Bulletin Number: **B10/007**
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TECHNICAL BULLETIN

GROUP 3K – SALOON CARS

REFERENCE:

CAMS Online Manual of Motor Sport, Race, Group 3K – Saloon Cars

http://www.camsmanual.com.au/02_race.asp#3rd

RATIONALE:

To implement technical updates requested by the Saloon Car Representative Group and address other issues arising.

ACTION:

Amend Part 1: Technical Regulations – EA/VN as follows:

Article 1.1:

"....producing a relatively affordable entry to motor sport.

~~CAMS recognizes The Australian Saloon Car Company (hereinafter called TASCCO) as the sole competitor entity which may make recommendations regarding maintenance of and/or proposed changes to the technical regulation for this group, and/or sporting regulations for the conduct of competition activity for such vehicles.~~"

Add new Article 1.6:

1.6 Wherever an ACL component is specified, a Mahle branded component with the same part number may be utilised as an alternative.

Article 3.2:

"....Original door trims may be replaced with flat metal trims.

It is permitted to remove the lower dash board panels and glove box to enable the fitment of the safety cage. The original dash board crash pad must be retained and all cables, wiring and ducting must be secured in a neat and tidy fashion."

Article 3.13:

"The original primary bonnet fasteners and release mechanisms must be removed and an adequate alternative retention system is fitted **in accordance with Schedule B & C**. Boot lid fasteners may be removed provided an alternative closing system is fitted."

Article 4.1

"The following specified components must be utilised in each respective vehicle. All such components must be supplied by Pedders Suspension **and be part numbered as per the automobile homologation documents**.

- road springs
- strut inserts and Suspension dampers
- adjustable strut upper insulating blocks **
- stabiliser bars
- Panhard bar
- front camber adjustment kit (Falcon).

** It is permitted to use K-Mac adjustable strut upper insulating blocks. It is permitted to fit a Pedders stabiliser bar link rod kit."

Article 6.2:

"It is permitted to remove the central locking components, radio and the interior lights **and any non-functional electrical wiring, modules and connectors. It is permitted to replace the wiring loom save that the following electrical equipment remains operational – windscreen wipers, head and tail lights, stop lights including the high level light**. A high level brake light is mandatory. Fuses and a master electrical circuit breaker may be added to the electrical system."

Article 7:

"Only ~~unleaded~~ Commercial Fuel as defined by CAMS may be used. **Refer Schedule G.**

Fuel tanks must...."

Article 8.1

Each tyre used must be ~~listed on the Production Car Tyre List in Schedule E (refer "General Requirements" in the CAMS Manual of Motor Sport)~~ **a Bridgestone Potenza RE55, 235/50R16 or 235/45R17**.

Article 8.2

All wheels must be CSA 'Prowler'16" x 8"**,** ~~or~~ CSA 'Speedster' 17" x 8", **CSA 'Gladiator' 17"x8" or RJR 'Linear' 17" x 8"**, and be unmodified save for painting and polishing.

Article 9.2 (a):

Cylinder heads: ~~The valves' seat faces may be re-cut but a minimum 45° inlet valve seat width of 2.50mm must be retained.~~

It is permitted to machine the valve seats in the cylinder heads at 45° with the overcut angles/radii being free. **The valve seat faces must be re-cut at 45º. Back cutting of the valves is permitted.**

It is permitted to reclaim the valve seats as per the manufacturers specifications, including through the use of a seat insert.

It is permitted to refurbish valve guides using thin wall type valve guides (K-Line or equivalent).

It is permitted to machine the cylinder head face parallel to the original to obtain a minimum combustion chamber volume of 36cc for ACL part number 3800 pistons and 37.5cc for 9380 pistons.

It is permitted to machine the ports from the valve seat to the untouched valve guide boss with the largest diameter of any taper at the valve seat. All machine work must be concentric with the centre line of the original valve guide.

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 seats is not permitted."

Article 9.3 (a):

"Camshaft: All cars must be fitted with the Crow Cams part number SCRA3800. Each camshaft must match the Crow Cams cam doctor report specific for that camshaft. ~~Camshaft bearings shall be ACL part number 4C5106, or ISC19549 oversize back.~~

It is permitted to remove the balance shaft and gears.

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

Article 9.4 (a):

"Crankshaft & rods: The crankshaft journals may be reground a maximum of 1.0mm undersize, with a maximum stroke of 86.36mm. The crankshaft minimum weight shall be 16.00kg bare (VN) or 15.50 (VP).

The connecting rods may be re-sized and machined to provide additional side clearance **and to attain the correct piston height**, and to facilitate the use of replacement rod bolts. The connecting rod minimum weight is 640.0 grams.

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

Article 9.8 (a):

".....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 engine breathers, but all breathers must discharge to a catch tank that is vented to the atmosphere."

Article 9.2 (b):

"**Cylinder head:** The valves' seat faces ~~may~~ **must** be re-cut but a minimum 45° inlet valve seat width of 2.50mm must be retained. **Back cutting of the valves is permitted.**

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

It is permitted to machine the cylinder head face to obtain a minimum combustion chamber volume of 55cc (for 6MKRY2809 and 6MKRY3900 pistons) and 57cc for 6MKRY9390 pistons. Angle milling is not permitted.

It is permitted to machine the ports from the valve seat to the untouched valve guide boss with the largest diameter of any taper at the valve seat. All machine work must be concentric with the centre line of the original valve guide.

The following dimensions must be respected:
• Valve guide total length: **minimum 62.2mm.**
• Valve guide protrusion: **maximum 19.1mm above guide boss on top of cylinder head.**

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.

It is permitted to use camshaft rocker arms as fitted to Ford Falcon six-cylinder models EA to EF."

Article 9.3 (b):

Camshaft: The camshaft shall be part number SCRA3900. ~~Engines sealed after 1 January 2004 must be fitted with the Crow Cams part number SCRA3900.~~ Each camshaft must match the Crow Cams cam doctor report specific for that camshaft.

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

Article 9.4 (b):

"Crankshaft & rods: The crankshaft journals may be reground to a maximum 1.0mm undersize with a maximum stroke of 99.31mm. The crankshaft minimum weight shall be 25.75kg.

The connecting rods may be re-sized and machined to provide additional side clearance **and to attain the correct piston height,** and to facilitate the use of replacement rod bolts. The connecting rod minimum weight is 610g.

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

Article 9.8 (b):

"....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 engine breathers, but all breathers must discharge to a catch tank vented to the atmosphere."

Article 12.1:

"...shaft bearing retainers with an aftermarket unit.

It is permitted to carry out local modification of the gearbox casing to allow the fitment of ball race bearings to the cluster gear shaft.

A circular hole of 50mm diameter..."

Amend Part 2: Technical Regulations – AU/VT as follows:

Add new Article 1.6:

1.6 Wherever an ACL component is specified, a Mahle branded component with the same part number may be utilised as an alternative.

Article 3.1

"....original external shape **and dimensions**. The original (OEM) mounting/attachment points must be used. It is permitted to remove the inner headlights provided that a blanking plate is secured to cover the resulting apertures. It is permitted to remove the front indicator assemblies. Additional fasteners may be added to the trailing edge of the front bumper fascia, and the front of the rear bumper fascia.

The only bonnet and mountings permitted for the AU Falcon shall be as fitted to the AU Falcon Forte series 2."

Article 3.2:

"...door opening seals, spare wheel and jack.

It is permitted to remove the lower dash board panels and glove box to enable the fitment of the safety cage. The original dash board crash pad must be retained and all cables, wiring and ducting must be secured in a neat and tidy fashion."

Article 4.1:

".....The following specified components must be utilised in each respective vehicle:
- road springs
- suspension dampers, including strut inserts

Each ~~such~~ unit~~s~~ must ~~be supplied by Pedders Suspension and shall~~ be part numbered as per the automobile homologation documents.

From 1 January 2011 the only rear spring permitted for the VT Commodore shall be King Springworks P/L - COM-SAL R/C.

The use of spherical bearing tie-rod ends (rose joints) is prohibited."

Article 4.10:

"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 ~~4.5°~~ **5°**."

Article 4.15:

"It is permitted to relocate the AU Falcon front damper assembly lower mounting hole a maximum of 20mm to achieve the desired ride height. **It is permitted to weld a washer to the relocated hole.**"

Add new Article 5.11:

"**5.11** ***Effective from 15 February 2010:***
It is permitted to modify the AU Falcon rear braking system with the fitment of 328mm x 26mm brake rotors and Ford brake callipers part numbers SX2K327A and SX2K328A (Ford Territory).
It is permitted to modify the VT Commodore rear braking system with the fitment of 316mm x 18mm brake rotors and Holden brake callipers part numbers 92193448 and 92193451 (6 cylinder VE Commodore Omega)."

Article 6.2:

"It is permitted to remove the central locking components, radio, interior lights and any non-functional electrical wiring, modules and connectors. **It is permitted to replace the wiring loom save that the following electrical equipment remains operational – windscreen wipers, head and tail lights, stop lights including the high level light.** 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."

Article 6.8:

"The only approved data storage devices are as per the following: AIM MXL Strata, Pista Pro Data acquisition systems, and the EMS mini logger that is supplied with the Stinger ECU. **Other types/brands may be considered upon application."**

Article 8.1

"Each tyre used must be ~~listed on the Production Car Tyre List in Schedule E (refer "General Requirements" in the CAMS Manual of Motor Sport)~~ **a Bridgestone Potenza RE55 235/45R17**."

Article 8.2

All wheels must be CSA 'Gladiator' 17"x8" ~~or~~**,** CSA 'Speedster' 17" x 8", **or RJR 'Linear' 17" x 8"**, and be unmodified save for painting and polishing.

Article 9.2 (a) & 9.2 (b):

"... 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."

Article 9.3 (a):

"Camshaft: The only camshaft permitted shall be Crow Cams part number TASCCO3800. Each camshaft must match the Crow CAMS cam doctor report for that specific camshaft. ~~Camshaft bearings shall be ACL part number 4C5106, or ISC19549 oversize back.~~

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."

Article 9.4 (a):

"Crankshaft & rods: The crankshaft journals may be reground 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."

Article 9.8 (a):

"....The engine block face may be machined in a plane perpendicular to the cylinder bores. The 6MKRY93802 pistons must not protrude above the block face any more than 0.25mm (0.010") 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.

The ACL6MKRY90381 pistons must not protrude above the block face at TDC....."

Article 9.4 (b):

"Crankshaft & rods: The crankshaft journals may be reground to a maximum stroke of 99.3mm. The crankshaft minimum weight shall be 29.40kg.

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 615g. 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."

Article 9.8 (b):

"....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 engine breathers, but all breathers must discharge to a catch tank vented to the atmosphere."

Article 14.2:

		Commodore	Falcon
14.2 Track:	**Front**	~~1650~~**1910**mm maximum	~~1594~~**1854**mm maximum
	Rear	~~1586mm ± 15mm~~ **1846mm** maximum	~~1565~~**1825**mm maximum

Add new Article 14.6:

"**14.6 The maximum track dimension shall be the distance between the outside walls of each tyre on the same axle as presented for competition.**"

END