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:	Chevrolet	**Model:**	Camaro SS 396 Big block
Period of Original Manufacture:	January 1968 to December 1968		
Motorsport Australia Historic Group:	Nc		
Date of Issue of this Document:	1 January 2024		

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

Update Log

May 2020	GM Motorsport Block Part # 88962516 added
June 2020	Bodywork photos added
1/1/2024	Inclusion of kerb and minimum racing weights

SECTION 1 - CHASSIS

1.1. CHASSIS

Description:	Uni body, two door coupe with sub frames
Period of Manufacture:	January 1968 to December 1968
Manufacturer:	Chevrolet
Chassis Number From:	124378N – 300001
Chassis Number location:	Left hand side of dash
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:	Semi-elliptical leaf			
Damper Type:	Telescopic		**Adjustable:**	No
Anti-sway bar:	Fitted		**Adjustable:**	No
Suspension adjustable:	No	**Method:**	N/A	
Comments:	Refer to Appendix A			

1.4. STEERING

Type:	Recirculating ball and nut	**Make:**	GM
Power steering	Fitted		
Comments	None		

1.5. BRAKES

	Front	**Rear**
Type:	Disc, vented	Drum
Dimensions:	280 mm x 25.4 mm	241 mm x 50 mm
Material of drum/disc:	Cast iron	Cast iron
No. cylinders/pots per wheel:	Four	One
Actuation:	Hydraulic	Hydraulic
Caliper make:	GM	
Caliper type:	Sliding	
Material:	Cast iron	
Master cylinder make:	GM	
Type:	Tandem	
Adjustable bias:	None	
Servo Fitted:	Yes	
Comments:	None	

SECTION 2 - ENGINE

2.1. ENGINE

Make:	Chevrolet		
Model:	Big Block		
No. cylinders:	Eight	**Configuration:**	Vee
Cylinder Block-material:	Cast iron	**Two/Four Stroke:**	Four
Bore - Original:	103.988 mm	**Max allowed:**	105.488 mm
Stroke - original:	95.504 mm	**Max allowed:**	95.504 mm
Capacity - original:	6489 cc	**Max allowed:**	6677 cc
Identifying marks:	Block casting number, 3916323 & 3955272 only RHS of engine block, on a pad just forward of the right side (passenger) cylinder head.		
Cooling method:	Liquid		
Comments:	None		

2.2. CYLINDER HEAD

Make:	Chevrolet				
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:	3919842				
Comments:	Head casting number 3919842 only				

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:**	Quadrajet
Carburettor Make:	Holley	**Model:**	4150
Carburettor Number:	One		
Size:	Various		
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:	GM
Type:	Diaphragm
Diameter:	280 mm
No. of Plates:	One
Actuation:	Mechanical
Comments:	None

3.2. TRANSMISSION

Type:	Synchromesh
Make:	GM Muncie M20 model
Gearbox location:	Four
No. forward speeds:	Behind engine
Gearchange type and location:	H pattern floor mounted
Case material:	Alloy
Identifying marks:	N/A
Comments:	None

3.3. FINAL DRIVE

Make:	GM	**Model:**	12 bolt
Type:	Live rear axle		
Ratios:	Various		
Differential type:	Limited slip		
Comments:	None		

3.4. TRANSMISSION SHAFTS (EXPOSED)

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

3.1. 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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4.1. FUEL SYSTEM

Tank Location:	Boot floor	**Capacity:**	68 litres
Fuel pump, type:	Mechanical, engine block	**Make:**	GM
Comments:	None		

4.2. ELECTRICAL SYSTEM

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

4.3. BODYWORK

Type:	Coupe	**Material:**	Steel
No. of seats:	Four	**No. doors:**	Two
Comments:	Refer Appendix B.		

4.4. DIMENSIONS

Track - Front:	1514 mm	**Rear:**	1511 mm
Wheelbase:	2743.2 mm	**Overall length:**	4724 mm
Approved Manufacturer's kerb weight:	1560 kg		
Approved minimum racing weight:	1529 kg		
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix A

Suspension

Front

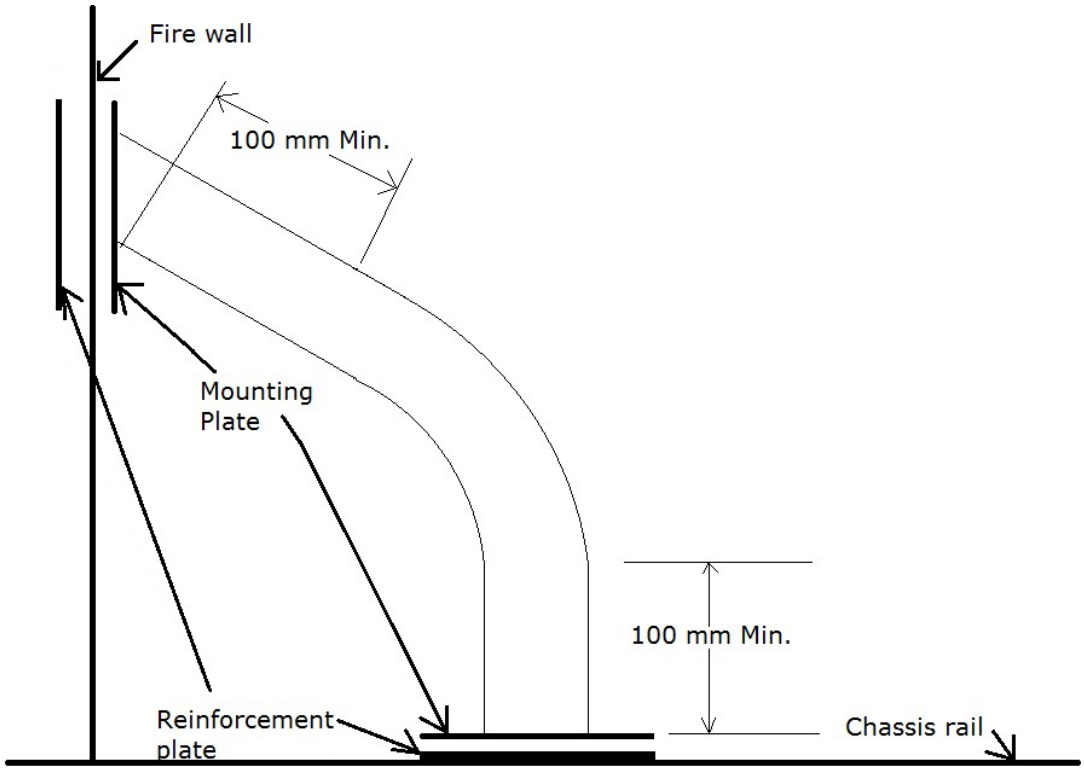
Spring height adjustment permitted.

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 in 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

Bodywork

- Vehicle fitted rectangular front indicators in grill and back up lights under rear bumper.

- No cowl induction hood.

General comments

- "Delete options" are not permitted unless documentary evidence of production of 1,000 units in 12 months to "delete option specification" is available.
- Deletion of heater/demister/air conditioning allowed.
- Must use 1968 disc front hubs (1967 are identical but not 1969).