

4.5 MODIFIED PRODUCTION CLASS

PREFACE/SPIRIT OF THE CLASS.

The intention of this class is to provide competitors with a grass roots, entry level option for Winch Challenge, with an aim to keep the cost of racing down to a minimum without sacrificing vehicle and occupant safety. This class is largely designed to reduce the advantage of anyone having a big budget. If an alteration is not listed in the rules below, then it is considered not allowed.

Rule amendments must be passed by the CCDA and can only come into effect in the next calendar year of racing.

DEFINITIONS:

4WD vehicle: A vehicle that was made available in the Australian market, compiled by the manufacturer or representative with a high/low transfer case from factory.

Make: Original manufacturer of the vehicle.

Series: The series of vehicle is defined as the marketing series

- Patrol MQ, GQ, GU, Y62 etc.
- Landcruiser 40, 60, 80, 100 etc.

Model: Defined as the model designation

- Patrol, GQ is different to a GU
- Landcruiser 80 is different to a 100

Note: Rollover Protection for Modified Production class is a 6 point cage as per Rule 4.1.3 above.

4.5.1 TYRES

Tyre sizes shall be limited to 35.5 x 13.5 and must pass through a gauge with internal dimensions of 900mm and 343mm at 20psi or 1.4bar.

Tyres shall be enclosed within the width of mudguards and flares.

70% of the tyres shall be enclosed within the width of mudguards, flares and/or barwork viewed from directly above at scrutineering.

4.5.2 WHEELS

Wheel options are unlimited, except that tyres shall be 70% enclosed within the width of mudguards and flares as viewed from directly above.

Bead locks are allowed.

Wheel spacers shall not be permitted.

4.5.3 AXLES, HOUSINGS AND HUBS

The rear axle housing shall be the original equipment for that series/model of vehicle except that they may be strengthened and protected.

The front axle housing may be changed using an alternate housing from another make, model or series. This housing must be an original equipment housing off a full production vehicle available to the Australian market. Aftermarket housings are not permitted.

Strengthened CV's and axles may be fitted

Extension breathers may be fitted.

Hubs are free except that drop axles and reduction hubs shall not be permitted.

4.5.4 BRAKES

The braking system may be modified provided that the braking performance of the vehicle meets or exceeds the vehicle's original braking performance.

The composition of the brake pads/linings is free.

The factory secondary or emergency braking system (a.k.a. park brake) shall be fitted and shall be operational.

Cutting brakes are not allowed

4.5.5 DIFFERENTIALS

The rear differential system for that make, model and series of vehicle shall be retained unmodified except that differential locks may be fitted.

Front differential may be from another make model or series as per Rule 4.4.3 above however the differential shall be retained unmodified except that differential locks may be fitted..

Differentials may be strengthened which includes up rated axles and CV's.

Differential ratios are free.

4.5.6 GEARBOX

Gearboxes shall be the original equipment for that make, model and series of vehicle except that they may be strengthened and protected and they may be replaced by an automatic or manual from that make and model of vehicle. Automatic transmissions may be manualized.

Gearbox ratios are free.

4.5.7 TRANSFER CASE

The transfer case system for that make, model and series of vehicle shall be retained.

Transfer case ratios are free.

4.5.8 STEERING

Steering boxes shall be limited to power assisted mechanical system. No external power assisted ram to be used. The box may be swapped with an alternate unit, however it must be bolted to the factory mounting location. Changing the bolt pattern for the box in the chassis is allowed, however the same location must be used

Steering linkages and components are free and may have protection fitted to them.

4.5.9 SUSPENSION

Springs must only be mounted to factory chassis mounts. The chassis mounts must be in original location and may only be strengthened. They may not be lifted or have their positions changed.

Only one shock absorber per corner mounted to factory chassis mounts. Mounts may be strengthened but must be in factory location. Factory shock towers that allow a bolt in spacer to be fitted can be installed to allow a longer shock. These spacers must be able to bolt to existing mountings and shall be no longer than 50mm.

Remote reservoir shocks may be used. Bypass shocks may not be used. Coil-over shocks may not be installed unless the vehicle came with factory coil-over shocks.

The use of adaptors to change the mounting design of shocks is not permitted.

Hydraulic bump stops are not allowed.

The addition of steel fabricated plate on the chassis and diff housing to prevent the axle from hitting the engine sump in the case of full suspension failure is allowed.

Control arm configuration and location shall be retained including mounting points but may be strengthened. Bolt on drop boxes may be fitted provided that the wheelbase stays within specification. "Hybrid" style front lower control arms are allowed in conjunction with drop boxes provided that the wheelbase stays within specification for the make and model.

Arm length may be extended by a maximum of 20mm.

Panhard Rod configuration shall be retained including mounting points but may be strengthened. Arm length may be extended by a maximum of 20mm and may be adjustable.

The axle position shall be retained within 50 mm of its original location to retain substantially the same wheel base.

4.5.10 ENGINE

The original make engine for that vehicle can be used, so long as it is within 0.3L capacity, the same cylinder arrangement and number as what was fitted to the core make, model and series of vehicle and using the same induction type and sourced from a factory 4WD vehicle that was available in the Australian market. Thus allowing a GQ patrol that came with a TB42 to be fitted with a TB45, A Suzuki that came with a G13A to be fitted with a G16B, but not allowing a GQ that came with a TB42 inline 6 to be fitted with a VK56 V8.

Alternative engine management systems can be used, camshafts, pistons, rods etc. installed, however the factory block capacity must remain standard and factory spec crank shaft must be retained.

Diesel engines may be fitted with a factory turbocharger, factory fitted intercoolers may be retained. No aftermarket intercooler, supercharger or turbocharger to be fitted.

Maximum alternator charge rate allowed of 28.8V

Snorkels and aftermarket air filter arrangement are free.

Oil filters are free except the original method of attachment shall be retained.

4.5.11 ELECTRICAL

Alternators are free. Maximum alternator charge rate allowed of 28.8V

Headlight inserts and globes are free.

Taillights, stop lights and reversing lights are free.

4.5.12 EXHAUST SYSTEMS

The exhaust system is free.

Exhaust systems on tray back Ute must terminate a minimum of 300mm past the rear of the cab below door handle height on a downward angle at the extremities of the vehicle.

Exhaust systems on all other vehicles must terminate past the rear diff below door handle height on a downward angle at the extremities of the vehicle.

4.5.13 CHASSIS

The chassis of the make, model and series of vehicle shall be retained but can be modified.

The chassis must remain factory standard apart from strengthening from the rear axle forward. It may not be trimmed, bent or modified. The front of the chassis may not be removed or altered apart from strengthening. Crush cones may be removed from the tip of chassis.

Spring and shock absorber mountings may be strengthened.

Protection plates may be added for strengthening and protection purposes.

Wheel base must remain standard as per Rule 4.5.9.

4.5.14 BODY

The body of the make, model and series of vehicle shall be retained but can be modified.

All panels must be retained in the body forward of the B pillar.

The front of the vehicle panels may be "bobbed" however a full factory width grille and factory style headlights must be retained. The grille may be modified to accommodate winch fitting.

Body lifts shall be limited to 50mm and shall be completed in a safe and secure manner. Body spacers shall be a non-crushable material and the bolts shall be the same diameter as the original body mounting bolts and at least grade 8.8 There shall be the same number of body mounts and supports as the original chassis and body combination.

Aftermarket composite or fibreglass panels are not permitted forward of the B pillar

Original engine bay internal structure shall be retained. There may be no modification for body length between the B pillar and the radiator support panel.

The body may be trimmed for weight reduction or tyre clearance, however the A and B pillars, door sills and floor must remain standard from the B pillar forward.

Front and rear guards can be trimmed for tyre clearance, the rear body behind the B pillar may be modified or removed provided that a rear wall meeting specification and wheel guards are installed.

Additional mudflaps, flares and door sills may be added for protection.

Radiator may be rear mounted, coolant hoses must be outside of the passenger compartment to protect occupants

4.5.15 LIGHTS

Vehicles may be fitted with any number of supplementary lights including driving lights and light bars etc.

All additional lighting must dip by means of a single action, be it the original high beam 'stalk' or an additional single switch other than the vehicle or winch isolator.

Low beam headlights of some sort, providing suitable light to operate the vehicle without impeding others, must be retained. A brake and tail light, shall be installed and working.

In events where there are multiple vehicles on course at night, all vehicles are to be fitted with an additional, flashing red or amber light, with its own power supply, mounted on the rear of the vehicle as close as practical to the roof line. Clearly visible from 100m away at night with a flash rate of 1 flash per second minimum. (e.g. bike light etc). This light shall be activated prior to starting the stage to allow approaching vehicles to identify that a vehicle is ahead even with the electrical system isolated.

It is strongly recommended that a dust lamp be fitted to the rear of the vehicle.

4.5.16 FUEL

The original fuel system shall be retained.

Fuel tanks shall have devices installed so as to not leak in case of roll over, but still allow the tank to breathe as needed. A physical rollover valve or routing of fuel tank breather to rise above the tank a distance equal to (or greater than) the deepest dimension of the tank, across the tank to the side opposite of attachment and be downwards to a point at least 150mm below the lowest point of the tank.

Alternative fuel such as LPG may be fitted in accordance with State and National Regulations. LPG may be fitted to petrol engines only.

Only pump fuel may be used available at any fuel station. No racing fuels. No methanol or similar injection.

4.5.17 WINCHES

All vehicles must be fitted with one (and only one) electrically operated 12v or 24V commercially available winch when competing in an event where winching is required. Winches may have some additional bracing, improved bearings, improved lubrication, upgraded brake shaft and upgraded controls, altered ratios, air free spool and upgraded wiring is permitted. Housings may be replaced with a commercially available unit.

Single speed winch transmissions only.

The winch braking system must be one that is commercially available.

Motor must be a standard commercially available unmodified winch motor. Brushed winch motors only.

One (1) winch motor only limited to a maximum commercial rating of 9hp.

Winch rope length is limited to 50m

Winch must be front mounted

Synthetic type winch rope shall be used.

A maximum of two batteries to run the winch size limited to 350mm case length.

Batteries are restricted to Lead, AGM style or Calcium batteries. Lithium Polymer batteries etc are not permitted.