

# AMA Specifications – Passenger Car

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<b>MANUFACTURER</b> Chevrolet Motor Division General Motors Corporation	<b>CAR NAME</b> CHEVELLE RPO Z16 Optional 396 cu. in. 8-cylinder				
<b>MAILING ADDRESS</b> Chevrolet Engineering Center 30003 Van Dyke, Warren, Michigan 48090	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>MODEL YEAR</b> 1965</td> <td style="width: 50%;"><b>ISSUED:</b> 2-22-65</td> </tr> <tr> <td colspan="2"><b>REVISED:</b> (a)</td> </tr> </table>	<b>MODEL YEAR</b> 1965	<b>ISSUED:</b> 2-22-65	<b>REVISED:</b> (a)	
<b>MODEL YEAR</b> 1965	<b>ISSUED:</b> 2-22-65				
<b>REVISED:</b> (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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<b>BODY—TYPES AND STYLE NAMES—</b>	Body type, number of passenger & style names; use manufacturer's code for series & body style.
MALIBU SUPER SPORT	RPO Z16 Optional 396 cu. in. <u>8-cylinder</u>
2-Door Sport Coupe, 4-Pass.	138 37

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MAKE OF CAR CHEVELLE MODEL YEAR 1965 DATE ISSUED 2-22-65 REVISED( )

## GENERAL SPECIFICATIONS

(All dimensions in inches unless otherwise indicated)

MODEL	13837	Additional Information Page No.:	396 Cu. In. V-8 Engine 375 HP
Wheelbase (L101)	23		115.0
Tread	Front (W101)	22	58.0
	Rear (W102)	22	58.0
Maximum Overall Dimensions	Length (L103)	23	196.6
	Width (W103)	22	74.6
	Height (H101)	24	Sp. Coupe
Transmission— (Specify trade name — opt., not available)	Manual	15	Synchro-Mesh, 4-Speed Required
	Overdrive	16	N. A.
	Automatic	16	N. A.
Axle ratio	Manual	17	3.31
	Overdrive	17	N. A.
	Automatic	17	N. A.
Tire size	18		7.75 x 14
Engine	Type, no. cyl., valve arr.	2	90° OHV V-8
	Fuel system (Carb., other)	8	Carburetor
	Bore and stroke	2	4.09" x 3.76
	Piston displ., cu.in.	2	396 Cu. In.
	Std. compression ratio	2	11.0:1
	Max. bhp at engine rpm	2	375 @ 5600
	Max. torque at rpm	2	420 @ 3600

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## GENERAL SPECIFICATIONS — DIMENSIONS

13800, Opt. 396 Cu. In. (All dimensions in inches unless otherwise indicated)  
 Engine, L37 (Supplemental data available on request)

<b>MODEL</b>	<b>Ref. No.</b>	<b>SPORT COUPE BUCKET</b>
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### FRONT COMPARTMENT

Shoulder room	W3	58.8
Max. eff. leg room - accelerator	L34	42.0
Effective head room	H61	37.9
H Point to Heel point	H30	7.7
Upper body opening to ground	H50	49.2

### REAR COMPARTMENT

Shoulder room	W4	56.8
H Point couple distance	L50	31.6
Minimum effective leg room	L51	33.2
Effective head room	H63	36.7

### STATION WAGON—THIRD SEAT

Shoulder room	W85	
Effective leg room	L86	None
Effective head room	H86	

### LUGGAGE COMPARTMENT

Usable luggage capacity (See instr.)	V1	15.7
Liftover height	H195	20.6
Position of spare tire storage		Hor. right rear trunk floor
Method of holding lid open		Torsion bars counterbalanced

### STATION WAGON—CARGO SPACE

Minimum distance between wheel houses at floor level	W201	
Rear end opening width at belt	W204	
Floor length from back of front seat at floor level to inside of closed tail gate	L202	
Minimum horizontal distance from top rear of front seat back to inside of tail gate at belt	L204	None
Maximum height - floor covering to headlining at centerline of rear axle	H201	
Maximum height of rear opening - tail and lift gates open	H202	
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$	V2	

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MODEL 13837  
13867 396 Cu. In. V-8 Engine 375 HP

## ENGINE—GENERAL

Type, no. cyls., valve arr.	90° OHV V-8	
Bore and stroke (nominal)	4.00 x 3.76	
Piston displacement, cu. in.	396 Cu. In.	
Bore spacing (C/L to C/L)	4.84	
No. system (front to rear)	L. Bank	1-3-5-7
	R. Bank	2-4-6-8
Firing order	1-8-4-3-6-5-7-2	
Compras. ratio (nominal)	11.0:1	
Cylinder Head Material	Cast Alloy Iron	
Cylinder Block Material	Cast Alloy Iron	
Cylinder Size—Wet, dry, none	None	
Number of mounting points	Front	Two
	Rear	One
Engine installation angle	3° 54'	
Taxable horsepower	Dia 2 x No. Cyl. 2.5	53.6
Published max. bhp* @ eng. RPM	375 @ 5600	
Published max. torque* (lb. ft. @ RPM)	420 @ 3600	
Re: 1st fuel system premium	Premium	
Idle speed (spec. neutral or drive)	Manual	700
	Automatic	---

## ENGINE—PISTONS

Material	Aluminum impact extruded		
Description and finish	Domed head; slipper skirt		
Weight (piston only) oz.	24.00		
Clearance (limits)	Top land	.0265 - .0335	
	Skirt	Top	.0027-.0033 (a)
		Bottom	---
Ring groove depth	No. 1 ring	.2253-.2318	
	No. 2 ring	.2253-.2318	
	No. 3 ring	.2118-.2128	
	No. 4 ring	---	

\*Max. bhp (brake horsepower) and max. torque corrected to 60° F and 29.92 in. Hg atmospheric pressure.

(a) - Measured 2.13 from top of piston.



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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 Control
	No. 4, oil or comp.	---
Compression	Description - material, type, coating, etc.	Cast alloy iron; inside bevel Molybdenum coating
	Width	.0620-.0625;
	Gap	.010-.020
Oil	Description - material, type, coating, etc.	Multi-piece (2 rails and one spacer expander) Rails - Steel chrome plated OD Expander: - Stainless steel
	Width	.1890-.1910 assembled
	Gap	.010-.030
Expanders		In oil ring assembly

## ENGINE-PISTON PINS

Material	Chromium Steel		
Length	2.930-2.950		
Diameter	.9895-.9898		
Type	Locked in rod, in piston, floating, etc.	Locked in rod	
	Bushing	In rod or piston	None
		Material	None
Clearance	In piston	.00045-.00055	
	In rod	---	
Direction & amount offset in piston		On center	

## ENGINE-CONNECTING RODS

Material	Drop forged steel	
Weight (oz.)	30.00	
Length (center to center)	6.134-6.136	
Bearing	Material & Type	Premium Aluminum
	Overall length	.857
	Clearance (limits)	.0007-.0028
	End play	.0016-.0020

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 13837  
 MODEL 396 Cu. In. V-8 Engine 375 HP

## ENGINE—CRANKSHAFT

Material		Forged Steel		
Vibration damper type		Rubber mounted inertia damper		
End thrust taken by bearing (No.)		Five		
Crankshaft end play		.006-.010		
Main bearing	Material & type		Premium aluminum except No. 5 sintered copper nickel backed babbitt	
	Clearance		#1-4 .0006-.0022; #5 .0017-.0033	
	Journal dia. and bearing overall length	No. 1	2.7506 x .992	
		No. 2	2.7506 x .992	
		No. 3	2.7506 x .992	
		No. 4	2.7506 x .992	
		No. 5	2.7513 x 1.2525	
No. 6		----		
Dir. & ant. cyl. offset		None		
Crankpin journal diameter		2.199 -2.200		

## ENGINE—CAMSHAFT

Location		In block above crankshaft	
Material		Cast alloy iron	
Bearings	Material	Steel backed babbitt	
	Number	Five	
Gear or chain		Chain	
Crankshaft gear or sprocket material		Steel sprocket	
Camshaft gear or sprocket material		Cast aluminum sprocket	
Type of Drive	Timing chain		50
	No. of links		.880
	Width		.500
Pitch			

## ENGINE—VALVE SYSTEM

Hydraulic lifters (Std, opt, NA)		Hydraulic	
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.70:1	
Operating tappet clearance (indicate hot or cold)	Intake	Zero	
	Exhaust	Zero	
Timing marks on flywheel, damper, other		Harmonic Balancer	

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MODEL 396 Cu. In. V-8 Engine 375 HP

## ENGINE—VALVE SYSTEM (cont.)

Timing Includ- ing Ramps	Intake	Opens (°BTC)	56°	
		Closes (°ABC)	106°	
		Duration - deg.	342°	
	Exhaust	Opens (°BBC)	110°	
		Closes (°ATC)	66°	
		Duration - deg.	356°	
Valve opening overlap		122°		
Intake	Material		Alloy steel - Aluminized face	
	Overall length		5.204-5.224	
	Actual overall head dia.		2.185-2.195	
	Angle of seat & face		46° (seat) 45° (face)	
	Seat insert material		None	
	Stem diameter		.3715-.3722	
	Stem to guide clearance		.0010-.0027	
	Lift (@ zero lash)		.4±.14	
	Outer spring press. and length	Valve closed (lb. @ in.)	94-106 @ 1.88	
		Valve open (lb. @ in.)	303-327 @ 1.38	
	Inner spring press. and length	Valve closed (lb. @ in.)	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	
	Exhaust	Material		High alloy steel - Aluminized face
		Overall length		5.345-5.365
Actual overall head dia.		1.713-1.725		
Angle of seat & face		46° (seat) 45° (face)		
Seat insert material		None		
Stem diameter		.3710-.3717		
Stem to guide clearance		.0015-.0032		
Lift (@ zero lash)		.5000		
Outer spring press. and length		Valve closed (lb. @ in.)	94-106 @ 1.88	
		Valve open (lb. @ in.)	303-327 @ 1.38	
Inner spring press. and length		Valve closed (lb. @ in.)	Spring Damper	
		Valve open (lb. @ in.)	Spring Damper	

## 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	Center supply oiled from camshaft bearing
	Cylinder walls	Pressure, jet cross sprayed

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MODEL

396 Cu. In. V-8 Engine 375 HP

## ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear
Normal oil pressure (lb. @ engine rpm)	50-75 @ 2000
Oil pressure sending unit (elect. or mech.)	Electric
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, partial, other)	Full flow
Filter replacement (element, complete)	Element
Capacity of crankcase, less filter-refill (qt.)	4
Oil grade recommended (SAE viscosity and temperature range)	32°F and Above ----- SAE 20W, SAE 20 or SAE 10W-30 0°F and Above ----- SAE 10W, or SAE 10W-30 Below 0°F ----- SAE 5W or SAE 5W-20
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
Exhaust pipe dia. (O.D. wall thickness)	-----
Branch	2.50 x .073-.091 laminated
Main	2.25 x .062-.076
oil pipe diameter (O.D. & wall thickness)	2.25 x .062-.076

## ENGINE—CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)	Standard	Ventilates to induction system
	Optional	
Control unit	Make and model	
	Location	Rear of carburetor
	Energy source (manifold vacuum, carburetor air stream, other)	Manifold vacuum.
	Control method (variable orifice, fixed orifice, other)	Variable orifice
Complete system	Discharges (to intake manifold, carb. air intake, air cleaner intake, other)	Intake manifold
	Air inlet (breather cap, carburetor air cleaner, other)	Carburetor air cleaner
	Flame arrestor (screen, check valve, other)	Screen

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396 Cu. In. V-8 Engine 375 HP

MODEL

## ENGINE—FUEL SYSTEM

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

Induction type: Carburetor, fuel injection, supercharger.		<b>Carburetor</b>
Fuel Tank	Capacity (gals.)	<b>20</b>
	Filler location	<b>Behind hinged rear license plate</b>
Fuel Pump	Type (elec. or mech.)	<b>Mechanical</b>
	Locations	<b>Lower right front corner of engine</b>
	Pressure range	<b>5.25 - 6.50 PSI</b>
Vacuum booster (std., optional, none)		<b>None</b>
Fuel Filter	Type	<b>Fine mesh plastic strainer in gas tank and</b>
	Locations	<b>In-line paper element between carb. &amp; fuel line</b>
Carburetor	Choke type	<b>Automatic</b>
	Intake manifold heat control (exhaust or water)	<b>Exhaust</b>
	Air enr. type	<b>Oil-wetted paper element</b>
	Standard	---
	Optional	---

## CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
13837 13867	396	4-Speed	Holley	3869933	One; Four Barrel Down- draft	1-686 Primary & Secondary

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## ENGINE—COOLING SYSTEM

Type system (pressure, pressure vented, atmospheric, other)		Pressure	
Radiator cap relief valve pressure		15 ± 1PSI	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at (°F)	177° - 183° F	
Water pump	Type (centrifugal, other)	Centrifugal	
	GPM @ 1000 pump rpm	82 @ 5200	
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
Bearing type		Double row ball	
By-pass recirculation type (internal, external)		External	
Radiator core type (cellular, tube and fin, other)		Tube on center	
Cooling system capacity	With heater (qt.)	22	
	Without heater (qt.)	21	
	Opt. equipment-specify (qt.)		
Water jackets full length of cylinder (yes, no)		Yes	
Water all around cylinder (yes, no)		Yes	
Radiator hose	Lower	Number and type (molded, straight)	One, molded
		Inside diameter	1.88
	Upper	Number and type (molded, straight)	One, molded
		Inside diameter	1.50
	By-pass	Number and type (molded, straight)	One, molded
		Inside diameter	.725 - .765
Fan	Number of blades & Spacing		5, Staggered
	Diameter		18.00
	Ratio-fan to crankshaft rev.		.949:1
	Fan cutout type		Thermo-modulated - viscous coupling
	Bearing type		Double row ball
*Drive belts (indicate belt used by letter)	Fan		A
	Generator		A
	Water Pump		A
	Power Steering		
	Air Conditioning		

* Drive Belt Dimensions	A
Angle of V	38° - 42°
Nominal length (SAE)	55.50
Width	.380 ± .005

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## ELECTRICAL—SUPPLY SYSTEM

Battery	Make and Model	Delco-Remy #1980558		
	Voltage Rtg. & Total Plates	12 Volts, 66 plates		
	SAE Designation & Amp Hr. Rtg.	61 amp. hr. @ 20 hr.		
	Location	Right front of engine compartment		
	Terminal grounded	Negative		
Generator	Make	Delco-Remy		
	Model	#110069		
	Type	Diode rectified		
	Ratio—Gen. to Cr/s rev.	2.46:1		
	Gen. cut-in (hot)—engine rpm			
Regulator	Make	Delco-Remy		
	Model	#1119515		
	Type	Vibrator		
	Cutout relay	Closing voltage @ generator rpm		
		Reverse current to open		
	Regulated	Voltage	13.8-14.8 @ 85°F	
		Current		
	Voltage test conditions	Temperature	Operating	
Load		3-8 amperes		
Other		None		

## ELECTRICAL—STARTING SYSTEM

Starting motor	Make	Delco-Remy		
	Model	#1107365		
	Rotation (drive end view)	Clockwise		
	Engine cranking speed			
	Test conditions	Engine at operating temperatures		
	Lock test	Amps		
		Volts		
		Torque (lb. ft.)		
No load test	Amps	65-100		
	Volts	10.6		
	RPM (min.)	3600-5100		
Motor control	Switch (solenoid, manual)	Solenoid		
	Starting procedure	<p><b>SYNCHROMESH-</b> Place gearshift in neutral &amp; depress clutch to floor</p> <p><b>INITIAL START-</b> Press accelerator pedal to floor once to set automatic choke, then release. Turn ignition to START-release as soon as engine starts</p>		

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**MODEL** 13837      396 Cu. In. V-8 Engine 375 HP

## ELECTRICAL—STARTING SYSTEM (cont.)

<b>Motor Drive</b>	Engagement type		Positive shift solenoid
	Pinion meshes (front, rear)		Rear
	Number of teeth	Pinion	9
		Flywheel	168
Flywheel tooth face width		.4100 - .4220	

## ELECTRICAL—IGNITION SYSTEM

<b>Coil</b>	Make		Delco-Remy
	Model		1115204
	Amps	Engine stopped	4.0
Engine idling		1.8	
<b>Distributor</b>	Make		Delco-Remy
	Model		1111094
	Cent'fgal adv. in crankshaft degrees @ engine rpm (nominal)	Start (rpm)	800
		Intermediate points deg. @ rpm	
		Max deg. @ rpm	28° @ 4400
	Vacuum adv. in crankshaft degrees @ in. Hg. (nominal)	Start (in Hg)	0° @ 8 In.
		Intermediate points, deg @ in Hg	
		Max. deg. in. Hg.	15° @ 15.5 In.
	Breaker gap (in.)		.019
	Cam angle (deg.)		28° - 32°
Breaker arm tension (oz.)		19-23	
<b>Timing</b>	Crankshaft deg. @ rpm.		8° BTC @ 700
	Mark location		Harmonic Balancer
	Cylinder numbering system (see page 2)		Left bank : 1-3-5-7 Right bank: 2-4-6-8.
	Firing order (see page 2)		1-8-4-3-6-5-7-2
<b>Spark Plug</b>	Make and model		AÇ43N
	Thread (mm)		14
	Tightening torque (lb. ft.)		25
	Gap		.033-.038
<b>Cable</b>	Conductor type		Line core impregnated with conducting material
	Insulation type		Rubber with neoprene jacket
	Spark plug protector		Silicon.

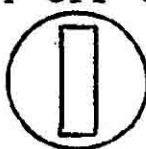
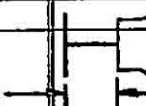
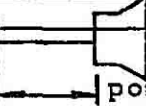

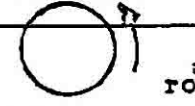
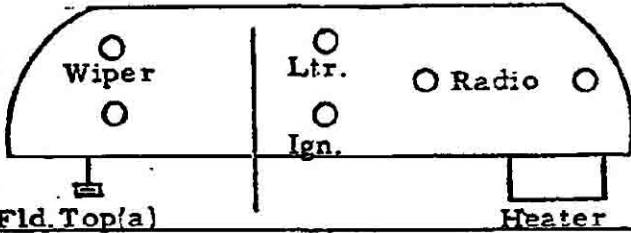
## ELECTRICAL—SUPPRESSION

Locations & type	Non-metallic high tension cables
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 13800, Opt. 396  
 C. In. Engine, L37  
 MODEL \_\_\_\_\_

## ELECTRICAL-INSTRUMENTS AND SWITCHES

Speedometer	Make	AC			
	Trip odometer (yes, no)	No			
Charge indicator-type		Gage			
Temperature indicator-type		Gage			
Oil pressure indicator-type		Gage			
Fuel indicator-type		Electric gage			
Other		Cigarette lighter, clock, tachometer			
Ignition switch	Identify positions in order and circuits controlled	ACCESSORY OFF ON START 	ACCESSORIES - accessories (ign. off OFF - off, locked ON - ignition, batt., accessories START - starter motor, spring return to ON.		
	Provision for illumination	Instrument lamps			
	Location	Instrument cluster to right of steering column			
Main lighting switch	Identify positions and lamps controlled	 1st position Instru. panel lamps, parking, tail and license lamps.	 2nd position Instru. panel lamps, parking, tail and license lamps.	 CW rotation Instru. panel lamps dim to off.	 CCW rotation Instru. panel lamps off to Bright; full CCW rotation, dome lamp and/or courtesy lamps on.
	Locations and lamps controlled	Toe panel - hdlp. dimmer. Glove compt. - glove compt., lamp. Frt. door hinge pillars - dome &/or courtesy lamps. St. column - direct, signal indicators & lamps. Brake pedal pendant - stop lamps. Parking brake lever - parking brake alarm.			
Other switches	Locations and devices controlled	At transmission - back up lamps. 		Left side of frt. seat lower panel - pwr. seats (a). Door & qtr. trim panels - power windows (a).	
	Make	Delco			
Windshield wiper	Type	Electric two-speed			
	Vacuum booster provision	None			
	Washer provision	Std. equipment			
Horn	Type	Vibrator			
	Number used	Two(a)			
	Amp draw (each)	8.0-11.0 @ 12.5V			

(a) OPTIONAL EQUIPMENT: Folding top motor; power seats; power windows; low note horn.

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 13800, Opt.  
 396 Cu. In.  
 MODEL Engine. L37

## ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-5400 S, dual headlight 2-4001, 2-4002.

Headlamps & arrangement		Dual, horizontal; outer, 2-4002; inner, 2-4001	
Headlamp beam indicator		1-1895	
Parking		2-1157	
Tail		2-1157	
Stop		2-1157	
Direction signal	Front	2-1157	
	Rear	2-1157	
	Indicator	2-1445	
License Plate		2-1155	
Oil pressure indicator		Gage	
Charge indicator		Gage	
Instrument		6-1895	
Clock		1-1895	Std.
Radio		1-1893	Std.

Indicate also whether the following lamp assemblies are standard equipment, optional, or NA.

Tachometer	Gage	Std.
Back up	2-1156	Std.
Door	1-211	Std.
Glove compartment	1-1595	Std.
Pkgs. brake signal	1-257	Std.
Luggage compartment	1-1003	Opt.
Underhood	1-93	Opt.
Courtesy instrument panel	2-631(a)	Std.
Ash tray	1-53	Opt.
Temp. indicator	Gage	Std.
Heater control	1-1895	Std.
Traffic hazard indicator	1-1445	Opt.

(a). Std. seat separator courtesy, 1-211.

## OTHER BULBS

Spot lamp		
Portable	1-4416	Opt.
Inside operated	1-4405	Opt.



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**MAKE OF CAR** CHEVELLE      **MODEL YEAR** 1965      **DATE ISSUED** 2-22-65      **REVISED** (\*)  
**13800, Opt. 396**  
**In. Engine,**  
**MODEL** L37

## ELECTRICAL—FUSE & CIRCUIT BREAKER DATA

Use trade number of fuse, e.g., SFE-10. Indicate circuit breaker by ampere capacity suffixed by letters "C.B.", e.g., 30 C.B. Where fuse or circuit breaker protects multiple circuits indicate first use by a letter and repeat the same letter for all units protected by the same fuse or circuit breaker, e.g., Parking lamp SFE-10 (a), Direction indicator same as (a).

Headlamp	15 C.B. (a)	Ash tray lamp	(c)
Headlamp beam indicator	(a)	Traffic haz. ind.	(b)
Parking lamp	(a)	Heater	AGC 10 (g)
Tail lamp	AGC 15 (b)	Defogging unit	(g)
Stop lamp	(b)	Spot lamp	(b)
Direction indicator	AGC 3 (c)	Courtesy lamp	(b)
License plate lamp	(b)	Fuel gage	(d)
Instrument lamp	(c)	Folding top motor	40 C.B.
Ignition lamp	---	Power seats	40 C.B.
Back up lamp	AGC 10 (d)	Power windows	40 C.B.
Dome lamp	(b)		
Clock	(b)		
Clock lamp	(c)		
Radio	AGC 2.5 (e)		
Glove compartment lamp	(b)		
Cig. lighter	(b)		
W/S wiper (two-speed)	14 C.B. & SAE 20 (f)		
Parking brake alarm	(d)		
Charge & temp. ind.	(d)		
Tachometer	(d)		
Interior controls lamp	(c)		
Underhood lamp	SAE 4		
Lugg. comp. lamp	(b)		

## ELECTRICAL—LOCATION OF OUTSIDE LAMPS

	Tail	Lowest		
		Highest		
Height above ground to center of bulb	Stop		24.9 (27.4 wagons)	
	Backup		24.9 (27.4 wagons)	
	License, rear		25.9 (28.2 wagons)	
	Directional	Front		16.4 (17.0 wagons)
		Rear		24.9 (27.4 wagons)
	Headlamp	Inside		25.4 (27.0 wagons)
		Outside*		25.4 (27.0 wagons)
	Distance from C/L of car to center of bulb	Tail	Inside	29.1 (32.4 wagons)
			Outside	29.1 (32.4 wagons)
		Stop		29.1 (32.4 wagons)
Backup			29.1 (32.4 wagons)	
License, rear			7.1	
Directional		Front		29.1
		Rear		29.1 (32.6 wagons)
Headlamp		Inside		29.1
		Outside*		26.3

\*If no headlamps are used enter here.



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 MODEL \_\_\_\_\_

## DRIVE UNITS—CLUTCH (Manual Transmission)

Make & type	Chevrolet single dry disc, centrifugal	
Type pressure plate springs	Diaphragm, bent finger design	
Effective plate pressure (lb.)	2300-2600	
No. of clutch driven discs	One	
Clutch facing	Material	Woven type asbestos
	Outside & inside dia.	11.0 & 6.5
	Total eff. area (sq.in.)	123.7
	Thickness	.140 ea.
	Engagement cushioning method	Flat spring steel between facings
Release bearing	Type & method of lubrication	Single row ball, packed and sealed
Torsional damping	Methods: springs, friction material	Coil springs

## DRIVE UNITS—TRANSMISSIONS

Manual (std. or opt.)	4-Speed required
Manual with overdrive (std. or opt.)	NA
Automatic (std. or opt.)	NA

## DRIVE UNITS—MANUAL TRANSMISSION

Number of forward speeds	4-Speed		
Transmission ratios	In first	2.56	
	In second	1.91	
	In third	1.48	
	In fourth	1.00	
	In reverse	2.64	
Synchronous meshing, specify gears	All forward gears		
Shift lever location	Floor		
Lubricant	Capacity (pt.)	2.5	
	Type recommended	Meeting Military Spec. MIL-L-2105-B	
	SAE viscosity number	Summer	SAE 80
		Winter	SAE 80
		Extreme cold	SAE 80

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MODEL Engine, L37		

## DRIVE UNITS—MANUAL TRANSMISSION WITH OVERDRIVE NA

For transmission data see manual transmission section

Overdrive	Type (planetary or other)		
	Manual lockout (yes, no)		
	Downshift accelerator control (yes, no)		
	Minimum cut-in speed		
	Gear ratio		
	Lu- bri- cant	Capacity (pt.) (Overdrive only)	
Separate filler (yes, no)			
Type recommended			
SAE vis- cosity number		Summer	
		Winter	
	Ext. cold		

## DRIVE UNITS—AUTOMATIC TRANSMISSION NA

Trade name		
Type describe		
Method of Selection (Lever, Push Button or other)		
Selector Pattern		
List ratios Selector Pattern and in which are used in each selector position		
Max. upshift speeds—drive range*		
Max. kickdown speeds—drive range		
Torque converter	Number of elements	
	Max. ratio at stall	
	Type of cooling (air, water)	
Lubricant	Capacity—refill (pt.)	
	Type recommended	
Special transmission features		

## DRIVE UNITS—PROPELLER SHAFT

Number used	One	
Type (exposed, torque tube)	Exposed unsupported	
Outer diameter x length* x wall thickness	Manual transmission	3.25 x 60.137 x .065
	Overdrive transmission	NA
	Automatic transmission	NA

\*Center to center of universal joints, or to centerline of rear attachment.

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## DRIVE UNITS—PROPELLER SHAFT (cont.)

Inter- mediate bearing	Type (plain, anti-friction)	None
	Lubrication (fitting, prepack)	---
Universal joints	Make	Chevrolet
	Number used	2
	Type (ball and trunnion, cross, other)	Cross
	Bearing	Type (plain, anti-friction)
Lubric. (fitting, prepack)		Prepack
Drive taken through (torque tube or arms, springs)		Control arms
Torque taken through (torque tube or arms, springs)		Control arms

## DRIVE UNITS—REAR AXLE

Description (see instructions)	Std. - semi-floating, overhung pinion gear		
Limited Slip differential, type	NA		
Drive Pinion Offset	1.5		
No. of differential pinions	2		
Gear ratios (Std. equip.)	Manual transmission	3.31	
	Overdrive transmission	NA	
	Automatic transmission	NA	
Ring gear O.D. (std. ratio)	8.875		
Pinion adjustment (shim, other)	None		
Pinion bearing adj. (shim, other)	Shim		
Wheel bearing type	Single row cylindrical roller		
Lubricant	Capacity (pt.)	4.0	
	Type recommended	For standard axles, meeting Military Spec. MIL-L-2105-B	
	SAE vis- cosity number	Summer	SAE 80
		Winter	SAE 90
Extreme cold		SAE 90	

## REAR AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

Axle ratio		3.31
No. of teeth	Pinion	13
	Ring gear	43

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## DRIVE UNITS—WHEELS

Type & material		Short spoke disc, steel (riveted rim-spoke)
Rim (size and flange type)	Std.	14x6
	Opt.	
Attachment	Type (bolt or stud)	Bolt
	Circle diameter	4.75
	Number and size	5 hex nuts, 7/16-20 UNF-2B

## DRIVE UNITS—TIRES

Standard (List option below)	Size & ply	7.75 x 14-4PR (2 ply)
	Type - Nylon, etc.	Nylon (gold stripe)
Rev/mile at 50 mph.		774
Inflation press.(cold)	Front	24
	Rear	24
Optional tires - size and ply		

## BRAKES—SERVICE

Type (duo-servo, disc, balanced, etc.)		Duo-Servo, 4-wheel hydraulic, power assist	
Self-adjusting (std., opt., N.A.)		Reverse self-adjusting, std.	
Hydraulic system type (single, dual, etc.)		Single	
Power brake make & type (remote, integral, etc.)		Bendix, Delco-Moraine vacuum power unit; integral	
Effective area (sq. in.)*		183.4	
Gross lining area (sq. in.)**		198.4	
Swept drum area (sq. in.)***		328.3	
Percent brake effectiveness—front		58.5	
Drum	Diameter	Front	11.0
		Rear	11.0
	Type and material		Composite; cast iron rim; steel web
Wheel cylinder bore	Front	1.1875	
	Rear	1.00	
Master cylinder bore		1.00	
Available pedal travel		6.70	
Line pressure at 100 lb. pedal load			
Shoe clearance adjustment		Self-adjusting	

(Continued)

\* Excludes rivet holes, grooves, chamfers, etc.  
 \*\* Includes rivet holes, grooves, chamfers, etc.  
 \*\*\* Total swept areas for four brakes  
 Widest lining contact width for each brake x its drum circumference.

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## BRAKES—SERVICE (cont.)

		Bonded or riveted		Bonded	
Brake lining	Front Shoe	Material		Molded asbestos	
		Size (length x width x thickness)	Front wheel	9.25 x 2.75 x .168	
			Rear wheel	9.25 x 2.00 x .168	
	Segments per shoe		1		
	Rear Shoe	Material		Molded asbestos	
		Size (length x width x thickness)	Front wheel	11.63 x 2.75 x .168	
Rear wheel			11.63 x 2.00 x .168		
Segments per shoe		1			

## BRAKES—PARKING

Type of control		Pulley-cable linkage; foot pedal apply, handle release
Location of control		Below instrument panel left of steering column
Operates on		Rear service brakes
If separate from service brakes	Type (internal or external)	---
	Drum diameter	---
	Lining size (length x width x thickness)	---

## FRAME or UNITIZED CONSTRUCTION

Type and description	All welded perimeter frame with front crossmember, rear suspension crossmember and rear crossmember. Frame reinforcement between upper and lower control arm pivots.
----------------------	--

## SUSPENSION—GENERAL (See Supplemental page 19 for details on Air Suspension)\*

Provision for car leveling		Front stabilizer bar
Provision for brake dip control		Mounting angle of front upper control arms
Provision for acc. squat control		Geometry of rear suspension
Special provisions for car jacking		Bumper jack provided; apply just outboard of bumper bolt at wheel requiring jacking
Shock absorber front & rear	Type	Direct double-acting, hydraulic
	Make	Delco Products
	Piston dia.	1.00
Other special features		

## SUSPENSION—FRONT

Type and description	Independent - SLA type with coil spring and concentric shock absorber, and spherically-jointed steering knuckle for each wheel.
----------------------	---

\* Air Suspension:  
Air spring type  
Compressor data  
type  
make  
drive ratio

Nominal operating pressures  
spring rates  
leveling data

(Continued)

# AMA Specifications – Passenger Cars

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## SUSPENSION FRONT (cont.)

Spring	Type	Coil
	Material	Steel alloy
	Size (coil design height & I.D.; bar length x dia.)	12.59 & 3.63; 135.9 x .637
	Spring rate (lb. per in.)	320
	Rate at wheel (lb. per in.)	1675 @ 12.59
Stabilizer	Type (link, linkless, frameless)	Link
	Material & bar diameter	HR steel 1.06

## STEERING

Manual (std., opt., NA)		NA	
Power (std., opt., NA)		Std.	
Adjustable steering wheel (tilt, swing, other)	Type and description	Tilt: tilt achieved with universally-jointing steering shaft at base of steering wheel; 5" vertical travel range	
	(std., opt., NA)		Optional
Wheel diameter	Manual	--	
	Power	16.5	
Turning diameter	Outside front	Wall to wall (l. & r.)	44.7
		Curb to curb (l. & r.)	41.9
	Inside rear	Wall to wall (l. & r.)	26.6
		Curb to curb (l. & r.)	18.41°
Outside wheel angle with inside wheel at 20°		18.41°	
Manual	Gear	Type	NA
		Make	
		Ratios	Overall
	No. wheel turns		↓
Power	Type (coaxial, linkage, etc.)		Coaxial
	Make		Saginaw
	Gear	Type	Semi-reversible, recirculating ball nut
		Ratios	15:1
		Gear Overall	
	Pump driven by		Crankshaft pulley
Number wheel turns			
Linkage	Type		Parallelogram
	Location (front or rear of wheels, other)		Front of wheels
	Drag link (trans. or longit.)		None
	Tie rods (one or two)		2

(Continued)

# AMA Specifications – Passenger Car

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## STEERING (cont.)

Steering Axis	Inclination at camber (deg.)		7-3/4 to 8-3/4
	Bearings (type)	Upper	Ball stud with non-metallic bearing surfaces
		Lower	Ball stud with non-metallic bearing surfaces
	Thrust		None
Wheel alignment (range and preferred)	Caster (deg.)		N1 to 0 (curb)
	Camber (deg.)		0 to P1 (curb)
	Toe-in (outside tread-inches)		1/8 to 1/2 total (curb)
Steering spindle & joint type			Forging with pad for mounting brake cylinder, spherical
Wheel spindle	Diameter	Inner bearing	1.2493-1.2498
		Outer bearing	.7492-.7497
	Thread size		3/4-20 NEF-3 (modified)
	Bearing type		Taper roller

## SUSPENSION—REAR

Type and description			4-link: 2 upper and 2 lower control arms
Drive end torq. taken through (see page 17)			Control arms
Spring	Type		Coil
	Material		Steel alloy
	Size (length x width, coil design height and I.D.; bar length & dia.)		9.74 & 5.50; 103.6 x .542
	Spring rate (lb. per in.)		120
	Rate at wheel (lb. per in.)		
	Design load (lb. at design height)		600 @ 9.74
	Mounting insulation type		None
	If leaf	No. of leaves	
Inserts		Type and size	
		Material	
Shackle (comp. or tens.)			
Stabilizer	Type (link, linkless, frameless)		Frameless
	Material		Steel
Track bar type			None



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MAKE OF CAR	<b>CHEVELLE</b>	MODEL YEAR	1965	DATE ISSUED	2-22-65	REVISED (6)
	30, Opt. 396 Cu. In. Engine, L37		Coupes		Convertibles	

## BODY--MISCELLANEOUS INFORMATION

Drs. hinged (front, rear)	Front doors	Front
	Rear doors	Front
Type of finish (lacquer, enamel, other)		Acrylic lacquer
Hood counterbalanced (yes, no)		Yes
Hood release control (internal, external)		External
Vehicle (Serial) No. Location		Left front body hinge pillar
Engine No. Location		8-cyl - on top front of RH bank of cylinder and case
Theft protection - type		Shielded ignition lock terminals key removable in "OFF" position
Vent window control method (crank, friction pivot)	Front	Friction pivot
	Rear	None
Seat cushion type	Front	Formed wire and 1.75 foam rubber pad
	Rear	Formed wire and jute and 1.00 foam rubber pad
	3rd seat	None
Seat back type	Front	Formed wire and cotton
	Rear	Formed wire and cotton
	3rd seat	None
Windshield glass type (i.e., single curved - laminated plate)		Curved, laminated
Backlight glass type (i.e., round curved - tempered plate, - piece)	Curved	Plastic
Side glass type (i.e., curved - tempered plate)		Curved
Side glass exposed surface area	1395.6	1281.4
Windshield glass exposed surface area	1107.1	
Backlight glass exposed surface area	897.7	796.2
Total glass exposed surface area	3400.4	3174.7

## BODY--CONVENIENCE EQUIPMENT (Indicate whether standard, optional or NA on each series)

Power windows	Side Windows	Optional
	Vent Windows	NA
	Backlight or tailgate	NA
Power seats (specify type as well as availability)		NA
Reclining front seat back		NA
Front seat headrest		NA
Radios (specify type as well as availability)		AM-FM, Push Button Stereo
Rear seat speaker		1 - Standard
Power Antenna		NA
Clock		Standard, Instrument panel mounted
Air Conditioner (specify type and availability)		





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