



5TH CATEGORY - HISTORIC RACING GROUP N APPROVED VEHICLE SPECIFICATION
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This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with an 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 Motorsport Australia Manual.

Make of Car:	Plymouth Valiant	Model:	Barracuda
Period of Original Manufacture:	September 1963 - 1964		
Motorsport Australia Historic Group:	Nb		
Date of Issue of this Document:	30 September 2021		



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

Update Log

SECTION 1 - CHASSIS

1.1. CHASSIS

Description:	Unitary construction
Period of Manufacture:	September 1963 - 1964
Manufacturer:	Chrysler
Chassis Number From:	1000001 - 135403
Chassis Number location:	Left Front Door Hinge Pillar
Material:	Steel
Comments	None

1.2. FRONT SUSPENSION

Description:	Independent - upper wishbone & lower arm with castor rod		
Spring Medium:	Torsion bar		
Damper Type:	Telescopic	Adjustable:	No
Anti-sway bar:	No	Adjustable:	N/A
Suspension adjustable:	Yes	Method:	Caster, camber, ride height
Comments:	Refer to Appendix A		

1.3. REAR SUSPENSION

Description:	Live rear axle		
Spring Medium:	Semi elliptical leaf		
Damper Type:	Telescopic	Adjustable:	No
Anti-sway bar:	No	Adjustable:	N/A
Suspension adjustable:	No	Method:	N/A
Comments:	Refer to Appendix A		

1.4. STEERING

Type:	Recirculating ball	Make:	Chrysler
Power steering	Optional		
Comments	None		

1.5. BRAKES

	Front	Rear
Type:	Disc or Drum	Drum
Dimensions:	Disc - 279.4 mm x 56 mm Drum – 229 mm x 56 mm	Drum – 229 mm x 56 mm
Material of drum/disc:	Cast iron	Cast iron
No. cylinders/pots per wheel:	Disc – One Drum - Two	One
Actuation:	Hydraulic	Hydraulic
Caliper make:	Kelsey Hayes	
Caliper type:	Sliding	
Material:	Cast iron	
Master cylinder make:	Girlock	
Type:	Tandem	
Adjustable bias:	No	
Servo Fitted:	Disc – Yes Drum – No	
Comments:	None	

SECTION 2 - ENGINE

2.1. ENGINE – 170 ci

Make:	Chrysler		
Model:	Slant 6		
No. cylinders:	Six	Configuration:	In line
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	86 mm	Max allowed:	89.5 mm
Stroke - original:	79.3 mm	Max allowed:	79.3 mm
Capacity - original:	2788 cc	Max allowed:	3000 cc
Identifying marks:	N/A		
Cooling method:	Liquid		
Comments:	Bore may be varied and/or stroke reduced to attain capacity limit for Class NbB - (3000 cc)		

2.2. CYLINDER HEAD

Make:	Chrysler		
No. of valves/cylinder:	Two	Inlet: One	Exhaust: One
No. of ports total:	Twelve	Inlet: Six	Exhaust: Six
No. of camshafts:	One	Location: Block	Drive: Chain
Valve actuation:	Pushrod and rocker		
Spark plugs/cylinder:	One		
Identifying marks:	N/A		
Comments:	None		

2.1. ENGINE – 225 ci

Make:	Chrysler		
Model:	Slant 6		
No. cylinders:	Six	Configuration:	In line
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	86 mm	Max allowed:	89.5 mm
Stroke - original:	104.7 mm	Max allowed:	104.7 mm
Capacity - original:	3690 cc	Max allowed:	4500 cc
Identifying marks:	N/A		
Cooling method:	Liquid		
Comments:	Bore may be varied and/or stroke reduced to attain capacity limit for Class NbA2 - (4500 cc)		

2.2. CYLINDER HEAD

Make:	Chrysler		
No. of valves/cylinder:	Two	Inlet: One	Exhaust: One
No. of ports total:	Twelve	Inlet: Six	Exhaust: Six
No. of camshafts:	One	Location: Block	Drive: Chain
Valve actuation:	Pushrod and rocker		
Spark plugs/cylinder:	One		
Identifying marks:	N/A		
Comments:	None		

2.1. ENGINE – 273 ci

Make:	Chrysler		
Model:	V8		
No. cylinders:	Eight	Configuration:	Vee
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	92.2 mm	Max allowed:	Variable
Stroke - original:	84.07 mm	Max allowed:	84.07 mm
Capacity - original:	4477 cc	Max allowed:	See comments
Identifying marks:	N/A		
Cooling method:	Liquid		
Comments:	Bore may be varied and/or stroke reduced to attain capacity limit for Class NbA1 - (over 4500 cc)		

2.2. CYLINDER HEAD

Make:	Chrysler		
No. of valves/cylinder:	Two	Inlet: One	Exhaust: One
No. of ports total:	Eight	Inlet: Four	Exhaust: Four
No. of camshafts:	One	Location: Block	Drive: Chain
Valve actuation:	Pushrod and rocker		
Spark plugs/cylinder:	One		
Identifying marks:	N/A		
Comments:	None		

2.3. LUBRICATION

Method:	Wet sump	Oil tank location:	N/A
Dry sump pump type:	N/A	Location:	N/A
Oil cooler standard:	No	Location:	N/A
Comments:	None		

2.4. IGNITION SYSTEM

Type:	Points, coil & distributor		
Make:	Chrysler		
Comments	Breakerless electronic ignition permitted		

2.5. FUEL SYSTEM

Carburettor Make – 170 and 225:	Carter	Model:	2BBL
Carburettor Make – 273:	Carter	Model:	2BBL 4BBL optional
Carburettor Number:	One		
Size:	Various		
Fuel injection Make:	N/A	Type:	N/A
Supercharged:	No	Type:	N/A
Comments:	None		

SECTION 3 - TRANSMISSION

3.1. CLUTCH

Make:	Chrysler
Type:	Dry plate
Diameter:	235 mm
No. of Plates:	One
Actuation:	Mechanical – linkage
Comments:	None

3.2. TRANSMISSION

Type:	Synchromesh
Make:	Chrysler A-833
Gearbox location:	Behind engine
No. forward speeds:	Four
Gearchange type and location:	Floor lever
Case material:	Cast iron
Identifying marks:	Front input bearing retainer (snout) or the extension housing/tailshaft.
Comments:	3 speed manual and 3 speed automatic are also available

3.3. FINAL DRIVE

Make:	Chrysler	Model:	BW
Type:	Live axle		
Ratios:	Various		
Differential type:	Hypoid LSD		
Comments:	None		

3.4. TRANSMISSION SHAFTS (EXPOSED)

Number:	One
Location:	Gearbox to final drive
Description:	Open tail shaft with twin uni joints
Comments:	None

3.5. WHEELS & TYRES

Wheel type - Original:		Material - Original:	
Wheel type - Allowed:		Material - Allowed:	
Fixture method:		No. studs:	
Wheel dia. & rim width	FRONT	REAR	
Original:	5" x 14" V8 – 5" x 14"	5" x 14" V8 – 5" x 14"	
Allowed	6" x 15"	6" x 15"	
Tyre Section:			
Allowed:	Refer approved tyre list.		
Aspect ratio - minimum:	60% minimum aspect ratio.		
Comments:	None		

SECTION 4 GENERAL

4.1. FUEL SYSTEM

Tank Location:	Rear	Capacity:	80 litres
Fuel pump, type:	Mechanical on block	Make:	Various
Comments:	None		

4.2. ELECTRICAL SYSTEM

Voltage:	12	Alternator fitted:	Alternator
Battery Location:	Engine compartment		
Comments:	None		

4.3. BODYWORK

Type:	Sedan	Material:	Steel
No. of seats:	Four	No. doors:	Two
Comments:	None		

4.4. DIMENSIONS

Track - Front:	1420 mm	Rear:	1412 mm
Wheelbase:	2692 mm	Overall length:	4775 mm
Dry weight:	1136 kg		
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix A

Suspension

Front

Spring height adjustment permitted.

Rear

Spring height adjustment permitted.