

## INTERNATIONAL **MOTOR SPORTS** ASSOCIATION, INC.

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# 1992 IMSA CODE Article 11.5 GTP CARS

### 11.5 GTP CARS (Grand Touring Prototype)

11.5.1 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 re-quirement 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 which meet IMSA GTP rules are also eligible.

### 11.5.2 Engine Eligibility

**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 5.0 liters and multi-valve race engines up to 3.5 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 (13G, 13J, 26B)

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 maxiumum displacement of 3.0 liters with a maximum of 4 cylinders in line.

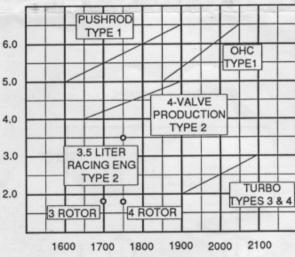
Types 3&4 -Turbocharged and supercharged engines are not eligible in CTP Light.

\* Type 5 - Rotary Engines (12A, 13B)

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. 11.5.4 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.

#### 1992 GTP WEIGHT AND DISPLACEMENT LITERS



WEIGHT IN POUNDS

1992 GTP LIGHTS WEIGHTS AND DISPLACEMENT

WEIGHT VE DISDLACEMENT GRAPH

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 - Rotary Engines (12A, 13B)

# 11.5.3 Engine Modifications

. Free, except as follows:

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

 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.

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:

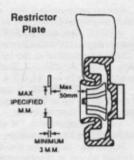
- Type 3 & 4 engines with a single turbo -

54. m.m. I.D.

Type 3 & 4 engines with two 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.

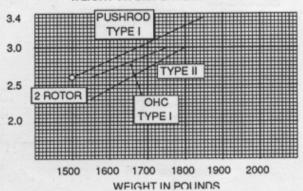


c. Ceramic turbocharger components, variable diameter turbocharger inlets and/or adjustable internal vanes on turbochargers are not permitted.

### 1992 GTP LIGHTS WEIGHTS AND DISPLACEMENT

LITERS

# WEIGHT vs. DISPLACEMENT GRAPH



11.5.5 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.).

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.

ft. 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 removeable, may be placed in the passenger seat. Driver's feet must be located aft of the vertical plane formed by the front axles.

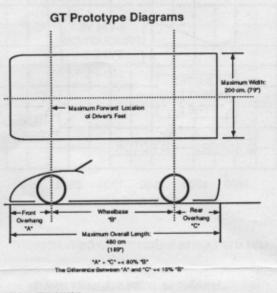
On enclosed cockpit cars, two doors must be provided giving ready access to driver and passenger seats. Both doors must swing open on hinges mounted on front door posts, and must have release mechanisms operable from both inside and outside the car. Minimum dimensions for the lower part of the doors: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

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 and are supplied by a

manufacturer from the FAA PMA list.

95cm. (37.5") for

Open cockpit cars must be fitted with a continuous singlecurve 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.



bubbles, etc. will not be considered as the highest point of the coachwork. Louvers in the coachwork above the front wheels may not be removeable 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.

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. 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. maximum capacity, including the cell, fill and vent pipes, lines and surge tank shall be 120 liters (31.7 U.S. gallons). The cell must be mounted no more than 65 cm from the longitudinal axis of the car and be located within the limits defined by the front and rear axes of the wheels. The cell and any device, hose or line containing fuel must be completely isolated from the driver's compartment.

Wheels/Tires: 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".

\*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.

Oil tank is limited to 20 liters capacity.

Batteries must be located outside driver compartment. S. 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. The manufacturer of the engine must be identified on both

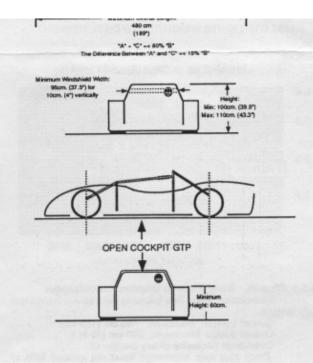
sides of the car. Minimum height: 3".

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

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

11.5.6 Safety Devices Leakproof firewalls constructed of metal or in accordance with Appendix J, Art. 257, Sec's 4.10 & 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.



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 and must be mounted to provide the driver with vision to the rear and both sides of the car.

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.

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 curve from door opening to door opening. Radio antenna domes, marker lights, roof

power assisted mechanical linkage between univer and iransimasion gears. A functional reverse gear is mandatory.

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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.

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.

Driver seat shall be mounted securely to the frame or roll cage structure, but may be adjustable.

Fluid catch tanks of at least one gallon capacity must be

installed for the engine and transmission.

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: Aircooled 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 11.5.4.

Note 4: Ferrari production 3 liter, 4 valve V-8 engine derived from the 308 is eligible in GTP Light at 1850 lbs.

Note 5: All GTP cars, except GTP Lights, conforming to Group C aerodynamic regulations concerning the undertray and tunnel venturi restrictions as specified in the 1991 FIA Annuaire du Sport Automobile, Appendix J, Art 257.3.7, Bodywork, may deduct 100 lbs from the weight shown in Art. 11.5.7.4.

Note 6: 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 57mm restrictor.

Cars equipped with flat six Porsche engines Note 7: may reduce their weight 100 lbs from the weight shown in Art 11.5.4.

Note 8: Porsches may use the flat six engine with

74mm stroke crankshaft giving a displacement of 3162cc at a minimum weight of 2025 lbs.