

2024 Technical Regulations for Toyota Etios(MRF Saloon Cars)

All modifications are forbidden unless expressly authorized by the regulations specific to the group as mentioned below.

Art.1 – Eligible Vehicles & Classes

Toyota Etios Only, following the Homologation #414001

Other than the modification permitted in this regulations rest should follow the Toyota Etios Homologation #414001

Art.2 – Dimensions & Minimum Weight

Wheelbase – 2550mm $\pm 1\%$

Maximum Track width – Front 1468mm Rear 1474mm

Ride Height / Minimum wheel Arch opening:

Minimum Wheel Arch Opening Front – 310mm

Minimum Wheel Arch Opening Rear – 285mm

Minimum weight of the car **975 Kgs**

In order to balance performance, the FMSCI reserves the right to change the minimum weights at any point of time as deemed fit.

These minimum weights must be respected at all times during the event.

The minimum weight of the car measured will be as raced with water, oil, fuel and the driver with complete safety gear (Helmet, inners, suit, gloves, shoes, balaclava etc.)

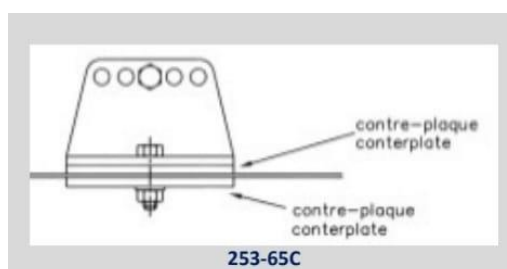
It is permitted to complete the weight of the car by one or more ballast weights provided that they are unitary blocks, rigidly fixed by means of tools on to the **floor of** bodyshell / chassis in a location clearly visible to the scrutineers, with the provision for sealing.

Maximum mass of a single ballast is 30kgs, Maximum mass of ballast at each mounting location is 30kgs and must respect drawing 253-65C.

Ballast must only be made of lead(**no other materials**).

The ballast must be attached to the bodyshell/chassis at least at two fixing points by bolts of at least grade 8.8 with a minimum diameter of 10mm, with counter plates, according to the principle of Drawings 253-65C

The ballast should not have any sharp edges and all the edges must have a minimum radius of 5mm.



The minimum area of contact between bodyshell /chassis and counter plate is 40cm² for each fixing point.

Any movable ballast system is forbidden.

Failing to meet the required weight regulations will result in disqualification or exclusion of the car for the relevant session.

Art.3 – Engine

As supplied by manufacturer, as per Homologation/TDF

3.14-Intake

Only Air filter is FREE

3.15-Exhaust System



Primary Pipe:

Inner Diameter – 48.5mm \pm 1mm

Outer Diameter – 51mm \pm 1mm

Length – 64inch \pm 1inch(measured outer side in all bends)

Secondary Pipe:

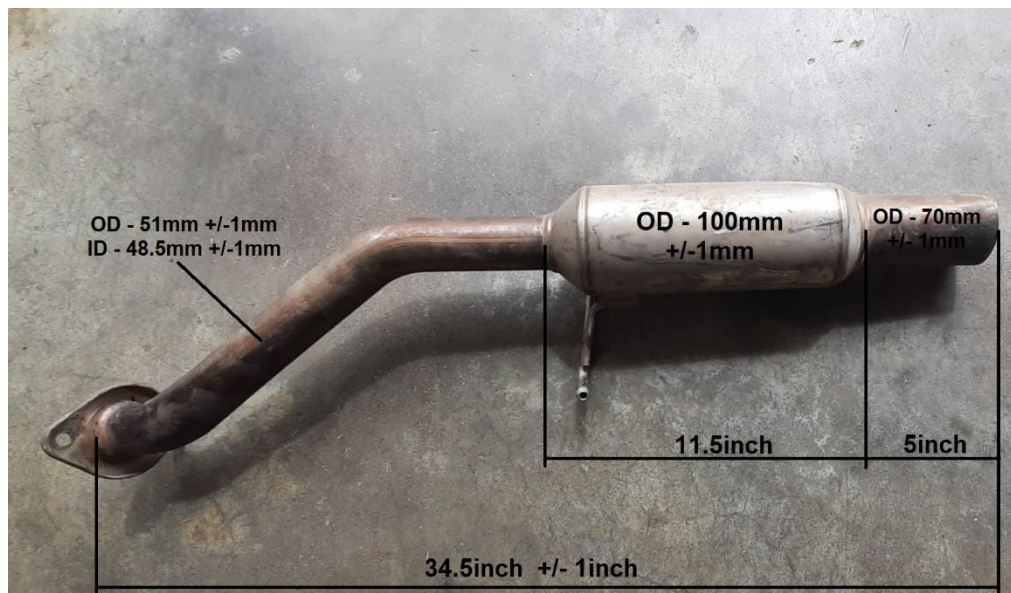
Inner Diameter – 48.5mm \pm 1mm

Outer Diameter – 51mm \pm 1mm

Length – 71.5inch \pm 1inch(measure outer side in all bends)

Tail Pipe:

Length – 34.5inch \pm 1inch



No part of the car must touch the ground when all the tyres on one side are deflated. This test shall be carried out on a flat surface under race conditions (occupants on board).

Art.4 – Fuel Circuit

Fuel FREE

4.1-Fuel Tank

As supplied by manufacturer, as per Homologation/TDF

4.2-Fuel Pump

As supplied by manufacturer, as per Homologation/TDF

Art.5 – ECU, Wiring Harness & Electrical Equipment

5.1-ECU & Wiring Harness

OE as supplied by the manufacturer

01) ECU



02) ECU



3) ECU MAKE



4) ECU in its Location(under dashboard co-driver side)

**5.2-Battery**

As supplied by manufacturer, as per Homologation/TDF

Art.6 – Power Train

As supplied by manufacturer, as per Homologation/TDF

Art.7 – Axles & Suspension**7.1-Suspension System**

Springs:

Spring Rating Front – 14kg/mm

Spring Rating Rear – 16kg/mm

Front Springs:

Maximum Free Length of Springs – 205mm

Maximum External Diameter of Springs – 101mm

Spring wire Diameter – 14.6mm ± 0.15 mm

Number of Spring coils – 6.9

Rear Springs:

Maximum Free Length of Springs – 165mm

Maximum External Diameter of Springs – 125mm

Spring wire Diameter – 11.6mm ± 0.15 mm

Number of Spring coils – 8

Shock absorbers:

Front Dampers:

Front Open Length – 518mm

Front Close Length – 415mm

Rear Dampers:

Rear Open Length – 547mm

Rear Close Length – 455mm

1)Front Suspension Unit



2)Rear Suspension Unit



3)Front Suspension Unit



4)Rear Suspension Unit



7.2-Axle

As supplied by manufacturer, as per Homologation/TDF

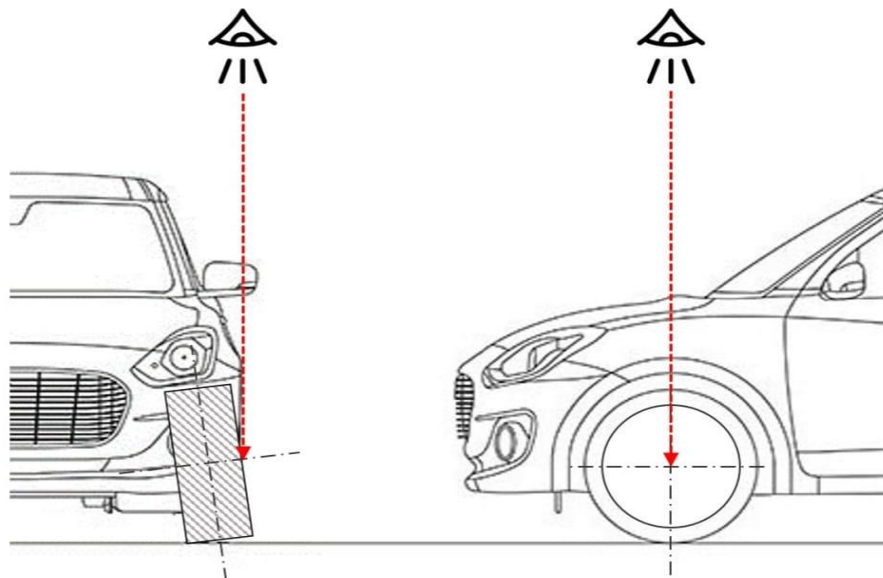
Art.8 – Running Gear

8.1-Wheels(Rims & Tyres)

TRD Enkei wheels only

Diameter 15inch & Width 7inch & offset 40mm

No portion of the tyre above the centre line must be visible when viewed from the top(see drawing 8.1-1)



8.1-1

8.3-Brake System

OE as supplied by manufacturer, as per Homologation/TDF
Brake Pads are FREE.

Art.9 – Body Work

Body skirts are optional

Art.10 – Safety Requirements

As per 2024 FMSCI Racing Regulations Appendix-J Art 253 Safety Equipment (Group N, A) and
As per FMSCI 2024 Safety Requirements for 4Wheeler.

10.1-Driver Safety Equipment

As per FMSCI 2024 Safety Requirements for 4Wheeler.

Its highly recommended to use FHR

From 01.01.2025 its mandatory to use FHR along with Helmets compatible to use with FHR as per FIA standards.

10.2-Roll cage

As supplied by TRD

10.3-Seat & Seat Belt

As per FMSCI 2024 Safety Requirements for 4Wheeler.

Minimum Requirement 5point Safety Harness

10.4-Fire Extinguisher

The minimum Quantity of Extinguishant for system mounted(plumbed in system) must be 3kg.
Manual Extinguishers

Minimum Quantity of Manual Extinguishant:

- AFFF 2.4liters
- FX G-TEC 2.0 kg
- Viro 3 2.0kg

- Zero360 2.0kg
- Powder 2.0kg

Fire Extinguishers to be rigidly fastened with a quick release clamps (minimum 2 nos.) fitted in an easily accessible and a visible position. The mounting bracket of the fire extinguisher must be bolted to the floor with a bolt of minimum 10 mm diameter. The minimum bracket thickness-2mm MS SHEET METAL

10.5-Protective Padding

Where the occupant's bodies could come into contact with the safety cage, flame retardant padding as per FMSCI 2024 Safety Requirements for 4Wheeler must be provided for protection.

Art.11 – Data Acquisition

No communication of any sort between the driver and the pits or other drivers. Whether by radio, cellphone or by any other communication signals between car and pit once the car is on the track.

The drivers are not allowed to carry cell phones while on the track during the sessions.

Violation of the above regulations will entail disqualification.

Note: If any ambiguity or missing data from the Homologation / TDF form, the FMSCI may source any component from the OE manufacturers to compare dimensions.

NOTE: Changes for the 2024 Technical Regulations are highlighted in Yellow

****END****