



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 Pacer

**Model:** VG & VH, 245 or 265 Eng.

**Period of Original Manufacture:** 1968 to 71

**CAMS Historic Group:** Nc

**Date of issue of this document:** Sep 1999 – Revised August 2014



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:** 1968 - 1971  
**Manufacturer:** Chrysler Australia  
**Chassis no. from:**  
**Chassis no. location:** RH Fender, under bonnet  
**Material:** Steel  
**Comments:**

### **1.2 FRONT SUSPENSION**

**Description:** Independent with torsion bar  
**Spring Medium:** Torsion Bar  
**Damper Type:** Telescopic **Adjustable:** No  
**Anti-sway bar:** Yes **Adjustable:** No  
**Suspension adjustable:** Yes **Method:** Camber, Caster & spring height

### **1.3 REAR SUSPENSION**

**Description:** Live axle  
**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:**

### **1.5 BRAKES**

	<b>Front</b>	<b>Rear</b>
<b>Type:</b>	Disc, Vented	Drum
<b>Dimensions:</b>	280 mm	230 mm
<b>Material:</b>	Cast Iron	Cast Iron
<b>No. cylinders/pots per wheel:</b>	Two	One
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper Make:</b>	Girlock	
<b>Caliper Type:</b>	Road	
<b>Caliper Material:</b>	Cast Iron	
<b>Master cylinder make:</b>	Girlock	<b>Type:</b> Tandem
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	Yes	
<b>Comment:</b>		

## **SECTION 2 - ENGINE**

### **2.1 ENGINE**

**Make:** Chrysler  
**Model:** Hemi 245 or 265  
**No. cylinders:** 6  
**Cylinder block material:** Cast Iron  
**Bore - Original:** 95.504 mm (245)  
99.31 mm (265)  
**Stroke - original:** 93.47 mm  
**Capacity - original:** 4051 cc (245)  
4344 cc (265)  
**Cooling method:** Water  
**Identifying marks:**  
**Comment:**

**Configuration:** Inline  
**Two/Four Stroke:** Four  
**Max. allowed:** 97.404 mm (245)  
100.81 mm (265)  
**Max. allowed:** 4179 cc (245)  
4476 cc (265)

### **2.2 CYLINDER HEAD**

**Make:** Chrysler  
**No. of valves/cylinder:** **Inlet:** One **Exhaust:** One  
**No. of ports total:** **Inlet:** Six **Exhaust:** Six  
**No. of camshafts:** One **Location:** Block **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:** N/A **Model:** Two Barrel  
**Carburettor number:** One **Size:** N/A

## **SECTION 3 - TRANSMISSION**

### **3.1 CLUTCH**

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

### **3.2 TRANSMISSION**

**Type:** Single Rail **Make:** Borg Warner  
**No. forward speeds:** Three **Gearbox location:** Behind Engine  
**Gear change type and location:** H Pattern Floor Mounted  
**Case material:** Alloy

### **3.3 FINAL DRIVE**

**Type:** Live Axle **Model:** Sure Grip  
**Make:** Borg Warner  
**Wheel drive method:** Rear  
**Ratios:** 2.92, 3.23, 3.5  
**Differential type:** Limited Slip

### **3.4 TRANSMISSION SHAFTS (EXPOSED)**

**Number:** One  
**Description:** Tubular Tail Shaft

### **3.5 WHEELS & TYRES**

<b>Wheel type - Original:</b>	Sports type	<b>Material - Original:</b>	Steel
<b>Allowed:</b>	Period cast	<b>Allowed:</b>	Alloy
<b>Fixture method:</b>	Studs	<b>No. studs:</b>	5
<b>Wheel dia. &amp; rim width:</b>	<b>FRONT</b>		<b>REAR</b>
<b>Original:</b>	5.5" x 14"		5.5" x 14"
<b>Allowed:</b>	8" x 14"		8" x 14"
<b>Tyres original:</b>	ER70/14		
<b>Tyres allowed:</b>	60% minimum aspect ratio, refer approved tyre list.		

## **SECTION 4 - GENERAL**

### **4.1 FUEL SYSTEM**

<b>Tank Location:</b>	Rear	<b>Capacity:</b>	N/A
<b>Fuel pump type and location:</b>	Engine Block	<b>Make:</b>	Chrysler
<b>Comments:</b>			

### **4.2 ELECTRICAL SYSTEM**

<b>Voltage:</b>	12	<b>Alternator or Dynamo:</b>	Alternator
<b>Battery Location:</b>	Engine Compartment		

### **4.3 BODYWORK**

<b>Type:</b>	Two or four door sedan	<b>Material:</b>	Steel
<b>No. of seats:</b>	Five	<b>No. doors:</b>	Two or four
<b>Comments:</b>			

### **4.4 DIMENSIONS**

<b>Track - Front:</b>	1480 mm	<b>Rear:</b>	1430 mm
<b>Wheelbase:</b>	2820 mm	<b>Overall length:</b>	4890 mm
<b>Dry weight:</b>	1400 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