

Tradie Ute Challenge Rules (version 1.4: 1/04/2016)

The aim of the Tradie Ute Challenge is foremost to provide a safe low cost entry level Circuit Racing format that is fun and provides a competitive environment where drivers are able to improve their race craft.

www.trackattack.com.au

*If you have any questions regarding these specifications, please contact
Brett Peters 0429 528 400*

1. Eligibility

- *Holden Commodore VU, VY II & VZ 3.6 V6, 3.8 V6, Commodore Exec or S Pac – naturally aspirated*
- *Ford AU > BA 2000 > 2005 4.0 6 cylinder, XL, XLS or XR6 - naturally aspirated*
- *Nissan Navara D22 series II DX 2000 > 2005 2.4 4 cyl or V6*
- *Nissan Navara D40 ST-X 2005>2009 4.0 V6 (but 6 speed manual)*
- *Mazda B series 2000> 2006 2.6 4 cylinder (4.0 V6 only in some dual cabs and 4X4)*
- *Toyota Hilux RZN149R 2000 >2004 2.7 4 Cylinder only (Workmate 2.0 also available)*
- *Toyota Hilux GGN15R 2000 > 2015 2.7 4 cylinder*
- *Toyota Hilux GGN15R 2005> 2015 4.0 V6*
- *Mitsubishi Triton MK 1997>2006 4 cylinder 2.4 or 3.0 V6*
- *Mitsubishi Triton ML 2006> 2015 4 cylinder 2.4 or 3.5 V6*
- Body to be unmodified - no cutting of any bracing. , All bracing including bonnet to remain stock
- The strut towers must NOT be modified - no redrilling top of towers front or rear
- Seam welding is not permitted
- The driver, entrant or one sponsor must be a tradie....

2. ENGINE

All engines must remain standard except for standard engine reconditioning procedures detailed below. Engine must remain to the same model. E.g. AU must have AU engine, but you can retro fit an AU 6 Cyl into an AU V8 shell. All plastic shrouding located in the engine bay, the sole purpose of which is aesthetic, may be removed. Soundproofing material and trim fitted to the underside of the bonnet that is not visible from the outside may be removed. All vehicles will be Dyno'd (see 10.9 & 11) and the engine sealed prior to the vehicles first event.

2.1 MOUNTS:

The dampening material of the engine mounts is free so long as it replaced with elastomeric material and provided the location, position and orientation of the engine remains standard. i.e. No solid mounts

2.2 CYLINDER BLOCK:

It is permitted to increase the cylinder block bore diameter up to a maximum of 0.6mm over the standard bore size. It is permitted to re-sleeve the cylinder bores of a sleeved block, or to fit a sleeve to a unitary block, provided that in each case the material used to sleeve the cylinder bore is either the same as the standard bore or is cast iron. It is also permitted to remove material from the head gasket contact face of the cylinder block up to a maximum of 0.25mm provided the engine's compression ratio remains within the automobile manufacturer's limits.

2.3 CYLINDER HEAD/S:

It is permitted to remove material from the head gasket contact face of the cylinder head up to a maximum of 0.25mm provided the engine's compression ratio remains within the automobiles manufacturer's limits. It is also permitted to re-grind valve seats provided that the grinding process does not remove any of the cylinder head casting.

2.4 CRANKSHAFT:

The maximum amount of material permitted to be removed from any crankshaft journal diameter is 0.25mm. For the purpose of balancing, it is permitted to remove material from the crankshaft.

2.5 CONNECTING RODS:

Each connecting rod of a reciprocating engine may be replaced provided the replacement is of a solid magnetic steel construction, the distance between the centre of the big end and small end tunnels are the same as the standard connecting rod and the weight of the connecting rod is within 2.0% of the standard connecting rod

Note: the connecting rod weight is inclusive of the small end bush, big end bearings and bolts and nuts

2.6 PISTONS:

Pistons may be replaced provided the replacement piston has an identically shaped crown to that of the standard piston, the distance between the gudgeon pin centre line and the highest point of the piston crown remains the same as the standard piston and the weight of the piston is within 2.0% of the standard piston. No part of the replacement piston is permitted to be coated unless supplied as standard equipment. Note: The piston weight is inclusive of gudgeon pin, locks and piston rings

2.7 PISTON RINGS:

Piston rings maybe replaced provided the number of compression and oil rings remain the same as the standard piston, the number of components per ring remains the same as the standard piston rings (ie, single piece compression rings may not be replaced by two piece 'gapless' rings) and the face of each piston ring (the part of the ring which is in contact with cylinder wall) must not be less than that of the standard ring

2.8 CAMSHAFT/S:

The timing of the camshaft in relation to the crankshaft is free. The camshaft drive components are free provided the method of operation remains standard (ie, chain drive systems must remain chain drive) and no additional modifications are made to facilitate the fitment of replacement component

2.9 LUBRICATION:

The removable portion of the oil sump is free provided any additional material added to the oil sump is the same as that of the standard oil sump and no additional modifications are made to facilitate the fitment. It is permitted to modify the oil pickup and to add an oil separator tank to the crankcase breather line.

2.10 THROTTLE/ INLET MANIFOLD/ AIR CLEANER

Where an automobile is fitted with an electronically controlled throttle valve/s, it is permitted to replace the electronic assembly with a mechanical assembly provided the replacement assembly respects the exact shape and dimensions of the standard assembly in all areas that come in contact with the engine intake air. In this instance it is permitted to replace or modify parts of the pedal assembly, the sole function of which is to operate the replacement throttle control valve, as well as fit a throttle cable, associated mounting brackets and a replacement or addition throttle position sensor. It is permitted to fit a duplicate throttle cable and associated mounting brackets. Cruise controller units must be disconnected and/or removed. The original air cleaner box may be removed and replaced with a cone-type replacement air element attached directly to the unmodified front snorkel tube, elbow and external support bracket. The inlet manifold must remain standard and unmodified.

2.11 PULLEYS:

Each pulley that drives engine ancillaries (ie, water pump, alternator, etc) is free. Each associated belt may be replaced provided it respects the standard type and width.

2.12 ELECTRONIC ENGINE CONTROL UNIT:

Electronic engine control units are to remain standard. OB plugs will be blanked and sealed.

2.13 COOLING SYSTEM:

Radiators may be replaced provided the width, height and position of the replacement radiator is the same as the standard radiator. No additional modifications are permitted to be made to facilitate the fitment of a replacement radiator other than the complete removal or modification of the plastic fan shroud. Water pumps are free provided they are mechanically identical to the standard pump. The thermostat, its operation and method of control is free as is the method of operation of the standard engine cooling fan/s and the manner in which the radiator pressure is maintained. It is permitted to fit a protective screen mounted in front of the radiator provided no additional modifications are made to facilitate the fitment. It is permitted to fit an engine, transmission, final drive and power steering oil cooler provided that the sole purpose of the cooler is to reduce the oil temperature and the direction of oil flow within the engine is unchanged. All coolers and associated components must remain inside the external bodywork. The only modification permitted to facilitate the fitment of coolers and associated components is the relocation of the oil filter and the drilling of holes for mounting purposes.

2.14 EXHAUST:

The exhaust system is free downstream of the final junction point of the exhaust manifold.

2.15 AIR CONDITIONING COMPONENTS:

Any components solely associated with the air conditioning system of the automobile may be removed from the engine compartment.

3. TRANSMISSION

3.1 MOUNTS: The dampening material of the transmission mounts is free provided the location, position and orientation remains standard.

3.2 GEARBOX:

Shift forks, shift hub keys and shifter bushes are free provided no additional modifications are made to facilitate their fitment. It is also permitted to fit an extension to the transmission breather using a short length of tubing.

3.3 FLYWHEEL:

The flywheel may be replaced provided the outside diameter is identical to the standard flywheel, it is made of a steel construction and the weight is within 2.0% of the standard flywheel.

3.4 CLUTCH:

The clutch driven plate/s is/are free provided the number of plate's remains standard and the plate/s are not made from a carbon material. The pressure plate may be replaced by another assembly, the primary mechanism of which must remain mechanically identical to the standard assembly.

3.5 DIFFERENTIAL AND FINAL DRIVE ASSEMBLY:

All vehicles must be fitted with a spool diff. Locked is allowed (ie.cig special)

The final drive ratio must be 3.45:1 (tooth count 38:11) for both Ford & Holden.

3.6 ELECTRONIC TRANSMISSION CONTROL UNITS:

The use of electronically or automatically adjusted drive systems are prohibited, unless the system is standard. In this case, the system may only be operated by the standard electronic transmission control unit utilising the manufacturer's standard software with standard

4. SUSPENSION

4.1 GENERAL:

The adjustment of suspension geometry within the range of adjustment provided for by the manufacturer, or as permitted by such modifications as are permitted by the present technical regulations, is free.

4.2 COIL SPRINGS:

The length, wire diameter and external diameter of each coil spring is free, as is the type (ie, linear or progressive) provided that each spring is made from a ferrous material. The use of a keeper spring in series with the primary spring is permitted.

4.3 LEAF SPRINGS:

The length, width, thickness, number of leaves and vertical curvature is free.

4.4 TORSION BARS:

Each torsion bar is free provided no additional modifications are made to facilitate the fitment of a replacement and it is made from a ferrous material. A torsion bar is not permitted to be replaced by another type of primary springing medium, eg, a coil spring.

4.5 SPRING SEAT:

Each coil spring seat, which is not permanently attached to the chassis/body work, is free. Each permanently attached spring seat is permitted to have an adaptor added to facilitate ride height adjustments, provided no material is removed and the spring seat remains concentric with the original seat.

4.6 SHOCK ABSORBERS:

Coil over suspension is allowed. Racing suspension is not permitted, ie. No canisters or external reservoirs. That the number, type, working principle and the attachment points must remain unchanged.

The rubber bush/es may be replaced by a 'Uniball' joint/s. Where a standard shock absorber forms an integral part in the attachment of the wheel hub assembly to the

Chassis/body work (ie, MacPherson strut), the shock absorber assembly, in its entirety, is free. No additional modifications are permitted to facilitate the fitment of the replacement shock absorber assembly. The resulting replacement shock absorber assembly must be fully interchangeable with the standard unit.

4.7 ATTACHMENT POINTS:

In the case of independent suspensions it is permitted to relocate in a horizontal and lateral plane, the mounting point/s of the lower and upper control arms to a maximum distance of 25mm each side. In this case the track of the modified axle is free. In the case of MacPherson struts, it is permitted to replace the upper insulating/bearing block with another of free design provided that the original attachment points on the body shell are utilised; Reinforcing of each suspension attachment point is permitted, provided the material used follows the original shape and is in contact with the standard attachment point.

4.8 SUSPENSION BUSHES:

Each elastomeric suspension pivot point bush and sub frame mounting bush may be replaced by a mechanically identical bush made from another elastomeric material. In the case where a suspension bush incorporates an outer metal shell and/or a central crush tube, these components will be regarded as part of the bush. Each outer shell or central crush tube must respect the dimensions of the standard bush. In the case where a suspension bush is integrated with a secondary component, such as a suspension arm, only the elastomer material shall be regarded as the bush.

4.9 RIDE HEIGHT:

Automobile must be at least 80mm above the ground when measured at cross member/K Frame The ride height will be measured with the driver at a specific tyre pressure.

4.10 STEERING:

It is permitted to add components to the steering tie-rods in order to continue to provide adjustment of the toe angle. Tie-rods may also be shortened if necessary. The locking system of the anti-theft steering lock may be rendered inoperative. It is permitted to replace the steering wheel provided the rim of the replacement steering wheel remains within 50mm of the location of the rim of the original steering wheel. Power steering belts etc may be removed and replaced with remote electric pump.

5. WHEELS:

Each wheel is must be up to 18" x 8" and be ADR approved.

Wheel attachment studs are free provided the number of studs remain the same, the diameter of the replacement stud is equal to or greater than the standard studs and no additional modifications are made to facilitate the fitment of the replacement studs.

6. TYRES

Tyres will be a control item – Achilles ATR-K Sport 235/40/18. It is available exclusively from, Rob Whyte Motorsport - 0431 333 084.
312 Staplyton Jacobs Well Rd
Staplyton 4207
Cost is \$235 per tyre.

7. BRAKES

7.1 ANTI-LOCK BRAKES (ABS):

ABS may be rendered inoperative by using one of the following methods:

- (i) The removal of electrical power to the electronic operating system. If this method is utilised it is permitted to mount a driver operated switch to perform this function;
- (ii) The replacement of the main ABS actuating system with the fitment of a junction block. No modification to the brake lines is permitted.

7.2 EBD:

Where an automobile is fitted with electronic brake force distribution (EBD), it is permitted to either replace the original master cylinder with a mechanically identical unit incorporating a mechanical proportioning valve, or add a mechanical proportioning valve to the rear brake line; such valve must not be adjustable within the cockpit.

7.3 POWER-ASSISTED BRAKING:

The vacuum assist of the braking system may be rendered inoperative. It is permitted to modify the servo unit by replacing the internal valve system, diaphragms and pushrods with a solid rod linking the unmodified brake pedal to the master cylinder. The fitment of an additional vacuum reservoir tank is permitted provided that the tank is mounted under the floor pan of the automobile. No additional modifications are permitted to be made except for the drilling of holes for mounting purposes and the addition of a one-way valve and vacuum line.

7.4 PADS:

Brake pads will be free – May be a controlled item in the future.

7.5 ROTORS:

Each brake rotor and mounting hat is free provided it complies with the following:

- (i) the diameter of each brake rotor must not be greater than 300mm;
- (ii) the width of each brake rotor must be within +5mm, -2mm of the width of the standard brake rotor;
- (iii) Each brake rotor must be made exclusively from a ferrous material. If separate mounting hats are utilised, the brake rotor must be solidly fixed to the mounting hat in such a manner as to permit no movement of the disc relative to the hat.

7.6 CALIPERS:The brake calipers must be the standard version as fitted on the make and model.

7.7 PARK BRAKE:

It is permitted to render the park brake inoperable via the removal of components, the sole purpose of which is to operate the park brake.

7.8 BACKING PLATES:

The backing plate may be removed.

7.9 BRAKE COOLING:

It is permitted to remove any blanking plates, covers or fog lights (and associated hardware) located in the lower section of the standard front bumper bar, solely for the purpose of providing additional cooling air to the front brakes

8.0 FUEL TANKS

The fuel tank must remain standard as manufactured.

8.1 FUEL/ PUMPS

- Racing fuel, additives and octane boosters is not permitted
- Fuel must be pump fuel, 91, 95 and 98. Ethanol blended fuel is permitted, for example E10, E85

Fuel pumps should be standard, but a replacement aftermarket pump may be used so long as it fuel pressure remain the same.

9. ELECTRICAL EQUIPMENT – Control Unit optional (TBA)

The only inputs which are permitted are allowed are as follows:

G forces; 1x wheel speed; Trigger device for lap timing; brake light; engine RPM; Steering angle

10. BODYWORK

10.1 EXTERIOR:

It is permitted to reform the wheel arch beading against the inside of the wheel arch and remove the plastic inner guard liners. Plastic shrouds fitted under the body of the automobile (licked by the air flow) may be removed. Protective headlight covers may be fitted provided that they have no influence on the automobile's aerodynamics. The body must be style side, Weight for parity must be placed securely in the tray such to pass scrutineering, however lids with tether straps are permissible as part/all of weight. If no lid then tailgate must be secured. Cab Chassis/Tray backs are not allowed, however Japanese Ute can have "Hughes Style" Tray's fitted.

10.2 JACKING:

On-board jacking systems are strictly prohibited The jacking points may be strengthened by the addition of metal plate/s, relocated and/or increased in number provided that each jacking point does not exceed a surface area of more than 150mm x 150mm and follow the contours of the original structure..

10.3 INTERIOR:

The driver's seat may be replaced by one that complies with the FIA 8855/99 standard. The seat may be made from carbon fibre or carbon/Kevlar® material. The driver must use a safety harness that complies with QR minimum rules.

The following may be removed from the cockpit:

- roof padding and lining;
- carpets and insulating material;
- front passenger and rear seats;
- components solely associated with the air conditioning system;
- restraint systems and supplementary restraint systems;
- spare wheel and wheel changing equipment. The removal of above items is permitted, provided that no additional modifications are made to facilitate their removal and any void that is created as result of the removal of a component (ie, sound systems) is replaced by a suitable panel. Door trims may be replaced with trims made from different material.

The only components which can be added in the cockpit are:

- safety equipment and structures;
- tool kit;
- additional instruments;
- electronic equipment;
- driver cooling system;
- ballast;

(vii) driver ventilation equipment.

None of the above items may hinder cockpit exit or driver's visibility or increase the engine power or influence the steering, transmission, brakes, or roadholding of the automobile in a direct or indirect manner. Each control must retain its standard function although it is permitted to adapt each control to facilitate their use and accessibility (ie, a longer handbrake lever, an additional flange on the brake pedal etc).

10.4 Roll Cage

Roll cage must be to CAMS specifications for state level racing.

Refer - <http://docs.cams.com.au/Manual/GeneralRequirements/GQ11-Schedule-J-2015-1.pdf>
N.B. However to race at QR and Lakeside it does not require a CAMS approved tag or certificate.

10.5 Mirrors – see Qld Raceways minimum requirements

10.6 Lights:

Forward facing factory "white" lights must be fitted and illuminated when on track at wet events. It is permissible to replace park lamp bulbs with brighter lamps to meet this requirement. Fog lights if standard are approved. A functioning rain light shall be fitted and must be illuminated when on track at wet events.

All vehicles shall be fitted with operational brake lights in the factory location.

10.7 In Car Video Camera:

Type is Free. Use of a forward facing video camera is mandatory. The camera shall be recording whenever the vehicle is on track. No external suction cup mounts. (Note this is a QR policy.) Any internal mount shall be suitably robust so as to prevent its coming loose and becoming either a missile or other hazard inside the cabin. Tethers are strongly recommended for suction mounted internal cameras.

10.8 Timing Device Mounting requirements:

All vehicles will require a timing device which are purchased from Qld Raceways.

10.9 Weight

Power to weight will be considered to bring about parity. A weight/ballast box (see design below) and its position (left hand front of tub) is compulsory. After the Dyno is done prior to first event, each Ute model will have a parity weight applied. The ballast box can be made to similar design or they are available from Peters Motorsport for \$89. Ph 07 3880 0000



11.0 Series Fee, Entry Fee's etc

Series entry fee is \$650. This fee includes the cost of Dyno'ing your vehicle to work out weight for parity, and covers the cost of series DSO and scrutineer.

Entry fees for each round can be found on Track Attack website under events.

11.1 SERIES SIGNS/RACE NUMBERS

The windscreen strip, front and rear number plates, and above the number panel is specifically for series sponsors.

Race numbers are to be "Nascar" style – sizing to follow

11.2 Other

The drive train configuration location is to remain essentially stock, with the factory firewall to remain in the original location within the chassis.

The engine is to remain entirely within the bounds of the original engine compartment. The original chassis rails must be in place and used as per the manufacturers design.

All cars must utilise glass front and rear screens.

Door glazing must remain. Use of light weight window materials is not permitted. No Perspex (polycarbonate) materials.

A compliant window net is correctly fitted in the opening.

No aero splitters, spoilers etc can be fitted that were sold on vehicle as standard.

Batteries are to remain in standard location.

11.3 Driving Standards Code of conduct:

The group shall appoint a Driving Standards Officer(s) (DSO), and optionally an Assistant DSO, for each event or race. The DSO may initiate an investigation into any observed poor or unsportsmanlike driving. Drivers may also report alleged poor or unsportsmanlike driving to the DSO who shall then gather such evidence as is available to establish whether an investigation should take place. Evidence may include driver's statements, inspection of vehicles and any video or other evidence. Evidence may not be withheld from the DSO if it is available. Any video or other data that was recorded must be made available if requested. Any involved driver must state the facts as they see them however may elect to not make any statement that would be self-incriminating. If it is decided that there may be evidence supporting dangerous, poor or unsportsmanlike driving by a competitor then a committee consisting of the DSO, the Category Manager and two experienced uninvolved Member drivers shall consider the evidence and decide on any penalty to be applied. An offending driver will be allowed to view any video evidence considered by the committee. These actions may be in addition to any taken by the race stewards. The general approach that will be taken is that of providing respect and racing room to fellow competitors.

*Consistency of approach to provide for fair competition

*Do not expect to profit from an error of judgment whether by accident or design.

What Will Be Tolerated?

*Close racing with absolutely minimal unintentional contact,

*no driver may disadvantage another driver.

What Will Not Be Tolerated:

*Non-compliance with the Code of Driving Conduct - specifically Crowding of overtaking drivers; be sure that the pass has been completed before pulling in front of the overtaken car.

*Second or subsequent contact while a car is out of shape

*Not giving racing room

*Rear end or other contact resulting in off track excursions or gaining an unfair advantage

*Weaving or blocking, (particularly in handicap races) you must hold your line and not move to deliberately block a passing car

*Changing line prior to, within or exiting a corner which causes contact with another car

*Late diving to inside of corner to pass or attempt to pass if contact results

*Driving outside the white line at edge of track. This is an area of particular concern by our circuit owners because of the damage that it causes. Also the debris that is brought back onto the track does adversely affect fellow competitors.

*Failure to comply with marshals' or race control's signals.

Flags, signs and lights:

* When a flag, sign or light is displayed it is deemed to have been seen.

12.0 QLD Raceways specific minimum requirements.

1. Minimum Roll Over Protection must meet the relevant SFI, FIA, CAMS, or AS/NZ Standards AS 1636.1-1996
2. Minimum four point harness in Sedans and closed sports cars with a reasonably erect driving position, minimum five or six point harness for sports cars and open wheelers to AS2596 and installed to Australian ADR Standards.
3. Oil catch tanks must be fitted that are appropriate to the vehicle and the events being entered.
4. The driver's compartment must be Fire proofed from other areas of the vehicle and provide protection against intrusion and de-fragmentation of the engine and driveline.
5. Driveline components must be restrained to ensure they will not impede the vehicle's progress or fall onto the roadway in the event of a failure (eg. Tailshaft Straps are mandatory).
6. Fuel tanks must be filled from outside the vehicle, vented outside the vehicle and be separated from the driver by a fire retarding structure. NO fuel pipes may pass through the passenger cabin of a sedan.
7. Tyres must be fit for purpose, not recut or retreaded, and be fitted to rim widths that comply with the Tyre and Rim Association manual and/or ADR requirements
8. Bonnets must be restrained in accord with ADR requirements with two separate retaining systems
9. Cars must have adequate rear vision mirrors to see approaching traffic.
10. Fuels are not to be mixed at the circuit. Fuels containing Alcohol must have a 150mm red circle containing a white letter "A" prominently displayed on each side of the vehicle near the competition number.
11. To retain broken glass strong adhesive tape must be fitted to all forward facing glass
12. Fire extinguishers, when fitted, must meet AS1841 standard and be secured to ensure they cannot injure the driver in the event of an accident.
13. Rain lights must be fitted to all open wheel formula cars.
14. Two throttle closing springs must be fitted to independent anchor points
15. Wooden Steering wheels are not acceptable for racing
16. Cars must be fitted with a Blue Triangle beside an external battery isolator for recovery crews to isolate power
17. Tow points must be fitted, easily reached and clearly marked with a "TOW" sign 50mm high.
18. Fuel lines must be secured to the body/chassis, flame resistant and be external to the cockpit when possible
19. All seats must be securely attached to the chassis in a suitable manner.
20. Arm restraint tethers should be used wherever practical especially in open wheel & sports cars. On sedans windows should be open by no more than 100mm if window nets are not fitted to the vehicle.
21. To minimise flail injuries an arm restraint is highly recommended in all vehicles.
22. Numbers must be displayed on both sides of the vehicle, either white on black or black on white, with 230mm high Helvetica Bold lettering on a 450mm round or square background, Yellow numbers at least 150mm high in Helvetica Bold may also be displayed on the front passenger window.