

11.6 IMSA GT CATEGORY

See Article 12.2 for Exxon Supreme GT Series Standing Supplementary Regulations and Article 13 for car identification diagrams. See also Articles 11.1 through 11.4.

11.6.1 PURPOSE

The IMSA GT category is designed to promote competition among drivers and manufacturers in an annual series of IMSA-sanctioned professional race events.

*11.6.2 ELIGIBILITY

IMSA GT category automobiles are recognized in two divisions: Grand Touring Supreme 1 (GTS-1) and Grand Touring Supreme 2 (GTS-2). Cars of unibody origin must conform exclusively to the preparation regulations specified in Article 11.6.6 or exclusively to the preparation rules in Article 11.6.5. Cars of tube-frame construction must conform exclusively to the regulations in Article 11.6.5.

GTS-1: IMSA recognized two wheel drive production based cars using tube frame construction with normally aspirated engines between 3.5 and 6.0 liters; and unibody cars conforming with IMSA modifications in Article 11.6.6.

GTS-2: IMSA recognized two wheel drive production based cars using tube frame construction with engines up to 3.0 liters; and unibody cars conforming with IMSA modifications in Article 11.6.6.

Eligibility in both divisions will be limited to makes and models in series production within 3 years of the current racing season.

IMSA accepts the conversion of approved front-wheel drive models to rear-wheel drive, as long as all modifications are made in accordance with the IMSA GT text.

11.6.3 RECOGNITION FORMS

Entrant may be required to furnish official recognition forms for makes and models described in Article 11.6.2 if so requested by the IMSA Technical Director at an event. FIA recognition forms for cars homologated in Groups A and B and GT may be secured from ACCUS, FIA, 1500 Skokie Blvd., Northbrook, IL 60062, Telephone (847) 272-0090.

*11.6.4 FUEL TANKS

The fuel cell must be separated from the driver/passenger compartment by a leakproof fireproof bulkhead. Fuel cells located

behind the rear axle must maintain a minimum of 5" clearance from the ground at all times. Maximum fuel capacity including the cell, surge tank and fill pipes for races longer than 1 hour in duration: 100 liters (26.4 gal.). Fuel cells may be located in the production location or ahead of the rear axle behind the passenger compartment, or in the rear trunk.

11.6.5 TUBE-FRAME CONSTRUCTION PREPARATION REGULATIONS/AUTHORIZED MODIFICATIONS

Cars of tube-frame construction must exclusively conform to the following regulations:

A. Tube-Frame Engine Eligibility - IMSA will regulate the eligibility of engines which may be used in IMSA GT cars. Approved engines will derive from naturally aspirated engines installed in mass-produced automobiles offered for sale to the public by established manufacturers in the U.S. and abroad. All engine components will be limited to those which are readily available to all contestants wishing to employ them.

* The engine originally provided for a specific make and model may be replaced with another production based engine provided by the same manufacturer.

GTS-1 Engines will be classified on the weight and displacement graph as follows:

- Type 1 Conventional engines with 2 valves/cylinder
- Type 2 Conventional engines with 4 valves/cylinder
- Type 3 Wankel-type 3-rotor engines

GTS-2 Engines will be classified as stipulated in Article 11.6.5.B.2.

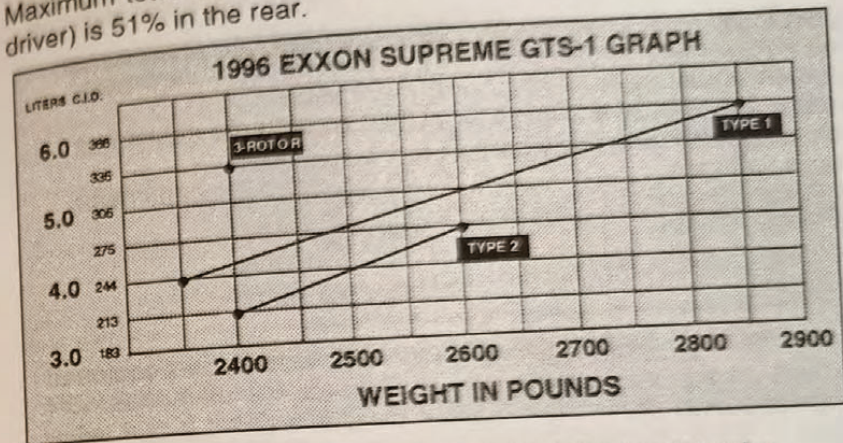
In both divisions, conventional engines with 3 or 5 valves per cylinder are also eligible. Turbocharged and supercharged engines are not permitted.

The manufacturer of the automobile must be identified on both sides of the car in letters (or logo) at least 3" high.

B. Tube-Frame Minimum Weights

1. GTS-1 Minimum Weights - all GTS-1 cars shall meet or exceed an official minimum weight as raced, but without fuel and driver, according to the displacement of the engine as follows.

Maximum total vehicle weight bias (as measured without fuel and driver) is 51% in the rear.



To find the weight of a GTS-1 car, use the following formula:

$$\begin{aligned} \text{Type 1 Engine: Weight in Pounds} &= \text{C.I.D.} \times 4.0984 + 1350 \\ &= \text{Liters} \times 250 + 1350 \end{aligned}$$

$$\begin{aligned} \text{Type 2 Engine: Weight in Pounds} &= \text{C.I.D.} \times 3.2776 + 1700 \\ &= \text{Liters} \times 200 + 1700 \end{aligned}$$

In races of 12 hours or longer scheduled duration, GTS-1 cars may reduce their minimum weight 100 lbs from the above graph.

* 2. GTS-2 Minimum Weights - the minimum weight for any tubeframe GTS-2 car is 1800 lbs. All GTS-2 cars shall meet or exceed an official weight as raced, but without fuel and driver, according to their engine type and displacement per the following chart:

Engine Type	Minimum Weight per Displacement
2-valves/cylinder	.75 lbs. per cubic centimeter
4-valves/cylinder under 2500 cc displ. 4 cylinder engines	.78 lbs. per cubic centimeter
4-valves/cylinder over 2500 cc disp. 4 cylinder engines	.76 lbs. per cubic centimeter
4 valves/cylinder with more than 4 cylinders	.79 lbs. per cubic centimeter
12A Rotary Engine	1800 lbs.
13B Rotary Engine	2225 lbs.
Air-cooled Porsche flat 6 at 3.6 liters	2150 lbs.

In races of 12-hours or longer scheduled duration:

Engine Type	Minimum Weight per Displacement
2-valves/cylinder	.70 lbs. per cubic centimeter
4-valves/cylinder up to a max. of 4 cylinders	.74 lbs. per cubic centimeter
4-valves/cylinder with more than 4 cylinders	.76 lbs. per cubic centimeter
12A Rotary Engine	1800 lbs.
13B Rotary Engine	2000 lbs.
Air-cooled Porsche flat 6 at 3.6 liters	2100 lbs.

* 3. Weight Adjustments - In both divisions, cars equipped with 3 or 5 valve production or approved alternate cylinder heads must add an additional 4% to the minimum weight listed for 2 or 4 valve engines of the same displacement. A 10% weight tolerance will be permitted for totally air cooled engines (except the 3.6 liter listed specifically above). A 5% weight tolerance will be permitted for cars raced in front wheel drive configuration.

* 4. GTS-2 weight adjustments for certain components are permitted as follows:

- a 25 lb. weight reduction for cars without fuel injection
- a 25 lb. weight reduction for cars without independent rear suspension
- a 25 lb. weight reduction for cars without a transaxle

* **C. Substitution and Modification of Engine Components**

1. Cylinder Blocks - Standard production cylinder blocks may be machined. IMSA may approve alternate cylinder blocks provided the following standard dimensions and data are maintained:

- camshaft location
- round cylinder and bore spacing
- bank angle in case of "V" type engine
- crankshaft centerline to deck face

Alternate cylinder blocks may be machined, but material may not be added.

* 2. a. Production Cylinder Heads - Production cylinder heads will be those that retain the same number of valves, number of spark plugs, number and location of ports and be interchangeable with the original OEM cylinder heads, as well as retain the original method of cooling. Production cylinder heads may be machined, but material may not be added.

b. Alternate Cylinder Heads - IMSA may approve

alternate cylinder heads provided the following production dimensions and data are maintained:

- number of camshaft(s)
- number of intake and exhaust ports
- method of cooling
- The following alternate cylinder heads are approved:
GM splayed valve part numbers 10185040 and 24502517.
Oldsmobile DOHC part numbers 24502566RH and 24502567LH.
Brodix part numbers CV SP and CV SP 330.
- c. Camshafts: must remain in standard location.
- d. Bearings: may be replaced by others of the

same type only.

* e. Induction System: Throttle control must be by mechanical linkage only. Fuel injection systems are permitted, but the vehicle must weigh 30 lbs. more than its otherwise specified minimum weight in the GTS-1 division. GTS-2 cars may use fuel injection. Variable length trumpets are not permitted.

f. Ignition: Dual ignition is permitted only on models so produced in series production.

g. Exhaust: On front-engine cars, exhaust pipes must exit horizontally at the outer edge of the side of the car behind the midpoint of the wheelbase. Exhaust pipes must exit below the plane 12 inches above the bottom of the rocker panel. In the case of cars using large mufflers, or as otherwise approved by IMSA, the passenger-side floorpan (Article 11.6.5.C.4) may be tunneled for the purpose of accommodating the muffler(s) only.

h. Engine location: Engines may be freely positioned within the original engine compartment. Stressed-member engine installations are not allowed. Front engine cars may relocate the engine no farther rearward than:

(1) GTS -1 engines: So that the rear of the engine block is a maximum of 19 inches rearward of the vertical plane created by the center line of the front wheel hubs.

(2) GTS -2 engines (except in-line six): So that the rear of the engine block is a maximum of 18 inches rearward of the vertical plane created by the centerline of the front wheel hubs.

(3) In-line 6 engines: So that the foremost spark plug coincides with the vertical plane created by the centerline of the front wheel hubs.

i. The following are not permitted in the engine:
variable camshaft timing

- ceramic or carbon components
 - pistons of any material other than monolithic aluminum.
 - threaded fasteners of any material other than steel.
 - flywheels of any material other than steel or aluminum.
 - titanium components other than valve spring retainers, valves and connecting rods.
- j. Rotary engines are permitted to use carbon aluminum apex seals, part #4801-11-301.

2. Systems - The following systems are free:

- a. Steering
- b. Brakes; except nonmetallic brake discs are not permitted.
- c. Suspension; except components may not protrude into driver/passenger compartment or pass through coachwork. Any device or system that applies an electronically controlled force to the suspension is prohibited. Remotely adjustable shock absorbers are permitted.
- d. Cables and pipes; except that fuel and high temperature liquid pipes must be armored and may only pass through the driver /passenger compartment if they are also shielded.
- e. Electrical system; except that two tail/brake lights must be located in their standard position, retain the standard lens and be operational at all times. Headlights must also maintain standard locations, but lenses and bulbs may be removed for daytime events if openings are covered with a solid plate and/or "headlight" decals contrasting in color with the bodywork.. (See also Article 11.4.b.11). If in IMSA's opinion, brake lights or tail lights are too dim, brighter bulbs must be installed.

f. Drive Train; except a functional reverse gear is mandatory and a maximum of 5 usable forward speeds will be permitted. Cars originally equipped with a six speed transmission in their production form may use the unmodified production transmission. Gear ratios may be changed. Automatic, semiautomatic, or electrically/electronically operated transmissions will not be allowed. Transmission shifting must be accomplished using only non-power assisted mechanical linkage between driver and transmission gears. Separate overdrive units or two-speed final drives are not allowed. Electronic traction control devices are not allowed.

The transmission must be located so that the forward mounting face is no more than 13.5 inches from the back edge of the engine block. Gearbox casing and engine/transmission adaptor material is limited to magnesium, steel or aluminum.

GTS-1 cars must use a live rear axle.

g. Water radiators; except standard location must be maintained.

3. Wheels and Tires - All four wheels must have the same diameter. Method of attachment is free. Track dimension is limited by maximum permitted car width. Wheels and tires must not protrude beyond the bodywork as viewed from above. Single-piece or carbon fiber wheels are not permitted.

Maximum permitted complete wheel and tire section widths are:

- GTS-2 - 13.5"
- GTS-1 - 16"

Maximum permitted wheel diameters are:

- GTS-2 - 16"
- GTS-1 - 17"

Effective 1/1/97 maximum complete wheel and tire sections:

- GTS-2 - 12"
- GTS-1 - 14"

Effective 1/1/97 maximum overall complete wheel and tire diameter:

- GTS-2 28"
- GTS-1 28"

Cars using the 1997 specifications for wheels and tires in 1996 may deduct 100 lbs. from their minimum weight.

4. Chassis - may be modified or replaced using conventional steel tube construction. The use of monocoque or semi-monocoque construction is prohibited. The use of carbon fiber as a structural component is not allowed. The standard wheelbase and all relationships with the coachwork must be maintained, unless otherwise approved by IMSA. The standard floorpan may be replaced by a continuous flat steel sheet with a minimum thickness of .032" located at the bottom of the rocker panel. The floorpan must be flat from the rear of the complete front wheels to the front of the complete rear wheels and laterally from rocker panel to rocker panel. A flat floorpan may be installed from the rear of the complete rear wheels to the rear of the car. In GTS-1 the area under the front and rear axles must remain open for the length of the complete wheel, tire and width of the car. No bodywork may extend below any part of the floorpan. Adequate provision must be made to ensure that fluids cannot accumulate inside the floorpan. No aerodynamic device may be located on the underside of the car. If the floorpan is made of a material other than steel, a flat steel sheet with a minimum thickness of .032" must be added under the driver area.

Standard inner fender panels may be replaced or removed as long as the fuel cell, all exposed lines and any other vulnerable components in the engine and fuel compartments are effectively protected.

The forward firewall may be relocated to behind the leading edge of the windshield. A rear metal firewall, separating the driver/passenger compartment is required. The firewall must allow for proper rearward visibility and must segregate the fuel filler area from the driver.

With prior IMSA approval, cars with a standard production wheelbase greater than 103" may convert to a 103" wheelbase. With prior IMSA approval, cars with a standard production wheelbase of less than 95" may convert to a 95" wheelbase. All other wheelbase dimensions must be as the standard production car.

On board jacking systems are permitted. Manual jack points may not protrude through the bodywork.

5. Interior - Must conform to standard dimensions and configuration except where these rules allow otherwise. Passenger seat, rear seat and all interior trim must be removed. The standard dash must either be retained or may be replaced with a complete dash of similar dimension, orientation and appearance. The car must be oriented for left-side drive. The driver's seat must be within 3" laterally of the standard location and positioned no further rearward than the back of the door "B" pillar. Safety, driver comfort and communications equipment are the only items allowed in the passenger compartment.

6. Exterior - All visible external body panels, glass areas and integrated bumpers must retain their standard production dimensions, shape, contour, and orientation. All production dimensional relationships (such as rocker panel to roof, windshield rake, etc.) must be maintained so as to present a duplicate of the production car unless otherwise permitted in these rules. Cosmetic amenities such as decals representing headlights, trim, standard badging and I.D. must be incorporated so as to enhance ready identification with the production car. All cars must clear the IMSA 2.5 inch ride height block between the axles and a 2 inch block forward of the front axle as measured by IMSA.

* On car models who have had their original wheelbase decreased or increased per these regulations, the bodywork may be modified with IMSA's prior approval by:

- sectioning the original bodywork in the vicinity of the "B" pillar and, if necessary, in the front and rear overhangs
- realigning the body fore and aft in relationship to the wheel arches to accommodate engine positioning
- positioning the driver more rearward, if necessary, to accommodate engine clearance

a. Fenders may be flared covering at least one-third of the circumference of the tire to maximum car width of 80" and must be approved by IMSA. As viewed from the side, front wheel arches with a radius of 2" maximum at the perimeter of the wheel opening may be a maximum of 32" wide (measured at the centerline of the axle). The original wheel arch shape must be maintained to the rocker panel. Wickens at the wheel openings are not allowed. Rear

fender flares may be vented a maximum of 24 square inches each along the contour of the leading edge without extensions or protrusions. Add-on "wickens" or tabs will not be allowed. The rear of the car may be vented in the standard license plate location with a maximum area of 80 square inches. This opening must be covered by screen of 1/2 inch mesh maximum or similar material.

b. Doors may be flared forward or rearward to blend into the fenders. The lateral dimension from outer door skin to outer door skin must be within 6" of the standard dimension. The outer door skin must maintain the standard profile from top to bottom at this point. The bottom of the rocker panel may extend outward no further than the original profile of the car as viewed from above. The floor panel or skin may not be extended horizontally past the rocker panel. If window glass is used in doors, doors must retain their production dimensions and function in the original manner on hinges in the standard location.

c. Door glass and winding mechanisms may be removed. Non-tinted substitute transparent material may be used in side and rear windows. Models not equipped with standard vent windows may add a flat vent window to the front of the door window area. The vent window must be mounted in the original window location and extend rearward no more than 6".

d. Rocker panels may be notched only enough to accommodate exhaust pipe exit per Article 11.6.5.C.1.g.

e. Material of bodywork and greenhouse panels is free. Replacement panels must remain interchangeable with the originals, be securely attached to the chassis and remain rigid at speed.

* f. A front spoiler/splitter may be added below the plane of the front wheel centerline and may extend a maximum of 1 inch forward of the overall perimeter of the standard model, as viewed from above. The underside of the front spoiler may be shrouded or covered with a plate.

* The bodywork forward of and below the centerline of the front axle may be modified so long as it does not protrude beyond the original bodywork contour as viewed from above. Air intakes and auxiliary lighting may be installed in this area. No air exits, vents, aerodynamic "wickens" or tabs may be in this area unless located in and conforming to the standard production bodywork components and positions.

No other aerodynamic devices may be added in this area.

g. Only one of the three following options for a rear aerodynamic device may be fitted to the car:

- (1) the unmodified standard production rear wing or the unmodified standard production optional add-on rear spoiler as delivered to the public fitted in the standard location.
- (2) one unmodified single-element Liebeck air-

foil #LD104E (Fabcar part #LAF1041) (scaled to a chord length of 10.75 inches) rear wing with a maximum 3/4" tab. No air must pass between the wing and the tab. The wing must not be curved transversely as viewed from above. Specific wing coordinates are available from the IMSA office. A cross-sectional wing dimension tolerance will be allowed for a maximum skin thickness of 0.050 inches.

The complete wing, including its mountings, tab and endplates, must not extend higher than the highest point of the rear window as measured by IMSA, must not extend farther rearward than the trailing edge of the bodywork (excluding bumper guards), must not exceed a total width of 72" (excluding approved fasteners) measured perpendicular to the longitudinal centerline of the car, must be aligned symmetrically on both sides of the longitudinal centerline of the car, and must be mounted on the rear deck lid and exclusively to the fully-sprung part of the car.

Endplates and/or wing mounts must not exceed 12 inches in fore and aft width as viewed from the side, must be perpendicular to the ground as viewed from the rear, must be parallel to the longitudinal centerline of the car as viewed from above, and must not extend forward of the centerline of the rear axles nor lower than the surface of the rear deck lid.

(3) a flat or curved plate spoiler and horizontal mounting extension may be fitted to the rear of the coachwork. The spoiler may have no forward facing rudders or stabilizing brackets and may not protrude beyond the coachwork as viewed from above. No air may pass between the mounting extension, plate spoiler and the coachwork. The assembly may not be adjustable from within the car and may extend to a maximum height of 8" above the contour of the coachwork at the point it is mounted.

h. Windshield may be replaced with 0.25 inch thick Lexan molded to the exact shape and contour of the standard production windshield. It is the responsibility of the entrant to supply a standard windshield for comparison.

i. In cases where the allowed engine and/or permitted engine relocation would prevent the hood panel from fitting as standard, the hood panel may be bulged enough to accommodate

engine clearance on an individual IMSA approval basis.

7. Miscellaneous

a. Porsche 911 may use up to the air cooled 3.2 liter engine in GTS-2 in approved "mid engine" configuration per the GTS-2 minimum weights.

b. Telemetry is prohibited.

c. Cars with pre 1991 Mazda MX-6 / RX-7 bodywork may compete with existing bodywork until 4/1/96.

d. Pre 1991 Mazda MX-6 may convert to new Mazda RX-7 bodywork and maintain the original MX-6 wheelbase.

e. Approved 1995 specification Chevrolet Camaro and Ford Mustang bodywork is permitted provided all articles pertaining to aerodynamics, ducting and spoilers are per the IMSA CODE.

11.6.6 UNIBODY CONSTRUCTION PREPARATION REGULATIONS/AUTHORIZED MODIFICATIONS

IMSA GT category cars must exclusively conform to these regulations or exclusively to article 11.6.5. Cars of tube frame construction must exclusively conform to article 11.6.5.

Cars conforming to this article must be of production unibody origin and construction. These regulations closely parallel FIA International GT1 and GT2 category regulations, as well as ACO Le Mans GT1 and GT2 regulations, and are designed to incorporate many of those cars into IMSA GT racing with a minimum of further modification.

IMSA will generally recognize models accepted as FIA International GT1 or GT2 category cars; as ACO Le Mans GT1 and GT2 category cars; and other makes and models approved by IMSA. Regardless of origin or homologation, all cars must meet IMSA's mandatory safety requirements per Article 11.4.

In general, a model must be registered for road use and offered for sale as registered prior to the start of each season, in a country which is recognized by IMSA as a volume producer of automobiles. At least 25 identical units must be produced in a 12-month period prior to eligibility or the model must be otherwise homologated by the FIA.

Each car must conform strictly to its standard configuration as registered and sold to the public except where these rules allow or require modifications. IMSA may require specific models to compete with or without certain manufacturer's optional or standard components. Unless otherwise approved by IMSA, all cars must compete in left hand drive configuration.

The entrant must provide the administrative homologation document and/or complete technical description from the manufacturer at official technical inspection or as otherwise requested by the IMSA Technical Director.

IMSA reserves the right at its sole discretion to disapprove any model, regardless of origin, which in IMSA's opinion, contravenes the spirit and intent of these regulations.

The manufacturer of the automobile must be identified on both sides of the car in letters (or logo) at least 3" high.

A. Unibody Engine eligibility - The original engine, as delivered in series production, must be used. Engines may only be turbocharged if the production model is turbocharged and must remain less than 4000 cc in displacement. The standard production turbocharger(s) system must be used.

GTS-2 cars will be limited to engines up to certain displacements as follows:

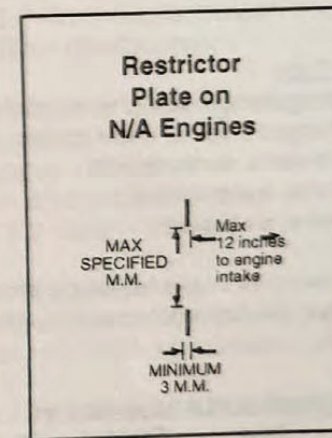
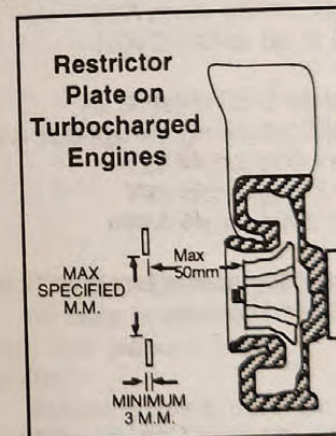
- N/A - up to 3.8 liters
- Turbocharged - up to 3.0 liters with a maximum of 4 cylinders and turbo two rotor

If the regulations require the use of an air restrictor for a specific displacement or weight, then all intake air to the engine must pass exclusively through an IMSA approved restrictor plate made exclusively of steel or aluminum with a minimum thickness of 3 mm, located no farther than 12 inches from the engine intake on N/A engines or otherwise approved by IMSA. Air restrictors on turbocharged models must be located no farther than 50 mm from the forward face of the turbocharger compressor wheel blades. The inlet diameter must be maintained for the full thickness of the plate. The plate must be securely installed, yet easily removable for inspection by IMSA.

If a twin restrictor size is not specifically listed in the regulations then the following formula:

$$T = \sqrt{\frac{S^2}{2}}$$

will be used to calculate a twin restrictor with "S" being the diameter of the single restrictor and "T" being the diameter of each twin restrictor.



The following air intake restrictors are required for races of 12 hours or longer scheduled duration according to engine type and division:

GTS-1:

Turbocharged 4 valve engines

Vehicle Weight (kg)	Two Restr. <2000cc	Two Restr. <3000cc	Two Restr. >3000cc	One Restr. <2000cc	One Restr. <3000cc	One Restr. >3000cc
1100	36.5	35.6	34.7	51.2	49.9	48.7
1150	37.5	36.5	35.6	52.5	51.1	50.0
1200	38.4	37.4	36.5	53.8	52.4	51.2
1250	39.4	38.3	37.4	55.1	53.6	52.4
1300	40.4	39.2	38.3	56.4	54.8	53.6

Normally aspirated 4 valve engines

Vehicle	Two	Two	Two	Two	Two	Two
Weight	Restr.	Restr.	Restr.	Restr.	Restr.	Restr.
(kg)	<3500cc	<4000cc	<5000cc	<6000cc	<7000cc	>7000cc
1100	37.8	37.2	36.5	35.9	35.4	35
1150	38.7	38.2	37.4	36.8	36.3	35.9
1200	39.7	39.1	38.3	37.7	37.2	36.8
1250	40.6	40.1	39.2	38.6	38.2	37.7
1300	41.6	41.1	40.1	39.5	39.2	38.6

Normally aspirated 4 valve engines

Vehicle	One	One	One	One	One	One
Weight	Restr.	Restr.	Restr.	Restr.	Restr.	Restr.
(kg)	<3500cc	<4000cc	<5000cc	<6000cc	<7000cc	>7000cc
1100	52.9	52.2	51.2	50.4	49.7	49.1
1150	54.2	53.5	52.5	51.6	50.9	50.3
1200	55.5	54.8	53.8	52.9	52.2	51.6
1250	56.8	56.1	55.1	54.2	53.5	52.9
1300	58.1	57.4	56.4	55.5	54.8	54.2

GTS-2

Engine Type

Turbocharged multi-valve, water cooled	40 mm.
Turbocharged 2-valve, water cooled	41 mm.
N/A multi-valve, water cooled	42 mm.
N/A 2-valve, water cooled	43 mm
N/A 2-valve, air cooled	45.5 mm

The following air intake restrictors are required for races of less than 12 hours scheduled duration according to engine type and division:

GTS-1

Normally aspirated 4 valve engines

Vehicle	One	One	One	One	One	One
Weight	Restr.	Restr.	Restr.	Restr.	Restr.	Restr.
(kg)	<3500cc	<4000cc	<5000cc	<6000cc	<7000cc	<8000cc
1100	55.6	54.8	53.9	53	52.2	51.2
1150	56.9	56	55.1	54.2	53.3	52.4
1200	58.1	57.2	56.2	55.4	54.5	53.5
1250	59.3	58.4	57.4	56.5	55.6	54.6
1300	60.5	59.6	58.5	57.6	56.7	55.7

Normally aspirated 4 valve engines

Vehicle	Two	Two	Two	Two	Two	Two
Weight	Restr.	Restr.	Restr.	Restr.	Restr.	Restr.
(kg)	<3500cc	<4000cc	<5000cc	<6000cc	<7000cc	<8000cc
1100	39.7	39.2	38.4	37.9	37.3	36.5

1150	40.6	40	39.3	38.8	38.1	37.4
1200	41.5	40.9	40.1	39.6	38.9	38.2
1250	42.3	41.8	41	40.4	39.7	39
1300	43.1	42.6	41.8	41.2	40.5	39.7

Turbocharged engines: maximum displacement 4000 cc.

Turbo Air Restrictor diameters (4 valve engines)

	1100	1150	1200	1250	1300
1 Restrictor	52.5	53.7	54.8	56	57.1
2 Restrictors	37.5	38.3	39.2	40	40.8

* 2 valve engine restrictors are determined by the formula $(D - 1) \times 1.066 + 1 =$ where D is the listed restrictor from the above charts.

GTS-2

* Cars running at certain displacements in GTS-2 may run without air intake restrictors and reduce their minimum weight by 100 kg. in races less than 12 hours scheduled duration as follows:

- N/A multi-valve, up to 3.2 liters displacement
- N/A 2-valve, up to 3.8 liters displacement

All other GTS-2 cars must run the following restrictor sizes with a 100 kg. weight reduction permitted.

- Turbocharged multi valve - 42 mm
- Turbocharged 2 valve and turbo two rotor - 44 mm
- N/A multi valve over 3.2 liters - 45 mm

B. Unibody Minimum Weights

All cars shall meet or exceed an official minimum weight as raced, but without fuel and driver, of 1100 kg. unless otherwise specified.

Ballast, if used, must be securely bolted to the passenger seat mountings or as otherwise approved by IMSA.

C. Unibody Authorized Modifications.

1. Engine - the standard production engine may be tooled, but metal cannot be added to the cylinder block, cylinder head(s), or any mechanical parts of the engine. The original cylinder block, cylinder head(s), valve angles, number of camshaft(s) and location of the driving system must be retained.

Other engine components may be replaced, except that the use of magnesium and ceramics is limited to components originally produced in those materials.

The following systems are not permitted unless standard on the production car, in which case the unmodified production components must be used exclusively: variable timing; variable length inlet

manifolds; accelerator other than mechanical; charging devices with variable inlet ports; adjustable internal valves, water injection. IMSA reserves the right to ban any of these technologies at its discretion.

Any system which allows remote control of boost pressure or lowering the temperature of induction air, the fuel or mixture temperature is not permitted.

A dry sump is permitted.

Carbon fiber or composite materials are limited to the clutch and non-stressed covers or pipes.

Standard exhaust pipes may be replaced, but must not protrude beyond the perimeter of the car as viewed from above. Exhaust pipes must exit aft of the midpoint of the wheel base, between 10 and 45 cm. above the ground, and clear of any refueling couplings.

For GTS-2 cars, the use of titanium is limited to connecting rods, valves, valve spring retainers and turbo heat shields and only if the component on the production car is titanium.

For GTS-1 cars, the following engine modifications are also permitted:

a. The engine may be freely relocated in the standard engine bay as long as it does not affect the structural integrity of the cockpit or the frontal protection. Stressed member engine installations are not allowed.

b. The use of titanium is limited to connecting rods, valves, valve spring retainers and heat shields.

2. Systems

a. Steering - the original production steering system must be used, but components may be modified or reinforced. Power steering is permitted.

b. Brakes - a dual brake system is mandatory. Power brakes and non production ABS brakes are not permitted. Standard production ABS brake systems are permitted through 1/1/97. After 1/1/97 ABS brakes will not be permitted. Brake discs must be made from ferrous material.

Brake ducts may utilize existing bodywork openings or may be added, one per brake with a maximum area at the intake of 155 cm² each. Forward brake ducts must be located forward of and below the centerline of the front axles and must not extend forward of the front bumper. Rear brake ducts must be located in the leading edge of the rear fenders and not intrude on any glazed areas. In both cases, intakes must not extend above the original surface of the bodywork.

c. Suspension - the type, working principle, number and location of the articulation points shall remain as on the production car. (articulation point location tolerance - 20 mm) Otherwise, original components may be reinforced or substituted. Suspension components partially or entirely made from composite material are prohibited, as is chrome plating. The following suspension components are free: struts, anti-rollbars, shocks absorbers, and elastic mountings. Sus-

pension components must not pass through bodywork, coachwork or intrude upon the cockpit. Any device or system that applies an electronically controlled force to the suspension is prohibited. Remotely adjustable shock absorbers are permitted.

d. Cables and Pipes - may be freely replaced and/or rerouted. Fuel and high temperature liquid pipes must be armored and may only pass through the cockpit if they are also shielded and absolutely leakproof.

e. Electrical System - wiring, battery and starter may be replaced. At least two operating tail/brake lights must be located in their standard position, retain the standard lens and be operational at all times. Reverse light bulbs must be removed. Directional indicators must remain in working order. If, in IMSA's opinion, brake lights or tail lights are too dim, brighter bulbs must be installed. See also Article 11.4.A.5. and 11.4.B.9 through 12.

f. Drive train - Four wheel drive and limited slip differentials are only permitted if standard on the production car, in which case the unmodified production components must be used exclusively. IMSA reserves the right to ban any of these technologies at its discretion. The gearbox orientation in relationship to other drivetrain components shall remain as on the production car, but it may be moved forward, backward, raised or lowered. A functional reverse gear is mandatory and a maximum of five forward speeds will be permitted. Cars originally equipped with a six speed transmission in the production car may use the unmodified production gearbox. Otherwise, gearboxes and gear ratios are free. Separate overdrive units or two-speed final drives are not allowed unless standard on the production car, in which case the unmodified production system must be used exclusively. The original mechanical final drive systems are required. Otherwise, final drives are free. Standard production unmodified traction control systems are permitted until 1/1/97. As of 1/1/97 traction control will not be permitted.

3. Wheel and tires - maximum permitted diameter of the complete wheel/tire assembly at operating pressure is 28" (711 mm.). Maximum complete wheel and tire section widths are 14" (356 mm.) for GTS-1 and 12" (305 mm.) for GTS-2. The complete wheel above the axle must be housed within the original wheel arch. The internal arch may be modified as long as the integrity of the main structure is not affected. Carbon fiber wheels are not permitted. Original wheels and mountings may be replaced with center lock wheels. The wheel nut must be additionally secured with a safety spring painted red or orange "dayglo".

4. Chassis - The original production chassis and floor must not be modified except as provided on these regulations. If the floor pan is made of a material other than steel, a flat steel sheet with a minimum thickness of .032" must be added under the driver area. Any device or construction that is designed to bridge the gap

between the sprung parts of the car and the ground is prohibited. No part of the car may touch the ground when both tires on one side are deflated. See also Articles 11.4.A.5. and 11.4.B.1 through 27.

5. Interior - interior cockpit dimensions must remain the same as the production car. Radio equipment, driver cooling system, and tool kit may be added. The dashboard may be replaced by one of similar shape and appearance, but nothing may be added below the standard lower edge. Regardless of the original configuration of the production car, the soles of the driver's feet resting on the undepressed pedals must not be situated forward of the vertical plane of the front axles. Original production firewalls may not be modified.

6. Exterior - all visible external bodypanels, glass areas and integrated bumpers must retain their standard production dimensions, shape, contour and orientation unless otherwise provided in these rules. All production dimensional relationships (such as rocker panel to roof, wheelbase, length, overhangs, doors, windshield rake, rear deck rake, etc.) must be maintained per the original car. Cosmetic amenities such as decals representing headlights (if covered by a plate), trim, standard badging and I.D. must be retained or simulated.

a. Fenders - standard wheel arches must be maintained as seen in profile, but the production fenders may be modified by extending the lateral width a maximum of 10 cm.

b. Doors - door glass and winding mechanisms may be removed. Non-tinted substitute glazed material or alternate material with the same transparency may be used in side and rear windows. In either case, the driver side window must remain open.

c. Windshield - a one piece laminated glass wind screen is mandatory.

d. Front and rear track may be changed, but the wheels may not protrude beyond the body work as viewed from above.

e. The original bodywork comprising the production greenhouse must be retained unless otherwise approved by IMSA. Material of bodywork panels which do not interfere with stiffness, safety and the resistance of the main structure is free, but they must remain interchangeable with the originals, be securely attached to the chassis and remain rigid at speed. Titanium is only permitted if used in the original construction and only for the original use. Carbon-Kevlar is permitted for bodywork panels which can be dismantled and are not an integral part of the main structure.

f. The body work may be modified ahead of the complete front wheels and below the horizontal plane of the front wheel axles provided that the result does not extend beyond the perimeter of the original bodywork as viewed from above and the car clears a 2 inch block at all times.

g. Lateral and rear bodywork components may be added below the horizontal plane passing through the centerline of the

wheels provided they extend no lower than the original understructure of the car and are not wider than the original bodywork.

h. Engine air intake(s) and engine air outlet(s) may utilize existing bodywork openings, the brake duct openings specified in 11.6.6.C.2.b., the nose area specified in 11.6.6.C.6.f, and/or the rear of the car may be vented in the standard license plate location with a maximum area of 80 square inches covered by a screen of 1/2 inch mesh maximum or similar material. The intake(s) and outlet(s) must not protrude above the original surface of the bodywork, nor extend beyond the perimeter of the car as viewed from above.

i. A single rear wing is permitted as follows:

(1) The original production rear wing may be modified in order to be adjustable around a horizontal axis (maximum vertical travel at back edge is 15 cm.).

(2) The original production rear wing may be modified to the extent of the wing permitted in #3 below.

(3) It is permitted to fit a new rear wing. This can replace an existing wing, but may not be used in addition to it. The wing assembly must not protrude beyond the perimeter of the bodywork as seen from above, nor must any part of it form the highest part of the bodywork. It must be comprised of no more than one airfoil section with a single trim tab. No air may pass between the wing section and trim tab. The chord of the airfoil section must not exceed 250 mm.

(4) In all cases, the complete wing, including its mountings and endplates, shall not extend rearward beyond the original perimeter of the car as viewed from above nor extend higher than the highest point of the bodywork.

7. Miscellaneous

a. An approved on-board jacking system is permitted. Manual jack points must not protrude through bodywork.

b. Telemetry is prohibited.