



5TH CATEGORY - HISTORIC RACING
GROUP S
 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:	Iso	Model:	GT IR 300 & 340
Period of Original Manufacture:	1963 - 1970		
Motorsport Australia Historic Group:	Sb		
Date of Issue of this Document:	30/6/2022		



Update Log

30/6/2022	Document layout
5/2020	GM Motorsport Block Part # 88962516 added

SECTION 1 - CHASSIS

1.1. CHASSIS

Description:	Platform type of pressed-steel and welded panels		
Period of Manufacture:	1963 - 1970		
Manufacturer:	ISO		
Chassis Number From:	N/A		
Chassis Number location:	Top of RHF shock absorber tower		
Material:	Steel		
Comments	None		

1.2. FRONT SUSPENSION

Description:	Independent with unequal wishbones		
Spring Medium:	Coil		
Damper Type:	Telescopic	Adjustable:	No
Anti-sway bar:	No	Adjustable:	No
Suspension adjustable:	Yes	Method:	Caster, camber & toe
Comments:	Ride height is free		

1.3. REAR SUSPENSION

Description:	Independent, De Dion with parallel arms and Watts link		
Spring Medium:	Coil		
Damper Type:	Telescopic	Adjustable	No
Anti-sway bar:	No	Adjustable:	N/A
Suspension adjustable:	No	Method:	N/a
Comments:	Spring rates and ride height are free.		

1.4. STEERING

Type:	Ball and roller	Make:	Burman
Comments	None		

1.5. BRAKES

	Front	Rear
Type:	Disc, solid	Disc, solid
Dimensions:	300 mm x 14 mm	270 mm x 14 mm
Material of drum/disc:	Cast iron	Cast iron
No. cylinders/pots per wheel:	Three	Three
Actuation:	Hydraulic	Hydraulic
Caliper make:	Dunlop or Girling	
Caliper type:	Fixed	
Material:	Cast iron	
Master cylinder make:	Dunlop or Girling	
Type:	Tandem	
Adjustable bias:	No	
Servo Fitted:	Yes	
Comments:	None	

SECTION 2 - ENGINE

2.1. ENGINE

Make:	Chevrolet		
Model:	327 cubic inch small block		
No. cylinders:	Eight	Configuration:	Ve
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	101.6 mm	Max allowed:	103.10 mm
Stroke - original:	82.55 mm	Max allowed:	82.55 mm
Capacity - original:	5354 cc	Max allowed:	5513 cc
Identifying marks:	Casting numbers, refer appendix A New block added		
Cooling method:	Liquid		
Comments:	Refer Appendix A for component substitution <ul style="list-style-type: none"> • GM Performance Small Block: 10066034 • GM Performance Small Block: 88962516 Aluminium blocks are not permitted for this group.		

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:	Casting numbers, Refer Appendix A		
Comments:	Conditional upon individual application <ul style="list-style-type: none"> • Refer Appendix A for component substitution • Dart Iron Eagle 180 SBC 23 Degree cast iron part no 10120010 • RHS "Pro Action" 23 degree Cast Iron SBC head – (180cc Intake Runner/64cc chamber). Part No. 12317 straight plug Part No. 12318 angled plug 		

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:	Oil Cooler permitted		

2.4. IGNITION SYSTEM

Type:	Points, Coil and Distributor		
Make:	Delco Remy		
Comments	None		

2.5. FUEL SYSTEM

Carburettor Make:	Holley	Model:	Four barrel
Carburettor Number:	One		
Size:			
Fuel injection Make:	N/A	Type:	N/A
Supercharged:	No	Type:	N/A
Comments:	None		

SECTION 3 - TRANSMISSION

3.1. CLUTCH

Make:	Borg Warner
Type:	Diaphragm
Diameter:	254 mm
No. of Plates:	One
Actuation:	Hydraulic
Comments:	None

3.2. TRANSMISSION

Type:	4 speed synchromesh or Auto
Make:	Borg Warner, ZF or Powerglide
Gearbox location:	Behind engine
No. forward speeds:	Three, Four, or Five
Gearchange type and location:	Floor – remote
Case material:	Manual - Cast iron Auto - aluminium alloy
Identifying marks:	
Comments:	None

3.3. FINAL DRIVE

Type	Sprung unit		
Make:	Jaguar	Model:	N/A
Wheel drive method	Rear		
Ratios:	Various		
Differential type:	Limited slip differential		
Comments:	None		

3.4. TRANSMISSION SHAFTS (EXPOSED)

Number:	Two
Location:	
Description:	Halfshaft sprung unit to wheels.
Comments:	None

3.5. WHEELS & TYRES

Wheel type - Original:	Steel disc Wire	Material - Original:	Steel
Wheel type - Allowed:	Period alloy	Material - Allowed:	Steel Aluminium Alloy
Fixture method:	Studs or Centre nut	No. studs:	Five
Wheel dia. & rim width	FRONT		REAR
Original:	6" x 15"		6" x 15"
Allowed	7" x 15"		7" x 15"
Tyre Section:			
Original:			
Allowed:	215/60 – 15		215/60 – 15
Aspect ratio - minimum:	60% minimum aspect ratio.		
Comments:	Refer approved tyre list.		

SECTION 4 GENERAL

4.1. FUEL SYSTEM

Tank Location:	Boot	Capacity:	95 litres
Fuel pump, type:	Mechanical, engine	Make:	N/A
Comments:	None		

4.2. ELECTRICAL SYSTEM

Voltage:	Twelve	Alternator fitted:	Alternator
Battery Location:	Engine bay		
Comments:	None		

4.3. BODYWORK

Type:	Fixed head Coupe 2 + 2	Material:	Steel
No. of seats:	Five	No. doors:	Two
Comments:	None		

4.4. DIMENSIONS

Track - Front:	1410 mm	Rear:	1410 mm
Wheelbase:	2700 mm	Overall length:	4760 mm
Curb weight	1350 kg		
Dry weight:			
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix

Block

Spare part 10066034 GM performance parts replacement small block 305, 327 & 350, four bolt design with split rear seal.

Logbook endorsed and the engine sealed required.

Spare part 88962516 GM performance parts replacement small block 305, 327 & 350, four bolt design with one-piece rear seal, a kit to retain split rear seals is available and will be permitted.

Logbook endorsed and the engine sealed required.

88962516 Engine Block Casting Numbers

N/A

10066034 Engine Block Casting Numbers

3782870	3789817	3790721	3791362	3794460	3852174	3858174
3858180	3858190	3868657	3876132	3892657	3903352	3914660
3914678	3932368	3955618	3959512	3970010	3970014	3970016
Or others by specific approval						

Cylinder Heads

GM Cylinder Head Casting Numbers

3782461	3890462	3917291	3917292	3917293	3927185	3927186
3927187	3927188	3932441	3947041	3973414	3973487	3986316
3986339	3991492	3998916	3998993			
Or others by specific approval						

Approved substitute heads are:

- Dart Iron Eagle 180 SBC 23 Degree cast iron part no 10120010 *
- RHS "Pro Action" 23 degree Cast Iron SBC head – (180cc Intake Runner/64cc chamber).
Part No. 12317 straight plug
Part No. 12318 angled plug

The heads are to be in the manufactured state, save for refacing the cylinder gasket face and matching the inlet ports by not more than 12mm from the port face.

- * Dart Iron Eagle require 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.

Sealing procedure for engines using the substitute cylinder head

1. Engine to be assemble to short motor without sump.
2. Heads to be assembled ready to be fitted to engine.
3. 2 sump bolts/studs to be drilled. 2 top timing case bolts/studs to be drilled.
4. The sealer will pick two valves from one cylinder of either head to be removed to check that under the valve head and the ports are unmodified and that the valve heads are 1.94" in diameter for the inlet, and 1.6" for the exhaust.
5. Check the inlet and exhaust ports are unmodified except for the allowance allowed, from the manifold faces, into the port for manifold alignment.
6. Combustion chambers are to be as per above.
7. Measure bore and stroke.

8. Note whether 2 bolt or 4 bolt block.
9. Fit sump and fit seal. Seal timing case.
10. Fit heads and drill holes in appropriate positions in the corners of the block and heads to enable wire and seals to be fitted.
11. Seal heads to block. Note seal numbers. Competitor gets a signed sealers document.

Note: If the heads are removed, they must be re-sealed following the above points 4, 5, 10 and 11.

Allowances

1. Surfacing of the head face is allowed to achieve required combustion chamber volume or restore the cylinder head from engine failure damage and/or overheating.
2. K Line .030" bronze valve guide inserts are allowed if required and to recondition to standard size from excessive wear.
3. Port match inlet and exhaust ports to manifold to a maximum of the allowed depth from the manifold face. Inlet and exhaust ports must be left completely untouched from under the valve seats to within allowed depth from the manifold face. Machining is allowed of the valve spring pad and valve guide outside diameter and length as well as pushrod holes. This will enable spring locators, valve springs, stem seals, valve spring installation height and pushrod clearance to be correctly set up and fitted.
4. Valve seat cutting/grinding is allowed, but the original valve sizes of inlet and exhaust must be retained. No machining is permitted under the valve seat.
5. No machining is permitted in the combustion chamber. Combustion chambers must be left completely untouched except for original machining by the manufacturer. i.e. No machining, no hard or soft wire brushing, no coarse or fine grinding either by hand, machine or high-speed grinder etc, no shot peening, no sand blasting, no glass bead blasting, no water blasting, no hand scraping, no filing, no emery wheels or stones, no acid etching, no chiselling, no hammering or pneumatic peening, no flexi honing, no spark eroding, no removal of any metal by milling machine.

