



5TH CATEGORY - HISTORIC RACING
GROUP N
 APPROVED VEHICLE SPECIFICATION

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:	Holden	Model:	HQ Kingswood (V8)
Period of Original Manufacture:	June 1971 - 1974		
Motorsport Australia Historic Group:	Nc		
Date of Issue of this Document:	23 September 2021		



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

Update Log

October 2020	308 or 5.0 cast on side of block. GM Holden full production cast iron blocks only.
October 2020	Four bolt mains block and 4 bolt conversions permitted.

SECTION 1 - CHASSIS

1.1. CHASSIS

Description:	Unitary construction and sub frame		
Period of Manufacture:	June 1971 - 1974		
Manufacturer:	Holden		
Chassis Number From:	81837Q\$\$????? \$\$ = assembly plant code, ?????? = sequence number		
Chassis Number location:	Plate on RHS of fire wall		
Material:	Steel		
Comments	For sub frame reinforcement see Appendix A.		

1.2. FRONT SUSPENSION

Description:	Independent - upper & lower wishbones		
Spring Medium:	Coil		
Damper Type:	Telescopic	Adjustable:	No
Anti-sway bar:	Fitted	Adjustable:	No
Suspension adjustable:	Yes	Method:	Caster, camber and toe
Comments:	Refer to Appendix A		

1.3. REAR SUSPENSION

Description:	Live rear axle		
Spring Medium:	Coil		
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 and nut	Make:	Holden
Power steering	Fitted		
Comments	None		

1.5. BRAKES

	Front	Rear
Type:	Disc, solid	Drum
Dimensions:	279 mm x 25.4mm	254 mm x 50 mm
Material of drum/disc:	Cast iron	Cast iron
No. cylinders/pots per wheel:	Two	One
Actuation:	Hydraulic	Hydraulic
Caliper make:	Holden	
Caliper type:	Split	
Material:	Cast iron	
Master cylinder make:	GM	
Type:	Tandem	
Adjustable bias:	No	
Servo Fitted:	Yes	
Comments:	None	

SECTION 2 - ENGINE

2.1. ENGINE

Make:	GM Holden		
Model:	308		
No. cylinders:	Eight	Configuration:	Vee
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	101.6 mm	Max allowed:	103.1 mm
Stroke - original:	77.787 mm	Max allowed:	77.787 mm
Capacity - original:	5045 cc	Max allowed:	5195 cc
Identifying marks:	308 or 5.0. GM Holden full production cast iron blocks only. On Pad at top front LH side of Cylinder Case		
Cooling method:	Liquid		
Comments:	Four bolt mains block and 4 bolt conversions permitted.		

2.2. CYLINDER HEAD

Make:	GM Holden		
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:	HC		
Comments:	None		

2.3. LUBRICATION

Method:	Wet sump	Oil tank location:	N/A
Dry sump pump type:	No	Location:	N/A
Oil cooler standard:	No	Location:	N/A
Comments:	Oil cooler permitted.		

2.4. IGNITION SYSTEM

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

2.5. FUEL SYSTEM

Carburettor Make:	Rochester	Model:	Quadrajets
Carburettor Number:	One		
Size:	750		
Fuel injection Make:	N/A	Type:	N/A
Supercharged:	No	Type:	N/A
Comments:	Barry Grant reproduction carburettor not approved.		

SECTION 3 - TRANSMISSION

3.1. CLUTCH

Make:	Various
Type:	Diaphragm
Diameter:	280 mm
No. of Plates:	One
Actuation:	Hydraulic
Comments:	None

3.2. TRANSMISSION

Type:	Synchromesh
Make:	GM Muncie M20 or M21 model
Gearbox location:	Four
No. forward speeds:	Synchromesh
Gearchange type and location:	H pattern, Remote lever floor
Case material:	Alloy
Identifying marks:	N/A
Comments:	Allowed Substitution - The GM Muncie alloy case 4 speed gearbox. The original Bell housing is to be replaced by either the suitable Castlemaine Rod Shop bell housing or the suitable Dellow bell housing. The only modification required for the floor pan is for the installation of the shifter assembly.

3.3. FINAL DRIVE

Make:	GM	Model:	Salisbury or Banjo
Type:	Live rear axle		
Ratios:	Various		
Differential type:	Free/Open		
Comments:	Refer Appendix B for component substitution with GM 10 bolt centre. 10 bolt round cover, 8.5" ring gear with 10-ring gear bolts, HQ axle tubes to be reused.		

3.4. TRANSMISSION SHAFTS (EXPOSED)

Number:	One
Location:	Gearbox to final drive
Description:	Open tailshaft with twin uni joints
Comments:	Steel

3.5. WHEELS & TYRES

Wheel type - Original:	Pressed disc	Material - Original:	Steel
Wheel type - Allowed:	Period cast	Material - Allowed:	Alloy
Fixture method:	Studs	No. studs:	Five
Wheel dia. & rim width	FRONT		REAR
Original:	6" x 14"		6" x 14"
Allowed	8" x 15"		8" x 15"
Tyre Section:			
Allowed:	Refer approved tyre list.		
Aspect ratio - minimum:	60% minimum aspect ratio.		
Comments:	None		

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SECTION 4 GENERAL

4.1. FUEL SYSTEM

Tank Location:	Boot floor	Capacity:	74 litres
Fuel pump, type:	Mechanical, engine block	Make:	GMH
Comments:	None		

4.2. ELECTRICAL SYSTEM

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

4.3. BODYWORK

Type:	Closed touring	Material:	Steel
No. of seats:	Five or Six	No. doors:	Four
Comments:	Only modification allowed is to the floor pan for the installation of the shifter assembly when the GM Muncie alloy case 4 speed gearbox is fitted.		

4.4. DIMENSIONS

Track - Front:	1527 mm	Rear:	1527 mm
Wheelbase:	2819 mm	Overall length:	4763 mm
Dry weight:	1125 kg		
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix A

Suspension

Front

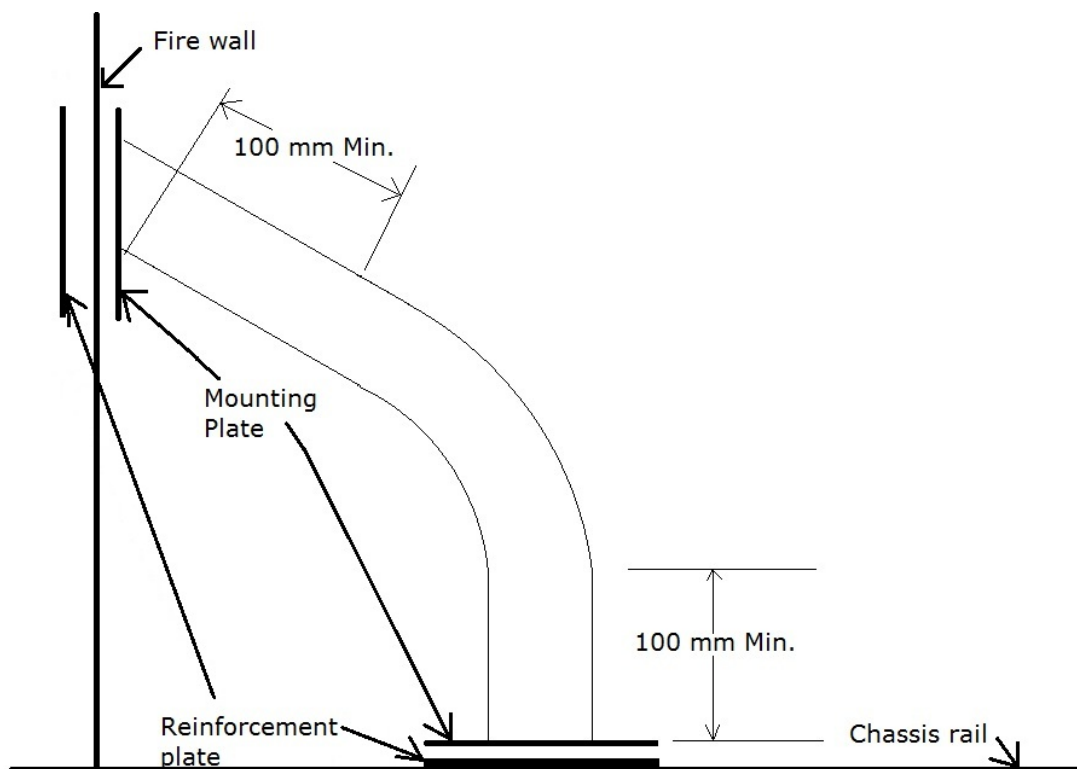
Spring height adjustment permitted.

Rear

Spring height adjustment permitted.

Chassis

Sub frame reinforcement



Requirements of sub frame reinforcements

Reinforcement plates:

On chassis rail – minimum of 8 mm thickness. To be the same size of tube mounting plate.

Firewall plate - 3 mm mild steel plate same size of tube mounting plate.

Maximum size of each mounting & reinforcement plates is 75 x 75 mm or 56.25 cm².

Reinforcement tube:

To be round mild steel tube 38mm dia. With 2.5 mm wall thickness.

Minimum length of straight tube from the end of the bent to the mounting plate is to be 100 mm.

The bend in the reinforcement tube is to be a included angle between 90° and 120°.

Location:

Lower chassis rail mounting point is on the chassis rail. Location is allowed from the firewall to 200 mm forward of the front wheel centre line.

The upper mount on the firewall is not to be aligned with any part of the roll cage.

The locating area on the firewall is defined by a rectangle within the following parameters.

The vertical area is from the top of the chassis rail to the top of the firewall.

The horizontal area is from the outer edge of the chassis rail (where it contacts the firewall) to 300 mm towards the centre line of the vehicle.

Mounting:

Chassis reinforcement plate to be welded to chassis rail, drill & tapped to allow mounting plate attachment.

Firewall reinforcement plate is to be bolted through the firewall & tube mounting plate.

Each mounting point to incorporate at least two fasteners having the minimum diameter of M8 and minimum quality 8.8 (ISO standard), self-locking or fitted with lock washers.

Appendix B

Rear axle centre approved replacement

GM Holden HQ rear axle centre is permitted to be replaced with GM USA 10 bolt coil spring rear axle assembly centre and associated crown wheel & pinion. GM USA 10 bolt rear axle assemble centre identification. Bolt pattern is a circle; Casting lugs at 5 & 7 O'clock positions.

Casting lugs at 5 & 7 O'clock positions.

