

Schedule TRS – Technical Regulations 2018 Castrol Toyota Racing Series

1. INTRODUCTION

1.1 If the following Technical Regulations do not clearly specify that you can do something, you should work on the principle that you cannot.

1.2 **Everything, which is not explicitly authorised, and anything that is not specified in;**

(a) These Technical Regulations,

(b) The Articles of the 2018 Castrol Toyota Racing Series Championship,

(c) Any Official Technical Bulletin or TRS Advise notice published over the course of the 2018 Castrol Toyota Racing Series Championship.

IS FORBIDDEN.

1.3 All of the documents detailed in 1.2 will be issued to each Competitor registered to take part in the 2018 Castrol Toyota Racing Series Championship.

2. DEFINITIONS

Terms that are specific to this Schedule are defined here. For further definitions refer to National Sporting Code Article 2(1) and Appendix Two Schedule A, Article 2.

“**Active suspension**” means any electronic system enabling the control of any part of the suspension or the trim height whilst the vehicle is moving; and

“**as supplied**” means any car, component, consumables or materials supplied by, or available for purchase from, Toyota Racing NZ specifically for the Castrol Toyota Racing Series, and

“**Bodywork**” means all entirely-sprung parts of the car including radiators in contact with the external air system, except for the structure that forms the safety harness and those parts incontestably associated with the mechanical functioning of the engine, the transmission and the running gear; and

“**Cockpit**” means the volume that accommodates the driver; and

“**Cockpit protection**” is the non-structural elements situated in the cockpit whose only purpose is to increase driver comfort and safety. Any equipment of this type must be non-flammable and able to be removed quickly without tools; and

“**Main structure**” means the entirely-sprung part of the vehicle structure to which suspension loads are transmitted, and extending longitudinally from the furthest-forward suspension attachment point on the chassis to the furthest-back suspension attachment point on the chassis; and

“**Seal**” means a piece of lead, aluminium, metal, plastic or paint composite attached to, or affixed by wire to, a component to prevent it being opened or dismantled without prior authorisation; and

“**Set of Tyres,**” means two(2) front tyres and two(2) rear tyres; and

“**New Tyre**” means a tyre supplied by the official Michelin service provider with bar code identification that has not been through a heat cycle and exhibits no wear; and

“**Used Tyre,**” means a tyre that has been through a heat cycle and exhibits wear; and

“**Race trim**” means the condition the car competes in and includes the driver, all safety apparel, all vehicle fluids and any ballast necessary to maintain weight compliance.

“**Registered tyre**” means a tyre (used or new) that at a previous event in the current championship season has been submitted to the TRS tyre parc fermé for bar code recording and marking for that vehicle; and

“**Round**” means from the first qualifying session to the end of the last race at each event, and

“**Supplementary tyre**” means a tyre (either new or registered) selected solely at the discretion of the TRS Championship Scrutineer to replace one or more of a competitors tyres at a Round, and

“**Survival cell**” means the structure containing the fuel tank and cockpit; and

“**Suspension**” means the method and means by which the chassis/bodywork assembly is suspended from the wheels, i.e. the wheel axes must not be directly connected to the chassis/bodywork assembly. There must therefore be independent movement of the suspension upright/spindles in relation to the main structure; and

“**Telemetry**” means data transmission between a moving car and any station separate from this car; and

“**Test Day**” means an Official **TRNZ** Test day (*refer Championship Article 7.1.3*), and

“**Toyota FT50 Car**” means a Toyota Tatuus car, supplied via Toyota Racing **NZ** specifically for the purposes of racing and includes all parts and components related to the car, and

“**Toyota Racing NZ**” or “**TRNZ**” means representatives appointed by Toyota New Zealand Ltd as the “Category Manager” to organise the class and under delegated authority promote the class; and

“**TRS Championship Scrutineer**” means the appointed TRS Scrutineer(s); and

“**TRS**” means the **Castrol** Toyota Racing Series; and

“**Wet race trim**” means that the vehicle is fitted with the approved wet weather tyres; and

“**Wheel**” means the combination of the flange and rim, “**complete wheel**” means the combination of the flange, rim and tyre and “**vertical wheel axis**” means the axis perpendicular to the ground, seen from the side, passing through the wheel's rotation axis, included in the central line of the tread; and

3 REGULATIONS

- 3.1. All vehicles and equipment must at all times comply with the entirety of these Technical Regulations to be eligible for the 2018 **Castrol** Toyota Racing Series Championship.
- 3.2. Competitors must comply with these Technical Regulations in their entirety.
- 3.3. Toyota Racing **NZ** and / or MotorSport NZ reserve the right to issue additional statements, amendments, interpretations or clarifications concerning these Technical Regulations. The time scale for implementation will be detailed on the statement. Changes made for safety reasons may come into effect without prior notice.
- 3.4. Any matter affecting Technical Regulations must be put in writing, to the TRS Championship Scrutineer. A claim to have received a clarification or ruling on any Technical Regulation must be substantiated by the production, on demand, of written confirmation of the clarification or ruling.
- 3.5. Non-compliance with, or attempt to circumvent, any of the Technical Regulations and Procedures, including any fraudulent act (defacing and re-marking), shall incur a penalty.

3.6 General:

- (1) The 2018 **Castrol** Toyota Racing Series Championship is for competitors participating in TOYOTA FT50 cars prepared as detailed in this Schedule.
- (2) The only rolling chassis permitted are those supplied by Toyota Racing **NZ**. Once supplied the rolling chassis may not be modified in any way whatsoever except where specifically permitted by these Technical Regulations or with the written permission of the TRS Championship Scrutineer. Any such modifications will only be permitted if they are deemed absolutely necessary after a problem has been clearly identified.
- (3) Toyota Racing **NZ** must supply any components supplied as part of the rolling chassis that need to be replaced unless specifically authorised elsewhere in these Technical Regulations.
- (4) At the start of each event, qualification or race, the cars must be clean and in good order. Toyota Racing **NZ** and / or MotorSport NZ reserve the right to forbid cars not meeting this requirement from taking part.
- (5) Only organisations holding the approval of the Toyota Racing **NZ** are allowed to manufacture and supply Cars and components, including spares. Toyota Racing **NZ** undertakes to inform all registered competitors of any organisations approved by newsletter or advise notice.
- (6) The car must be constructed and assembled in total conformity with the original design.
- (7) Except where specifically permitted, the reinforcement of any component or joint by the addition of material either separately or by increase in the gauge or section of the material is not permitted.
- (8) Except where specifically permitted, the structural and aerodynamic performance of the car and performance of the engine must not be changed by modifying the shape of any component (e.g. by the addition or removal of any material or by deforming the original material).
- (9) Any work on the car in the following areas:
 - The structure
 - The bodywork
 - The mechanical elements
 - The electrical system
 - The accessoriesmust be carried out in accordance with the methods prescribed by Toyota Racing **NZ** in order to ensure that the car retains its original configuration.
- (10) Replacement parts and technical assistance will be available from Toyota Racing **NZ** at all TRS test days and Sanctioned Race Meetings.
- (11) From time to time it will be necessary to approve alternative equivalent components. Only components approved as alternatives and published as such, by the Toyota Racing **NZ** and / or MotorSport NZ in official amendments to these Technical Regulations are eligible for use in the 2018 **Castrol** Toyota Racing Series Championship.
- (12) Spare cars are prohibited. With the exception of sub article (a) below, each driver can only use a single car during each Meeting.
 - (a) If an accident at an event compromises the safety integrity of the monocoque beyond safe repair at the event, then with the permission of the TRS Championship Scrutineer, the Competitor is allowed to replace either the monocoque, or complete car. In this case, the replacement car must be presented again and pass a scrutineering audit inspection.

3.7 Technical checks - General principles:

- (1) The entrant/driver must present the car as detailed on Form No TRS 003A for a Technical and Safety check prior to the commencement of competition at the first meeting entered. Toyota Racing NZ will advise of the time and place of these inspections.
At all subsequent rounds entered the TRS Championship Scrutineer or appointed representative may undertake random audit / inspections of all or some of the items detailed on Form TRS 003.
- (2) The TRS Championship Scrutineer or appointed representative can check the compliance of a vehicle at any point during an event, and may insist that the car be dismantled by the competitor to ensure that the entry or compliance conditions have been fully met.
- (3) Any competitor who refuses to submit their vehicle for technical compliance inspection(s) will be referred on to the meeting officials for appropriate action.
- (4) The TRS Championship Scrutineer has the responsibility for checking that cars comply with the Technical Regulations and may invite a representative of the approved suppliers to assist in verifying the source of components. The technical checks can be made by comparison between the checked part and the same genuine new part.
- (5) The entrant/driver is responsible for ensuring that only eligible components are used and that all replacement parts fitted to the vehicle comply with the Technical Regulations before such parts are fitted.
- (6) If a car is deemed not to be in compliance, the lack of any performance gain will never be considered as an element of defence.
- (7) It is the entrant's responsibility to maintain all seals unbroken and to protect all such seals from damage or loss. The eligibility of the relevant component and assemblies depends upon a full complement of seals being in place.

3.8 Removal of parts:

- (1) The TRS Championship Scrutineer or appointed representative has the right to request the removal of parts, to check them after the qualifying session and/or the race(s).
- (2) The competitor, or his designated representative, can put a mark on the removed items. There will be no contestation possible concerning the origins of the removed parts.
- (3) The removed parts, if declared not to be in compliance with the Technical Regulations, will be confiscated by the Toyota Racing NZ and / or MotorSport NZ and will not be replaced.
- (4) In the event of any dispute relating to the authenticity of a component, the TRS Championship Scrutineer shall refer to the 'standard component' as supplied by the manufacturer and or the manufacturers drawings, which shall be consulted as the official items.
- (5) All references to standard parts and/or part numbers and/or materials in these regulations shall be interpreted as references to Toyota Racing NZ approved manufacturers' or partner's original specification(s) relative to TOYOTA FT50 car or to official sample parts supplied and certified by the manufacturers and builder. In the case of dispute, reference will be made to these specifications, drawings and/or samples.
- (6) Removed parts, which are declared to be in compliance with the Technical Regulations, will be returned.

- (7) In all cases, the Competitor is responsible for any cost for dismantling and rebuilding save for any dismantling or rebuilding required as a result of protest when the MotorSport NZ regulations apply.
- (8) As a method of control, any component on a competitor's car may be removed by the TRS Championship Scrutineer and exchanged for a similar component from another source. While efforts will be made to ensure that the condition of the exchanged parts is similar, responsibility for the care of the exchanged component lies with the recipient. Exchanged components may be returned to their original owner later. However, any part damaged or failed while on exchange will remain with the recipient.

3.9 Seals and component identification:

- (1) Only vehicles bearing a full complement of TRS seals and component identification marks will be eligible for the 2018 Castrol Toyota Racing Series Championship. (*Refer also to Articles 3.11 and 6.5 of this Schedule*).
- (2) Given that the presence of seals only presumes compliance, it may be necessary, when performing scrutineering to determine compliance, to remove components that have been sealed so that they can be inspected internally.
- (3) The condition of the seals is the responsibility of the competitor.
 - (a) Any absence, deterioration or tampering will automatically imply non-compliance with the Technical Regulations. The TRS Championship Scrutineer or appointed representative will be the sole arbiter in respect to the condition of the seals.
 - (b) Breaking or removal of any TRS applied seal(s) is not permitted without the approval of the TRS Championship Scrutineer
- (4) Supplementary elements may be sealed at any moment of an event. These seals must remain intact until the TRS Championship Scrutineer authorises their removal.
- (5) All components used in the construction and assembly of the car must be capable of being identified by an approved identification mark, except where modifications and adjustments are specifically permitted by these Technical Regulations.
- (6) Certain components will be identified by holograms or Manufacturers identification marks. These components will only be eligible while the tags / identification marks are intact, legible and positioned in conformance with the requirements of the Maintenance Manual. If parts have been supplied without holograms the part may be authenticated and a hologram or an identification mark approved by Toyota Racing NZ and / or MotorSport NZ fitted, providing an audit trail and compliance with the component specification can be demonstrated.

3.10 Seal and Component Identification Record Form:

- (1) All cars may be issued with a Seal and Component Identification Record Form to record the details and location of all component sealing and identification marks.
- (2) A copy of the form will be appended to the MotorSport NZ Vehicle Logbook.
- (3) If required by the TRS Championship Scrutineer, the form must be made available for inspection and must at all time, be a true reflection of the details.
- (4) If the details or location of any component sealing or identification mark changes, replacements form must be completed with the revised details.
- (5) The only persons authorised to issue Seal and Component Identification Record Forms are the TRS Championship Scrutineer and / or MotorSport NZ, or their appointed representative.

4 BODYWORK and DIMENSIONS

- 4.1 The sections of bodywork may not be modified in any way, other than as specified in the current versions of:
- (a) These Technical Regulations.
 - (b) The Maintenance Manual relating to the TOYOTA FT50 car.
 - (c) Any Official Technical Bulletin published over the course of the current **Castrol** Toyota Racing Series.
- 4.2 It is not permitted to bridge bodywork joint lines with adhesive tapes other than in an emergency during a race or qualifying session.
- 4.3 Tape applied to bodywork must follow the original shape of the bodywork and must not be used to modify the standard profile.
- 4.4 Small strips of tape whose sole purpose is to cover and protect clips and other bodywork fasteners are permitted provided the tape is of similar colour to the bodywork.
- 4.5 Bodywork sections must be fitted to the vehicle as supplied and not set apart from the chassis mounting points by the use of spacers or any other means.
- 4.6 It is permitted to bond tie wrap securing blocks to bodywork (internally) or components for the sole purpose of securing components/cables. It is not permitted to drill holes in bodywork to fit tie wrap blocks.
- 4.7 It is permitted to paint bodywork and apply vinyl type decals providing that either process is for decorative purposes only and is not performance enhancing.
- 4.8 It is permitted to apply vinyl type protective material of maximum thickness 0.25 mm to the leading edges of the sidepod. It must be for protective purposes only and shall not be performance enhancing. The applied material must be kept to a minimum; the area covered will be at the discretion of the TRS Championship Scrutineer.
- 4.9 It is permitted to fit heat reflective tape to the inside surfaces of the right hand side pod in the area extending rearwards from the back line of the survival cell.
- 4.10 **Central wheel axis:** The axis of the axle for overhang measurements is defined as follows:
- The straight line joining the intersection of the rotation axis of each of the wheels to the central line of the tyre tread.
 - This straight line shall be defined practically: by projecting vertically onto the ground, the most forward and rear points of the complete wheel at the level of the central line of the tread, and determining on the ground the middle point between these two projections.
 - Having completed this operation for the right wheel and the left wheel, the straight line connecting the two middle points is the ground projection of the axle axis for the wheels in question.
- 4.11 All height measurements will be taken when the car is in normal race condition, with the driver seated normally.
- 4.12 With the exception of the rollbar and Toyota Racing **NZ** approved in car camera and related mounting, no part of the car must have a height exceeding 95cm from the ground, with driver on board and seated normally, and the car in its normal race trim. No part of the rollbar with a height exceeding 95cm from the ground must have a shape enabling it to exert a significant aerodynamic influence over the car's performance. Notwithstanding this when the ride height has been set for "wet race trim" the height of the rear wing side plates at their highest points shall not exceed 97cm.

4.13 No part of the car must be positioned more than 62.5cm to the rear of the rear wheel axis, or more than 105.5cm to the front of the front wheel axis.

4.14 Aerodynamic Devices:

(1) The addition of any element having an aerodynamic influence is prohibited. It is emphasised that the aerodynamic shape of the car must remain absolutely standard i.e. all surfaces wetted by the air stream including bodywork and side pods (both inside and outside the ducts) must not be modified in any way.

(2) Front Wing:

(a) It is mandatory to use the wing and end plates designed for the TOYOTA FT50 car as updated for the 2016 season.

(b) Front wing angles may be changed using only the range of adjustment provided by the original specification.

(c) It is permitted to apply vinyl type protective material of maximum thickness 0.25mm to the leading edge of the front wings. It must be for protective purposes only and shall not be performance enhancing. The applied material must be kept to a minimum; the area covered will be at the discretion of the TRS Championship Scrutineer.

(d) Front gurneys as supplied, for purposes of clarification this is an aluminium extrusion, front face right angle dimensions are 15mm high by 100mm long. It is not permitted to remove these front gurneys.

(e) It is permitted to apply vinyl type material to cover the underneath holes of the front wing.

(3) Rear Wing:

(a) It is mandatory to use the wing designed and as supplied for the TOYOTA FT50 car.

(b) Rear wing angles may be changed using only the range of adjustment provided by the original specification adjustment plates.

(4) Rear Floor: It is mandatory to use the rear floor designed and as supplied for the TOYOTA FT50 car as updated for the 2016 season.

It is permitted to use a thin coating of silicon sealer between:

- The RH & LH conveyors part numbers 151402019 & 151402020 and the rear floor part number 151402013, and
- The Rear floor cup part number 151402014 and the rear floor part number 151402013,

All excess silicon that extrudes around the panel edges shall be removed so it has no influence on aerodynamics. The TRS Championship Scrutineer may order the removal of silicon around the panel edges if in their opinion alone it is considered to be influencing aerodynamics.

(5) Floor sections – Main sandwich, front, middle and rear wooden skid panels: It is permitted to use a thin coating of silicon sealer between;

- The bow part number 151402005 and the chassis [tub], and
- The front wooden skid panel and the front crush plank section part number 151602028, and

- The rear wooden skid panel and the rear crush plank section part number 151602029.

For clarity, it is not permitted to use silicon sealer (or any other adhesive or filler) between the middle wooden skid panel and the front or rear crush plank sections.

All excess silicon that extrudes around the panel edges shall be removed so it has no influence on aerodynamics. The TRS Championship Scrutineer may order the removal of silicon around the panel edges if in their opinion alone it is considered to be influencing aerodynamics.

- (6) Foam filler block as supplied must be inserted in the front floor and bow in accordance with instructions as advised by **TRNZ**.

4.15 Main dimensions:

- (1) The wheelbase and track (front and rear) must remain within the range of permitted values using the original suspension parts.
- (2) Vehicle ride height must be within the tolerance set by the official TRS Technical Drop bar on both front and rear axles.
- (3) Any measurements made to confirm compliance with permitted values, shall be made while the car is stationary on the surface and location nominated and advised by the TRS Championship Scrutineer.
- (4) All measurements of height shall be made with the vehicle in 'race trim' and with the driver on board seated in the normal driving position. If failure occurs a re-measurement will be performed with a nominated set of new dry tyres provided by the TRS Championship Scrutineer and set at the manufacturers recommended cold pressure of 21.0 PSI. This set of tyres will be available for competitors to use throughout the event to check their ride height.

4.16 General car requirements: Throughout the Meeting, Round or Event, any covers, protections or other devices that in any way conceal any part of the car bodywork or any component with an aerodynamic function are forbidden at any time in the Paddock, the Pit Garages, and the Pit Lane or on the Start Grid.

The following are permitted:

- Covers which are placed over damaged cars or components;
- A transparent tool tray (provided it does not act as a cover in any way), no more than 50mm deep, placed on top of the rear wing;
- A cover over the car in the pit lane, grid or Parc Fermé if it is raining;
- Covers over the car in the Paddock if all team members are absent for a prolonged time and the car is unattended i.e. for security reasons only.

4.17 In Car Camera Mounting: It is mandatory for all cars to be fitted with the Toyota Racing **NZ** approved in car camera mounting kit.

4.18 It is permitted to use the replacement part as supplied for the front floor stay – Code 151402006

5 WEIGHT

5.1 Minimum weight:

- (1) Minimum weight of car and driver: **550kg**.
- (2) The minimum weight is "in the condition in which the vehicle and driver (wearing his complete racing apparel) crosses the finish line or at any other time during an event. For the purpose of this Regulation, an event is deemed to include any transfer to a place of post event scrutiny as directed by an Official and without the addition or removal of any solid or fluid matter, including fuel."

5.2 The addition of any liquid(s) or other material(s) to the car, or the substitution of any part(s) for a heavier one during the race or during officially timed qualifying is forbidden until the end of the parc fermé period.

5.3 Ballast:

- (1) If ballast is required to achieve the minimum weight, this must be in the form of ballast weights placed inside the official series ballast box as supplied in the official designated position located behind the driver's seat alongside the fire extinguisher bottle. If additional weight is required that cannot be safely fitted within the official ballast box an alternate position will be nominated and approved at the sole discretion of the Championship Scrutineer.
- (2) The weights must be firmly secured by using dense foam sheet to pack weight inside to the satisfaction of the TRS Championship Scrutineer.
- (3) The complete ballast box as supplied may be removed if not in use.
- (4) If ballast is fitted in order to meet weight requirements, it is mandatory for this ballast to be declared to the TRS Championship Scrutineer for it to be recorded in the meeting Scrutineering Audit Worksheet and sealed into place.
- (5) The re-distribution of weight in the car, by reducing the gauge or section of material in any component and by adding ballast or increasing material elsewhere, is not permitted.

6 ENGINE

6.1 General:

- (1) Only the Toyota 2ZZ-GE engine, which has been modified, prepared to a uniform performance specification, sealed and officially ID marked, approved and supplied by Toyota Racing NZ as a leased engine assembly are eligible for use in the Castrol Toyota Racing Series Championship.
- (2) The engine is a standard series production unit to which no additional modifications may be made by the competitor or entrant

6.2 Only the authorised engine supplier to Toyota Racing NZ and/or Toyota Racing NZ themselves, are permitted to carry out any repairs, rebuilding or tuning to the engine. All requests for assistance in this matter shall be referred to Toyota Racing NZ and not directly to the engine supplier.

6.3 The TRS Championship Scrutineer reserves the right to retain an engine at the end of the race for further examination.

6.4 Toyota Racing NZ reserves the right to require a driver to exchange an engine for a replacement at any time.

6.5 Engine Sealing:

- (1) Any engine not sealed and officially ID marked, or with one or more seals missing, or with seals of an origin that cannot be verified, shall be considered, non-compliant with the Technical Regulations and must be fully examined, tested and sealed by the TRS Championship Scrutineer or appointed representative (at a cost payable by the competitor) before it can be considered eligible for the Castrol Toyota Racing Series Championship. (Refer also to Article 3.9 of this Schedule).
- (2) A seal may only be broken with the permission of the TRS Championship Scrutineer or appointed representative.
- (3) Only engines with a full complement of seals will be eligible for repair and rebuild.

6.6 **Clutch:** It is mandatory to use the original TOYOTA FT50 clutch system, 'as supplied'.

6.7 Clutch Master Cylinder:

- (1) It is mandatory to use the original TOYOTA FT50 master cylinder, 'as supplied'. (Refer also to (4) of this Article).
- (2) It is mandatory to use the master cylinder extension top 'as supplied'.
- (3) A replacement push rod of different length is permitted if required and must be as supplied by Toyota Racing NZ.
- (4) It is not permitted to interchange the clutch master cylinder and brake master cylinders. The car must be equipped with 3 master cylinders, front of 0.70", rear of 13/16" and clutch of 0.625".
- (5) It is mandatory to fit the Master Cylinder Reservoir Cap Collar "as supplied" by Toyota Racing NZ around the brake and clutch master cylinder reservoir cap area to absorb fluid venting from the master cylinder cap vents. The Master Cylinder Reservoir Cap Collar must be cleaned regularly with suitable solvent / wash agent to remove absorbed brake fluid.

6.8 Induction System:

(1) Air Filter:

- (a) It is mandatory to use the engine air filters, 'as supplied';
 - (b) Modification of the air filter in any way is prohibited.
 - (c) The air filter must be fitted at all times during the event. It may only be removed for the sole purpose of replacement, cleaning and / or re-oiling of the filter. The filter must be cleaned and oiled in accordance with the procedure advised by Toyota Racing NZ.
 - (d) Toyota Racing NZ will supply replacement air filter elements and cleaning kit in accordance with the schedule as advised by TRNZ from time to time.
 - (e) It is permitted to remove the original screws attaching the lower air box to the rear air box support bracket and replace these with bolts and nyloc nuts by drilling two holes in the appropriate locations through the lower air box.
- (2) The introduction of water, nitrous oxides or any other agent into the air intake system is prohibited.

6.9 Engine Electrical System:

(1) Engine Management System:

- (a) It is mandatory to use the genuine TOYOTA FT50 engine management system.
- (b) The Electronic Control Unit is sealed using metallic and / or paint sealing systems.
- (c) Only engine Electronic Control Units, which carry unbroken seals, are eligible for the **Castrol** Toyota Racing Series Championship.
- (d) The seals on the ECU may only be broken with the permission of the TRS Championship Scrutineer or appointed representative.

(2) The TRS Championship Scrutineer retains the right, at any time, to;

- (a) Provide replacement engine Electronic Control Units,
- (b) Interchange ECU's between participating cars or
- (c) Acquisition data from the ECU and/or any other data stored in the vehicles electronic components.

(3) It is mandatory to use the spark plugs as supplied from Toyota Racing **NZ**.

6.10 Silencing and Exhaust:

(1) It is mandatory to use the standard exhaust system 'as supplied'. The muffler shall be part number TRNZEXHAUST1 for Round 1 and part number 151425007 for all other Rounds. The Exhaust Heat Shield part number TRMEHS, Exhaust protection plate part No. TRMEP15 and the Sidepod Heat Shield part number TRMSDHS cannot be removed.

(2) The exhaust system and muffler must remain 'as supplied,' unmodified and must be fitted at all times.

- (a) Repairs to the exhaust system including the muffler must be carried out in a repair facility approved by Toyota Racing **NZ**.
- (b) All repairs must be approved, documented and facilitated by Toyota Racing **NZ**.

(3) No additional material, coating or covering may be applied to either the inside or outside of the exhaust system.

6.11 Cooling System: The entire cooling system must remain 'as supplied'.

(1) The application of adhesive tape or similar across the inlet of the radiator ducts is prohibited unless instructed to do so by the TRS Championship Scrutineer.

(2) It is mandatory to run the grilles on the radiator air intake ducts 'as supplied'. The TRS Championship Scrutineer may order a competitor to modify or remove a grille(s).

(3) All pipe support brackets must remain 'as supplied'.

(4) It is mandatory to ensure the vibration absorbing material 'as supplied' remains in place between;

- (a) The radiator and the support brackets.
- (b) The radiator and the air inlet duct assembly.

(5) Radiators must be fitted parallel to the mounting face of the air inlet duct assembly.

- (6) Radiators must not be set apart from the air inlet duct assembly by the use of spacers or any other means except for the use of vibration absorbing material as detailed in (4)(a) of this Article.
- (7) It is mandatory to use the coolant fluid 'as supplied' by Toyota Racing NZ. No other types or brands of additive are permitted.

7 PIPING and FUEL TANKS

7.1 **Fuel Cell:** It is mandatory to use the fuel cell 'as supplied'.

7.2 **Fuel Delivery System:** It is mandatory to use all of the original TOYOTA FT50 fuel lines and related accessories 'as supplied'.

7.3 Refuelling:

- (1) Unless specifically provided for in Event regulations or bulletin specific to TRS Articles or Schedules refuelling is not permitted;
 - (a) During officially timed qualifying or between split qualifying sessions if these are used at any Event.
 - (b) On the starting grid or in pit lane.
 - (c) During races.
 - (d) While the driver is in the car.
- (2) Any storage of fuel on board the vehicle at a temperature below ambient temperature is prohibited.
- (3) The use of a specific device, whether on board the car or not, to lower the temperature of the fuel to below the ambient temperature is forbidden.
- (4) Refuelling and defueling devices used must comply with the procedures outlined in Addendum One and any requirements notified by MotorSport NZ Bulletin or TRNZ Advice Notice, at all times.

8 OIL SYSTEM

8.1 It is mandatory to use engine lubricant 'as supplied' by Toyota Racing NZ. No additives or substitutes are permitted.

8.2 It is mandatory to use the TOYOTA FT50 car lubrication system as updated for the 2016 season, including oil cooler and oil lines, 'as supplied'.

8.3 The lubrication system is designed to operate with a fresh air vent. The breather pipe must deposit into the original catch tank (located internally as part of the bell housing assembly) in such a way as to prevent any spillage on the track. The catch tank must be emptied regularly as required to ensure spillage does not occur during any testing, practice or race sessions.

9 STARTING

9.1 It is mandatory to use the TOYOTA FT50 starter, 'as supplied'.

9.2 The driver when seated normally in the car must be able to demonstrate, at all times, that the starter is capable of starting the engine.

9.3 A reserve battery, temporarily connected to the vehicle by a jack plug, (provided specially for this purpose), may be used to start the engine, both in the pits and (when permitted) on the grid.

10 TRANSMISSION

10.1 Gearbox:

- (1) It is mandatory to use the (six(6) speeds and reverse) TOYOTA FT50 gearbox 'as supplied'.
- (2) Once supplied, the gearbox and ancillaries supplied with it may not be modified in any way whatsoever.
- (3) The gear ratio set 'as supplied' by Toyota Racing NZ must be used in its entirety as it is detailed in diagram 10.1 below.

Permitted Gear Ratios

Final drive	
Secondary shaft	9
Crown wheel	30

Reverse gear	
Primary shaft	14
Reverse gear	47
Secondary shaft	22

Gear	Ratio
1	16 x 36
2	17 x 31
3	17 x 26
4	21 x 28
5	24 x 28
6	20 x 21

Diagram 10.1

- (4) All cars must have a properly functioning reverse gear. It must be selectable at any time during the event by the driver seated in his normal driving position, with the engine running.
- (5) Any repairs undertaken on the gearbox unit must comply with the procedures detailed in the TOYOTA FT50 car Maintenance Manual.
- (6) It is mandatory to use transmission lubricant 'as supplied' by Toyota Racing NZ. No additives are permitted. At no time shall the quantity of transmission lubricant in the gearbox be less than 1.25Litres.

10.2 Traction control systems are forbidden.

10.3 Differential and Final Drive:

- (1) It is mandatory to use the Differential and Final Drive, 'as supplied'.
- (2) It is not permitted to dismantle the Differential casing unless approved by the TRS Championship Scrutineer.
- (3) The pressing plate (ramps) configuration shall remain as supplied by Toyota Racing NZ and as defined in diagram 10.3 below.

Pressing Plates	
Ramps	Reference
65° / 90°	F00859291

Diagram 10.3

- (4) The differential and final drive will have championship seals applied by TRNZ.

11 SUSPENSION and STEERING

11.1 It is mandatory to use the original TOYOTA FT50 suspension elements, 'as supplied'.

- 11.2** Adjustment of Camber and Tracking angles is authorised, but only within the range provided by the parts 'as supplied' for the TOYOTA FT50 car. It is mandatory that a minimum of a 2mm shim remains in position at any time on both the front and rear camber adjustment.
- 11.3** The suspension may not be modified in any way, other than as specified in Technical Regulations 1.2 (a), (b) and (c).
- 11.4** It is not permitted to change or modify the surface appearance of suspension components (eg. chrome plating, powder coating etc).
- 11.5** The **only** permitted fastening configuration points, for the rear suspension is **BE23** as defined by diagram 11.5 below.

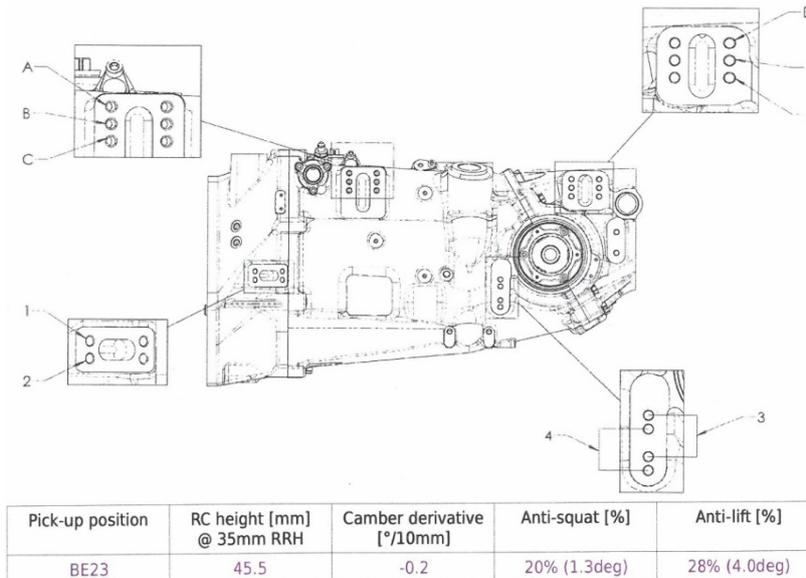


Diagram 11.5

11.6 Anti-roll bars:

- (1) It is mandatory to use TOYOTA FT50 anti roll bars 'as supplied' within the range of parts 'as supplied' for the TOYOTA FT50 car and as detailed below:
- (a) **Front anti roll bar options;**
- 12mm 'as supplied' Part No. 151406007
 - 14mm 'as supplied' Part No. 151406008
- (b) **Rear anti roll bar options;**
- 11mm 'as supplied' Part No. 101013041
 - 13.5mm 'as supplied' Part No. 101013042
- (2) Anti-roll bar stiffness adjustment may be adjusted within the range of adjustments provided on the connecting linkages. The operating linkage on one(1) side of the Front and/or the Rear may be disconnected or completely removed.
- (3) Cockpit and remotely adjustable anti-roll bar stiffness is prohibited.

11.7 Suspension Springs (Front and Rear): It is mandatory to use the TOYOTA FT50 springs, 'as supplied' within the range of parts 'as supplied' for the TOYOTA FT50 car and as detailed below:

- Spring rate options are; 800lb, 900lb, 1100lb
- Spring options may be fitted front or rear.
- The front springs and the rear spring cannot be the same rate and must be selected from the range of springs as supplied.

11.8 Steering: It is mandatory to use the TOYOTA FT50 steering rack, 'as supplied'.

11.9 Active suspension is prohibited

11.10 Dampers:

- (1) It is mandatory to use the TOYOTA FT50 dampers, 'as supplied'.
- (2) The TR Code marked set of dampers fitted and documented by the TRS Championship Scrutineer at the start of the first official event entered of the Championship must remain on each car 'as supplied' for the entirety of the Championship. These can only be substituted at the direction and approval of the TRS Championship Scrutineer.
- (3) The TRS Championship Scrutineer reserves the right at any time to require that dampers be removed from a car and checked for conformity and/or replaced with dampers from Championship spare parts.

12 BRAKES

12.1 It is mandatory to use the original TOYOTA FT50 braking system, 'as supplied'.

12.2 It is mandatory to use the brake rotors and disc bells 'as supplied'.

12.3 The minimum thickness of the brake disc shall be 17.0mm at any time.

12.4 It is not permitted to fit cooling arrangements to the front and rear brakes (scoops, ducts, extractors etc.)

12.5 It is mandatory to use the Championship nominated brake pads 'as supplied' by Toyota Racing NZ.

12.6 Master Cylinders:

- (1) It is mandatory to use the TOYOTA FT50 car master cylinder, 'as supplied'. (*Refer also to (4) of this Article*).
- (2) It is mandatory to use the master cylinder extension top 'as supplied'.
- (3) A replacement push rod of different length is permitted if required and must be 'as supplied' by Toyota Racing NZ.
- (4) It is not permitted to interchange the clutch master cylinder and brake master cylinders. The car must be equipped with three(3) master cylinders, one of 0.70" front brakes, one of 13/16" rear brakes, and one of 0.625 clutch.
- (5) It is mandatory to fit the Master Cylinder Reservoir Cap Collar "as supplied" by Toyota Racing NZ around the brake and clutch master cylinder reservoir cap area to absorb fluid venting from the master cylinder cap vents. The Master Cylinder Reservoir Cap Collar must be cleaned regularly with suitable solvent / wash agent to remove absorbed brake fluid.

12.7 Brake Calipers:

- (1) It is mandatory to use the brake calipers and service kit seals 'as supplied' by Toyota Racing NZ.
- (2) The use of knock-off springs inside the calipers is prohibited.

13 WHEELS and TYRES

13.1 Wheels:

- (1) It is mandatory to use the TOYOTA FT50 wheels, 'as supplied'.
- (2) It is not permitted to fit aerodynamic devices or air extractors to wheels.
- (3) **Wheel attachment:**
 - (a) All cars whilst under their own power must be fitted with a safety spring, which will retain any wheel nut in the event of it coming loose.
 - (b) After each wheel change the safety spring must be fitted in a separate action to that of securing the wheel nut.
 - (c) It is mandatory to use the safety springs 'as supplied'.
 - (d) It is mandatory that all wheel tethers remain intact and are correctly fitted.

13.2 Tyres:

- (1) **Make:** It is mandatory to use the series nominated and specified tyre sourced from "Michelin" the approved series supplier.
- (2) **Type and Sizes;**
 - (a) **Michelin Dry (Slick):**
 - Front 20/54-13 S412
 - Rear 24/57-13 S412
 - (b) **Michelin Wet (Treaded):**
 - Front 20/54/13 P412
 - Rear 24/57/13 P412
- (3) Tyres shall be inflated with nitrogen or air; no other medium may be used. The tyre pressure is left up to the operator, but instructions by the approved tyre manufacturer must be observed. Pressure regulation valves are forbidden.
- (4) Preheating and chemical treatment of the tyres of any kind is prohibited. Scraping of tyres with tools in conjunction with applying heated air is forbidden. The application of any material (liquid, solid or gas) to any part(s) of the tyre is forbidden. The only exceptions are the use of a mixture of pure domestic water and household detergent for washing purposes, or the lubricant applied to the tyre bead for fitting purposes.
- (5) Any tyre protection covers used at any time within the confines of the circuit must be of a temporary construction and must be capable of being used many times.

13.3 Tyre use and restrictions:

- (1) The intention of this regulation is to;
 - (a) Contain the costs by limiting the number of tyres which can be purchased on behalf of any one car / driver during the series, and
 - (b) To limit the number of tyres used per car / driver per complete Round.
- (2) Tyre allocation, marking and conditions of use will be specified in the TRS Championship Articles.

14 COCKPIT

14.1 Steering Wheel:

- (1) It is mandatory to use the steering wheel as supplied by Toyota Racing NZ in its entirety.
- (2) The Driver shall carefully refit the steering wheel immediately after exiting the cockpit at all times so that the vehicle can be steered by officials and / or pit crews. Failure to do so may result in a penalty.

14.2 Seat:

- (1) The arrangement of seat, seat insert, padding and protection must be such that the maximum time necessary for the driver to get out from his normal driving position does not exceed five(5) seconds. All driving equipment being worn, the safety belts must be fastened and the steering wheel must be in place in the most inconvenient position.
- (2) It is mandatory to have the 'as supplied' extractable seat fitted correctly.
- (3) The seat insert must be trimmed to the extractable seat shape so as not to impede any of the safety harness or extraction seat belts.

14.3 Safety Harness:

- (1) It is mandatory to correctly use the six-point safety harness 'as supplied' that conforms to the current FIA standards.
- (2) It is mandatory to replace the complete harness following a 'Major Impact' accident where the safety harness has been subject to high stress.

15 SAFETY

15.1 Fire Extinguisher:

- (1) It is mandatory to use the fire extinguisher system 'as supplied'.
- (2) All extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising and during post event Technical Inspection.
- (3) The fire extinguisher may not be disarmed in any 'Parc Fermé' area without the specific permission of the TRS Championship Scrutineer.
- (4) A fire extinguisher system found to be incapable of being operated shall be considered to be non-compliant with the Technical Regulations.

15.2 Main Circuit Breaker:

- (1) It is mandatory to use the circuit breakers 'as supplied'.
- (2) A red spark on a white edged blue triangle with a base of at least 60mm must be displayed to indicate the position of main circuit breaker.

15.3 Rear Light:

- (1) It is mandatory to use the LED red warning light 'as supplied'.
- (2) This red warning light must be in working order throughout the entire event and must have a minimum of 90% of the total number of LED's in working order at the start of any competition (qualification or race).

- (3) The rear warning light must be illuminated at all times when the car is running on wet weather tyres and / or when requested by the Meeting Official signal (Rain Lights On) as detailed in Schedule CH.
- (4) During a race or practise it shall be at the discretion of the Race Director / Clerk of the Course to decide if a driver shall be stopped because the rear warning light is not illuminated for whatever reason. Should a car be stopped in this way it may rejoin when the fault has been remedied.

15.4 Rear View Mirrors:

- (1) It is mandatory to use the TOYOTA FT50 rear view mirrors, 'as supplied'.
- (2) All vehicles must be equipped with two rear view mirrors, one on each side, which offer the driver a rearward view on both sides of the vehicle.

15.5 FHR Device:

- (1) The use of an FIA homologated FHR (Frontal Head Restraint) device as detailed in FIA Technical List No 29 for all competitors is mandatory. Thirty degrees is generally recommended.
- (2) The system must conform to the manufacturers mounting instructions, and it must be configured, maintained and used in accordance with the manufacturer's instructions.
- (3) FHR must only be used in conjunction with helmets that comply with the standards detailed in FIA Technical List No 25.

15.6 Driver Apparel: All Drivers are required to wear competitor's apparel (*Protective helmet, FHR device, Overalls, underwear, socks, footwear, gloves and balaclava*) that meet the current FIA International requirements.

Notes:

1. For details of the current FIA competitors' apparel refer to the FIA website at www.fia.com/sport/Regulations/driverequipregs.html.
2. Competitors are reminded that their gloves are required to be of a contrasting colour to that of the car thereby enabling clear visibility of any hand signals made.

16 SAFETY STRUCTURES

16.1 Roll Protection and Head Restraint:

- (1) Height of the roll structure:
 - (a) No part of the driver's helmet shall pass through a line struck between the tops of the first structure acting as a (forward) rollbar, to the highest point of the Main (rear) Rollbar. The driver must be sitting in a normal position in the car with helmet attached and safety belts fastened.
 - (b) When the driver is seated normally with seatbelts fastened an imaginary line drawn through the highest point of the Main (rear) Roll-Over bar must clear the driver's helmet by 2inch (50mm).
- (2) When the driver is seated normally with seat belts fastened the head restraint must be not more than 2 inch (50mm) behind the driver's helmet.
- (3) The side head restraint system must be fitted at all times.

16.2 Survival Cell:

- (1) It is mandatory for the survival cell to be 'as supplied and clearly identified by the manufacturers chassis plate fixed in the drivers cockpit area.

- (2) It is permitted to paint the survival cell and apply vinyl type decals providing that either process is for decorative purposes only and is not performance enhancing.
- (3) It is permitted to bond 'tie wrap' securing blocks to the survival cell for the sole purpose of securing components/cables. It is not permitted to drill holes in the survival cell.
- (4) If after an accident, the car no longer guarantees sufficient safety, the competitor may replace the survival cell on the express condition they receive prior agreement of the TRS Championship Scrutineer.
- (5) The car should be shown to the TRS Championship Scrutineer and declared to be compliant before further use.
- (6) It is permitted to apply vinyl type material to cover the underneath unused holes for the pedal positions.
- (7) It is permitted, for the sole purpose of protecting the inside of the cockpit from water, to apply tape to cover the hole above the pedal when the track has been declared wet.

16.3 Nose (Crash Box):

- (1) It is mandatory for the nose box to be identified by an official seal or identification mark.
- (2) On the grounds of safety, all cars whilst on the track must be fitted with a nose, which is attached to the main structure of the vehicle, in the original position and with the correct fixings.
- (3) Should the nose become detached from the vehicle, or sustain damage that may be considered to compromise its structural integrity, the car will, immediately be shown the black flag with orange disc. (The car must call at its pit for repairs on the next lap).
- (4) It is permitted to paint the nose and apply vinyl type decals providing that either process is for decorative purposes only and is not performance enhancing.
- (5) It is permitted to apply vinyl type protective material of maximum thickness 0.25mm to the nose cone front. It must be for protective purposes only and shall not be performance enhancing. The applied material must be kept to a minimum; the area covered will be at the discretion of the TRS Championship Scrutineer.

16.4 Repairs:

- (1) The policy of the Toyota Racing NZ and MotorSport NZ requires that cars shall be of uniform performance. In all cases, the repair or replacement of body panels and chassis, must be carried out in accordance with the methods prescribed and detailed in the Maintenance Manual.
- (2) Any repairs not undertaken by direct replacement with standard parts will only be permitted to be carried out by the Toyota Racing NZ or its nominated supplier.
- (3) **Survival Cell Repair:** Repairs to the Survival Cell must:
 - (i) Be carried out in accordance with the manufacturer's specifications.
 - (ii) Be carried out in a repair facility approved by Toyota Racing NZ.
 - (iii) Be fully documented.
 - (iv) Have a demonstrable audit trail.
- (4) **Nose (Crash box) Repair:** Repairs to the Nose must be carried out in accordance with Toyota Racing NZ's specifications and must be carried out in a repair facility approved by Toyota Racing NZ. The only action which may be carried out to the Nose by other than the approved repair facility is cosmetic surface preparation for painting.

- (5) **Front Wing Main Plane (blade) and / or Flap Repair:** Repairs to the Front Wing Main Plane (blade) and / or Flap must be carried out in a repair facility approved by Toyota Racing NZ. The only action which may be carried out to the Nose by other than the approved repair facility is cosmetic surface preparation for painting.

16.5 Approved repair facility:

- (1) All repairs must be approved, documented and facilitated by Toyota Racing NZ.
- (2) All repairs made to the survival cell; nose (crash box), wings or wing flaps will be identified by way of an imbedded tag detailing the name of the repair facility and incorporating a unique serial number. The repair facility will maintain records of all repairs and provide such information as and when required by Toyota Racing NZ and / or the TRS Championship Scrutineer.

17 FUEL

17.1 The only authorised fuel shall be the control fuel 'as supplied' by Toyota Racing NZ at each round of the Championship series.

17.2 Once supplied, nothing may be added to the fuel.

17.3 Testing:

- (1) On the instructions of the TRS Championship Scrutineer, fuel testing may be carried out at any time including prior to the start of a session or race.
- (2) The TRS Championship Scrutineer or appointed representative will take a sample of fuel from the control fuel distribution point and will seal the container. Fuel samples taken from competing cars will be analysed against the sample taken by the TRS Championship Scrutineer or appointed representative. The fuel from the cars must in all respects be identical with the sample taken from the distribution point.
- (3) After each qualifying session and race a minimum of two(2) litres of fuel from the fuel cell of the competing car must be made available on request to the TRS Championship Scrutineer for analysis.

17.4 Competitors must ensure that no fuel contamination occurs.

17.5 **Fuel handling protocols:** Competitors are required to comply with the protocols of fuel handling and storage (*refer addendum one to this Schedule*). Failure to comply may result in penalty.

18 ELECTRICAL

18.1 **Telemetry:** During all Meeting test sessions, qualifying sessions and races it is forbidden to use any telemetry systems and associated electrical equipment unless specifically allowed for elsewhere in these regulations.

18.2 Data Acquisition:

- (1) It is mandatory to use the data acquisition system(s) and firmware 'as supplied'.
- (2) Any unapproved data acquisition systems must be removed in their entirety.
- (3) It is only permitted to use the sensors provided with this specified system, all sensors shall be installed as detailed by Toyota Racing NZ and be fully operational throughout all testing, practice sessions and races.
- (4) The TRS Championship Scrutineer reserves the right to download access and analyse any information at any time during the event.

- (5) The ECU allows for a data audio feed to give on screen graphics to the TRNZ approved TV broadcaster for TV programme advanced features.

18.3 Radio communication – TV cameras:

- (1) It is permitted to use 2-way radio communication between the Driver and Team.
- (2) It is not permitted to use 2-way radio communication between Drivers.
- (3) It is not permitted to link radios, by any connection or signal device to the ECU or Data Acquisition system.

Note: MotorSport NZ will again be using “Race Radio” to advise competitors of important information throughout each Round of the Championship. Refer to Schedule CH for further details.

- (4) TV camera(s) are only permitted to be fitted in the locations provided on the car by TRNZ and where all such installations are approved by the TRS Championship Scrutineer.

18.4 Battery:

- (1) It is mandatory to use the sealed (gel type) 12-volt battery ‘as supplied’.
- (2) It is mandatory to mount the battery in the original position.
- (3) The battery terminals **shall be insulated** to protect from short-circuiting and producing sparks.
- (4) The battery earth lead shall be identified by a yellow marking.

18.5 Reserve Battery Jack Plug: It is mandatory that the reserve jack plug remains ‘as supplied’ on the rear wing mounting plate.

18.6 Charging Circuit:

- (1) It is mandatory to use the 12volt (nominal) alternator ‘as supplied’.
- (2) The Charging circuit must be operational at all times whilst the engine is running.

18.7 Wiring Looms:

- (1) It is mandatory to use the wiring looms, ‘as supplied’.
- (2) No modifications are permitted to the wiring looms.
- (3) Repairs to the wiring loom(s) can only be carried out by Toyota Racing NZ and/or their authorised repairer.
- (4) The only authorised repair facility (appointed representative of Toyota Racing NZ) is Motorsport Electronics.
- (5) All repairs made to the wiring loom(s) will be identified by way of tag detailing the name of the repair facility and incorporating a unique serial number. The repair facility will maintain records of all repairs and provide such information as and when required by Toyota Racing NZ and / or the TRS Championship Scrutineer.

18.8 Dashboard: It is mandatory to use the TOYOTA FT50 car dashboard ‘as supplied’.

19 FASTENERS

19.1 Nuts and bolts must be ‘as supplied’ by Toyota Racing NZ.

- 19.2** The use of additional fastening devices, e.g. bolts, screws, rivets is prohibited.
- 19.3** It is permitted to repair faulty threads by the use of Keen Inserts/Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected.
- 19.4** The use of bonding material (adhesives, glues) to reinforce, replace or supplement any bolted, screwed or riveted joint is prohibited unless specifically provided for elsewhere in these regulations.
- 19.5** It is permitted to use Loctite RC 75/AAV (Retaining Compound) or equivalent, to supplement any screw or bolt thread.

ADDENDUM ONE

FUEL HANDLING AND STORAGE PROTOCOLS

1 FUEL STORAGE and TRANSFER

1.1 All TRS fuel supplies will be stored in sealed drums, in a specified location at each event. TRNZ will advise the location of the fuel storage area to competitors at each event.

1.2 TRNZ staff will be wearing protective overalls, gloves, balaclava, and safety goggles at all times while dispensing fuel. A TRNZ team member, in equivalent protective clothing, will also be assigned to a fire extinguisher during any fuel transfer from this station. [Refer Note 1 below]

A sign may be placed adjacent to the fuel transfer area of the storage container warning that fuel is being dispensed, at the discretion of TRNZ. No personnel except those actually involved in the fuel transfer or with the fire extinguisher will be permitted within 5 metres.

1.3 No smoking signs will also be displayed in the fuel transfer area (5 metre zone).

1.4 No cellphones are permitted within the fuel transfer area (5 metre zone).

1.5 Competitor's team personnel must wear protective clothing within the fuel transfer area (5 metre zone). [Refer Note 1 below]

Note 1: For details on the minimum standards of protective clothing refer to the current MotorSport Manual Appendix Two Schedule A, Article 4.3

2 PIT AREA PRACTICES and COMPETITORS FUEL SUPPLY

2.1 **No Smoking:** The entire TRS pit and paddock area is a no smoking zone. Competitors are requested to assist TRNZ personnel in ensuring this policy is respected.

2.2 **Pit garage storage – during each day:** Competitors will be allowed to store a maximum of 40 litres during the day in their allocated pit garage at any time. Fuel should be placed in a location least likely to be subject to any direct sunlight or other sources of heat. Teams with multiple vehicles should ensure this fuel is not kept in a single location, but appropriately distributed and stored so that no more than 40 litres is stored in any 3-metre radius.

All fuel storage containers must be of a type designated safe for storage of fuel (TRNZ personnel will not transfer fuel into non-compliant containers) and must have the lid tightly closed at all times when not in use.

2.3 **Pit garage storage – overnight:** At the conclusion of practice or competition each day of the event teams are required to remove all fuel (and any other bulk containers of flammable fluids with the exception of aerosol cans) from the pit garages to a secure location outside the pit complex (e.g. race car transporter).

No fuel (or other bulk flammable liquids) apart from that which is in the race car can be stored in TRS marquees/garaging overnight.

2.4 Minimum Fire Extinguisher requirements:

(1) **In pit garage:** All competitors must have at least one (for each car) Multi Purpose dry powder extinguisher (minimum size 4.5 kg), in their allocated pit garage at all times. The fire extinguisher must be in an accessible location at the front of the allocated pit garage.

(2) **In pit lane:** In addition to the extinguisher(s) in the pit garages, all teams shall have at least one Multi Purpose dry powder extinguisher (minimum size 4.5 kg), that is taken to pit lane each time the race car is in practice or in competition.

2.5 Refuelling or de-fuelling the race car:

- (1) All power connections to manually operate the in-car fuel pump must be sealed electrical plugs and temporary alligator style clips or similar are not permitted. Suitable leads are available from **TRNZ**.

For refuelling, funnels are not permitted and competitors must use a manual pump system which has a low risk of spillage

- (2) During refuelling and de-fuelling of the vehicle, competitors are required to have a crewmember ready with an armed fire extinguisher, who is not part of the refuelling or de-fuelling work. No other work is permitted to occur on the vehicle during refuelling and de-fuelling.

All personnel not involved in the refuelling need to be vigilant and members of the public need to be kept well away from the area.

Protective overalls, balaclava, gloves, goggles etc are recommended for competitors' team members involved.

- (3) It is mandatory that the car is on the ground with the wheels fitted, during refuelling and de-fuelling.

Notes:

- *It is suggested that this process should take place immediately prior to leaving the garage for the next session when the vehicle temps are at their coolest.*
- *Competitors should consider static discharge risk and at all times use procedures which will minimise static discharge during refuelling and de-fuelling.*

2.6 Pit garage practices: No competitor is permitted to perform any welding, grinding or other operation likely to cause sparks inside the TRS pit garages.

If such maintenance work is necessary competitors should consult with **TRNZ** personnel or event management staff as to the most suitable location for such work.

Care should also be taken when using any torches or portable AC powered lighting, to ensure that all risks are reduced as much as possible.

2.7 Fuel spillage: If any fuel or oil is spilled on the plastic floors please immediately attend to cleaning it up and notify Toyota Racing **NZ** staff as soon as possible. In the case of fuel spillages, immediately evacuate the immediate area of all personnel not required for containing and cleaning up the spillage.