

5TH CATEGORY - HISTORIC RACING

### **GROUP Nc**

APPROVED VEHICLE SPECIFICATION

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with a Historic Log Book, cars need to comply with these specifications, the physical appearance shown in the illustrations and the general historic rules as detailed in the current CAMS Manual of Motor Sport.

Make of Car: Valiant Charger Model: R/T E49

**Period of Original Manufacture:** June 1972

**CAMS Historic Group:** Nc

**Date of issue of this document:** 14<sup>th</sup> May 1997 – Revised 28<sup>th</sup> April 2014



Comment: Note the no "4" on the bumble bee stripe this indicates that it is an E49 – included with A66 Hood and fender Dress-up package

Refer to CAMS Manual of Motor Sport, Vehicle Eligibility, Historic Touring Cars, General Requirements & Nc Regulations for permitted modifications.

## SECTION 1 - CHASSIS

#### 1.1 CHASSIS FRAME

**Description:** Unitary

Period of Manufacture: June 1972 to March 1973

Manufacturer: Chrysler Australia

Chassis no. location: VH7S29\_\_\_\_\_ Chassis no. location: Firewall RHS

Material: Steel

Comments: Chassis D364C (C-1972, D-1973)

#### 1.2 FRONT SUSPENSION

**Description:** Independent with torsion bar

**Spring Medium:** Torsion Bar

Damper Type:TelescopicAdjustable:NoAnti-sway bar:YesAdjustable:No

Suspension adjustable: Yes Method: Camber and Caster

#### 1.3 REAR SUSPENSION

**Description:** Semi Elliptic Hotchkiss **Spring medium:** Semi Elliptic Leaf

**Damper type:** Telescopic **Adjustable:** No

Anti-sway bar: No Suspension adjustable: No

#### 1.4 STEERING

Type: Recirculating Ball Make: Chrysler

Comment: 16:1 ratio steering box with A84 & A87 Option

### 1.5 BRAKES

Front Rear
Disc, vented Drum

**Dimensions:** 279.4 (11") x 24.6 mm 228 (9") x 50mm finned drums

Material:Cast IronCast IronNo. cylinders/pots per wheel:TwoOneActuation:HydraulicHydraulic

Caliper Make:

Type:

Caliper Type:

Caliper Material: Cast Iron

Master cylinder make: Type: Tandem

Adjustable bias: No Servo Fitted: Yes

Comment: B51 Option included power Brake Servo

## **SECTION 2 - ENGINE**

#### 2.1 FNGINE

Make: Chrysler Model: Hemi

No. cylinders: 6 Configuration: Inline Cylinder block material: Cast Iron Two/Four Stroke: Four

Bore - Original: 99.31 mm Max. allowed: 100.81 mm

Stroke - original: 93.47 mm

Capacity - original: 4344 cc Max. allowed: 4476 cc

**Cooling method:** Water **Identifying marks:** D265

Comment: E49 Option was the 6 pack engine – 302 BHP

#### 2.2 CYLINDER HEAD

Make: Chrysler

No. of valves/cylinder:

No. of ports total:

No. of camshafts:

One

Inlet:

One

Exhaust:

One

Exhaust:

Six

Exhaust:

Six

Drive:

Chain

Valve actuation: Pushrod Spark plugs/cylinder: One

**Identifying marks:** 

#### 2.3 LUBRICATION

Method: Wet Sump Oil cooler standard: None

Comment: External single stage, wet, belt driven oil pump allowed. Refer

appendix

2.4 IGNITION SYSTEM

Type: Distributor & Coil Make:

## 2.5 FUEL SYSTEM

Carburettor Make:WeberModel:DCOECarburettor number:ThreeSize:45

### SECTION 3 - TRANSMISSION

### 3.1 CLUTCH

Make: Borg Beck Type: Dry
Diameter: No. of Plates: Two

**Actuation:** Hydraulic

# 3.2 TRANSMISSION

Type: Single Rail Make: Borg Warner

No. forward speeds: Four Gearbox location: Behind Engine

**Gear change type and location:** H Pattern Floor Mounted

Case material: Alloy

**Comment:** D20 Option was 4 speed manual transmission

3.3 FINAL DRIVE

Type: Live Axle

Make: Borg Warner Model: Sure Grip

Wheel drive method: Rear

**Ratios:** 2.92, 3.23, 3.5

**Differential type:** Limited Slip

**Comment:** D53 Option – Sure Grip 3.23 Rear Axle Ratio

D56 Option – Sure Grip 3.50 Rear Axle Ratio

### 3.4 TRANSMISSION SHAFTS (EXPOSED)

Number: One

**Description:** Tubular Tail Shaft

#### 3.5 WHEELS & TYRES

Wheel type - Original: A84 Option Material - Original: Alloy

Allowed: Period Allowed: Alloy Fixture method: Studs No. studs: 5

Wheel dia. & rim width: FRONT REAR

 Original:
 7" x 14"
 7" x 14"

 Allowed:
 8" x 15"
 8" x 15"

Tyres original: ER70/14

Tyres allowed: 60% minimum aspect ratio, refer approved tyre list.

### SECTION 4 - GENERAL

### 4.1 FUEL SYSTEM

Tank Location: Rear Capacity: 78 litre
Fuel pump type and location: Engine Block Make: Chrysler

Comments: A84 option was a track pack that included 157.5l fuel tank and twin filler

caps mounted on rear quarter panels.

A87 option was a track pack that deleted the 157.5I fuel tank

#### 4.2 ELECTRICAL SYSTEM

Voltage: 12 Alternator or Dynamo: Alternator

**Battery Location:** Engine Compartment

#### 4.3 BODYWORK

Type: Fixed Head Coupe Material: Steel No. of seats: Five No. doors: Two

Comments: A66 Options include Hood & Fender Dress up Package

### **4.4 DIMENSIONS**

Track - Front:1634 mmRear:1644 mmWheelbase:2667 mmOverall length:4564 mm

Dry weight: 1349 kg

# 4.5 SAFETY EQUIPMENT

# Refer applicable Group Regulations

## Appendix 1

External oil pump

Three options of pump brands permitted, Johnson, Moroso and SCP The pumps are to be external single stage, wet, belt driven pump.

Maximum width of belt is to be 25mm

Maximum width of rotor / gear on pump is 1.1 inches

Mounting is to be below the horizontal centreline of the water pump.

Piping / Plumbing to be a maximum size of dash 12.

One hose in and one hose out of pump, single pick up, single return, can be via oil cooler / filter.

Pipes connected to the pump must be black in colour