

AMA Specifications – Passenger Car

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MANUFACTURER Chevrolet Motor Division General Motors Corporation	CAR NAME CORVETTE				
MAILING ADDRESS Owner Relations Service Dept. Chevrolet Motor Division General Motors Building Detroit 2, Michigan	<table style="width: 100%;"> <tr> <td style="width: 60%;">MODEL YEAR 1964</td> <td style="width: 40%;">ISSUED: 9-23-63</td> </tr> <tr> <td></td> <td>REVISED (a)</td> </tr> </table>	MODEL YEAR 1964	ISSUED: 9-23-63		REVISED (a)
MODEL YEAR 1964	ISSUED: 9-23-63				
	REVISED (a)				

NOTES:

1. The Specifications herein are those in effect at date of compilation and are subject to change without notice by the manufacturer.
2. UNLESS OTHERWISE INDICATED:
 - a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
 - b. Nominal design dimensions are used throughout these specifications.

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BODY—TYPES AND STYLE NAMES—

Body type, number of passenger & style names; use manufacturer's code for series & body style.

Model 0867	2-Door Convertible, 2-Passenger
Model 0837	2-Door Sport Coupe, 2-Passenger

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GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL 800		Additional Information Page No.	REG. PROD. ENGINE	RPO 2-L75 ENGINE	RPO 2-L76 ENGINE	RPO 2-L84 ENGINE
Wheelbase (L101)			23	98.0		
Tread	Front (W101)	22	56.3			
	Rear (W102)	22	57.0			
Maximum Overall Dimensions	Length (L103)	23	175.3			
	Width (W103)	22	69.6			
	Height (H101)	24	49.8			
Transmission— (Specify trade name - opt., not available)	Manual	15	Synchromesh: 3-speed std. on Reg. Prod. and RPO-2-L75 engines; 4-speed optional			
	Overdrive	16	Not offered			
	Automatic	16	Powerglide, Optional		--	
Axle ratio	Manual	3-speed	3.36:1		--	
		4-speed	3.36:1 and optional 3.08:1		3.70:1	
	Overdrive	17	Not offered			
	Automatic	17	3.36:1		---	
Tire size			18	6.70 x 15		
Engine	Type, no. cyl., valve arr.	2	90° V-8, val. e-in-head			
	Fuel system (Carb., other)	8	Carburetor			Fuel Injection
	Bore and stroke	2	4.00 x 3.25			
	Piston displ., cu.in.	2	327			
	Std. compression ratio	2	10.5:1		11.0:1	
	Max. bhp at engine rpm	2	250 @ 4400	300 @ 5000	365 @ 6200	375 @ 6200
	Max. torque at rpm	2	350 @ 2800	360 @ 3200	350 @ 4000	350 @ 44-4800

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MODEL	800	REG. PROD. ENGINE	RPO 2-L75 ENGINE	RPO 2-L76 ENGINE	RPO 2-L84 ENGINE
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ENGINE—GENERAL

Type, no. cyls., valve arr.		90° V-8 Valve-in-head			
Bore and stroke (nominal)		4.00 x 3.25			
Piston displacement, cu. in.		327			
Bore spacing (C/L to C/L)		4.4			
No. systems (front to rear)	L. Bank	1-3-5-7			2-4-6-8
	R. Bank				
Firing order		1-8-4-3-6-5-7-2			
Compress. ratio (nominal)		10.5:1		11.0:1	
Cylinder Head Material		Cast iron alloy			
Cylinder Block Material		Cast iron alloy			
Cylinder Sleeve-Wet, dry, none		None			
Number of mounting points	Front	2			
	Rear	1			
Engine installation angle		+3°			
Taxable horsepower Dis 2 x No. Cyl. 2.5		51.2			
Published max. bhp* @ eng. RPM		250 @ 4400	300 @ 5000	365 @ 6200	375 @ 6200
Published max. torque* (lb. ft. @ RPM)		350 @ 2800	360 @ 3200	350 @ 4000	350 @ 44-4800
Recommended fuel regular - premium		- Premium			
Idle speed (spec. neutral or drive)	Manual	Neutral: 450-500 RPM		800 RPM	850 RPM
	Automatic	Drive: 450-500 RPM		---	

ENGINE—PISTONS

Material		Aluminum alloy	
Description and finish		Flat head slipper skirt with machined relief for valve clearance	Impact extruded, domed
Weight (piston only) oz.		21.6	20.2
Clearance (limits)	Top land	.0365-.0455 (diametral)	
	Skirt	Top	.0005-.0011
		Bottom	---
Ring groove depth	No. 1 ring	.2218-.2283	
	No. 2 ring	.2218-.2283	
	No. 3 ring	.2038-.2103	
	No. 4 ring	---	

* Max. bhp (brake horsepower) and max. torque corrected as defined by SAE Engine Test Code.

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POWER TEAMS (Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (See Footnote)				
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP @ RPM	Torque @ RPM		Axle				
							Regular Production	Limited slip Optional			
800											
Regular Production 250 HP	327	4 BBL.	10.5:1	250	350	3-Speed Std.	3.36:1 Standard; Optional with 4-Speed	3.36:1			
				@	@	4-Speed Opt.		3.08:1			
				4400	2800	Powerglide Opt.		3.36:1			
Optional 2-L75 300 HP		Large 4 BBL. (AFB)	10.5:1	300	360	3-Speed Std.	3.36:1				
				@	@	4-Speed Opt.	3.08:1				
				5000	3200	Powerglide Opt.	3.36:1				
Optional 2-L76 365 HP		Large 4 BBL.	11.0:1	365	350	4-Speed Opt.	3.70:1	3.08:1			
								@	@	3.36:1	
								6200	4000	3.55:1	
										3.70:1	
										4.11:1	
Optional 2-L84 375 HP		Fuel Injection		11.0:1	375	350	4-Speed Opt.	3.70:1	4.56:1		
									@	@	3.08:1
									6200	44- 4800	3.36:1
											3.55:1
											3.70:1
							4.11:1				
							4.56:1				

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MODEL 800	REGULAR PRODUCTION	2-L75	2-L76	2-L84
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ENGINE-RINGS

Function (top to bottom)	No. 1, oil or comp.	Compression
	No. 2, oil or comp.	Compression
	No. 3, oil or comp.	Oil
	No. 4, oil or comp.	--
Compression	Description - material, type, coating, etc.	(a)
	Width	Upper - .0775-.0780; Lower - .0780
	Gap	Upper - .013-.023; Lower - .013-.025
Oil	Description - material, type, coating, etc.	Multi-piece (2 rails and spacer expander): Rail-spring steel, chrome plated OD; Spacer expander - steel alloy
	Width	.189 max
	Gap	.015-.02
Expanders	For lower compression ring	

ENGINE-PISTON PINS

Material	High chrome steel alloy	
Length	2.990-3.010	
Diameter	.9270-.9275	
Type	Locked in rod, in piston, floating, etc.	Locked in rod
	Bushing	None
	Material:	--
Clearance	In piston	.00015-.00025
	In rod	.000
Direction & amount offset in piston	Major thrust side	On center

ENGINE-CONNECTING RODS

Material	Drop forged steel	
Weight (oz.)	20.32	
Length (center to center)	5.699-5.701	
Bearing	Material & Type	Premium aluminum, removable
	Overall length	.807 (effective length)
	Clearance (limit)	.0007-.0028
	End play	.008-.015

(a) Upper for Regular Production and 2-L75 engines - cast iron alloy, inside bevel, chrome plated O.D.; for 2-L76 and 2-L84 engines - same except Molybdenum coated O.D.

Lower for Regular Production and 2-L75 engines - cast iron alloy, inside bevel, wear resistant coating; for 2-L76 and 2-L84 engines - same except Molybdenum coated O.D.

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MODEL 800 REGULAR PRODUCTION 2-L75 2-L76 2-L84

ENGINE—CRANKSHAFT

Material	Forged Steel	
Vibration damper type	Internal (Rubber Mounted)	
End thrust taken by bearing (No.)	5	
Crankshaft end play	.002-.006	
Main bearing	Material & type	Except upper rear - premium aluminum, removable; Upper rear - steel backed babbit, removable
	Clearance	No's 1 thru 4 .0008-.0034, No. 5 .001-.0036
	Journal dia. and bearing overall length	No. 1 2.3009 .752 (effective length)
		No. 2 2.3009 .752 (effective length)
		No. 3 2.3009 .752 (effective length)
		No. 4 2.3009 .752 (effective length)
		No. 5 2.3006 1.1824 (effective length)
		No. 6 --
		No. 7 --
	Dir. & amt. cyl. offset	None
Crankpin journal diameter	1.999-2.000	

ENGINE—CAMSHAFT

Location	In block above crankshaft	
Material	Cast Iron Alloy	
Bearings	Material	Extra life steel backed babbit
	Number	5
Type of Drive	Gear or chain	Chain
	Crankshaft gear or sprocket material	Sprocket, steel
	Camshaft gear or sprocket material	Cast Iron Alloy
	Timing chain	No. of links 40
		Width .975
		Pitch .500

ENGINE—VALVE SYSTEM

Hydraulic lifters (Std, opt, NA)	Hydraulic, Std. Mechanical, Std.	
Valve rotator, type (intake, exhaust)	None	
Rocker ratio	1.5:1	
Operating tappet clearance (Indicate hot or cold)	Intake	Zero .025 Design Lash
	Exhaust	Zero .025 Design Lash
Timing marks on flywheel, damper, other	Damper	

(Continued)

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MODEL	800	REGULAR PRODUCTION	2-L75	2-L76	2-L84
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ENGINE—VALVE SYSTEM (cont.)

Timing (a)	Intake	Opens (°BTC)	32° 30'	60° 50'		
		Closes (°ABC)	87° 30'	105° 23'		
		Duration - deg.	300°	346° 13'		
	Exhaust	Opens (°BBC)	74° 30'	108° 50'		
		Closes (°ATC)	45° 30'	57° 23'		
		Duration - deg.	200°	346° 13'		
Valve opening overlap		78°	214° 13'			
Intake	Material		Carbon steel	Steel alloy		
	Overall length		4.902-4.922	4.870-4.889		
	Actual overall head dia.		1.715-1.725	1.935-1.945	2.017-2.023	
	Angle of seat & face		46° and 45°			
	Seat insert material		--			
	Stem diameter		.3410-.3417			
	Stem to guide clearance		.001-.0027			
	Lift (@ zero lash)		.3927	.48504		
	Outer spring press. and length	Valve closed (lb. @ in.)	78-86 @ 1.66			
		Valve open (lb. @ in.)	170-180 @ 1.26			
	Inner spring press. and length	Valve closed (lb. @ in.)	Valve Spring Damper			
		Valve open (lb. @ in.)	5-10 LB			
	Exhaust	Material		Valve steel (aluminum faces)		
		Overall length		4.912-4.922	4.801-4.810	
		Actual overall head dia.		1.492-1.505	1.595-1.605	
Angle of seat & face		46° and 45°				
Seat insert material		None				
Stem diameter		.3410-.3417				
Stem to guide clearance		.001-.0027				
Lift (@ zero lash)		.3927	.48504			
Outer spring press. and length		Valve closed (lb. @ in.)	Same as intake			
		Valve open (lb. @ in.)	Same as intake			
Inner spring press. and length		Valve closed (lb. @ in.)	Same as intake			
		Valve open (lb. @ in.)	Same as intake			

ENGINE—LUBRICATION SYSTEM

Type of lubrication (splash, pressure, nozzle)	Main bearings	Pressure
	Connecting rods	Pressure
	Piston pins	Splash
	Camshaft bearings	Pressure
	Tappets	Pressure
	Timing gear or chain	Nozzle Spray
	Cylinder walls	Pressure, Jet Cross Spray

(a) Values for 2-L76 and 2-L84 given with .025 Design Lash; (Continued)
Values for Reg. Prod. and 2-L75 Engines include Ramp.

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MODEL	800	REGULAR PRODUCTION	2-L75	2-L76	2-L84
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ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear
Normal oil pressure (lb. @ engine rpm)	60 @ 2000
Oil pressure sending unit (elect. or mach.)	Mechanical (direct pressure to Scardon tube)
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, partial, other)	Full Flow
Filter replacement (element, conolata)	Element
Capacity of crankcase, less filter-refill (qt.)	4 5
Oil grade recommended (SAE viscosity and temperature range)	32°F and warmer - SAE 20W, 20, 10W-30 0°F and warmer - SAE 10W, 10W-30 Colder than 30°F - SAE 5W, 5W-20 Sustained high speed warmer than 90°F - SAE 30
Engine Service Requirement (MM, MS, etc.)	MS or DG

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)	Dual
Muffler No. & type (reverse flow, straight thru, separate resonator)	Two, reverse flow, no resonators
Exhaust pipe dia. (O.D.)	Branch Regular production engine, and 2-L75 engine with PG 2.00 and Main
Exhaust pipe wall thickness	---
Tail pipe diameter (O.D. & wall thickness)	2.00 .023

ENGINE—CRANKCASE VENTILATION SYSTEM (See Supplement to page 8 for Fuel Info)

Type (ventilates to atmos., induction system, other)	Standard	Optional	Induction system, etc.	---
Make and model	---	---	AC	---
Location	---	---	Carburetor base	---
Energy source (manifold vacuum, carburetor air stream, other)	---	---	Carburetor air stream	---
Control unit	---	---	Fixed orifice	---
Discharge (to intake manifold, carb. air intake, air cleaner intake, other)	---	---	Intake manifold	---
Complete system	---	---	Filtered side of air cleaner	---
Flame arrester (screen, check valve, other)	---	---	Screen	---

(a) 2-L75, 2-L76, and 2-L84 engines with manual transmissions, 2.50 and .06.

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Form 1

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MODEL	800	REGULAR PRODUCTION	2-L75	2-L76	2-L84
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ENGINE—FUEL SYSTEM

(See Supplement to Page 8 for Details of Fuel Injection, Supercharger, etc. if used)

Induction type: Carburetor, fuel injection, supercharger.			Downdraft carburetor		
Fuel Tank	Capacity (gals.)		20 (a)		
	Filler location		Center of rear deck		
Fuel Pump	Type (elec. or mech.)		Mechanical		
	Location		Lower right front of engine		
	Pressure range		5.25 to 6.5 psi		6 to 7.5 psi
Vacuum booster (std., optional, none)			None		
Fuel Filter	Type		Regular prod. Engine - Sintered bronze element (b)		
	Location		Regular prod. Engine - Carburetor fuel inlet (b)		
Carburetor	Choke type		Automatic		
	Intake manifold heat control (exhaust or water)		Exhaust		
	Air clear. type	Standard	Oil wetted, polyurethane		
		Optional	-----		

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
Regular Production 250 HP	327 In. 3	3-Speed	Carter	3846247	1 WCFB, Downdraft	1.4375 (F)
		4-Speed				1.4375 (S)
		Powerglide				
Optional 2-L75 300 HP		3-Speed		3826004	1 AFB, Downdraft	1.5625 (F)
		4-Speed		3826004		1.6875 (S)
		Powerglide		3826006		
Optional 2-L76 365 HP		4-Speed	Holley	3849804	1, Downdraft	1.561 (F) 1.561 (S)

(a) 36 Gallon fiberglass tank available optionally.

(b) In line with paper element, between fuel pump and carburetor, for 2-L75 and 2-L76 engines.

(c) Additional plastic mesh filter in fuel tank.

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SUPPLEMENTARY INFORMATION

MODEL 800

FUEL INJECTION - RPO 2-L84

GENERAL

Make ----- Rochester Products
Model ----- 7017380
Type ----- Mass air flow with continuous fuel injection

AIR INDUCTION

Description ----- Outside air ducted thru air cleaner to air meter
Outside air ducting
Location ----- Left side of engine
Air cleaner
Type ----- Oil-wetted, polyurethane element; conical
Air meter
Flow control ----- Throttle valve
Flow measurement ----- Annular venturi
Cold enrichment
Type ----- Choke
Action ----- Automatic, bi-metallic spring and exhaust heat

FUEL METER

Flow control ----- Continuous flow pump with diaphragm controlled bypass; system feeds measured amounts of fuel directly to intake ports where orifice injection nozzles direct fuel to intake valves.

Pump

Type ----- Gear
Drive ----- Flexible shaft from distributor
Output psi, maximum ----- 200

Bypass system

Control ----- Diaphragm controlled spill valve -
by vacuum from air meter annular venturi

Injection nozzles

Quantity ----- 8
Type ----- Continuous flow
Material ----- Brass
Location ----- On intake manifold
above intake ports
Orifice diameter ----- .0118
Insulation ----- Bakelite block