IMSA CODE

COMPETITION RULES

OF THE

INTERNATIONAL
MOTOR SPORTS
ASSOCIATION, Inc.

P. O. Box 805
Fairfield, Conn. 06430
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1977

5) Engine may be repositioned within the original compartment, the longitudinal centerlines of the engine and chassis to coincide, except that in those makes and models produced with off-center engine, the lateral tolerance is 3".

   Also, all elements of the cylinder block must lie ahead of a vertical plane touching the foremost edge of the windshield base, except that for makes and models in which the standard engine location is further aft, the engine must lie within the limits of the standard compartment.

6) Exhaust system is free, except that outlets must be aft of wheelbase centerline and must not intrude on driver/passenger compartment. Tunneling is permitted.

7) Free: connecting rods, clutch, and flywheel. Otherwise, engine modifications per FIA Appendix Group 2/4 and Paragraph 7 of these rules.

8) Any transmission fitted to one of the makes and models on the AAGT eligibility list, or other transmissions approved specifically by IMSA, may be used. Ratios are free but the number of forward speeds must not be changed. Reverse gear must remain operative.

9) Any differential or final drive may be used, including quick-change center section.

10.5 IMSA RS (Racing Stock) CATEGORY

1. **Purpose**

   This category is intended to promote interest in race competition for volume-produced stock cars available to the American public; to generate publicity for competing drivers, entrants and manufacturers; to encourage individuals to become active competitors and to enable them to compete in professional races with relatively modest investments and maintenance costs.

2. **Eligibility:**

   IMSA will recognize specific makes and models of cars eligible to compete. To qualify, a model must be:

   - Produced and marketed in sufficient volume so that its specifications are standard and may be easily checked, and so that cars and spare parts may be obtained easily.
   - Marketed to the public in the USA.
   - Able to seat 4 average-sized adults comfortably at the same time as sold to the public.
   - Produced with an integral hardtop.
   - Maximum engine size of 4 liters pushrod and 2.3 liters overhead cam.

3. Configuration

IMSA RS cars must conform to standard production configuration of the basic model. Except where these rules allow modifications or substitutions, all components of the cars must be identical to those produced by the manufacturer and delivered to the public in the USA on the basic model recognized. Standard appearance must be maintained strictly. Each model will have a recognized official weight which must be met or exceeded as raced with full tank of fuel but without driver.

4. Safety Requirements

A. Doors must be pinned or bolted shut, but may not be welded. Pins or bolts must be easily removable and doors must operate on original hinges when the pins or bolts are removed.

B. Full roll cages of approved design including a side bar on the driver's side are mandatory. It is recommended that the side bar reach to the outer skin of the door. (See Appendix)

C. A six point driver restraint system of approved design, including two antisubmarine belts, must be installed.

D. Passenger seats, seat backs, mats and other loose gear must be removed.

E. Hoods and deck lids must be secured with pins or straps. Latches may be de-activated. On cars where a key is required to open the trunk lid, the lock must be de-activated or may be removed.

F. Steering lock mechanisms must be removed.

G. Headlight bulbs must be protected against breakage. Headlights may be taped or the bulb (only) may be removed and replaced with metal or fiberglass solid plate of same shape as bulb and fitted in the same manner. It should be possible to remove plate easily, install and operate headlights. Functional wiring must remain installed at all times.

H. Safety fuel cells are mandatory. Maximum size is 22 gallons capacity. Quick-fill fuel fillers and breathers may be installed and bodywork modified accordingly, but fuel filler orifice and vent may not protrude beyond the coachwork plane. Check valves must be installed to prevent loss of fuel from the filler and vents. Fuel cell must be located as closely as possible to the original tank location. Metal bulkheads must be installed, if none exist, to separate the driver's compartment from the fuel cell and engine compartments. The bottom of the fuel tank may not be located below the centerline of the rear axle.

I. All cars must be equipped with a master electrical circuit breaker (stopping engine and fuel pumps) which is easily accessible from both inside and outside the car, or with two circuit breakers – one accessible from inside and one outside. The circuit breakers must be clearly marked by a spark in a blue triangle.

J. Fire extinguisher of at least 2¾ lb. capacity must be carried in

the car. On-board fire extinguishing system (Freon type of at least a 4 lb. capacity) is recommended.

K. Scattershields are required on all cars where the failure of the clutch/flywheel could create a hazard to the driver.

L. A strap must be installed under the front of the propeller shaft to prevent the shaft from dropping in case of failure of the front propeller shaft coupling.

M. A net covering the driver's window opening is mandatory whether or not the window remains open.

N. All cars must have at least two operating brake lights and two tail lights which will be illuminated during darkness or periods of rain.

5. Optional Modifications

A. Bodywork:

1. Accessories, lights, gauges and switches may be added or removed and other interior modifications made for the convenience and comfort of the driver provided there is no effect on the car's mechanical performance. Driver's seat may be replaced.
2. Cables and lines may be re-routed and protected.
3. Standard inner fender material may be reshaped.
4. Headliner may be removed. Bumpers and brackets must remain as original but may be updated or backdated within the model range recognized. Front door glass and regulators may be removed. All other glass must remain and function as originally installed. Interior door panels and trim panels must be fitted but may be modified to clear roll cage. Panels may be mounted with screws or other fasteners but may not cover openings where window originally operated. Panels may be made of substitute material (metal or fiberglass) resembling original panels and painted to match interior.
5. Parking light lenses may be removed and the original openings used for ducting to brakes.
6. The standard sheet metal panel between the grille and radiator may be modified to accommodate larger radiator, oil cooler and ducting.

B. Chassis - Tires - Brakes - Wheels

1. Suspension springs are free, provided they are of the same type as originally fitted and are installed in the standard position. McPherson strut-equipped cars may have the upper strut mount replaced with a slotted plate for camber adjustment. (It is not permitted to thread the strut or shock absorbers to make the spring perch adjustable.) Shims may be used to adjust spring height. Conventional rear spring shackles may be made adjustable. The upper ball joint retaining holes on Opels and Chevettes may be slotted for camber adjust-

ment. Shock absorbers may be altered or replaced with others installed in original supports and brackets. Anti-sway bars, torque rods and similar axle-locating devices may be added or substituted. Heim joints are permitted on anti-sway bars and factory adjustable front suspension parts. Riding height, measured at the center of the rocker panel, must be maintained at 7" ± 1" as checked race ready with fuel but without driver.

2. Standard steel wheels or any steel wheels of standard diameter and width of 5½" or less may be used unless otherwise noted. Wheels may be strengthened and all four must be identical. A tolerance of ½" in total track dimension is permitted front and rear to compensate for reinforcements. Spare wheel may be removed.

   To provide for tire clearance it is permitted to re-shape the original inner fender metal; however, no external modifications to the fenders are permitted.

3. All cars must be equipped with IMSA-approved radial ply tires of a type marketed through normal retail outlets for ordinary street use by the public. No racing or recapped tires are permitted.
4. Standard brakes on the basic model car or factory optional brakes specifically recognized by IMSA must be used, but may be modified as follows:
   - Any dual master cylinders and pressure-equalizing devices may be used.
   - lining material is free.
   - backing plates and dirt shields may be ventilated or removed and air ducts installed provided no modifications are made in the body work. Brake ducting inlets with areas of no more than 12 $in.^2$ per side are permitted at the front of the car below the body work provided there is no effect on the aerodynamics of the car.
   - air ducts with inlets of 12 $in.^2$ per side may also be fitted to the rear brakes.
   - Hand brakes may be removed.

C. Electrical System:
   1. Battery may be replaced with another of original voltage and size and installed in the standard location.
   2. Any make of ignition coil, condenser, spark plugs, fuses, relays, and regulators of original type may be used.
   3. Any battery ignition system may be used.
   4. Alternator must function as originally intended, but may be replaced with another of different manufacture.

D. Engine and Drive Train:

1. Engine and drive train must be as produced in combination with body and chassis of each recognized make and model. Except where these rules allow modifications or substitutions, all components must be mounted in standard locations and conform to standard dimensions. It is permitted to machine any component of the engine provided such component is always identifiable as a standard production part, except where these rules require that standard dimensions be preserved, such as cylinder bore, stroke, inlet and exhaust ports, carburetor base opening, etc. No material or mechanical extension may be added.
2. Cylinder head may be ported and polished; however, inlet and exhaust port sizes at the manifold face may not exceed the dimensions specified for the model engine concerned. On rotary engines, inlet and exhaust ports may be modified at the combustion chamber but must remain original in size and configuration at the manifold face.
3. Engine may be clearanced (blueprinted) and balanced.
4. Pistons and piston rings are free. A tolerance of .030" in cylinder bore measurement is permitted on reciprocating piston engines. On rotary engines, the standard rotor as delivered on the U.S. model may not be substituted or modified. Material of seals is free.
5. The valve train (consisting of camshaft, lifters, followers, pushrods, springs, keepers, retainers and valves) is free; however, their basic type and the locations of valves and camshaft(s) may not be changed.
6. Induction System – IMSA may establish specific rules for the induction systems of various makes and models. Unless otherwise noted:
   - On engines larger than 1900 cc displacement, the standard carburetor may be modified by machining the throttle shaft and butterfly, changing the jet sizes (not jets), and altering the float and main venturi. Emission control devices, choke mechanism and air filter may be removed. It is expressly forbidden to drill or otherwise alter any passageways, add any material, install a spacer block between carburetor and manifold, enlarge the carburetor base opening, add velocity stacks or to make any other alterations which change the intrinsic design of the standard carburetor.
   - On engines with displacement between 1600 cc and 1900 cc, it is permitted to use any carburetor with the same number of venturis as the original, and any intake manifold. Otherwise, carburetor may be modified as for en-

gines larger than 1900 cc.

- On engines of less than 1600 cc displacement, it is permitted to use any carburetors, intake manifold and velocity stacks.
- On rotary engines, emission control devices and choke mechanism may be removed, primary venturis may be bored to 25 mm and the float bowls may be vented to the exterior of the carburetor; however, no other modification may be made to the standard carburetor.
- If an air filter is used on any of the above engines, it must be of a conventional type using a standard element through which all air to the carburetor must pass.
- On fuel-injected engines, the standard components may be adjusted but not modified in any manner nor replaced with other types.

7. Exhaust system is free. Outlets must be located aft of the mid point of the wheelbase. No bodywork modification is permitted.
8. Oil sump and oil pickup may be modified to increase oil capacity and to prevent surge, but no dry sump system may be used. Standard oil pump must be retained. "Accusump" may be fitted.
9. Vents, breathers and oil filters may be added or substituted. A single oil cooler on the engine is permitted, provided it is mounted within the engine compartment (that is, between the inner fenders, firewall and grill) and it is not visible from the exterior of the car.
10. Any radiator which will fit the standard location and does not alter the car's appearance may be installed and shrouded. Fan blades may be removed.
11. Fuel pumps are free in type, size and number.
12. Any ring and pinion ratio may be used provided the differential housing for the model is retained and not modified. Differentials may be modified to produce a limited-slip or locked action.
13. Heater may be removed.
14. Clutch may be replaced with one of the same type, size, weight and manner of attachment but of different manufacture.

    Flywheels are free.

E. Non-Standard Components:

The following components may be added or replaced with others of any origin:

- Nuts, bolts, screws, washers and other fasteners, including safety wiring
- electrical wiring
- gaskets and seals

- fuel and brake lines
- any bearings of standard dimensions and type
- drive belts
- bushings
- pulleys

10.6 IMSA "AMERICAN CHALLENGE" CATEGORY

1. **Purpose**

This category is designed to promote interest in race competition for American-built, volume-produced sedans marketed to the public throughout the U.S.

IMSA will recognize driver and manufacturer champions in an annual series of races for these cars.

2. **Eligibility**

IMSA will recognize specific makes and models eligible to compete and will approve the specifications for each. To qualify, a make and model must be:

- manufactured by a U.S. company and marketed as a 1975 or later model.
- equipped with a standard engine smaller than 6000 cc (366 cu. in.) displacement.
- a standard 2-door or 4-door sedan designed to seat at least four adults.

3. **Configuration**

Official MVMA Specifications Forms for 1975 and later models will be used as reference for all technical data.

All cars must conform to standard production configuration. That is, except where these rules allow specific modifications or substitutions, all components must be identical to those delivered by a manufacturer to its U.S. customers. Standard appearance must be maintained strictly.

4. **Official Weight**

IMSA will specify for each make and model an official weight which must be met or exceeded as the car is raced, with all safety equipment in place and with a full fuel tank, but without driver. These official weights are listed along with other basic specifications in the Appendix. Any ballast carried must be securely bolted to the floor in the space formerly occupied by the right hand front passenger seat.

5. **Required Modifications**

A. Doors must be securely bolted or pinned closed to provide structural integrity and to prevent their opening in the event of a crash. Standard hinges must remain and be operative.

Jaguar XJS V-12
Jaguar V-12 E-Type
DeTomaso Mangusta
Mazda Cosmo

ELIGIBILITY LIST – IMSA ALL-AMERICAN GT
Per Rule 10.4.2 (e) (Models and Engines)

Manufacturer	Model	Engines Allowed
AMC	AMX	304,360,390,401
AMC	Gremlin	304,360
AMC	Hornet	304,360,390,401
AMC	Javelin	304,360,390,401
Buick	Skyhawk	350
Chevrolet	Camaro	305,350,396,427,454
Chevrolet	Corvette	305,350,427,454
Chevrolet	Monza 2+2	262,305,350
Chevrolet	Nova	305,350,396,427,454
Chevrolet	Vega	305,350
Dodge	Challenger	340,426,440
Dodge	Dart/Demon	340,426,440
Dodge	Dart Lite	340
Ford	Maverick	302,351,351C
Ford	Mustang	302,351,351C,390,427, 428,429
Ford	Mustang II	302,351,351C
Ford	Pinto	302,351,351C
Mercury	Bobcat	302,351,351C
Mercury	Cougar	302,351,351C,390, 427,428,429
Oldsmobile	Starfire	350
Plymouth	Barracuda	340,426,440
Plymouth	Duster	340,426,440
Plymouth	Feather Duster	340
Pontiac	Astre	350
Pontiac	Firebird	350,400,455
Pontiac	Firebird Trans-Am	350,400,455
Shelby-American	GT350	302,351,351C,428,429

12.5 1977 RS SEDAN ELIGIBILITY LIST AND SPECIFICATIONS
Per Rule 10.5

Car	Engine Size	Bore & Stroke	Carburetion	Wheel Size	Weight	Notes
Alfa Romeo						
Alfetta Sedan	1962cc	84x88.5	Spica FI		2500	7,10
1750 Berlina	1799cc	80x88.5	Spica FI		2400	7,10
2000 Berlina	1962cc	84x88.5	Spica FI		2400	7,10

Car	Engine Size	Bore & Stroke	Carburetion	Wheel Size	Weight	Notes
AMC Hornet	3805cc	95.2x88.9	Carter YF	6x14	2850	1,2,5,16
Gremlin	3805cc		Carter YF	6x14	2850	1,2,5,16
Pacer	3805cc		Carter YF	6x14	2850	1,2,5,16
Audi Fox	1471cc	76.5x80			1800	4
Audi 100LS	1875cc	84.1x84.3	Solex 2V		2100	6
Austin Marina	1798cc	80.2x88.9	2-SU-1V		2000	6
BMW 1600	1573cc	84x71			2050	4
BMW 2000 Tii; 2002	1990cc	89x80	Solex 1V		2300	3
			Solex 2V 32/32 FI			20
BMW 320i	1990cc	89x80	FI		2300	20
Buick Skyhawk	3786cc	96.5x86.4	Rochester 2V	6x13		15
Chevrolet Chevette	1400cc	82x66.2			1850	4
Vega	2287cc	89.9x92	Rochester 1V Holley 5310	6x13	2300	15
Cosworth Vega	122ci	3.501x3.160	Bendix FI	6x13	2500	15
Monza	2287cc	3.501x3.625	Carter 2V	6x13	2300	15
Datsun 1200	1171cc	73x70			1650	4
B210	1288cc	73x77			1750	4,18
B210	1400cc	76x77			1800	4,18
510	1595cc	83x73.7			1950	4
610	1952cc	85x86	Hitachi 2V		2100	17,18
710	1700cc	85x78			2000	6,18
710	1952cc	85x86	Hitachi 2V		2100	17,18
F10	1397cc	76x77			1800	4
Dodge Colt	1597cc	76.9x86			1950	4
Colt	1995cc	84x90	Mikuni 2V			
			Solex 2V		2200	7
Dodge Demon Lite	3687cc	86.4x104.6	Holley 1V		2850	
Fiat 124 Spt Cpe	1438cc	80x71.5			1950	4,7,10
124 Special	1592cc	80x79.2			1950	4,7,10
124 Spt Cpe	1608cc	80x80	Weber 2V		2100	6,7,10
124 Spt Cpe	1756cc	84x79.2	Weber 2V		2200	6,7,10
128 Spt Cpe	1290cc	86x55.4			1800	4,11
128 Sedan	1290cc	86x55.4			1800	4,11
Fiat 131	1756cc	84x79.2	Weber 2V		2200	6,7
Ford Cortina	1599cc	81x77.6			1950	4
Maverick	3280cc	93.5x79.5	Carter 1V	6x14	2650	5
Mustang II	2300cc	96x79.4	Weber 2V Motorcraft 2V		2300	
Mustang II V-6	2792cc	93x68.5	Holley 2V Weber 2V		2550	
Pinto	1599cc	81x77.6			1950	4,13
Pinto	1992cc	90.8x76.9			2050	13,14
Pinto	2300cc	96x79.4	Weber 2V		2200	13
Pinto Runabout	2792cc	93x68.5	Motorcraft 2V		2550	8,9
Honda Civic	1170cc	70x76			1400	4
Civic	1238cc	72x76			1400	4
CVCC	1487cc	74x86.5			1850	4,7,12
Accord	1599cc				1950	7
Mazda RX2	2292cc		Hitachi 4V		2200	
RX3	2292cc		Nikki 4V		2200	

Car	Engine Size	Bore & Stroke	Carburetion	Wheel Size	Weight	Notes
RX4	2616cc		Nikki 4V		2500	
808	1586cc	78x83			1950	4
Mercury Bobcat	2800cc	93x68.5	Motorcraft 2V		2550	8,9
Bobcat	2300cc	96x79.4	Motorcraft 2V		2200	
Capri	1600cc	81x77.6			1950	4
Capri	1992cc	90.8x76.9			2050	14
Capri	2300cc	96x79.4	Motorcraft 2V		2200	
Capri V-6	2792cc	93x68.5	Holley 2V/Weber 2V		2550	
Capri II	2300cc	96x79.4	Weber 2V		2200	
Capri II	2800cc	93x68.5	Weber 2V		2550	
Olds Starfire	3786cc	96.5x86.4	2V	6x13	2900	15
Opel Manta	1897cc	93x69.8	Solex 2V		2100	6
Manta	1897cc	93x69.8	FI		2100	6
51+99	1897cc	93x69.8	2V		2100	6
Isuzu	1800cc	3.31x3.32	2V		2100	6
Plymouth Duster	3687cc	86.4x104.6	Holley 1V		2850	
Arrow	1600cc	76.9x86			1950	4
Arrow	2000cc	84x90	Mikuni/Solex 2V		2200	7
Pontiac Astre	140ci	3.501x3.625	2V	6x13	2300	15
Astre	151ci	4x3	2V	6x13	2400	15
Sunbird V-6	231ci	3.80x3.40	2V	6x13	2900	15
Sunbird	151ci	4x3	2V	6x13	2400	15
Sunbird	140ci	3.501x3.625	2V	6x13	2300	15
Renault 12L,15, 16,17L	1565cc	75x84			1950	4
Gordini	1565cc	75x84	Bosch FI		1950	7
R5	1289cc	73x77			1650	19
Saab 96	1698cc	90x66.8	Weber 40 DFI		1900	6
99E	1985cc	90x78	Zenith 1V		2500	
Subaru DL	1361cc	85x60			1900	4,7
Toyota Celica	1968cc	88.5x80	Aisan 34/34 2V		2100	
Corona SR5	2189cc	88.5x88.9	Aisan 34/34 2V		2200	
Corolla SR5	1588cc	85x70			1950	4,7
Celica ST &GT	2189cc	88.5x88.9	Aisan 2V		2200	7
Corona Mk II	1968cc	88.5x80	Aisan 2V		2100	
Volkswagen						
Dasher	1471cc	76.5x80			1850	4
Dasher	1588cc	79.5x80			1950	4
Rabbit	1471cc	76.5x80			1850	4
Rabbit	1588cc	79.5x80			1950	4
Scirocco	1471cc	76.5x80			1850	4
Scirocco	1588cc	79.5x80			1950	4
Beetle/Super Beetle	1584cc	85.5x69			1950	4
Volvo 122	1986cc	88.9x80	2 SU HS6		2250	
142	1986cc	88.9x80	Bosch FI		2300	

Notes:

1. The brakes and differential previously used or those delivered on the 1976-77 models are the only ones authorized to replace the original equipment.
2. AMC models per article 10.5.3. It is permitted to interchange engines, engine parts, transmission parts and transmissions among all three models. Four speed transmissions not permitted.
3. Cars equipped with carburetor may reduce weight to 2200 lbs.
4. Free carburetion.
5. Three speed transmission.
6. Any carburetor with same number of venturis as the original and a free intake manifold.
7. Five speed transmission.
8. Automatic transmission.
9. No updates or backdates.
10. Front and rear disc brakes.
11. No optional transmission gears. 1.037 4th gear.
12. Competition cylinder head but not cross flow.
13. All 1600, 2000 and 2300cc cars. The chassis and running gea factory parts are interchangeable.
14. Capri and Pinto 2000cc models. Carburetor rules same as 1600cc to 1900cc carburetor rules. Ref. Article 10.5, 5D6.
15. Four speed transmission.
16. AMC Pacer, Hornet and Gremlin. It is permitted to substitute axle housing part No. 4486539 or No. 4489003 and associated parts in order to avoid axle breakage problem experienced with standard equipment.
17. Datsun 610/710. To prevent fuel starvation in turns, it is permitted to extend the fuel bowl of the Hitachi 2-barrel carburetor a maximum of 1" at the side. Ref. Art. 10.5 5D6.
18. Datsun B210, 610, 710. Ref. Article 10.5 5D1. The Datsun differential part No. 9996-K4050 may be used. Standard brakes as supplied on the model must be retained.
19. Competition cylinder head.
20. BMW 2002 or 320i may use either Bosch or Kubelfischer fuel injection units of the type delivered as standard on the 2002 Tii.