimum of 15 square inches. They must be mounted to provide the driver with vision to the rear and both sides of the car.

- l. Air intakes may protrude from the plane of the bodywork provided they do not impair the driver's field of vision. Air intakes must be no higher than the highest point of the roof or roll bar, whichever is higher.

- m. Coachwork: All coachwork must be mounted to the fully sprung part of the chassis. The coachwork sections must be contiguous and cover all mechanical components (except windshield wipers, air intakes and exhaust outlets) when viewed from above. On enclosed cockpit cars, the part of the coachwork above the doors rearward of the windshield must be a continuous convex curve from door opening to door opening. Radio antenna domes, marker lights, roof bubbles, etc. will not be considered as the highest point of the coachwork. Louvers in the coachwork above the front wheels may not be removable or adjustable. Fenders must project over the wheels so as to provide efficient covering of at least half of their circumference, and at least the whole width of the tire. Rear fenders must terminate below the axis of the rear wheels.

- n. Aerodynamic devices will be governed by the rules for

overall length, width and overhangs of an individual automobile. The rear wing or aerodynamic device may be no higher than 110 cm (43.3 in) above the ground measured with full tanks and driver aboard. Camel Light cars are permitted only a single element wing to which may be added separate flaps with no more than one inch of air passing between them. The front and rear wing or aerodynamic devices may be as wide as the widest point of the car between the front and rear axle. Wing end plates and supports are considered as part of the aerodynamic device. Front aerodynamic devices may not extend above the horizontal plane created by the top of the front tires. Aerodynamic devices may not be adjustable from within the car and must be mounted to the fully sprung portion of the chassis.

\*o. All cars in the GTP category shall be equipped with a safety fuel cell meeting FIA specification FT-3 or FT-5. The maximum capacity, including the cell, fill and vent pipes, lines and surge tank shall be 100 liters (26.4 U.S. gallons). No part of the cell may be mounted more than 65 cm from the longitudinal axis of the car and it must be located within the limits defined by the front and rear axles of the wheels. The cell and any device, hose or line containing fuel must be completely isolated from the driver's compartment.

\*p. Wheels/Tires/Brakes: The number of road wheels shall be limited to four. Maximum complete wheel and tire width (section width): 16 inches (1/2" tolerance). On GTP Light cars, all four rims shall be of the same diameter, with a maximum of 16". Carbon fiber road wheels are not permitted. In order to retain grid position, GTP/Camel Light cars must start the race on at least three of the four tires marked in qualifying. All cars must use metallic brake rotors as of 4/1/93.

q. Electrical Equipment: 2 operating headlights (during periods of darkness or inclement weather), 2 tail/brake lights and, on enclosed cars, a windshield wiper are required as a minimum. In addition to two functioning brake/tail lights, all cars must be equipped with one center mounted, highly visible, red rain light to be used only during periods of inclement weather.

r. Oil tank is limited to 20 liters capacity.

s. Batteries must be located outside driver compartment.

t. Towing eyes with a minimum inner diameter of 3" must be attached front and rear to the chassis and protrude through the bodywork. The towing eyes must be painted red and be clearly visible. The towing eye may not project beyond the perimeter of the bodywork as viewed from above.

u. The manufacturer of the engine must be identified on both sides of the car. Minimum height: 3".

v. The engine may only be started by a driver-operated on-board energy source. It must remain functional throughout a competition.

w. Automatic or semi-automatic transmissions will not be allowed. Transmission shifting must be accomplished using non-power assisted mechanical linkage between driver and transmission gears. A functional reverse gear is mandatory.

\*x. Any device that applies an electronically controlled force to the suspension is prohibited. Driver adjustable shock absorbers are permitted.

\*y. On all GTP cars except GTP Lights, the complete bottom of any car, rearward of the vertical plane tangent to the rear of the complete front wheels, and forward of the vertical plane tangent to the fore of the complete rear wheels, a solid, hard, impervious, flat, rigid and continuous surface must be provided over the whole width of the car and over a length of at least 900 mm measured along the longitudinal axis of the car. This entire surface must be an integral part of the chassis/body unit and must not have any degree of freedom or any provision for adjustment in relation to this unit. The maximum height of any point of the rear air extraction tunnel or venturi measured from the geometrical plane referred to above must not exceed 280mm.

#### 11.6.6 Safety Devices

a. Leakproof firewalls constructed of metal or in accordance with Appendix J, Art. 257, Sec's 4.11 & 4.14 of the 1990 FIA Annuaire du Sport Automobile must be installed to isolate the driver/passenger compartment from the fuel tanks and from the engine compartment.

b. An on-board fire extinguisher system of the inert gas type must be fitted with outlets directed to engine, fuel and driver compartments and a minimum capacity of 20 lbs. Alternately, two systems may be fitted: A 2.5 Kg minimum system for the driver's compartment and a separate 5 Kg minimum system for the engine/fuel compartment.

c. Energy absorption devices are recommended to be fitted along the exterior vertical walls of the frame box members to protect the driver and fuel tanks.

d. Driver seat shall be mounted securely to the frame or roll

cage structure, but may be adjustable.

e. Fluid catch tanks of at least one gallon capacity must be installed for the engine and transmission.

f. Drivers of open cockpit cars must be equipped with full coverage helmets (per Article 5.11) and a driver arm restraint system.

#### NOTES:

Note 1: A 3% weight tolerance will be permitted for Type 2 GTP Lights engines up to 2.0 liters.

Note 2: Air cooled Porsche 3.6 liter engine is eligible for GTP Lights with a minimum weight of 1800 lbs.

Note 3: Type 1 conventional production engines with 3-valve cylinder heads must weigh 3% more than shown in Art 11.6.4.

\* Note 4: All GTP cars, except GTP Lights, that are not available with Group C undertrays will be allowed for 1993 with an added weight of 50 pounds until they make the conversion.

\* Note 5: Nissan GTP-ZXT88 2 valve and totally air-cooled Porsche flat six engines up to 3 liters may be equipped with a single turbocharger with a maximum of 58mm restrictor.

\* Note 6: Cars equipped with a 3.0 liter flat six Porsche engines may compete at 1900 lbs.

\* Note 7: Porsches may use the flat six engine with 74mm stroke crankshaft giving a displacement of 3162cc at a minimum weight of 1950 lbs.

\* Note 8: Twin turbo Porsche 962 may increase turbo inlet restrictors to a maximum of 41mm.

\* Note 9: As of 4/1/93, the weight of all cars will be increased 50 lbs.

\* Note 10: Turbo cars using steel brake rotors may use a 56 mm restrictor on a single turbo or 40 mm restrictors on twin turbos.