



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.

<b>Make of Car:</b>	Holden	<b>Model:</b>	HD
<b>Period of Original Manufacture:</b>	1965 – 1966		
<b>Motorsport Australia Historic Group:</b>	Nc		
<b>Date of Issue of this Document:</b>	1 January 2024		



Refer to The *Manual*, Historic Appendix, Vehicle Eligibility, General Requirements & Historic Touring Cars Group N Regulations for permitted modifications.

***Update Log***

1/1/2024	Inclusion of kerb and minimum racing weights

## SECTION 1 - CHASSIS

### 1.1. CHASSIS

<b>Description:</b>	Unibody four door sedan
<b>Period of Manufacture:</b>	1963 - 1964
<b>Manufacturer:</b>	General Motors Holden
<b>Chassis Number From:</b>	HD???????
<b>Chassis Number location:</b>	Plate on centre of firewall
<b>Material:</b>	Steel
<b>Comments</b>	None

### 1.2. FRONT SUSPENSION

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

### 1.3. REAR SUSPENSION

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

### 1.4. STEERING

<b>Type:</b>	Recirculating ball	<b>Make:</b>	Holden
<b>Comments</b>	RAM power steering is optional		

### 1.5. BRAKES

	Front	Rear
<b>Type:</b>	Disc, solid	Drum
<b>Dimensions:</b>	254 mm x 9.53 mm	229 mm x 44.4 mm
<b>Material of drum/disc:</b>	Cast iron	Cast iron
<b>No. cylinders/pots per wheel:</b>	Two	One
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper make:</b>	N/A	
<b>Caliper type:</b>	N/A	
<b>Material:</b>	N/A	
<b>Master cylinder make:</b>	Girlock / PBR	
<b>Type:</b>	Single	
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	Yes	
<b>Comments:</b>	None	

## SECTION 2 - ENGINE

### 2.1. ENGINE

<b>Make:</b>	GMH		
<b>Model:</b>	149 or 179		
<b>No. cylinders:</b>	Six	<b>Configuration:</b>	In-line
<b>Cylinder Block-material:</b>	Cast iron	<b>Two/Four Stroke:</b>	Four
<b>149 Bore - Original:</b>	82.5 mm	<b>Max allowed:</b>	84 mm
<b>149 Stroke - original:</b>	76.20 mm	<b>Max allowed:</b>	76.20 mm
<b>149 Capacity - original:</b>	2447 cc	<b>Max allowed:</b>	2535 cc
<b>179 Bore - Original:</b>	90.5 mm	<b>Max allowed:</b>	93 mm
<b>179 Stroke - original:</b>	76.20 mm	<b>Max allowed:</b>	76.20 mm
<b>179 Capacity - original:</b>	2950 cc	<b>Max allowed:</b>	3105 cc
<b>Identifying marks:</b>	The engine number is on the engine boss, right hand side of the engine. Various.		
<b>Cooling method:</b>	Liquid		
<b>Comments:</b>	The later 2.8 block (Blue/Black block with large journal size {202}) is NOT permitted. The VC-VH block is NOT permitted.		

### 2.1. CYLINDER HEAD

<b>Make:</b>	GMH		
<b>No. of valves/cylinder:</b>	Two	<b>Inlet:</b> One	<b>Exhaust:</b> One
<b>No. of ports total:</b>	Nine	<b>Inlet:</b> Three	<b>Exhaust:</b> Six
<b>No. of camshafts:</b>	One	<b>Location:</b> Block	<b>Drive:</b> Gear
<b>Valve actuation:</b>	Pushrod and rocker		
<b>Spark plugs/cylinder:</b>	One		
<b>Identifying marks:</b>	N/A		
<b>Comments:</b>	The Ian Moodie XU1 Cylinder Head casting No 2815843 is allowed. See Appendix A.		

### 2.2. LUBRICATION

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

### 2.3. IGNITION SYSTEM

<b>Type:</b>	Points, distributor & coil		
<b>Make:</b>	Bosch or Lucas		
<b>Comments</b>	Breakerless electronic ignition permitted		

### 2.4. FUEL SYSTEM

<b>Carburettor Make:</b>	Stromberg	<b>Model:</b>	BXUV – 2 or BXV – 2
	Bendix	<b>Model:</b>	BXV
<b>Carburettor Number:</b>	One Two - X2 Version		
<b>Size:</b>	Various		
<b>Fuel injection Make:</b>	N/A	<b>Type:</b>	N/A
<b>Supercharged:</b>	No	<b>Type:</b>	N/A
<b>Comments:</b>	None		

**SECTION 3 - TRANSMISSION**

**3.1. CLUTCH**

<b>Make:</b>	Holden
<b>Type:</b>	Diaphragm
<b>Diameter:</b>	219 mm
<b>No. of Plates:</b>	One
<b>Actuation:</b>	Hydraulic
<b>Comments:</b>	None

**3.2. TRANSMISSION**

<b>Type:</b>	Three speed - Synchromesh, not on first gear
<b>Make:</b>	Holden – 3-speed
<b>Gearbox location:</b>	Behind engine
<b>No. forward speeds:</b>	Three
<b>Gearchange type and location:</b>	3-Speed – column shift
<b>Case material:</b>	Cast iron
<b>Identifying marks:</b>	N/A
<b>Comments:</b>	The standard gearbox was the 3-speed column shift and the 2 speed Powerglide auto as an option. Holden HT three speed gear box is the approved substitute for a 3-speed gearbox. Original HR Column to be retained & modified to operate HT gear box

**3.3. FINAL DRIVE**

<b>Make:</b>	Holden	<b>Model:</b>	HT
<b>Type:</b>	Live axle, banjo type, semi floating		
<b>Ratios:</b>	Various		
<b>Differential type:</b>	Open/free		
<b>Comments:</b>	None		

**3.4. TRANSMISSION SHAFTS (EXPOSED)**

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

**3.5. WHEELS & TYRES**

<b>Wheel type - Original:</b>	Pressed disc	<b>Material - Original:</b>	Steel
<b>Wheel type - Allowed:</b>	Alloy (period style)	<b>Material - Allowed:</b>	Alloy
<b>Fixture method:</b>	Studs	<b>No. studs:</b>	Five
<b>Wheel dia. &amp; rim width</b>	<b>FRONT</b>		<b>REAR</b>
<b>Original:</b>	4.5" x 13"		4.5" x 13"
<b>Allowed</b>	7" x 13"		7" x 13"
<b>Tyre Section:</b>			
<b>Allowed:</b>	Refer approved tyre list.		
<b>Aspect ratio - minimum:</b>	60% minimum aspect ratio.		
<b>Comments:</b>	None		

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## SECTION 4 GENERAL

### 4.1. FUEL SYSTEM

<b>Tank Location:</b>	Boot	<b>Capacity:</b>	53 litres
<b>Fuel pump, type:</b>	Mechanical, engine block	<b>Make:</b>	AC
<b>Comments:</b>	None		

### 4.2. ELECTRICAL SYSTEM

<b>Voltage:</b>	12	<b>Alternator fitted:</b>	Alternator
<b>Battery Location:</b>	Engine compartment		
<b>Comments:</b>	None		

### 4.3. BODYWORK

<b>Type:</b>	Closed	<b>Material:</b>	Steel
<b>No. of seats:</b>	Five	<b>No. doors:</b>	Four
<b>Comments:</b>	None		

### 4.4. DIMENSIONS

<b>Track - Front:</b>	1369 mm	<b>Rear:</b>	1384 mm
<b>Wheelbase:</b>	2692 mm	<b>Overall length:</b>	4569 mm
<b>Approved Manufacturer's kerb weight:</b>	1216 kgs		
<b>Approved minimum racing weight:</b>	1192 kgs		
<b>Comments:</b>	None		

### 4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations
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## **Appendix A**

### **Suspension**

#### **Front**

Spring height adjustment permitted.

#### **Rear**

Spring height adjustment permitted.

### **Alternate Cylinder Head**

#### **Ian Moodie Cylinder head**

- The Ian Moodie XU1 Cylinder Head casting No 2815843 is allowed.
- The cylinder head may be modified as permitted in the Group N regulations.
- The Ian Moodie Cylinder head requires the use of a MSD Soft Touch rev limiter Part No 8728 with a 7500 RPM limit. The limiter will be subject to testing at race meetings. The limiter will be located in an easily accessible position within the engine bay.