



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 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 CAMS Manual of Motor Sport.

Make of Car: Holden

Model: HR

Period of Original Manufacture: 1966 – 1967

CAMS Historic: Group Nc

Date of Issue of this Document: 12 May 2009



SECTION 1 - CHASSIS

1.1 CHASSIS FRAME

Description:	Unitary construction	Period of Manufacture: 1966 -1967
Manufacturer:	General Motors - Holden	
Chassis no. from:	HRXXXXX	HR215 HR225, HR235
Chassis no. location:	Plate on centre of firewall	
Material:	Steel	
Comments:		

1.2 FRONT SUSPENSION

Description:	Independent by upper & lower control arms	
Spring medium:	Helical	
Damper Type:	Telescopic	Adjustable: Permitted
Anti-sway bar:	Fitted	Adjustable: No
Suspension adjustable:	Yes	Method: By shims
Comments:		

Modifications permitted - refer to Nc regulations.

1.3 REAR SUSPENSION

Description:	Live rear axle.	
Spring medium:	Leaf springs.	
Damper type:	Telescopic	Adjustable: Permitted
Anti-sway bar:	Not fitted	Adjustable: Permitted
Suspension adjustable:	No.	Method:
Comments:		

Modifications permitted - refer to Nc regulations.

1.4 STEERING

Type	Recirculating ball	Make: Holden
Comments:		

1.5 BRAKES

	Front	Rear
Type:	Disc	Drum
Dimensions:	254mm x 9.53mm	229mm x 44.5mm
Material of drum/disc	Cast iron	Cast iron
No. cylinders/pots per wheel:	2	1
Actuation:	Hydraulic	Hydraulic
Caliper: Make, Material, Type:	Girling, Cast iron	
Master cylinder make: Holden Girlock/PBR		Type: Single cylinder

Adjustable bias: Not originally fitted

Servo Fitted: Yes

Comments: Refer Group Nc regulations for permitted modifications.

SECTION 2 - ENGINE

2.1 ENGINE

Make:	Holden	
Model:	161 Cu. Inch & 186 Cu.Inch	
No. cylinders:	6	Configuration: In line
Cylinder Block- material:	Cast Iron	Two/Four Stroke: 4
Bore - Original:	161 Cu.in: 85.7mm 186 Cu.in: 92.1mm	Max. allowed: 161: 87.2mm 186: 93.6mm
Stroke - original:	76.2mm	Max. allowed: 76.2mm
Capacity- original:	161 Cu.in.:2638cc 186 Cu.in.:3048cc	Max. allowed: 161: 2732cc 186: 3147cc
Cooling method:	Liquid.	
Identifying marks:		
Comments:		

2.2 CYLINDER HEAD

Make:	Holden		
No. of valves/cylinder:	2	Inlet: 1	Exhaust: 1
No. of ports total:	9	Inlet: 3	Exhaust: 6
No. of camshafts:	1	Location: Cyl. Block	Drive: Gear
Valve actuation:		Pushrods & rockers	
Spark plugs/cylinder:		1	
Identifying marks:			
Comments:	Modifications permitted- refer to Nc regulations.		

2.3 LUBRICATION

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

2.4 IGNITION SYSTEM

Type:	Coil & distributor
Make:	Lucas or Bosch
Comments:	Modifications permitted – refer to Nc regulations.

2.5 FUEL SYSTEM

Carburettor: Make:	Bendix & Stromberg	Model: BXUV-2 & BXV-2 & Stromberg twin barrel
Fuel injection Make:		Type:
Supercharged:	No.	Type
Comments:	Refer Group Nc regulations for freedom of carburetion.	

SECTION 3 - TRANSMISSION

3.1 CLUTCH

Make: Holden **Type:** Diaphragm/dry plate **Diameter:** 219mm
No. of Plates: 1
Actuation: Hydraulic
Comments:

3.2 TRANSMISSION

Type: 4-speed synchromesh.

Make: Opel

No. forward speeds: 4 **Gearbox location:** Behind engine
Gearchange type and location: Remote central floor mounting.

Case Material: Cast iron **Identifying marks:**
Comments: Holden 3-speed gearbox was a production option.
Modifications permitted – refer Nc regulations.

3.3 FINAL DRIVE

Make: Holden. **Model:** Banjo type hypoid semi-floating
Wheel drive method: Rear.
Ratios: 3.36:1, 3.55:1
Differential: Optional limited slip. **Type:** Friction cone.
Comments: Modifications permitted – refer Nc regulations.

3.4 TRANSMISSION SHAFTS (EXPOSED)

Number: 1 Gearbox to rear axle.
Description: Tubular steel with Hardy Spicer type U/Joints.
Comments:

3.5 WHEELS & TYRES

Wheel type - Original:	Pressed steel	Material - Original: Steel
Allowed:	Period alloy	Allowed: Period alloy
Fixture method:	Studs & nuts	No. studs: 5
	FRONT	REAR
Wheel dia. & rim width -		
Original:	13" x 4.5"	13" x 4.5"
Allowed :	13" x 7"	13" x 7"
Tyre Section -		
Original:	185/65 13	185/65 13
Allowed :	205/60 13	205/60 13
Aspect ratio - minimum:	60%	

Comments: Tyre chosen must be on Group N tyre List and suit the rim used.

SECTION 4 - GENERAL

4.1 FUEL SYSTEM

Tank Location: Boot. **Capacity:** 51 Litres
Fuel pump, type and location: Mechanical on block **Make:** AC

Comments:

Modifications permitted – refer Nc regulations.

4.2 ELECTRICAL SYSTEM

Voltage: 12V **Generator/Alternator fitted:** Alternator

Battery Location: Engine compartment

Comments: Modifications permitted – refer Nc regulations.

4.3 BODYWORK

Type: Closed **Material:** Steel
No. of seats: 5 **No. doors:** 4

Comments:

Modifications permitted – refer Nc regulations.

4.4 DIMENSIONS

Track - Front: 1394mm. **Rear:** 1394mm
Wheelbase: 2963mm **Overall length:** 4597mm
Dry weight: 1182Kg.

Comments:

4.5 SAFETY EQUIPMENT : Refer applicable Group Regulations