

Irish Touring Car Championship 2015

ITCC TECHNICAL REGULATIONS

Introduction

~~All cars must run on a YOKOHAMA Ireland purchased control tyre and must be purchased from Yokohama Irish dealer Murray Motorsports to be eligible to score points and prizes. All tyres will be branded with a stamp by Murray Motorsports.~~

The series will run in accordance with the General Competitions Rules (hereinafter GCR) of Motorsport Ireland and Sporting Code of the FIA, and these rules which will constitute supplementary regulations. The series organisers reserve the right to amend or vary the Technical Regulations at any time before or during the series and further issue additional statements concerning the regulations from time to time subject to MI approval. All statements will be issued as a Bulletin by publishing on the website of MI (www.motorsportireland.com) (www.itcc.ie)

1. GENERAL

1.1a Where these regulations refer to the passenger compartment, or driver compartment, this refers to the whole of the interior of the vehicle – including the rear passenger area.

1.1b Competitors must agree to take part in the Official Prize Giving Ceremony.

1.1c. The sponsor decals supplied by the ITCC will at all times take precedence with regard to the placement on cars as indicated in the drawing attached, ~~the main sponsor Yokohama tyres will be the only windscreen banner/sponsor allowed~~, in cases of dispute the Scrutineer's decision concerning the precise location of the Series stickers will be final. Allocated race numbers to be placed on **front doors as far forward as possible rear passenger window** as indicated in the below drawing.

1.2 It should be understood that if it is not clearly specified that you can carry out modification then you should work on the principle that you cannot.

1.3 Safety Requirements – See MI Yearbook – Safety requirements conform to Appendix "2" of the Motorsport Ireland Yearbook.

1.4 A Safety Rollover Cage must be fitted and conforming to MI Appendix 2.16.

1.5 A Hans type or similar Frontal Head Restraint Safety System is Highly Recommended by the organisers but NOT MANDATORY

1.6 A Master cut out switch operable from outside and inside of the car, which will isolate all electrics and kill the engine must be fitted.

1.7 Seat Belts complying with MI Appendix 2.7 must be fitted and in good condition.

1.8 Fire Extinguishers complying with MI Appendix 2.6 (as required must be fitted, filled with permitted extinguishant and carry a current certificate.

1.9 Competition seat with FIA Approval mounted in accordance with FIA regulations must be fitted

1.10 Additional fasteners must be fitted on bonnet (not less than two) and tailgate (not less

than two). The original locking mechanisms must be removed.

1.11 Towing eyes must be fitted at front and rear and be clearly visible painted in red or yellow **and must have a red or yellow arrow pointing to the tow eyes**. If a solid item they must not protrude beyond the bodywork of the car. It is recommended that wire or strap type towing eyes are used.

1.12 The bulkhead between engine and drivers compartment must be sealed against the passage of flame or fluid

1.13 All cars must have working head lights.

1.14 Any car which, in the opinion of the appointed scrutineer does not meet with these technical regulations will be excluded from the results and not receive any points or prizes for that round. The final decision regarding the eligibility of any car rests with the appointed eligibility scrutineer.

2.0 ELIGIBLE VEHICLES:

2.1 Vehicles must be constructed by a major vehicle manufacturer and be currently or previously available as a factory OEM vehicle with factory seating capacity for at least 4 people No tube frame/space frame vehicles or tube frame chassis extensions are permissible. Vehicles must have steel main pillars.

2.2 4wd vehicles are not permitted. It is permissible to convert what was originally a manufacturer supplied 4wd car to run in 2wd, where this is done a maximum of two driveshaft's to wheels are permitted, whether active or not.

2.3 It is permitted to fit additional triangulation and bracing of suspension turret/mounting points, as long as the modifications do not alter the appearance of the vehicle.

2.4 Vehicles must retain their original VIN (chassis number) and original plate, which must be clearly visible and readable. The VIN must be valid for the chassis it is attached to.

2.5 No convertible vehicles are permitted.

2.6 Vehicles appearance must remain similar to that of the original vehicle.

2.7 Engine must be located in front of the driver's feet/pedals

2.8 The minimum ride height is 50mm, measured from the lowest point on the car to the ground. Cars must be able to pass over a measured item without any part of the car making contact.

2.9 Original floor and bulkhead must be retained and not modified, it is permissible to remove the spare wheel well and replace with a flat section of steel not less than the original panel thickness. This piece must be no more than 1000mm in any direction and no higher than the surrounding original floor. Strengthening of the suspended parts of the chassis and bodywork through the addition of parts and/or material is allowed under the following conditions: The shape of the reinforcing part/material must follow the surface of the part to be reinforced, having a shape similar to it and the following maximum thickness measured from the surface of the original part

- 2 mm for steel parts

- 2 mm for aluminium alloy parts

For bodywork parts, the reinforcing part/material must be on the area not visible from the outside. Stiffening ribs are allowed but the making of hollow sections are forbidden. The reinforcing part/material must not have any other function than that of reinforcement

2.10 Touring cars from recognised FIA approved touring car series, such as BTCC, Seat Super Copa, WTCC, S2000 chassis cars are permitted provided they are in possession of FIA homologation papers and that the vehicle meets the regulations as stipulated in these papers. They must run to the original series specification. The following ITCC regulations will overrule homologation papers: 2.1, 2.2, 2.5, 2.6, 2.7, 2.8, 3.1, 3.2, 3.3, 5.5, 6.2, 6.1, 6.3

3.0 ENGINE, TRANSMISSION & DRIVETRAIN:

3.1 It is permitted to fit an alternative engine to the vehicle provided it complies with Regulations 2.7 and 3.2

3.2 Engine

ECU is free for all classes.

Class-A Super Touring Cars over 2050cc Normally aspirated and forced induction cars.

A Maximum of 3600cc is permitted for normally aspirated cars. A maximum of ~~2300cc~~ **2550cc with a maximum of 5 Cylinders** is permitted for forced induction cars.

All other modifications are free.

Super Touring 2.0na Engines up to 2050cc Normally aspirated and Turbo Diesel up to 2050cc. All other modifications are free.

Production Class engine size is limited to 2200cc. Cam Gears/Pulleys must be as per Original Manufacturer Equipment relevant to the engine being used And be fitted in the original locations and be unmodified

3.3 Location

The engine must be installed in the original engine compartment and the crankshaft axis must be retained in the original orientation.

3.4 Transmission

Any car with a non-conventional H pattern gearbox gear selector must run with additional 30kgs of weight, this will be imposed over standard min weights as per tyre width. **Production class cars are not permitted to fit after market sequential gearboxes.**

3.5 Exhaust

Vehicles must retain an exhaust system, complete with a silencer, which must be capable of passing a static 105db noise test, with the engine running at 2/3rd of the maximum rpm of the engine.

3.6 Air Intake

Super Touring : Normally aspirated cars: Intake is free.

Super Touring forced induction : Intake or method of forced induction is Free ie. The use of turbo or supercharging may be used. Both standard and aftermarket chargers are permitted.

~~Class A forced induction cars fitted with Standard/OEM turbo's or superchargers are exempt from section 3.6b of these technical regulations, the turbos and superchargers must retain the standard~~

~~unmodified casings and components must remain Unmodified no removal of metal in any way.~~

~~3.6b Forced induction cars running nonstandard/OEM turbo's or superchargers must be fitted with the following;~~

~~All forced induction 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 for forced induction cars is 34mm, maintained for a minimum distance of 3mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50mm upstream of a plane passing through the most upstream extremities of the wheel blades (FIA Appendix J Art.224 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 40mm, and must be maintained over a distance of 5mm to each side. The mounting of the restrictor onto the turbocharger/Supercharger 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 (It is also possible to use Silicone hose to mount the restrictor to the charger once it complies with FIA Appendix J Art. 224 Drawing 254-4). Attachment by means of a needle screw is not authorised. For the installation of this 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 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) (FIA Appendix J Art. 224 Drawing 254-4)~~

~~For vehicles with Diesel engines, the restrictor must have a maximum internal diameter of 37mm and an external diameter of 43mm in the conditions set out above (this diameter may be revised at any moment without notice). (NO Black Smoke will be permitted from these cars).~~

~~An OEM super-charger relevant to the engine being raced may be used without a restrictor once the super-charger runs a standard trim (super-charger not modified).~~

~~In the case of an engine with two parallel compressors, each compressor must be limited by a restrictor with a maximum internal diameter of 24.0mm and a maximum external diameter of 30mm, in the conditions set out above. FIA Appendix J Art.224 Drawing 254-4 can be found at the following web address: [http://argent.fia.com/web/fiapublic.nsf/D47CB6EAF8D4A88AC12578A7003680E1/\\$FILE/255%20_11-12_03.06.2011.pdf](http://argent.fia.com/web/fiapublic.nsf/D47CB6EAF8D4A88AC12578A7003680E1/$FILE/255%20_11-12_03.06.2011.pdf)~~

~~The organisers reserve the right to review maximum restrictor size of forced induction cars at any point~~

~~during the season if a car is deemed to have an unfair advantage.~~

Super Touring 2.0na Up to 2050cc NA intake is free. Turbo Diesel up to 2050cc must retain the OEM turbo and remain unmodified. (NO BLACK SMOKE IS PERMITTED IS THE CASE OF DIESEL CARS)

Production Class Intake Manifold and throttle body must be Standard/OEM for the engine fitted to the car.

Air filter is free. Class C cars that are forced induction the turbo or supercharger must be OEM remain standard and unmodified.

3.7 Oil/Water Cooling

Free

3.8 Exhaust Systems

Super Touring & Super Touring 2.0na exhaust manifold is free.

Production Class must retain a standard/ OEM exhaust manifold.

A silencer must be fitted and the car must pass a noise test as per section 3.5 of these regulations. The exhaust must exit behind the rear axle.

3.9 Ignition Systems

FREE

3.10 Fuel delivery systems

FREE

3.11 Catch tanks for oil and water must be installed and securely fastened with the contents easily visible on inspection.

3.12 The throttle mechanism must be in good condition and have an effective return spring. It is recommended to fit an additional return spring to the throttle mechanism.

3.13 It is NOT permitted to convert a front wheel drive car to rear wheel drive, or vice versa.

3.14 Use of power aids such as turbos or superchargers is permitted but no nitrous oxide systems are allowed

3.15 Motorcycle engines are not permitted.

4.0. FUEL & FUEL SYSTEM

4.1. Vehicles must run on diesel or petrol pump fuel as per FIA standards

4.2. All fuel lines must be securely fastened at intervals of no more than 100mm throughout its length.

4.3 The fuel-line can be run through the car, but it must be a continuous (unbroken) metal pipe or braided hose and must be fitted on the passenger side of the vehicle. All other parts of the fuel system must have a firewall between the driver and equipment. The firewall must be sealed to prevent passage of fluids and fire.

4.4 All fuel lines and filling devices must be clean and sealed after vehicles are fuelled to ensure no fuel can escape.

4.5 The original OEM fuel tank is permitted, but it is also permissible to change this to an approved racing fuel tank. Dry break and bobble breathing systems from recognised manufacturers are permitted. If the fuel tank is housed within the driver's compartment it must be protected by a firewall.

4.6 The fuel tank filler neck should have a spillage collector that drains to the outside of the car.

5.0 STEERING, SUSPENSION & BRAKES

5.1 All suspension parts and wheel bearings must be in good condition.

Super Touring & Super Touring 2.0na suspension arms and bushings are free.

Production Class must use OEM/Standard suspension arms and components. Bushings can be replaced with polyurethane type or direct replacement spherical bearings.

5.2 All steering components are free.

5.3 Steering wheel must be of continuous construction in either a circle or D shape

5.4 The vehicle steering lock mechanism must be removed.

5.5 All brakes components are free with the exception of carbon discs and/or pads which may not be used.

5.6 The brake systems must be in good serviceable condition and no leaks of any kind are permitted.

5.7 An effective handbrake must be present, but the operating mechanism is free.

5.8 For Super Touring & Super Touring 2.0na It is permissible to move suspension pick up points on the chassis from their original manufactured position, but by no more than

25mm in any direction. Coil-over dampers and springs are free.

Production Class it is not permitted to change or replace suspension sub frames or move suspension arm pickup points. The fitting of traction bars or any other extra pickup points is NOT permitted.

It is permitted to fit camber adjustable suspension arms or adjustable damper top mounts.

Height adjustable Coil-over type dampers and springs are free.

5.9 For Super Touring & Super Touring 2.0na only: It is permissible to change the rear suspension of a vehicle, originally equipped with either a torsion bar or solid rear beam type rear axle to that of an independent rear suspension system.

5.10 It is permissible to fit brake cooling ducts, these must be mounted within the front bumper of the car and not protrude more than 10mm from the bumper at the location they are mounted

6.0 TYRES & WHEELS

6.1 Tyre Manufacturer is free in all classes.

Slick Tyre:

Super Touring & Super Touring 2.0na class cars must race on the tyres they qualify on. Tyres must be presented to the class appointed scrutineer before the first official timed session on race weekends. It is permitted to nominate 1 spare tyre per day in case of a puncture or damage sustained during a timed session. Any other replacement tyres fitted out-side of the 1 nominated spare tyre unless deemed to be unsafe by a scrutineer, will be in breach of ITCC Technical regulations and will result in exclusion from the session.

Wet weather tyres:

Are FREE and carry no restrictions.

~~-Yokohama-branded-control-tyre-must-be used-in-all-classes-~~

~~6.1a Regarding the replacement of tyres-~~

~~A used tyre is defined as a tyre which has been nominated on a tyre nomination form at previous round. For the first round this will be under the discretion of the championship coordinator or the appointed scrutineer. All other tyres are deemed to be new.~~

~~6.1b For Class A & B each competitor is allowed a total of 14 new SLICK tyres for the year. Wet tyres are not restricted. Each competitor is allowed to nominate 4 tyres for the first event he or she participates in. An event is defined as being a weekend of racing including qualifying and championship rounds as per event regulations. Drivers must nominate tyres at each event. Any nominated tyres are free to be used when the driver chooses. The nomination of tyres is specific to the driver. Should a driver change car then that driver must use previously nominated tyres for him/her plus any new tyres permitted in these regulations. Tyre nominations must be made on the form supplied by the ITCC organisers showing the manufacturers numbers on the tyres. This form must be handed to the scrutineers prior to the start of the first qualifying session.~~

6.1. Tyre Warmers, space heaters or any similar devices for heating or softening the tyre compound is not permitted at any time. The use of any chemical mixture that is placed in the vicinity of, or applied to the tyre that would restructure the compound of the tyre is also prohibited.

6.2 Super Touring & Super touring 2.0NA Tyres are free

~~The following control tyres must be used for Class A & B: YOKOHAMA ADVAN A005 SLICK and YOKOHAMA ADVAN A006 Wet.~~

~~All cars must run YOKOHAMA Slicks and Wets for 2013 (Any Yokohama branded tyres purchased for the ITCC 2012/13 season may also be used in 2014).~~

~~Cars running:~~

~~15" wheels: 190/580R15 with a minimum weight of 900kgs~~

~~16" wheels: 210/580R16 with a minimum weight of 950kgs~~

~~17" wheels: 230/610R17 with a minimum weight of 1200kgs~~

~~17" wheels: 230/610R17 with a minimum weight of 1000kgs up to a max 2050cc normally aspirated~~

~~18" wheels: 250/660R18 with a minimum weight of 1300kgs~~

15" wheels: Maximum tyre width up to 200

16" wheels: Maximum tyre width up to 210

17" wheels: Maximum tyre width up to 235

18" wheels: Maximum tyre width up to 250

Super Touring 2.0na class cars must run to the following minimum weights:

15"/16" wheels 850kgs.

17"/18" wheels 1000kgs.

Super Touring class Forced induction and over 2050cc NA must run to the following minimum weights:

15"/16" wheels 950kgs

17" wheels 1200kgs

18" wheels 1300kgs

The above weights include the driver and equipment at the end of any given race or practice. All cars must report to parc ferme after race or practice.

6.3 Touring Class cars: Must run on an E marked road legal tyre MEDIUM COMPOUND ONLY. The following tyres are permitted for use any tyre not listed must be approved by the series organisers at least 10 days before the first race meeting.

Dunlop Direzza 02G & Direzza 03G

Federal 595 EVO & 595 RSR

Khumo Ecsta V70

Maxxis MAZ1 Drift

Maxsport RB4 & RB5

Mitchelin Pilot Sport Cup & Pilot Sport Cup2

Nankang NS-2R

Toyo R888 & R1R

Yokohama A048

~~The following control E marked tyres must be used for Production class YOKOHAMA ADVAN A048 semi-slick.~~

The following Tyre sizes must be used

a) 195 50 R15

b) 215 45 R17

c) 235 45 R18

Production Class minimum weight **for 15" & 17" tyres** regardless of tyre width is 1000kg. **Minimum weight for 18" tyres is 1250kgs.** Super 1600cc or lower N/a cars minimum weight and must run min 850kg and must run a max R15 tyre. The above weights include the car, driver and equipment (**helmet / suit / boots / gloves / FHR system (where applicable) in their condition**) at the end of any given race or practice. All cars must report to parc ferme after race or practice.

There must be at least 1.6mm thread depth for wet races

6.4 These ~~control~~ tyres may not be cut or altered in any way from that supplied by the manufacturer. No tyre may be buffed, re-trimmed, faced or by any mechanical or hand held device what-so-ever.

6.5 There will be no tolerance on minimum weights as per GCR. The only weight recognised is that generated by the official scales used by the appointed scrutineer.

6.6 No aluminium wheel studs are allowed

7.0 BODYWORK, WINDOWS & INTERIOR

7.1 Pillars must be metal. It is permitted to replace original panels with GRP and/or Carbon Fibre materials, the replacement panels must mirror the originals when viewed from a "side on" perspective. Flaring of arches is permitted.

7.2 The front windscreen must be laminated glass, with the exception of polycarbonate where it is only permitted once it has been passed by the scrutineer. All other windows may be replaced with lexan materials. Where polycarbonate is used the window must be securely held in place.

7.3 It is permitted to remove the dashboard and replace it with a bespoke design dash.

7.4 It is permitted to modify, lighten or exchange the doors for GRP and/or Carbon Fibre units. In such a scenario the roll cage must consist of dual side impact bars.

7.5 Any additional equipment inside or outside the vehicle including electrical equipment must be securely mounted in place. In car cameras can only be used after permission has been granted by Motorsport Ireland and cameras must be mounted securely. Any such additional equipment must be fitted before scrutineering.

7.6 All doors, boot lids, bonnets and exterior openings must be serviceable from the outside, door handles and locking systems must be operational at all times from the exterior of the vehicle.

7.7 All bodywork must be secure and attached to the vehicle.

7.8 The driver's side window can be lowered, but by no more than 2", a mandatory window net must be used as per Motorsport Ireland Appendix 2.24.

8.0 ELECTRICAL SYSTEM

8.1 At least two brake lights, headlights, front wipers and high intensity rear fog/rain light must be in good working condition. ***It is recommended that a third high level brake light is fitted.*** A windscreen demister fan or electrically heated front windscreen must be fitted and in working condition. Headlight glass must be protected against breakage by tape or security film. See 1.13.

8.2 Vehicles must have battery isolators installed, which must be capable of being activated in the driver's compartment, by the driver when normally seated. In addition, the isolator must be capable of being operated remotely from the front window splash panel. On the passenger side (RHD Car) and clearly marked with an official sticker.

8.3 Batteries must be securely mounted and all connections must be in a serviceable and clean condition. Positive terminals should be insulated. Negative leads should be braided or have yellow identifying marking. Batteries housed in the drivers compartment must be securely mounted in a sealed and insulated box.

9.0 FIREWALLS

9.1 There must be a firewall between the engine bay and the passenger compartment capable of preventing the passage of fire or liquid. Larger holes should be covered by metal plates or fibreglass. Smaller holes can be fitted with bolts, rivets or fireproof mastic. If the standard bulkhead has no

unfilled holes in it, then it is deemed a satisfactory firewall.

9.2 If the boot contains any of the fuel system then it must be separated from the passenger compartment with a firewall.

ANY CARS FOUND IN BREACH OF THESE TECHNICAL REGULATIONS WILL BE EXCLUDED FROM THE EVENT RESULTS AS PER MSI GCR'S AND SUBJECT TO PENELTYS AS PER ITCC SPORTING REGULATIONS.

