



## ***Super Six Touring Cars – VT/VY/VZ/VE/VF Commodore & BA/BF/FG Falcon***

*Incorporating log booked Saloon Cars complying with the 3K regulations and freedoms allowed by SSTC/GP4TC.*

### ***Technical Regulations***

***2019***

#### ***Preamble***

The Super Six Touring Car Association Inc. (SSTC) is the sole entity which may make amendments or recommendations regarding maintenance of and/or proposed changes to the Super Six Touring Car Category Technical Regulations. All administration, regulation proposals and amendments shall be administered by SSTC and its associated committees in conjunction with the relevant authorities.

#### ***1 Philosophy***

- 1.1** These regulations are based on VT/VY/VZ/VE/VF Holden Commodore V6-3.8 litre sedans and BA/BF/FG Ford Falcon six cylinder-4.0 litre Sedans marketed and manufactured in Australia by General Motors Holden and the Ford Motor Company respectively, and restricted in specification to those listed herein.  
The vehicles are to be representative of mass-produced non-optioned family sedans with limited modifications permitted, all of which are designed to make the vehicles more suitable for competition use, therefore producing a relatively affordable entry to motor sport. It is intended that the vehicles shall have even performance and thus emphasise driver ability over vehicle tuning and preparation.
- 1.2** All vehicle parts and specifications are to remain consistent with the nominated model as supplied by the vehicle manufacturer or authorised supplier at any one time, except as otherwise permitted in these regulations. Supersession parts and part numbers are not permitted unless specifically authorised in these regulations.
- 1.3** Any aspect relating to the construction and/or modification of the vehicle which is not expressly permitted in these regulations is forbidden. Modifications permitted are allowed only on the condition that the weights, specifications and/or dimensions as documented in the relevant regulation and appendices of these regulations and relevant Vehicle Homologation Documents are adhered to.
- 1.4** The use of any carbon fibre or titanium components is prohibited unless specifically authorised in these regulations. Unless specifically authorised in the present regulations, or supplied as standard by the manufacturer, the use of any coating other than conventional high temperature paints on any component of the complete vehicle is prohibited.
- 1.5** All engines, transmissions, final drive assemblies and the engine control unit (ECU) must be sealed prior to the commencement of any qualifying session or race. The only seals recognised for this purpose shall be seals supplied and recorded by SSTC. Such seals shall only be affixed by an approved sealer as detailed on page 17 of these regulations.

This shall not prohibit the addition of seals by event officials for judicial or scrutiny purposes. The presence of a seal will not protect the vehicle from being subject to a protest, or from examination by scrutineers.

- 1.6** Whenever an ACL component is specified, a Mahle or Nason branded component with the same part number may be utilised as an alternative unless otherwise specified.

## **2 Eligibility**

### **2.1(a)** Holden Commodore

Vehicles eligible are the four-door VT/VY/VZ/VE/VF Holden Commodore sedans with V6-3.8 litre engines, six-speed manual transmissions and four-wheel disc brakes.



Pictures are a guide only

### **(b)** Ford Falcon

Vehicles eligible are the four-door BA/BF/FG Ford Falcon sedans with six-cylinder-4.0 litre *Barra 182* engines, six-speed manual transmissions and four-wheel disc brakes.



Pictures are a guide only

- 2.2** Scrutineers may refer to the workshop manuals (in printed and electronic formats) and the parts catalogues published specifically for the VT/VY/VZ/VE/VF Commodore sedan and the BA/BF/FG Falcon sedan respectively. Scrutineers may also carry out direct comparison of vehicle components.

The Category Technical Administrator (CTA) shall be the sole arbiter with regards to the interpretation and application of these Technical Regulations. Any decision made by the CTA in this regard shall not be subject of any protest or appeal. The decisions and determinations of the CTA are considered final and as such incontestable.

- 2.3** All VT/VY/VZ/VE/VF Commodores and the BA/BF/FG Falcons must have the original Vehicle Identification Numbering System (VIN) as attached/stamped by the manufacturer.

## **3 Coachwork**

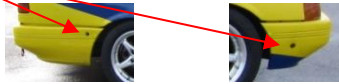
- 3.1** Each VT/VY/VZ/VE/VF Commodore and BA/BF/FG Falcon must be fitted with the specified front and rear bumper facia, boot lid wing and rocker panel covers (side skirts) as per the following.

- Each VT/VY/VZ/VE/VF Commodore must be fitted with either a VT/VY/VZ/VE/VF-SS front and rear bumper facia and boot lid wing as fitted to the VT/VY/VZ/VE/VF-SS models by GM Holden, or an aftermarket replacement that retains the original external shape, dimensions and pitch (pictures below are a guide only). The original (OEM) mounting/attachment points must be used.





- Each BA/BF/FG Falcon must be fitted with either a BA/BF/FG-XR6 front and rear bumper facia and boot lid wing as fitted to the BA/BF/FG-XR6 SERIES 1 models by Ford Australia, or an aftermarket replacement that retains the original external shape, dimensions and pitch. The original (OEM) mounting/attachment points must be used.
- The only rocker panel covers (side skirts) permitted for the VT/VY/VZ/VE/VF Commodore and the BA/BF/FG Falcon are the VT/VY/VZ/VE/VF-SS and BA/BF/FG-XR6 rocker panel covers as fitted by GM Holden and Ford Australia respectively.
- Additional fastening bolts may be added to the trailing edge of the front bumper facia, and the front of the rear bumper facia as pictured. Said bolts must be for securing the bumper bars only.



Picture is a guide only

- 3.2** The following interior trim and fittings must be removed: Floor coverings including underfelt and deadener materials, hood and pillar linings and sun visors, arm rests, centre console, parcel shelf covering, pinch weld mouldings, door opening seals, spare wheel and jack.

It is permitted to modify (not remove) the dashboard panels to enable the fitment of the safety cage. The original dashboard crash pad must be retained.

All under dash cables, wiring and ducting must be secured in a neat and tidy fashion and/or covered.

- 3.3** The original door trims must be replaced with flat metal trims; i.e., fabricated from sheet aluminium as pictured. The door trims must be fastened with screws and be readily removable.



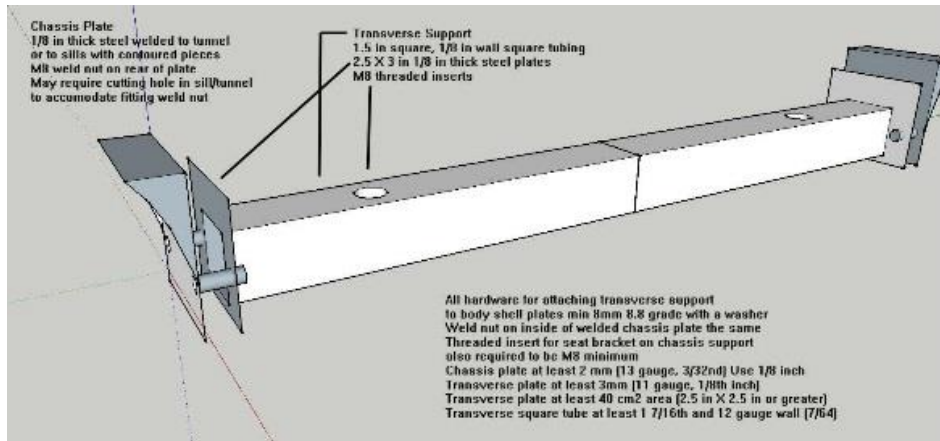
Picture is a guide only

- 3.4** External body trim (decorations), e.g., side protection mouldings, may be removed.

- 3.5** It is permitted to remove all heater and air conditioning components.

- 3.6** The driver's seat must be replaced by a unit complying with FIA homologation, all other seats must be removed.

It is permitted to remove the original seat mounting structure for the fitment of a transverse cross member seat mounting as per Appendix A of these regulations.



Appendix A

- 3.7** The complete steering wheel assembly may be replaced. It is permitted to weld an adaptor to the original steering shaft to facilitate the fitment of a quick-release steering wheel assembly. When a quick-release steering wheel assembly is fitted, the original upper steering shaft (column) length shall be maintained (+/-20mm). The quick-release steering wheel assembly adaptor shall not exceed 50mm in length.
- 3.8** A footrest may be fitted to the left of the clutch pedal. A floor covering of anti-slip type may be fixed to the floor of the habitacle, forward of the driver's seat. Replacement pedal pads are permitted.
- 3.9** A front strut brace may be fitted between the front suspension towers. This may be added by bolting only, and must be attached to the body shell only at the suspension towers.
- 3.10** It is permitted to cut a hole in the passenger floor well for the fitment of a Dorian transmitter holder.
- 3.11** The edges of the mudguard panels may be folded where they protrude inside the wheel housing. Plastic wheel arch splash guards may be removed.
- 3.12** The windscreen may be replaced by another one of laminated glass, possibly incorporating electric heating elements. It is permitted to fit aftermarket windscreen demisters.
- 3.13** All bodywork including any subsequent repair of race-day damage shall be to a tradesman-like standard and must permit the vehicle to be presented in as near to original condition as possible and is subject to approval by the Chief Scrutineer or Category Technical Administrator.
- 3.14** The original primary bonnet fasteners and release mechanisms must be removed and an adequate alternative retention system fitted. The boot lid fasteners and release mechanisms must be removed and an adequate alternative retention system fitted.
- 3.15** It is permitted to remove the side indicator lights (located at rear of front mudguard) the resultant hole must be covered or filled.



- 3.16** It is permitted to re-locate the interior door opening devices to allow for the fitment of roll over protection. All interior door opening mechanisms must remain functional.

**3.17** It is permitted to cut a 50mm hole in the spare wheel well to allow access to the Falcon diff mounting bolt.

**3.18** It is permitted to remove the side intrusion bars from all doors.

## **4** *Suspension & Steering*

**4.1** The following specified components as supplied by Pedders Suspension must be utilised in each respective vehicle:

- Each SSTC must utilise the Extreme XA suspension kit as supplied by Pedders Suspension.
- VT/VY/VZ Commodore front and rear coil over kit – Part number 160033.
- VE Commodore front and rear coil over kit – Part number 160064.
- VF Commodore front and rear coil over kit – Part number 160094.
- BA/BF Falcon front and rear coil over kit – Part number 160022.
- FG Falcon front and rear coil over kit – Part number 160034.
- The use of spherical bearing tie-rod ends (rose joints) is prohibited.
- Modifications to the front or rear cross-members are prohibited.

**4.2** On the VT/VY/VZ/VE/VF Commodore:

Each vehicle must be fitted with adjustable lower control arms as supplied by Suspension Concepts (pictured).

All sway bars/stabiliser bars must be as supplied by the manufacturer (Standard) and as fitted to the particular model.

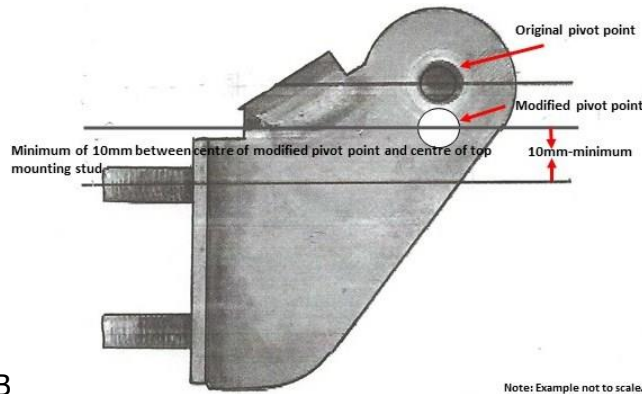


**4.3** It is permitted to fit adjustable front strut bearing retainers.

**4.4** Each suspension bush must be of elastomeric construction.

**4.5** It is permitted to fit wheel spacers with a maximum thickness of 6mm between the hubs and the wheels. Wheel spacers must comply with all requirements of Schedule E (refer "General Requirements for Cars and Drivers").

**4.6** The BA/BF/FG Falcon top inner camber kits are free save that they must utilise the original mounting points and respect the original horizontal plane and vertical height. The centre of the top wishbone pivot point on the camber kit may be lowered by up to 15mm as per Appendix B of these regulations.



Appendix B

Note: Example not to scale.

- 4.7** It is permitted to fit an oil cooler to the power steering system. It is permitted to vent the power steering fluid reservoir into a catch tank.
- 4.8** Wheel alignment on the front wheels is free within the limits of the specified components; save that the maximum negative camber at each front wheel is 5°.
- 4.9** It is permitted to remove or render the stabiliser bars and associated hardware inoperative.
- 4.10** Each bump stop may be modified or replaced, but where they are replaced they shall be constructed of elastomeric material.

## **5 Brakes**

- 5.1** Brakes are free save that each Commodore and Falcon model can only be fitted with the following:
- Each front brake caliper must have a maximum of six pistons.
  - Each rear brake caliper must have a maximum of four pistons.
  - Each brake rotor fitted must be constructed of ferrous metal.
- 5.2** Anti-lock braking systems (ABS) must be removed.
- 5.3** Original brake pipes and flexible hoses may be replaced by others of adequate strength and quality.
- 5.4** It is permitted to fit a variable brake pressure proportioning valve in the rear brake line. This valve may be mounted within reach of the driver whilst racing.
- 5.5** The brake pads are free. The retention of the pad assembly in the caliper must be by the method envisaged by the manufacturer of the caliper assembly.
- 5.6** The handbrake and all associated components, linkages, brackets, cables and return springs must be disconnected or removed.
- 5.7** It is permitted to fit one flexible pipe to carry air to each front brake. It is permitted to remove the driving lights to facilitate the fitment of brake ducting only.

If fitted, the front brake air intake ducts must only be fitted into the unmodified driving light apertures in the front bumper bar as indicated below.



The front brake air ducts may only be fitted into the driving light apertures.

All air must be for brake cooling only. The fitting at the exhaust end of the pipe is free, subject to the only modifications made to other components being those required to provide attachment of the fitting. Brake rotor protection shields may be removed or modified for brake cooling.

**5.8** It is permitted to fit rear brake cooling ducts.

**5.9** Master cylinders: The master cylinder may be replaced by one interchangeable with the original. The bore size and internal valving is free.

It is permitted to disconnect the power booster.

## **6** *Electrical*

**6.1** The location of the battery is free, save that it may not be located in the habitacle. The maximum battery size must be that which can fit the standard battery tray in each vehicle. The battery holder/box must be a maximum weight of 2kg and be permanently fastened to the vehicle.

**6.2** It is permitted to remove the central locking components, radio, interior lights, modules and connectors. Fuses and a master electrical circuit breaker may be added to the electrical system. Data logging shall be limited to lap timing, drive line and engine functions only. The use of telemetry is prohibited.

All non-functioning electrical wiring must be removed.

**6.3** Supplementary switches and instruments may be fitted. The instrument cluster may be removed and replaced with a custom fascia.

**6.4** The only ECU permitted for the BA/BF/FG Falcon shall be the model Haltech Platinum ECU or the Engine Management Systems (EMS) E160 ECU. The specified ECU must be located in the front passenger area and be readily accessible for inspection.

The only ECU permitted for the VT/VY/VZ/VE/VF Commodore shall be the 4424 model Stinger as supplied by Engine Management Systems P/L (EMS), or the Haltech Platinum model ECU.

**6.5** A high-level brake light is mandatory.

**6.6** On all models, it is permitted to remove the MAP sensor and the idle control motor, a blanking plate must be fitted to the resulting apertures.

**6.7** The vehicle wiring harness is free.

Any device which has the capability of outputting any signal or data to the vehicle ECU, or that is capable of altering the vehicle engine functions in any way, irrespective of whether it is being used or not will be considered to be an ECU and therefore in breach of these regulations. Any such unit is specifically not permitted in the vehicle during competition.

The software for the data storage device must not show any pin allocations set-up to read sensors other than those permitted.

The use of any form of real time telemetry or the transmission of any data other than a lap trigger signal to or from the vehicle is specifically prohibited.

Stand-alone "lap timers" are free save that their only function is that of a lap timer.

- 6.8** The maximum engine rpm (revs) for the VY Commodore is 6250 rpm.  
The maximum engine rpm (revs) for the BA Falcon is 6250 rpm.

## **7 Fuel & Fuel Tanks**

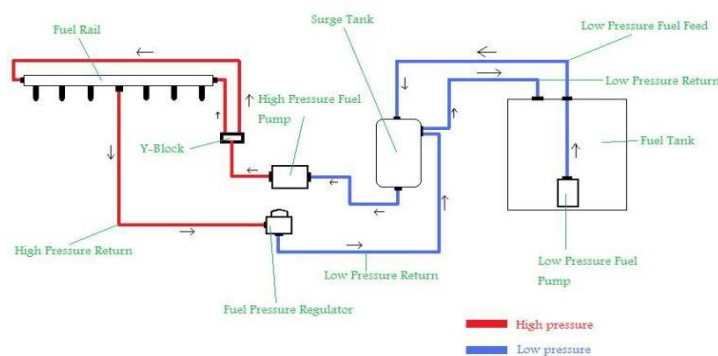
- 7.1** Only E85 Commercial Fuel may be used. With the exception of ambient atmospheric air, no other substance may be added to the air intake charge of the engine.

- 7.2** Fuel tanks must be as provided by the manufacturer.

It is permitted to fit one anti-surge tank of 5.5 litre maximum capacity and one additional electric fuel pump (basic fitment diagram below).

The anti-surge tank and pump kit components must only be fitted inside the rear luggage compartment (boot) area.

A fireproof and liquid proof bulkhead must separate the habitacle (cockpit) from the rear luggage compartment.



If both the battery and anti-surge tank are located in the luggage compartment (boot) area, the battery must be enclosed.

- 7.3** To facilitate both fuel sampling and pressure testing, a Jiffy-Tite 2000 series "dry break" coupling (as pictured below - female coupling only) must be fitted to the fuel system under the bonnet.





The Technical Administrator and/or scrutineers may require a fuel sample at any time.

- 7.4** Original equipment fuel injectors and fuel pump may be replaced by other interchangeable units. Fuel rail pressure must not exceed 400 Pa.

## **8 Tyres & Rims**

- 8.1** Each tyre used must be a maximum size of 245/40 R 18" tyre. Only R spec treaded tyres are permitted. Slick or treadless tyres are prohibited.
- 8.2** Wheels are free save that they must be a maximum size of 18" x 9", and be unmodified except for painting and polishing. All wheels must be a minimum weight of 10kg each.

The brand/manufacture of Saloon Car tyres is free save that they must comply with the 3K Saloon Car regulation configuration and size.

## **9 (a) Engine – VT/VY/VX/VE/VF Commodore**

- 9.1 (a)** The only permitted engine is the V6 3.8lt engine as fitted to the VT/VY/VX/VE and VF Commodore models. All engine components, weights and specifications must be as supplied by the original manufacturer unless otherwise permitted in these regulations.
- 9.2 (a) Cylinder head valves:** The valves' seat faces must be re-cut at 45°. Back cutting of the valves is permitted. The maximum inlet valve size is 46.5mm and the exhaust is 38.6mm.

**Cylinder heads:** It is permitted to machine the valve seats in the cylinder head at 45° with the overcut/undercut angles/radii being free. It is permitted to reclaim the valve seats as per the manufacturer's specifications, including through the use of a seat insert.

It is permitted to machine the top of the valve guides to a minimum height of 20mm above the spring seat.

It is permitted to machine the ports from the valve seat to the untouched valve guide boss with the largest diameter at the valve seat. All machine work must be concentric with the centre line of the original valve guide. It is permitted to machine the cylinder head face parallel to the original surface to obtain the minimum combustion chamber volume.

The use of hardened or machined valve collets and retainers is permitted.

The valve springs are free subject to there being a maximum of two springs per valve. It is permitted to fit shims under the valve springs.

It is permitted to machine the valve spring seats to obtain the correct valve spring installed height. It is permitted to de-burr the valve spring seats locally after machining, provided it is to industry standards. Other hand or mechanical finishing of the valve spring seats is not permitted.

### 9.3 (a)

**Camshaft:** The only camshaft permitted shall be Crow Cams – part number TASCCO3800. Each camshaft must match the cam doctor report for the specific camshaft.

It is permitted to remove the internal balance shaft and gears, whereupon the rear balance shaft bearing oil supply hole may be blocked.

The timing chain and gears are free. The camshaft phase angle in relation to the crankshaft is free.

### 9.4 (a)

**Crankshaft & Rods:** The crankshaft journals may be re-ground a maximum of 1.0mm (.040”) undersize, with a maximum stroke of 86.4mm.

The crankshaft minimum weight shall be 15.20kg.

The connecting rods may be re-sized and machined to provide additional side clearance and to attain the correct piston height.

The connecting rod minimum weight is 610g. Localised machining is authorised to facilitate the use of replacement rod bolts.

Main and connecting rod bearings are free save that they must maintain the original external dimensions.

It is permitted to dowel the flywheel to the crankshaft.

### 9.5 (a)

**Balancing:** All rotating and reciprocating components may be balanced by the removal of metal only from the locations so provided by the manufacturer.

Piston balancing will be achieved by removal of metal from the underside of the pistons only.

The flywheel may be machined on the friction surface only, and balanced to a minimum weight of 9.50kg.

It is permitted to use a Powerbond torsional damper (harmonic balancer).

The minimum torsional damper (harmonic balancer) weight shall be 3.50kg.

### 9.6 (a)

**Intake manifold:** It may be machined on the cylinder head and block mating faces to obtain correct fitment to the engine.

Any form of abrasive cleaning or methods designed to change the shape or size, e.g. acid etching, is strictly prohibited.

The original air cleaner box must be removed and replaced with a cone type replacement air element attached directly to the controlled air intake tube as supplied by Pacemaker – Part number 5100 (pictured below). It is permitted to remove the inlet manifold mounting lug to obtain fitment of the Pacemaker intake tube.



Pacemaker #5100

The original cold air duct to the air cleaner assembly may be removed.  
It is permitted to fit the air temperature sensor to the Pacemaker intake tube.  
The original air flow meter must be removed.

Any device, bracket or component used to enclose or part enclose the air intake element is prohibited.

The PCV system must be removed, and the resulting holes in the inlet manifold and throttle body must be mechanically sealed.

### 9.7 (a)

**Lubrication:** Baffling of the sump is permitted save that the external appearance of the sump is as supplied by the manufacturer as standard. The oil pressure relief valve spring may be shimmed. It is permitted to fit an engine oil cooler provided that the bodywork is not altered for the purpose of its fitment, nor may it be fitted outside the confines of the standard bodywork.

### 9.8 (a)

**Engine block:** The engine block may be re-bored to a maximum of 1.00mm (0.040") oversize. The only pistons permissible shall be ACL, Nason or Mahle part number 6MKRY3802 or 6MKRY9381S or Precision Parts Australia part number PHO3800L6040MMS. For ACL/Nason/Mahle 6MKRY3802 and Precision Parts Australia part number PHO3800L6040MMS pistons the minimum cylinder head combustion chamber volume is 50cc

For ACL6MKRY9381S pistons the minimum cylinder head combustion chamber volume is 54cc.  
The minimum permissible piston weight with gudgeon pin is 474g.

The piston rings shall comply with the following requirements:

- There must be two compression rings and a segmented oil ring on each piston;
- "Gapless" piston rings are not permitted;
- The piston ring gaps may be adjusted; however, the ends of each compression ring must be parallel to the centre line of the cylinder bore.

The engine block face may be machined in a plane perpendicular to the cylinder bores. The 6MKRY3802 and PH3800L6040MMS pistons must not protrude above the block face any more than 0.25mm (0.010") from the engine block at TDC.

For the sole purpose of achieving equal deck heights, it is permitted to machine a minimal amount of material from the top surface (crown) of any four (4) pistons per engine.

The 6MKRY9381 pistons must not protrude above the block face at TDC.

It is permitted to fit extra engine breathers, but all breathers must discharge to a catch tank which is vented to the atmosphere.

### 9.9 (a)

**Head gasket:** The cylinder head gaskets must be of standard configuration type and dimensions for the model with the following minimum thickness: 0.95mm.

### 9.10 (a)

**Valve train:** It is permitted to shim the rocker arm pedestals to obtain the correct tappet settings.

It is permitted to fit an external timing pointer to the timing chain cover.

## 9 (b) Engine – BA/BF/FG Falcon

### 9.1 (b)

**Engine:** The only permitted engine is the 4.0 litre DOHC *Barra 182* engine as fitted to the BA/BF/FG Falcon. It is not permitted to use a factory LPG engine.

All engine components, weights and specifications must be as supplied by the original manufacturer unless otherwise permitted in these regulations.

### 9.2 (b)

**Cylinder head valves:** The valves' seat faces must be re-cut at 45°. Back cutting of the valves is permitted. The maximum inlet valve size is 35.00mm and the exhaust 32.00mm.

**Cylinder head:** It is permitted to machine the valve seats in the cylinder head at 45° with the Overcut and undercut angles/radii being free.

All standard valve seat sizes and dimensions must be respected.

Oversize valve seats, port matching and match porting, throating or removal of any metal is strictly prohibited.

It is permitted to reclaim the valve seats as per the manufacturer's specifications.

All machine work must be concentric with the centre line of the original valve guide.

The minimum combustion chamber volume shall be 64cc.

Machining of the cylinder head face is permitted provided it is parallel to the original surface.

The use of hardened and/or machined collets and retainers is permitted. The valve springs are free subject to there being a maximum of two springs per valve. It is permitted to fit shims under the valve springs.

It is permitted to machine the valve spring seats to obtain the correct valve spring installed height.

It is permitted to de-burr the valve spring seats locally after machining, provided it is to industry standards. Other hand or mechanical finishing of the valve seats is not permitted.

**9.3 (b)**

**Camshaft:** The only camshaft/s permitted shall be Crow Cams – part number SSTC182. Each camshaft must match the cam doctor report for the specific camshaft.

The timing chain and camshaft gears are free.

The camshaft phase angle in relation to the crankshaft is free.

**9.4 (b)**

**Crankshaft & Rods:** The crankshaft journals may be re-ground to a maximum stroke of 99.31mm. The connecting rods may be re-sized and machined to provide additional side clearance and to attain the correct piston height.

Localised machining is authorised to facilitate the use of replacement rod bolts.

Main and connecting rod bearings are free save that they must maintain the original external dimensions.

It is permitted to dowel the flywheel to the crankshaft.

**9.5 (b)**

**Balancing:** All rotating and reciprocating components may be balanced by the removal of metal only from the location so provided by the manufacturer. Piston balancing will be achieved by removal of metal from the underside of the piston only.

All manufacturer weights and dimensions must be respected.

The flywheel may be machined on the friction surface only.

It is permitted to use a Powerbond torsional damper (harmonic balancer).

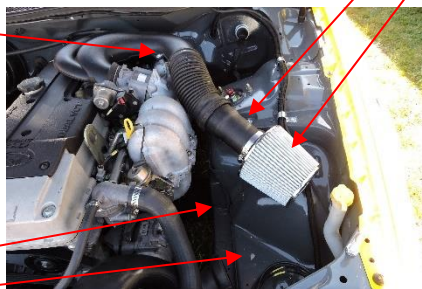
**9.6 (b)**

**Intake manifold:** Any form of abrasive cleaning or methods designed to change the shape or size of the manifold (i.e. acid etching etc) is strictly prohibited. It may be machined on the cylinder head mating surface to obtain fitment to the engine.

Match porting is not permitted

If using the original (OEM) intake manifold, the original air cleaner box must be removed and replaced with a cone-type replacement air element attached to the original air intake hose. It is permitted to fit an adaptor to enable the fitment of the cone-type air element.

The original air intake duct must be maintained.



This area must remain open, any device, bracket or component used or designed to enclose or part enclose the air intake element is specifically prohibited.

It is permitted to fit an NIZPRO intake manifold as an option – part number #BAF1001.

It is permitted to fit an aftermarket vacuum tank.

### 9.7 (b)

**Lubrication:** Baffling of the sump is permitted save that the external appearance of the sump is as supplied by the manufacturer as standard.

The oil pressure relief valve spring may be shimmed.

It is permitted to fit an engine oil cooler provided that the bodywork is not altered for the purpose of its fitment, nor may it be fitted outside the confines of the standard bodywork.

### 9.8 (b)

**Engine block:** The original engine block bores (92.26mm) may be re-bored to a maximum oversize of .020".

The only piston/pin assemblies permitted shall be Series 2 FG Falcon Part No FO-AR2Z 6108 ABSTD, LP1, LPG or physically and mechanically replacement pistons of the same weight.

The pistons must be a minimum of .017" below the engine block face at TDC.

The piston rings shall comply with the following requirements:

There must be two compression rings and a segmented oil ring on each piston.

Gapless piston rings are not permitted.

The piston ring gaps may be adjusted; however, the ends of each compression ring must be parallel to the centre line of the cylinder bore.

The engine block face may be machined in a plane perpendicular to the cylinder bores. The pistons must not protrude from the engine block face at TDC.

For the sole purpose of achieving equal piston deck heights, it is permitted to machine a minimal amount of material from the top surface (crown) of any four (4) pistons per engine.

It is permitted to fit extra crankcase breathers, but all breathers must discharge to a catch tank that is vented to the atmosphere.

## 10 Exhaust

The exhaust system is free. It is permitted to locally modify the pinch weld flanges under the rocker panel cover to facilitate the exit of the exhaust.



Pinch weld modification.

It is permitted to raise the rear passenger footwell on one side only of the vehicle to a maximum of 75mm high and a maximum of 300mm wide to accommodate the exhaust muffler. Such modification shall be fully welded to the remaining floorpan, shall not extend into the sill box section and shall serve no purpose other than to accommodate the exhaust muffler.

The exhaust system may be coated with materials other than paint (e.g., ceramic/high temperature coatings).

## **11 Cooling system**

- It is permitted to remove the original fan and fit a replacement electric fan.
- The fan shroud may be removed.
- The thermostat is free as is the control system of the fan
- The original radiator may be replaced provided that the original mounting points are utilised, the front plane of the radiator remains in the same location as the original and that no modifications are carried out for its fitment. The radiator design, construction and fitment must serve no purpose other than to cool the engine coolant.
- A protective screen may be fitted in front of the radiator.
- A water filter may be fitted to the top radiator hose.
- It is permitted to fit radiator air ducting to the front of the radiator to aid engine cooling, provided that the bodywork is not altered for the purpose of its fitment, nor may it be fitted outside the confined of the standard bodywork. All ducting must serve no other purpose other than radiator coolant cooling.

## **12 Transmission**

### **12.1 Gearbox:**

The VT/VY/VZ/VE/VF model Commodores and BA/BF/FG model Falcons must use the sealed Tremec TR6060 six-speed manual gearbox as supplied by Australian Transmission Components or an OEM factory equivalent.



To facilitate the fitment of the Tremec gearbox, bell housing and adaptor plate assembly, it is permitted to modify or replace the rear transmission mounting and cross-member. It is permitted to modify the gearchange aperture in the floor pan.

The only permitted gear ratios for the Commodore and Falcon models are:

<b>First</b>	<b>Second</b>	<b>Third</b>	<b>Fourth</b>	<b>Fifth</b>	<b>Sixth</b>
<b>2.97:1</b>	<b>1.78:1</b>	<b>1.30:1</b>	<b>1.0:1</b>	<b>.80:1</b>	<b>.63:1</b>

### **12.2 Breathers:**

The breathers for the gearbox and final drive assembly may have extensions fitted by way of a length of tubing.

**12.3 Rear axle assembly:**

- The differential action of the rear axle must be disabled.
- A spooled differential centre must be fitted to the differential casing.
- It is permitted to fit mechanically identical half shaft assemblies.
- The final drive ratio for the VT/VY/VZ/VE/VF Commodore must be 3.7:1.
- The final drive ratio for the BA/BF/FG Falcon must be either 3.45:1 or 3.7:1.

**12.4 Clutch:**

- The clutch assembly may be replaced by authorised parts (refer Article 15).
- The pressure plate assembly cover must be of steel construction.
- It must use a single driven plate.
- The minimum diameter of the clutch driven plate for all models is 240mm.
- The clutch actuating system must be hydraulic.
- It is permitted to fit a clutch pedal stop.

**12.5 Tailshaft:**

It is permitted to modify the tailshaft to obtain the correct fitment to the Tremec TR6060 gearbox.

**12.6 Gearstick & Shifter:**

The gearstick and shifter are free save that they must be of "H" pattern configuration.

**13 Safety Cage****13.1 Design:**

The safety cage design must be in compliance with the safety cage regulations as published by the Australian Auto-Sport Alliance (AASA) or the regulations as published by The Confederation of Australian Motor Sport (CAMS).

No part of the safety cage may penetrate the front or rear firewalls, save for mounting bolts.

**14 Weights & Dimensions****14.1 Minimum racing weight:**

All Commodore and Falcon models shall have a minimum racing weight of 1550kg.

**14.2 Track measurement:**

Maximum dimension	VT/VY/VZ/VE/VF Commodore	BA/BF/FG Falcon
Front	(std 1592mm) <b>1900mm</b>	(std 1553mm) <b>1860mm</b>
Rear	(std 1608mm) <b>1846mm</b>	(std 1571mm) <b>1845mm</b>

**14.3**

- The maximum track dimension shall be the distance between the outermost part of the walls of each tyre (as pictured below) on the same axle measured in line with the axle centre line as presented for competition.





- All fully-sprung components of the vehicle, in as raced condition (excluding the complete exhaust system) shall be at least 90mm above the ground.
- Ballast may be used to achieve the minimum weight requirements, and, if used, shall comply with CAMS requirements.

### **15 Authorised parts**

The following parts may be from any source provided that their use does not result in unauthorised modification of any other component:

Gaskets, fasteners, nuts, bolts, studs, screws and other fasteners, lamps, battery, battery clamp and leads, fluid filters, engine ancillary drive belts, water hoses and clamps, water pump, idler pulleys, auxiliary gauges, spark plugs and leads, coil packs, auxiliary bonnet and boot lid fasteners, tie rods, clutch driven and pressure plate, clutch throw-out bearing, seals, engine cylinder head valves, rear axle and differential bearings, differential gears, head and tail light assemblies, brake caliper repair kits, shims and spacers, universal and CV joints, wheel bearings, valve rocker covers, valve guides and pushrods, rear brake rotors and engine mountings.

### **16 Non-genuine parts**

The following replacement parts must be mechanically, functionally and dimensionally identical replacement for the original components:

Tie rod ends, ball joints, window glass, and body panels.

### **17 Amendments**

SSTC reserve the right to amend these regulations at any time, including, but not limited to, such items as may affect the performance between the vehicle models.

### **18 Appendixes**

**Approved Super Six Touring Cars component sealers.**

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**Approved sealers TBA**

