

EA – EL Falcon & VN – VS Rally Car- Eligibility Requirements- 2009



Vehicles competing in rallies nominated as rounds of the state based **EA – EL Falcon & VN – VS Commodore Rally SERIES** must conform to the following **EA – EL Falcon & VN – VS Commodore Rally Car** specifications:

Cars Eligible

FORD Cars

Models eligible are all EA – EL model 6 Cylinder Falcons/Fairmonts/LTDs/Fairlane cars, All sedans long wheel base sedans, utes and wagons manufactured by Ford Australia as a standard production model are eligible.

All vehicles must be standard & comply with the Factory Workshop Manuals for any variations. Parts from any EA – EL Ford may be used upon another EA – EL Falcon, as long as the part(s) can be clearly identified as a standard Ford replacement part. Only 6 cylinder engines are eligible.

HOLDEN Cars

Models eligible are all VN – VS model 6 Cylinder Commodore/Berlina/Calias/Statesmans cars. All sedans long wheel base sedans, utes and wagons manufactured by Holden Australia as a standard production model are eligible.

All vehicles must be standard & comply with the Factory Workshop Manuals for any variations. Parts from any VN – VS Commodore may be used upon another VN – VS Commodore, as long as the part(s) can be clearly identified as a standard Holden replacement part. Only 6 cylinder engines are eligible.

The following components are free or may be modified from standard, as described in the eligibility requirements and or build manual:

1. ENGINE

- a. Spark Plugs & High Tension Leads.
- b. A replacement fuel regulator may be installed to allow better control of fuel supply.
- c. Gear selector mechanism may be modified to remove free play and improve gear selection.
- d. The Exhaust System after the exit from the Exhaust Manifold/s is free. The exhaust manifold/s MUST remain standard, no machining, adding or removing of material is permitted. Exhaust must comply with the CAMS PRC regulations. Catalytic converters and emission system components must be retained and be in working order.
- e. The original fuel pump may be replaced with an external electric type. The fuel lines, fuel pump wiring and relay system may also be replaced or relocated. An additional fuel pump and/or surge tank may be added.
- f. In the Falcons the timing of Camshafts relative to each other and the camshaft profile (lobes and their position) must remain Standard. In the Commodores camshaft profile (lobes and their position) must remain Standard.
- g. Engine and/or Gearbox oil coolers may be installed.
- h. Cylinders may be bored to a maximum +0.6mm (+0.5mm oversize plus clearance) oversize, and any replacement pistons must be standard configuration (i.e.: compression height, crown design, etc) no machining of the pistons is permitted (i.e.: valve relief).
- i. No freedoms are granted to the Engines. No "performance Parity" changes are allowed for in the regulations with regards to engines.
- j. Undersized crankshaft bearings may be used. Crankshaft Stroke must remain standard for the motor used as per the part number of the block used.
- k. The radiator and its method of fixing are free provided that the original radiator fittings on the car are utilized. (per PRC regulations) . Radiator hoses are free. A radiator screen may be fitted.

l. The removal of belt driven fans is permitted and the fitment of an additional THERMOSTATIC fan is permitted. The operation of the fan can be by manual switch or automatic control.

m. The cylinder head mounting face/s may be machined. No MODIFICATIONS, MACHINING, ADDING OR REMOVING of material from the cylinder head/s combustion chamber/s, inlet ports, exhaust ports or any other parts (except for the cylinder head/s face and valve seats) of the cylinder head/s is permitted.

n. The air filter and induction system BEFORE the throttle body is free and may be removed and replaced by any suitable aftermarket system. E.g. "POD" styles as **per CAMS regulations**. No modifications are permitted to the throttle body/s or inlet manifold. **Any Type of forced induction is strictly forbidden.**

o. FUEL MUST BE **Commercial "Pump" fuel as specified in Schedule G of the 2008 CAMS Manual of Motor Sport**. e.g. UNLEADED or PREMIUM UNLEADED. No leaded fuels, avgas or racing fuels.

p. Fuel injectors, ignition computers and electronics must be original parts for the models listed and as sold in Australia. No Piggyback ECUs or flashover programs or modifications to ECU wiring harnesses or sensors are permitted.

It may be a requirement that competitors take part in a ballot for ECU's prior to each round of the series. Any competitor may request a Ballot, which will take place after the completion of scrutineering and prior to the Drivers Briefing. ECU mounting point will be determine in a separate bulletin.

q. ALL COMPETITORS within the Series must present their vehicles for scrutineering with the engine "sealed" and Vehicle Log Book endorsed "Engine Sealed" to be eligible to score points in the Series.

r. Procedure for engine sealing;

The vehicle and or engine is to be presented at a nominated examiner in a condition that will allow the bore and stroke of the engine to be measured. The cylinder head/s must be present to allow inspection of the combustion chamber, **including valve size**, inlet port and exhaust port size. The competitor must also be prepared to install the cylinder head t this time so the engine seal can be installed. The competitor will need to provided a hole of 3/16" diameter Location to be determine at later stage. Once the engine has been found to comply with the Vehicle Eligibility requirements a Series approved seal will be attached to the engine via the holes provided. Completed Engine sealing form must be returned to the State Series Organising committee. (List of nominated examiners will be provided).

Alternatively a competitor may elect to have an engine sealed without measurement and sign a waiver which allows all series points to be stripped if an engine is subsequently found not to comply with the requirements.

s. Failure to have the "seal" attached or waiver signed will result in a competitor failing to score any points for that round of the Series.

t. Only normal engine reconditioning procedures are permitted within the mechanical specifications and compliance of the workshop manual.

These specifications shall be deemed to include factory approved and recommended methods of assembly as well as specific component measurements and finish standard.

u. Power steering or air conditioning equipment may be added or removed.

v. Engine mounting bushes are free, however the location and number of engine mounts is not.

w. The lowest final drive ratio used is to be standard for the car presented. The onus is on the competitor to have supporting documentation. **Limited slip are permitted but lockers or diffs that exceed manufacturers specifications for shimming are not allowed.** Gearbox ratios are to be for the model range specific for the model variant and remain standard.

x. The clutch assembly may be replaced with a 'heavy duty' alternative of the standard design. The clutch & pressure plate assembly should weigh not less than 85% of the original components. The Flywheel weight must be standard.

SPECIAL NOTE.

Any item not listed or mentioned above must comply with the workshop manual or the item or items must remain unaltered from standard. It is the intention of the rules that the engine be in STANDARD CONDITION in order to contain cost. Latitude in regards to machining dimensions must not be interpreted as a means of enhancing engine performance. Where a dimension is shown that dimension MUST be observed e.g.; cylinder bore.

2. BRAKES

a. Brake friction material and the flexible brake lines are free.

b. A hydraulic or mechanical fly-off hand brake may be fitted. A suitable parking brake mechanism needs to be retained to meet CAMS and State Vehicle Registration Authority Requirements.

- c. An adjustable brake-proportioning valve may be used in the rear brake circuit/s to allow adjustment of rear wheel braking bias.
- d. Disc brake backing plate may be removed.
- e. Cross-drilled or slotted disc rotors are permitted. The diameter of the disc rotor specifications must be as per the workshop manual for a 6 Cylinder model.
- f. The installation of brake pad knock off springs is allowed.

3. SUSPENSION

- a. Springs are free provided their type and location are unchanged. (by type is meant coil). "Coil-over" design permitting the adjustment of ride height are permitted.
- b. Shock absorbers must not be of the external reservoir design, and shall not be externally adjusted for bump or rebound. This is to contain costs. Their number and location must remain standard.
- c. Bump stops are free.
- d. Bushes used at suspension pivot points may be replaced. The use of urethane is permitted. Spherical joints are not permitted, except in the top strut mount.
- e. Suspensions may be modified so that Camber and Caster may be adjusted *through* the use of eccentric camber pins or washers and caster bush kits.
- g. The use of replacement adjustable pivot pins and strut tops is permitted, providing that they utilise the standard body shell mounting facilities. The removal of metal from the suspension tower is forbidden.
- h. Anti-roll bars may be upgraded or swapped for aftermarket items provided original sway bar mountings to the chassis are used. Sway bar links are free.
- i. A strut brace may be fitted between the front suspension towers provided it only links the towers. The rear suspension towers may be braced by either the roll cage or a strut brace.
- j. Suspension components may be strengthened in accordance with CAMS PRC regulations; some modifications are allowable to suspension components. Refer to CAMS manual for full details. The origin of all standard parts must remain clear.
- k. The roll centre may be altered using only standard parts available from the manufactures.

4 BODY & COACHWORK

- a. There is no control Tire, competitors are free to use any suitable 15 inch tires.
- b. Wheels are free, provided that they can be housed within the original bodywork.
- c. Wheel diameter must be 15", production rims for Holden and Ford.
- d. Coachwork must be as per the workshop Manual Specifications except that carpet, under felt, hood lining, rear seat, radio, console and rear parcel shelf may be removed but not beyond that provided for PRC.
- e. Supplementary gauges may be fitted within the cabin.
- f. Pedal settings may be modified for position but the original mounting fixture must not be changed, **pedal boxes are not permitted.**
- g. CAMS mandatory safety equipment must be fitted as per the NCR's and includes Roll Cage, complying with Schedule J of the CAMS Manual of Motor Sport, Fire Extinguisher, Bonnet Pins, Towing Hooks, First Aid Kit, Triangles and Mud flaps.
- h. An air vent/scoop may be fitted in the roof of the vehicle.
- i. Seam and or stitch welding is permitted. Strengthening/plating of the shell can only be carried out as per PRC regulations or build manual.
- j. Any rubber bush may be changed for a bush made of another material as long as the new bush has dimensions the same as the original.
- k. The use of Chrome Molly for the construction of the roll over protection is not permitted for the main cage additional non structural bars are free.
- l. Vehicle weight must be within the range for PRC minimum weight
- m. Fuel tank location must remain within the centre line of the car and may only be located and mounted in accordance within the PRC regulations for the year and model of car. The fuel tank may be maintained in standard location, suitable damage protection may be installed.

SPECIAL NOTE

Any item not specifically listed or mentioned above must comply with the CAMS PRC regulations and if not mentioned or listed in the CAMS regulations the item or items must remain unaltered from standard.

NOMINATED EXAMINERS

To be advised. Draft prepared for the Series by John Ernst (gotyaracing@gmail.com).