



ARTICLE 254
SPECIFIC REGULATIONS
FOR
PRODUCTION CARS
(GROUP N)

EFFECTIVE FROM: 1st March 2009

Article 254
Of
FIA
Appendix “J”

ARTICLE 1: DEFINITION

Large scale series production cars.

ARTICLE 2: HOMOLOGATION

At least 2500 identical units must have been produced in 12 consecutive months and homologated by the FIA in Touring Cars (Group A).

The Supply Variants (VF) homologated in Touring Cars (Group A) are also valid in Production Cars (Group N).

All Production Variants (VP) are valid in Production Cars (Group N).

Option Variants (VO) of the Touring Cars (Group A) form shall not be valid in Production Cars (Group N), unless they refer to:

- engine flywheel of the same diameter and the same weight as the original, if and only if this original flywheel is made up of two parts.
- flywheel for automatic gearboxes;
- fuel tank;
- automatic gearboxes;
- sun roof (includes the sunroofs with a flap);
- safety rollcage;
- seat supports and anchorages;
- safety harness mounting points;
- 2/4 door versions.

Super Production Option Variants (SP) shall not be valid in Production cars (Group N).

The use of tanks homologated in VO on the Touring car (Group A) form must be carried out under the conditions laid down in article 5.9.2 of the Touring Car (Group A) regulations, and article 254.6.8.

Evolution of the type (ET), kit variants (VK) or sporting evolutions (ES) homologated in Touring Cars (Group A) are not valid in Production Cars (Group N).

Nevertheless, evolutions of the type and the sporting evolutions homologated, as from 01.01.97 in Group A, are valid in Group N.

ARTICLE 3: NUMBER OF SEATS

Cars must have at least four places, in accordance with the dimensions defined for Touring Cars (Group A).

ARTICLE 4: MODIFICATIONS AND ADJUNCTIONS ALLOWED OR OBLIGATORY

All the modifications which are not allowed by the present regulations are expressly forbidden.

The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacements of parts worn through use or accident.

The limits of the modifications and fittings allowed are specified hereinafter.

Apart from these, any part worn through use or accident can only be replaced by an original part identical to the damaged one.

The cars must be strictly series production models identifiable by the homologation form data.

ARTICLE 5: MINIMUM WEIGHT

5.1 Cars must have at least the weight appearing on the homologation form.

This is the real weight of the empty car (without persons or luggage aboard) without tools or jack, and with a maximum of one spare wheel.

When two spare wheels are carried in the car, the second spare wheel must be removed before weighing.

All the liquid tanks (lubrication, cooling, braking, heating where applicable) must be at the normal level foreseen by the manufacturer, with the exception of the windscreen wiper or headlight wiper, brake cooling system, fuel and water injection tanks, which shall be empty.

Additional headlights which do not appear on the homologation form must be removed before weighing.

5.2 In rallies only, the minimum weight of the car (under the conditions of article 5.1) with crew (driver + co-driver + the full equipment of the driver and co-driver) will be: Minimum weight defined by article 5.1 + 150 kg. Furthermore, the weight defined in article 5.1 must also be respected.

ARTICLE 6:

6.1 Engine

- Engine shield made of plastic material, the purpose of which is to hide mechanical components in the engine compartment, may be removed if they have a solely aesthetic function.
- The accelerator cable may be replaced or doubled by another one regardless of whether it comes from the manufacturer or not. This replacement cable must be an emergency cable, i.e. it must be fitted in parallel with the series accelerator cable.

If the series vehicle is fitted with a motorised throttle valve, a throttle kit with a mechanical linkage, homologated in Group N, may be used.

- The screws and bolts may be changed, provided that the replacements are made from ferrous material.
- *Ignition:* The make and type of the spark plugs, rev. limiter and high-tension leads are free.

The electronic control unit and the ignition components in the electronic control unit are free, nevertheless the system must be entirely interchangeable with the original unit.

The original loom must be kept and cannot be modified.

Sensors and actuators on the input side must be standard, as must their function.

No sensor may be added, even for the purpose of data recording.

It is prohibited to add a switch in the original wiring loom between the electronic control unit and a sensor and/or actuator.

In the case of a model fitted with a multiplexed electric circuit, the use of a loom together with an

electronic control unit homologated in Option Variant is permitted.

- Any data recording system is forbidden unless fitted on the homologated vehicle.

Only the data logging system fitted to the series car may be used. In no case may it be modified or record additional parameters.

Only the following sensors are authorised:

Water temperature, oil temperature oil pressure and engine speed.

Each of these sensors may only be linked to one or several visual display units (with data recording capability) by means of a harness that is completely independent of any other harness.

- *Cooling System:* The thermostat is free as is the control system and the temperature at which the fan cuts in.

Locking system for the radiator cap is free.

- *Carburettors:* The original system must be retained.

The components of the carburettor which control the quantity of petrol entering the combustion chamber may be modified, provided that they do not have any influence over the quantity of air admitted.

Replacement air filter cartridges are accepted in the same way as the original ones.

- *Injection:* The original system must be retained. Components of the injection system situated downstream of the air-flow measuring device, and which control the quantity of petrol entering the combustion chamber may be modified but not replaced, provided that they do not have any influence over the quantity of air admitted.

The electronic control unit for the injection is free.

Inputs to the electronic control unit (sensors, actuators etc), including their function, must remain as standard.

It is prohibited to add a switch in the original wiring loom between the electronic control unit and a sensor and/or actuator.

Outputs from the electronic control unit must retain their original functions in accordance with the homologation form.

In the case of a model fitted with a multiplexed electric circuit, the use of a loom together with an electronic control unit homologated in Option Variant is permitted.

It is necessary to be certain that the sensors used by a vehicle fitted with a multiplexed electric circuit can be retained with the homologated loom.

The injectors may be modified or replaced in order to modify their flow rate, but without modifying their operating principle and their mountings.

The injector rail may be replaced with another of free design but fitted with threaded connectors for connecting the lines and the fuel pressure regulator, provided that the mounting of the injectors is identical to the original.

Replacement air filter cartridges are accepted in the same way as the original ones.

- *Lubrication:* The fitting of baffles in the oil sump is authorised.

Replacement oil filter cartridges are accepted in the same way as the original ones.

For turbocharged engines, it is possible to replace the turbocharger lubrication lines with lines in conformity with Article 253-3.2. These lines may also be fitted with snap connectors.

- The engine and gearbox mountings must be original or homologated.

If the mountings are original, the material of the elastic part is free.

- *Exhaust:*

It will be possible either to remove the inside of the original silencer, or to modify the exhaust from the first silencer to the exit, the maximum dimensions of the duct being those of the pipe situated upstream of the first silencer (see Drawing 254-3).

For cars fitted with a turbocharger, it will be possible to modify the exhaust from the turbocharger outlet mounting plate, the maximum section of the duct being the diameter of the inlet into the first standard silencer. The interface between the turbocharger outlet mounting plate and the exhaust duct may be conical.

Should two inlets exist in the first silencer, the section of the modified duct must be less than or equal to the total of the two original sections.

Only one pipe may be present at the exit, unless the original part is used.

The exit should be situated in the same position as that of the series production exhaust system.

These liberties must not entail any bodywork modifications and must respect the laws of the country in which the event is run with regard to noise levels.

Additional parts for the mounting of the exhaust are authorised.

A muffler is a section of the exhaust system that must reduce the exhaust noise level of the vehicle.

The cross section of the muffler must be at least 170% of that of the inlet pipe and contain sound deadening material. The sound deadening material may take the form of a 45% perforated tube or synthetic packing.

The length of the muffler must be between 3 and 8 times the inlet diameter.

The muffler may be supplied as a series part welded to a pipe but the pipe is not considered as part of the muffler.

The catalytic converter is considered as a silencer and may be moved.

If it is fixed directly onto the manifold, the catalyst may be replaced with a conical part of the same length and with the same inlet and outlet diameters.

After this part, the exhaust will be free with a tube diameter no greater than that of the outlet from the catalyst.

If the catalytic converter is an integral part of the exhaust manifold, it is possible to remove only the internal part of the catalytic converter.

- *Cylinder head gasket:*
The material is free, but not the thickness.
- *Cruising speed controller:*
This controller may be disconnected.
- *In rallies only:*
The number of cylinders is limited to 6.

The cubic capacity is limited as follows:

- (a). Normally aspirated engines
 - 3 l maximum for two valves per cylinder.
 - 2.5 l maximum for more than two valves per cylinder.
- (b). Supercharged engines

The nominal cylinder capacity is limited to 2500 cm³ maximum.

The supercharged system must comply with that of the homologated engine.

All supercharged cars must be fitted with a restrictor fixed to the compressor housing.

All the air necessary for feeding the engine must pass through this restrictor which must respect the following:

The maximum internal diameter of the restrictor is 32 mm, maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades (see drawing 254-4).

This diameter must be complied with regardless of the temperature conditions.

The external diameter of the restrictor at its narrowest point must be less than 38 mm, and must be maintained over a distance of 5 mm to each side.

The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor, in order to detach the restrictor from the compressor.

Attachment by means of a needle screw is not authorised.

For the installation of the restrictor, it is permitted to remove material from the compressor housing, and to add it, for the sole purpose of attaching the restrictor onto the compressor housing.

The heads of the screws must be pierced so that they can be sealed.

The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing, which must be carried out between the mounting screws, between the restrictor (or the restrictor/compressor housing attachment), the compressor housing (or the housing/flange

attachment) and the turbine housing (or the housing/flange attachment) (see drawing 254-4). In case of an engine with two parallel compressors, each compressor must be limited to a maximum intake diameter of 22.6 mm.

– Diesel engine:

For vehicles with diesel engines, the restrictor must have a maximum internal diameter of 35 mm and an external diameter of 41 mm, in the conditions set out above (this diameter may be revised at any moment without prior notice).

The restrictor, which is compulsory in rallies and in the European Hill-Climb Championship, is not prohibited in other events, should a competitor decide to use it.

6.2 Transmission

6.2.1 Clutch:

The disc is free, including the weight, with the exception of the number.

The diameter of the clutch disc may be increased.

6.2.2 Gearbox:

The interior of the gearbox is free.

The number of teeth and ratios homologated in Group N must be retained.

The joints of the gearbox linkage are free.

The gear selection grid pattern homologated on the series model must be retained.

6.2.3 Differential:

The use of a mechanical type limited slip differential is authorised, provided that it can be fitted in the series housing and is homologated in Option Variant (VO).

In order to allow its fitting, the interior of the original differential's housing may be modified.

“Mechanical limited slip differential” means any system which works purely mechanically, i.e. without the help of a hydraulic or electric system.

A viscous clutch is not considered to be a mechanical system.

If the homologated vehicle is fitted with a viscous clutch, it may be retained but it will not be possible to add another differential.

If the original vehicle is fitted with a differential controlled by an electronic system, the electronic control unit is free, but must be entirely interchangeable with the original unit (i.e. the differential must work when the unit is replaced with the series unit).

Sensors and actuators on the input side must be standard, as must their function.

No sensor may be added. Even for the purpose of data recording.

The electrical harness must not be modified.

6.2.4 Half-shafts:

They must be original or homologated in Option Variant (VO).

6.3 Suspension

The modification of spring and shock absorber adjustments from the cockpit is prohibited.

The reinforcing of the structural parts of the suspension (with the exception of anti-roll bars) and its anchorage points by the addition of material is allowed.

The suspension reinforcements must not create hollow sections and must not allow two separate parts to be joined together to form one.

– *Springs:*

The spring seats may be adjustable if the adjustable structural part is a part of the spring seat and is separated from the original suspension parts/bodywork (it may be removed).

Coil springs:

The length is free, as are the number of coils, the wire diameter, the external diameter, the type of spring (progressive or not) and the shape of the spring seats.

The number of springs and spring seats is free provided the springs are mounted in series.

Leaf springs:

The length, width, thickness and vertical curvature are free.

Torsion bars:

The diameter is free.

These freedoms on the suspension springs do not authorise one to disregard article 205 of the homologation form (minimum height of the centre of the hubcap, wheel passage opening).

– *Shock absorbers:*

Free, provided that their number, their type (telescopic, arm etc.), their working principle (hydraulic, friction, mixed, etc.), and their attachment points remain unchanged.

The checking of the operating principle of the shock absorbers will be carried out as follows:

Once the springs and/or the torsion bars are removed, the vehicle must sink down to the bump stops in less than 5 minutes.

The damper tanks may be attached onto the unmodified shell of the cars.

If the shock absorbers have separate fluid reserves located in the cockpit, or in the boot if this is not separate from the cockpit, these must be strongly fixed and must have a protection.

A silent block may be replaced by a “Uniball” joint, but only on condition that the shock absorber has no guiding function. For rallies taking place on the African continent only, a silent block may be replaced by a “Uniball” joint even if the shock absorber has a guiding function.

Gas filled dampers, regarding their working principle, will be considered as hydraulic dampers.

If, in order to change the damping element of a MacPherson suspension, or a suspension

operating in an identical manner, it is necessary to replace the entire MacPherson strut, the replacement parts must be mechanically equivalent to the original ones and have the same mounting points.

For McPherson suspensions, the shape of the spring seats is free.

Their material is free.

In the case of oil-pneumatic suspension, the spheres may be changed as regards their dimension, shape and material, but not their number.

A tap, adjustable from outside of the car, may be fitted on the spheres.

– *Silent blocks:*

The elastomer of a silent block may only be replaced with an elastomer (maximum hardness 80 Shores).

6.4 Wheels & Tyres

6.4.1 Wheels:

The wheels are free, respecting the homologated maximum diameter (article 801.a), and maximum width (article 801.b).

The use of wheels with lesser dimensions is permitted.

Wheels made from forged magnesium are forbidden (including standard wheels).

They must be covered by the wings (same checking system as in Group A, article 255.5.4), and the maximum track given on the homologation form must be respected.

Wheels fixations by bolts may be changed to fixations by pins and nuts provided that the number of attachment points and the diameter

of the threaded parts as indicated on drawing 254-1 are respected.

Air extractors added on the wheels are forbidden.

6.4.2 Tyres:

Tyres are free provided that they can be mounted on those wheels.

The use of any device for maintaining the performance of the tyre with an internal pressure equal to or less than the atmospheric pressure is forbidden. The interior of the tyre (space between the rim and internal part of the tyre) must be filled only with air.

6.4.3 Spare Wheel:

The spare wheel (wheels) is (are) is compulsory if mentioned in the homologation form.

The spare wheels may be brought inside the driving compartment on condition that it is firmly secured there and that it is not installed in the space reserved for the occupants.

6.5 Braking System

With the exception of the modifications authorised in this article, the braking system must be original or homologated in Option Variant (VO).

The electronic control unit of the braking system is free, but must be entirely interchangeable with the original unit (i.e. the braking system must work when the unit is replaced with the series unit).

Sensors and actuators on the input side must be standard, as must their function.

No sensor may be added, even for the purpose of data recording.

The electrical harness must not be modified.

Brake linings are free, as well as their mountings (riveted, bonded, etc) provided that the contact surface of the brakes is not increased.

Protection plates may be removed or bent.

In the case of a car fitted with servo-assisted brakes, the device may be disconnected or replaced with the kit homologated in Option Variant (VO).

The same applies for anti-lock braking systems.

If the anti-lock braking system (ABS) is disconnected or removed, the use of a mechanical rear braking distributor homologated by the manufacturer in VO is authorised.

It is permitted to add a spring in the bore of the callipers and to replace the seals and the dust covers of the callipers.

Brake lines may be changed for aviation type lines.

A device for scraping away the mud which collects on the brake discs and/or the wheels may be added.

6.5.1 Handbrake:

The mechanical handbrake may be replaced with a hydraulic system homologated in Group N, but in this case a diagonal brake circuit (X shape) is mandatory.

6.6 Steering

The lines linking the power steering pump to the rack may be replaced with lines conforming to article 253-3.2.

6.7 Bodywork

6.7.1 Exterior:

Hubcaps must be removed.

Protective headlight covers may be fitted provided that their only function is to cover the glass, and that they have no influence on the car's aerodynamics.

The fitting of underbody protections is authorised in rallies only, provided that these really are protections which respect the

ground clearance, which are removable and which are designed exclusively and specifically in order to protect the following parts: engine, radiator, suspension, gearbox, tank, transmission, steering, exhaust, extinguisher bottles.

Underbody protections may extend the whole width of the underside part of the front bumper only in front of the front wheel axis.

Any locking system may be used for the cap of the petrol tank.

The changing of the front and rear windscreen wiper blades is authorised.

Plastic sound-proofing parts may be removed from the wheel openings. These plastic elements may be changed for aluminium or plastic elements of the same shape.

6.7.2 Interior:

The front seats may be moved backwards but not beyond the vertical plane defined by the front edge of the original rear seat.

The limit relating to the front seat is formed by the height of the seat without the headrest, and if the headrest is incorporated into the seat, by the rearmost point of the driver's shoulders.

The rear seats may be removed.

The rear safety belts may be removed.

6.7.2.1 Should the fuel tank be installed in the boot and the rear seats removed, a fire proof and liquid-proof bulkhead must separate the cockpit from the fuel tank.

In the case of twin volume cars it will be possible to use a non-structural partition wall in transparent, non-flammable plastic between the cockpit and the tank arrangement.

6.7.2.2 Dashboard:

The dashboard and the central console must remain original.

6.7.2.3 Doors – Side trim:

It is permitted to remove the soundproofing material from the doors, provided that this does not modify the shape of the doors.

- a. It is permitted to remove the trim from the doors together with their side protection bars in order to install a side protection panel, which is made from composite materials.

The minimum configuration of this panel must comply with that shown on diagram 255-14.

- b. If the original structure of the doors has not been modified (removal, even partially, of the tubes or reinforcements), the door panels may be made from metal sheeting at least 0.5 mm thick, from carbon fibre at least 1 mm thick or from another solid and non-combustible material at least 2 mm thick.

The rules mentioned above also apply to the trim situated beneath the rear side windows of two-door cars.

The minimum height of the door's side protection panel must extend from the base of the door to the maximum height of the door strut. It is permitted to replace electric winders with manual ones.

6.7.2.4 Floor:

Carpets are free and may thus be removed.

6.7.2.5 Other sound-proofing materials and trim:

Other sound-proofing materials and trim, except for those mentioned under article 6.6.2.3 (Doors) and 6.6.2.2 (Dashboard), may be removed.

6.7.2.6 Heating System:

The original heating equipment must be retained.

The following parts of the air-conditioning system may be removed: condenser and auxiliary fan, fluid tank, evaporator and fan, expansion valve, as well as all pipes, connections, contact switches, sensors and actuators necessary for the functioning of the system.

Only if its drive system is completely independent of any other system will it be possible to remove the air conditioning compressor.

The compressor may be rendered inoperative.

If certain elements are common with the heating system, they must be retained.

6.7.2.7 The removable rear shelf in twin-volume cars may be removed.

6.7.3 Additional Accessories:

All those which have no influence on the car's behaviour, for example equipment which improves the aesthetics or comfort of the car interior (lighting, heating, radio, etc), are allowed without restriction.

In no case may these accessories increase the engine power or influence the steering, transmission, brakes or roadholding, even in an indirect fashion.

All controls must retain the role laid down for them by the manufacturer.

They may be adapted to facilitate their use and accessibility, for example a longer handbrake level, an additional flange on the brake pedal, etc.

The following is allowed:

1. Measuring instruments such as speedometers etc., may be installed or replaced, and possibly have different functions. Such installations must not involve any risk. However, the speedometer may not be removed if the Supplementary Regulations of the event prevent this.
2. The horn may be changed and/or an additional one added, within reach of the passenger.
The horn is not compulsory on closed roads.
3. The handbrake locking mechanism may be removed in order to obtain instant unlocking (fly-off handbrake).
4. The steering wheel is free.

The locking system of the anti-theft steering lock may be rendered inoperative.

The quick release mechanism must consist of a flange concentric to the steering wheel axis, coloured yellow through anodisation or any other durable yellow coating, and installed on the steering column behind the steering wheel.

The release must be operated by pulling the flange along the steering wheel axis.

5. Additional compartments may be added to the glove compartment and additional pockets in the doors, provided that they use the original panels.
6. Insulating material may be added to the existing bulkheads to protect the passengers from fire.

6.7.4 Reinforcements:

Reinforcement bars may be fitted on the suspension mounting points to the bodyshell or chassis of the same axle, on each side of the car's longitudinal axis, on condition that they are removable and are attached by means of bolts.

The distance between a suspension attachment point and an anchorage point of the bar cannot be more than 100 mm, unless the bar is a transversal strut homologated with the rollbar, or unless it is an upper bar attached to a MacPherson suspension or similar.

In the latter case, the maximum distance between an anchorage point of the bar and the upper articulation point will be 150 mm (drawings 255-4 and 255-2).

Apart from these points, this bar must not be mounted on the bodyshell or the mechanical parts.

Strengthening of the suspended part is allowed provided that the material used follows the original shape and is in contact with it.

When the spare wheel is originally set in a closed accommodation, and when this wheel is changed for a thicker one (see article 6.4), situated in this space, it is possible to remove from the cover of the location of the wheel the surface induced by the diameter of the new wheel (drawing 254-2).

6.8 Electrical System

– *Battery:*

The make, capacity and battery cables are free. The tension and the sere of the battery must be retained.

The power take-off connected to the battery is permitted in the passenger space.

– *Generator:*

May be replaced by a more powerful one.

A dynamo may not be replaced by an alternator and vice versa.

– *Lighting System:*

Additional headlights including the corresponding relays are allowed, provided that the total does not exceed eight (tail and parking lights not included) and that this is accepted by the laws of the country.

They may not be housed within the bodywork.

Headlights and other exterior lights must always exist in pairs.

The original headlights can be made inoperative and covered with adhesive tape.

They can be replaced by other headlights, in compliance with this article.

A reversing light may be fitted provided it can only be used when the gear lever is in the

“reverse” position, and provided that the police regulations on this subject are observed.

- Fuses may be added to the electrical system.

6.9 Fuel Circuit

Providing the original tank is equipped with an electric pump and an interior filter, it is possible when using an FT3 1999, FT3.5 or FT5 tank or another tank homologated by the manufacturer on the car’s homologation form to place a filter and a pump with identical characteristics to the homologated one outside.

These parts must be protected in adequate fashion. The fitting of a second fuel pump is authorised, but this must be only a spare fuel pump. It must be connectable only when the car is immobile and by means of a purely mechanical device situated beside the pumps.

The filler holes may not be located in the window panels.

Fuel lines must be changed for aviation type lines if an FT3 1999, FT3.5 or FT5 tank is used, the route of these lines being free.

Should a series production tank be used, this change is optional.

The total capacity of the tanks must not exceed that indicated in article 401.d of the Group N homologation form, except for rallies, if the car is fitted with FT3 1999, FT3.5 or FT5 tanks.

In this case the total capacity of the tanks must not exceed the following limits, in relation to the engine capacity.

up to	700 cm ³		60 l	
over	700 cm ³	and up to	1400 cm ³	70 l
over	1000 cm ³	and up to	1400 cm ³	80 l
over	1400 cm ³			

For twin-volume cars homologated from 01.01.98 with a fuel tank installed in the luggage compartment, a fire proof and liquid-proof case must surround the fuel tank and its filler holes.

For three-volume cars homologated from 01.01.98, a fireproof and liquid-proof bulkhead must separate the cockpit from the fuel tank.

Nevertheless, it is recommended that this liquid-proof bulkhead be replaced by a liquid-proof case as for twin-volume cars.

6.10 Jack

The jacking points may be strengthened, moved and increased in number. These modifications are limited exclusively to the jacking points.