

Queensland Super TT Technical Regulations v1.2 For Effect January 2025

Philosophy

The formation of Queensland Super TT (QSTT) is to provide a cost-effective home for competitors that wish to race in a close-quarters series with a broad range of eligible cars, that has a wide scope for vehicle improvement allowing competitors to build a vehicle to their taste. The framework of QSTT is designed to encourage outside of the usual car builds through a fairly open ruleset whilst also equalising the playing field by using a control tyre.

Preamble

Each Automobile must conform to the general vehicle requirements as laid out in the governing bodies regulations for safety as well as the following series regulations:

1 Vehicle Eligibility

1.1 Queensland Super TT

A competition automobile derived from a mass produced, road-registerable production vehicle made available for sale through a dealer network in any region of the world.

1.2 Eligibility

The vehicle model will be considered eligible provided it complies with 1.1 and the following:

- i) The Vehicle must have been manufactured with at least 2 (two) seats
- ii) The vehicle must only have 4 (four) wheels
- iii) All road wheels must be covered by bodywork
- iv) Cab-chassis utes must have been offered and fitted with a style-side tub

1.3 Further Eligibility

Eligibility may also be grandfathered in if the vehicle in question is close – enough to meeting the technical requirements and has a prior documented racing history

1.4 Invited Vehicles

Vehicles outside the general scope may be eligible for entry at the discretion of the category manager

2 Bodywork

2.1 Roofline

- i) The vehicle must retain the original roofline and turret on all models except convertibles
- ii) Sunroof glass may be replaced with a panel made from any material
- iii) Convertible hardtops are free in design

2.2 Fenders / Guards & Quarter Panels

- i) The fenders & quarter panels must completely cover the top of the tyre when viewed from above
- ii) Wheel openings should remain similar to OE in shape, location of the openings may vary with a small degree of freedom
- iii) A single vent opening, or series of louvers above each front tyre is acceptable
- iv) Reshaping a guard behind the wheel & below the centerline of the wheel is acceptable
- v) Flares, replacement wider-width guards, or over fenders are acceptable
- vi) Additional width added should not exceed 100mm per side
- vii) Materials of replacement panels are free

2.3 Doors

- i) The door shape should remain unchanged
- ii) All doors should be operable from outside of the vehicle. The drivers door, and the front passenger door should also be operable from the inside
- iii) Rear flares or over-fenders that extend onto the doors should not impede the function of the door
- iv) The drivers door should have a door card or panel to prevent the drivers arm entering the door cavity if the door internals are removed
- v) It is highly recommended that vehicles retain the standard doors with the built-in intrusion bars even if they are modified for weight reduction
- vi) Materials of replacement doors are free provided;
- vii) Doors made from materials other than standard, are only permitted on vehicles fitted with two side intrusion bars

2.4 Mirrors

- i) A single mirror inside the vehicle is required
- ii) At least one mirror is required externally
- iii) Mirror design is free

2.5 Front & Rear Bumpers

- i) Front and rear bumper design is free
- ii) Materials of replacement bumpers are free
- iii) A crash absorption structure of free design is highly recommended

2.6 Side Skirts

- i) Side skirts should be entirely below the bottom of the door/s
- ii) Side skirts should not make a seal with the ground for aerodynamic advantage
- iii) Materials of side skirts is free

2.7 Bonnet & Boot

- i) Bonnets are free in shape and design but should be similar to OE
- ii) Vents and reverse cowl scoops on bonnets are acceptable
- iii) Forward facing scoops or ducts for air intake are not permitted on the bonnet
- iv) Boot lids are to be identical to OE
- v) Vents are not acceptable in boot lids
- vi) Reliefs can be made in boot lids for the fitment of wings / spoilers or rain lights
- vii) Any panel which opens into the airstream must have two separate locks to retain bonnet i.e. bonnet pins
- viii) It is recommended that vehicles with bonnets that open away from the airstream still have restraints fitted

2.8 Windows

- i) Windscreen shall remain glass
- ii) All other windows can be replaced with a shatter-proof plastic window
- iii) Vents in non-glass windows are acceptable
- iv) Windows in doors are optional, but recommended
- v) Plastic windows in doors shall have a hole or series of holes cut for the express purpose of being able to pull the window out of the frame in an emergency

2.9 Miscellaneous Aerodynamic Devices

- i) Flat floors are not permitted
- ii) Ground-effects are not permitted
- iii) Diffusers are not permitted, unless OEM fitted
- iv) Aerodynamic devices must not be operable from inside the vehicle
- v) Active aerodynamic devices are not permitted

2.10 Front Aerodynamic Devices

- i) Air dams are allowed
- ii) Splitters are allowed
- iii) A Splitter should extend no further than 100mm from the extremity of the bumper. See Fig 1.
- iv) Undertrays are allowed
- v) Undertrays should not extend any further rearwards than the front axle centerline. See Fig 2.
- vi) Aerodynamic devices should be of satisfactory construction to remain attached to the vehicle at all normal operating conditions

Figure 1.



Figure 2.



axle centreline

2.11 Rear Aerodynamic Devices

- i) Rear wings are acceptable
- ii) Rear spoilers are acceptable
- iii) Wings should only contain a maximum of two elements
- iv) Gurney flaps are acceptable
- v) Wings including end plates should be no higher than the roofline of the vehicle. See Fig 3.
- vi) Wings including end plates should not extend any further rearwards than the extremity of the rear bumper. See Fig.3
- vii) Wings should not be wider than the outermost bodywork which is not a mirror

Figure 3.



2.12 Lighting

- i) A light, or light assembly OEM or otherwise should be fitted in each OEM headlight opening. This does not include fog light or other openings
- ii) Headlight openings should not change in shape from OE
- iii) If glass headlights are used, they must be laminated with a transparent vinyl to help contain glass in a breakage
- iv) Stop and taillights are required
- v) Indicators are recommended, very least at the rear of the vehicle
- vi) Rain light/s are required to be fitted to the rear of the vehicle

2.13 Miscellaneous

- i) A windscreen wiper must be fitted to the vehicle
- ii) A dashboard resembling the OE dashboard for the vehicle is required
- iii) All other interior trims and panels are free

3 Chassis

3.1 Floorpan & Chassis

- i) The floorpan between the firewalls should remain intact except for the following;
- ii) to allow fitment of a driver's seat and pedal box, to allow fitment of 3 or 4 link suspension boxes, to enlarge wheel tubs or for fitment of an exhaust box
- iii) Material may be added to strengthen the floorpan around crossmember mounts, rollbars or jacking points
- iv) The chassis rails are to remain mostly intact. Material is permitted to be added for subframe mounting points or sway bar mounts
- v) Any unused brackets may be removed

3.2 Transmission Tunnel

i) It is permitted to modify the transmission tunnel

3.3 Firewalls

- i) The firewall which separates the engine from the cabin should be unmodified
- ii) The firewall should not be modified to facilitate engine swaps
- iii) Any holes made in the firewall made by removal of fuse boxes or heater boxes, or any other opening should be closed so that the firewall is impenetrable by fuel or fire
- iv) A rear firewall (or front for a mid or rear engine), also impenetrable by fuel or fire, is to be fitted if fuel system components are added in that area

3.4 Wheel Tubs

i) Wheel tubs are free provided structural integrity is retained

3.5 Roll cage

- i) A structural roll over safety cage is required to be fitted in accordance with the governing bodies specifications for race events
- ii) Tying suspension points into the roll cage is acceptable
- iii) It is highly recommended that vehicles are built with national level roll cages with two side intrusion bars and a sainz bar

3.6 Miscellaneous

- i) Air jacks are permitted to be fitted
- ii) Seam welding is permitted

3.7 Tow Points

- i) Tow points shall be fitted at the front and rear of each vehicle
- ii) The tow point shall be capable of accepting a 40mm OD cylindrical object
- iii) The tow point should be strong enough to drag the vehicle with all four wheels locked
- iv) Each tow point shall be clearly marked
- v) If a tow point is not obvious, it should be clearly identified where it is

4 Suspension & Steering

4.1 Front Suspension

- i) Front suspension is free in design provided that original layout is retained. There are two caveats to point 1 (i) which are;
- ii) Virtual pivot layouts can be reconfigured as a double wishbone layout and
- iii) Vehicles which use the sway bar as a radius arm may reconfigure in a conventional arrangement with a divorced sway bar
- iv) The wheelbase should be as close to stock appearing as possible
- v) There are no ride height restrictions

4.2 Steering

- i) Steering systems are free in design provided;
- There is to be a direct mechanical connection from the steering wheel to the steering rack / box. This is directed at electric power steering systems which only have a mechanical connection when in a failure mode
- iii) Steering is prohibited on the rear axle unless it is featured as standard

4.3 Rear Suspension

- i) Rear suspension is free in design
- ii) The wheelbase should be as close to stock appearing as possible
- iii) There are no ride heigh restrictions

5 Brakes

5.1 Brake System

- i) The hydraulic brake system including pedal box and calipers is free provided that;
- ii) There is to be two separate hydraulic circuits fitted
- iii) Brake rotors are to be made from ferrous material
- iv) ABS is permitted if it is being retained in the vehicle as fitted by the manufacturer
- v) Motorsport ABS systems are prohibited
- vi) A park brake is not required

6 Driveline

6.1 Engine

- i) Engine swaps are acceptable provided the engine is in the same location as the original and the firewall is not modified
- ii) Maximum naturally aspirated engine capacity is 7 liters (428 Cubic inches)
- iii) Maximum forced induction engine capacity is 4.5 liters (275 Cubic inches)
- iv) Engine aspiration is free, however compound or multiple forced induction methods are not permitted
- v) Engine modifications are free
- vi) Engine mounting is free
- vii) Engine electronics are free
- viii) Nitrous oxide is prohibited
- ix) Dry sump oil lines may pass through the cabin provided the only connections in the line is at each bulkhead
- x) An oil catch can must be fitted as per governing body regulations
- xi) Two throttle return springs must be fitted for vehicles with a throttle cable

6.2 Cooling system

- i) Cooling system is free
- ii) Non-Glycol based coolants or demineralized water must be used

6.3 Gearbox

- i) Gearbox is free
- ii) AWD vehicles may be modified to be RWD
- iii) Manual gearboxes may only have a maximum of 6 forward gears, this also covers automated manual gearboxes
- iv) A reverse gear is required
- v) Manualized automatics and DCT / PDK / SMG gearboxes are allowed

6.4 Differential

i) Final drive and differential are free

6.5 Wheels

- i) Wheels are free provided they are not;
- ii) Made from materials other than aluminium alloy or steel
- iii) Wheels with spokes that protrude outside the tyre are not recommended
- iv) Centre-lock wheels are required to have a device to mechanically retain the wheel nut on the spindle

6.6 Tyres

- i) QSTT will use a control tyre
- ii) From January 2025 Onwards the approved tyres will be either;
- iii) RoadX RT01 in any available sizes or
- iv) Goodride Sport RS in any available sizes
- v) Tyres must be above the treadwear indicators at the start of the weekend, save for the outermost section of the tyre

7 Fuel System

7.1 Fuels

i) Commercially available diesel, unleaded fuels and ethanol blended fuels are the only types permitted for use

7.2 Fuel System

- i) Fuel system is free in design
- ii) Any non-standard fuel tank used must comply with governing body regulations
- iii) Any fuel cell used must comply with governing body regulations
- iv) A fuel cell, tank or surge tank located inside the cabin must be separated from the cabin by a firewall
- v) Fuel lines may pass through the cabin provided that the only connections are at each firewall

8 Exhaust system

8.1 Exhaust

- i) Exhaust is of free design
- ii) The exhaust must exit at the rear of the vehicle behind the axle or;
- iii) For a side exit exhaust, the centerline of the exhaust opening must be no further forward than the centerline of the wheelbase
- iv) Noise should be a consideration when building an exhaust so that it complies with track noise limits

9 Weights

9.1 Minimum Weight

- i) There is no minimum weight
- ii) QSTT Reserves the right to add minimum weights

10 Safety

10.1 Seats

i) Seats and seat mounting shall comply with governing body regulations

10.2 Safety Harness

i) Harness' shall comply with governing body regulations

10.3 Padding

i) Padding shall be installed according to governing body regulations

10.4 Window Net

i) A window net shall be installed according to governing body regulations

10.5 Battery isolator

- i) A battery isolator shall be installed according to governing body regulations
- ii) The car should be able to be isolated by a driver tightly strapped into the car

10.6 Battery

- i) The Battery should be installed securely
- ii) Battery terminals or the entire battery should be covered to prevent short circuits

10.7 Fire Extinguisher

i) A fire extinguisher shall be installed according to governing body regulations

11 On Board Video

11.1 Cameras

- i) All cars in an official session are required to carry at least one camera facing forward which is positioned in a way to see the trajectory of the vehicle and driver movements
- ii) Additional cameras are up to the driver's discretion

12 Vehicle Presentation

12.1 Signage

- i) Racing numbers are required on the front and rear of the vehicle
- ii) A racing number is required on each side of the vehicle, either on side of the bodywork or on the window
- iii) The driver's surname is recommended to be displayed on the rear quarter glass, rear passenger door windows or above the front door window on the roof
- iv) All series and series sponsor stickers are required to be fitted to the vehicle in all official timed sessions
- v) It is not required to have replica graphics fitted to the vehicle
- vi) Car number 1 is reserved for the outright champion
- vii) Markings clearly identifying tow points are required
- viii) A battery and battery isolator triangle sticker must be fitted to the vehicle
- ix) See appendix A for guidance and sizing

12.2 Appearance

- i) The vehicle shall start the weekend with all bodywork fitted to the vehicle
- ii) A concerted effort should be made to make the car presentable when at an event or representing the category

Appendix A – Vehicle Signage

- Racing numbers are required on the front and rear windscreen
 - a) Numbers on the windscreens are to be in Day-Glo yellow only. The font should be Arial Black or similar and sized to be 150mm tall
 - b) Numbers on the side of the vehicle are required, of which we suggest any of these 3 variations;
 - i) A black number at least 230mm tall on a white background panel (or inverted white number on a black panel)
 - ii) A stylized nascar-like number located between the front wheel and the b-pillar which is at least 230mm tall or;
 - A Day-Glo yellow number placed on a side window, typically above the surname in the font Arial Black or similar and is ideally 180mm tall, but can be sized so that it fits the window area

- The drivers surname is recommended to be shown on the side of the vehicle and displayed in either of two variations:

- a) Surname, white in colour and in the font Arial Black or similar, sized between 100 and 60mm tall depending on space available. For utes the name can also run vertically down the quarter window
- b) Above the drivers door on the roof. This may be a stylized font in any colour

- The space at the top of the windscreen is reserved for a category or series sponsor window banner

