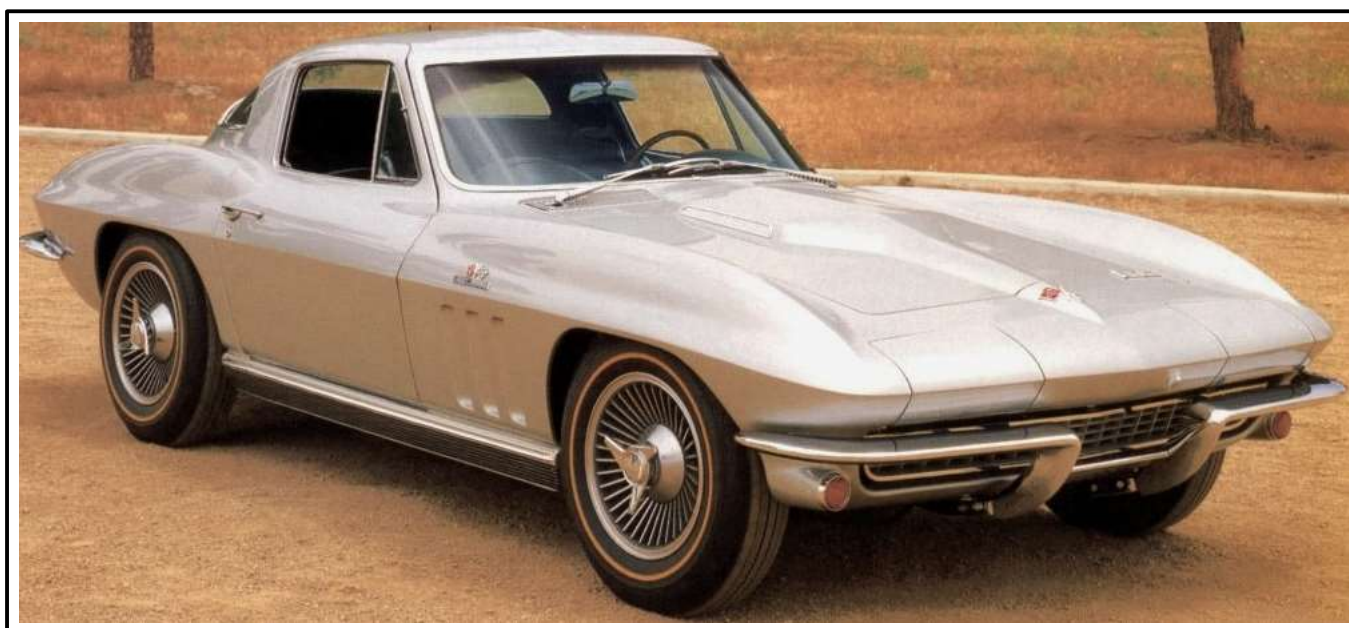




<p align="center">5TH CATEGORY - HISTORIC RACING GROUP Sb APPROVED VEHICLE SPECIFICATION</p>

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with a Historic Logbook, 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:	Corvette Stingray
Period of Original Manufacture:	1966 to 1967		
Motorsport Australia Historic Group:	Sb		
Date of issue of this document:	June 2020		



<i>Update Log</i>	
May 2020	GM Motorsport Block Part # 88962516 added

Refer to Motorsport Australia Manual, Vehicle Eligibility,
 Historic Production Sports Cars: Groups Sa, Sb, Sc
 General Requirements & Sb Regulations for permitted modifications.

SECTION 1 – CHASSIS

1.1 CHASSIS FRAME			
Description:	Box section ladder frame	Material:	Steel
Period of Manufacture:	1966 to 1967		
Manufacturer:	GM / Chevrolet		
Chassis no. from:	Convertible 1946 77S100001, Coupe 1943 77S100001		
Chassis no. location:	Plate under glove box		
Comment:	None		

1.2 FRONT SUSPENSION			
Description:	Independent with short & long arm wishbones		
Spring Medium:	Coil		
Damper Type:	Telescopic	Adjustable:	No
Anti-sway bar:	Fitted	Adjustable:	No
Suspension adjustable:	Yes	Method:	Caster & camber by shims, toe by tie rods
Comment:	None		

1.3 REAR SUSPENSION			
Description:	Independent with trailing arms		
Spring medium:	Leaf		
Damper type:	Telescopic	Adjustable:	No
Anti-sway bar:	Fitted	Adjustable:	No
Suspension adjustable:	Yes, by threaded links		
Comment:	None		

1.4 STEERING			
Type:	Recirculating ball	Make:	GM
Comment:	None		

1.5 BRAKES			
	Front	Rear	
Type:	Disc	Disc	
Dimensions:	299 x (Sb)12 mm or (Bb)31.75 mm	299 x (Sb)12 mm or (Bb)31.75 mm	
Material:	Cast iron	Cast iron`	
No. cylinders/pots per wheel:	Four	Four	
Actuation:	Hydraulic	Hydraulic	
Caliper Make:	Delco Moraine	Delco Moraine	
Caliper Type:	Fixed	Fixed	
Caliper Material:	Cast iron	Cast iron	
Master cylinder make:	Delco Moraine	Type:	Tandem
Adjustable bias:	No	Servo Fitted:	Fitted
Comment:	None		

SECTION 2 - ENGINE

2.1 ENGINE				
Make:	Chevrolet			
Model:	327 in ³ Small block (Sb)		427in ³ Big block (Bb)	
No. cylinders:	Eight	Configuration:		Vee
Cylinder block material:	Cast iron	Two/Four Stroke:		Four
	Sb Original	Sb Max	Bb Original	Bb Max
Bore:	101.6 mm	103.10 mm	107.95 mm	109.45 mm
Stroke:	82.55 mm	82.55 mm	95.504 mm	95.504 mm
Capacity - original:	5354 cc	5513 cc	6993 cc	7189 cc
Cooling method:	Liquid			
Identifying marks:	Casting numbers			
Comment:	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. Refer Group S regulations for permitted modifications			

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 & rocker				
Spark plugs/cylinder:	One				
Identifying marks:	Casting number				
Comment:	Conditional upon individual application Refer Appendix A for component substitution <ul style="list-style-type: none"> • 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 cooler standard:	No
Comment:	None		

2.4 IGNITION SYSTEM			
Type:	Points, coil & distributor	Make:	Delco Remy
Comment:	None		

2.5 FUEL SYSTEM			
Carburettor Make:	GM & Holley	Model:	Four barrel
Carburettor number:	One		
Comment:	None		

SECTION 3 - TRANSMISSION

3.1 CLUTCH			
Make:	Delco	Type:	Diaphragm
Diameter:	264 mm	No. of Plates:	One
Actuation:	Hydraulic		
Comment:	None		

3.2 TRANSMISSION			
Type:	Synchromesh	No. forward speeds:	Four
Make:	GM, Muncie	Model	M20 or M21
Gear change type:	Remote floor	Gearbox location:	Behind engine
Case material:	Cast iron or aluminium alloy		
Comment:	None		

3.3 FINAL DRIVE			
Type:	Sprung unit		
Make:	GM	Model:	N/A
Wheel drive method:	Rear		
Ratios:	Various		
Differential type:	LSD, GM Posi traction		

3.4 TRANSMISSION SHAFTS (EXPOSED)	
Number:	Three
Description:	Open tail shaft, transmission to Sprung unit. Half shaft, sprung unit to wheels.
Comment:	None

3.5 WHEELS & TYRES					
Wheel type	Original:	Disc or cast	Material	Original:	Steel or Magnesium
	Allowed:	Cast		Allowed:	Aluminium alloy
Fixture method:	Studs			No. studs:	Five
Wheel dia. & rim width:	FRONT			REAR	
	Std 6 x 15 inch			Std 6 x 15 inch	
Allowed:	6 x 15 on small block 8 x 15 inch on big block option, L36, L68 & L71				
Tyres allowed:	225/60 – 15, 60% minimum aspect ratio, refer approved tyre list.				
Comment:	None				

SECTION 4 - GENERAL

4.1 FUEL SYSTEM

Tank Location:	Under rear floor	Capacity:	75 litre
Fuel pump type and location:	Mechanical / engine	Make:	AC Delco
Comment:	None		

4.2 ELECTRICAL SYSTEM

Voltage:	12	Alternator:	Fitted
Battery Location:	Behind seat		
Comment:	None		

4.3 BODYWORK

Type:	Sports: Coup or roadster	Material:	Fibreglass
No. of seats:	Two	No. doors:	Two
Comment:	None		

4.4 DIMENSIONS

With Small block engine

Track - Front:	1463 mm	Rear:	1480 mm
Wheelbase:	2489 mm	Overall length:	4448 mm
Curb weight:	1436 kg		

With Big block engine

Track - Front:	Std wheel 1481 mm Opt wheel 1496 mm	Rear:	Std wheel 1499 mm Opt wheel 1516 mm
Wheelbase:	2489 mm	Overall length:	4448 mm
Dry weight:	1409 kg		
Comment:	None		

4.5 SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix A

Engine Block

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

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.

88962516 Engine Block Casting Numbers

TBA						
Or others by specific approval						

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 Head

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						

- 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 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 heads 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.
- Engine to be sealed as per procedure in this appendix.
- Once approved, endorsement and the engine seal numbers will be recorded in the logbook.

Chevrolet small block 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 2.02” in diameter for the inlet, and 1.60” 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 and to recondition to standard size from excessive wear. required
3. Port matching in the cross hatched area for the inlet and ports to manifold to a maximum of the 12 mm from the face. Inlet and exhaust ports must be left completely from under the valve seats to within allowed depth from manifold face. exhaust manifold untouched the
4. Machining is allowed of the valve spring pad and valve outside diameter and length as well as pushrod holes. enable spring locators, valve springs, stem seals, valve installation height and pushrod clearance to be correctly fitted. guide This will spring set up and
5. Valve seat cutting/grinding is allowed, but the original valve sizes of 2.02” inlet and 1.60” exhaust must be retained. No machining is permitted under the valve seat.
6. No machining is permitted in the combustion chamber. Combustion chambers must be left completely untouched except for original machining by the manufacturer.



ie. 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. The only exception is the metal between the inlet valve head and the exhaust valve head which may be rounded in case it creates a hot spot.