AMA Specifications—Passenger Car

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MANUFACTURER	BUICK MOTOR DIVISION GENERAL MOTORS CORPORATION	CAR NAME	BUICK GS "350" - GS "400"
MAILING ADDRESS	1051 E. HAMILTON AVENUE FLINT, MICHIGAN 48550	MODEL YEAR	1968
		ISSUED	Sept. 9, 1967
		REVISED (•)	

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.

SERIES	BODY STYLE	MODEL DESIGNATION
GS "350"	2 Door 6 Passenger Hardtop Coupe	43437
GS "400"	2 Door 6 Passenger Hardtop Coupe	44637
	2 Door 6 Passenger Convertible	44667

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CAR AND BODY DIMENSIONS

See Pages 25, 26 for SAE Dimension Definitions

(All dimensions in inches unless otherwise indicated)

All dimensions to ground are for comparative purposes only and are shown with vehicle load of two passengers in front and three in rear, except where otherwise noted.

MODEL	SAE Ref. No.	GS "350" 43437	"400" 44637
WIDTH			
Track – Front	W101	59.0	59.4
Track – Rear	W102	59.0	
Maximum overall car width	W103	75.6	
Body width at No. 2 pillar	W117	----	
LENGTH			
Body "O" to front of dash	L 30	0"	
Wheelbase	L101	112.0	
Overall car length	L103	200.7	
Overhang – front	L104	37.47	
Overhang – rear	L105	51.19	
Body upper structure length	L123		
Body "O" line to ℄ of rear wheel	L127	99.50	
Body "O" line to w/s cowl point	L130		
HEIGHT			
Overall height	H101	53.51	53.0
Cowl height	H114	38.49	37.98
Deck height	H138	40.71	39.99
Rocker panel – front: To ground	H112	8.7	8.2
Rocker panel – front: From front wheel ℄	H112	27.19	26.47
Rocker panel – rear: To ground	H111	8.5	8.0
Rocker panel – rear: From rear wheel ℄	H111	25.80	25.07
Windshield slope angle	H122	53.1	
GROUND CLEARANCE			
Bumper to ground – front	H102	12.08	11.57
Bumper to ground – rear	H104	12.04	11.53
Angle of approach	H106	24° 30'	
Angle of departure	H107	17° 30'	
Ramp breakover angle	H147	12° 20'	
Min. running clearance (Specify)	H156	5.61 (Exh. Pipe)	5.48 (Oil Pan)

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CAR AND BODY DIMENSIONS

See Pages 25, 26 for SAE Dimension Definitions

(All dimensions in inches unless otherwise indicated)

MODEL	SAE Ref. No.	GS "350" 43437	GS "400" 44637
FRONT COMPARTMENT			
Effective head room	H61	37.8	
Max. eff. leg room – accelerator	L34	42.1	
H Point to Heel point	H30	9.5	
H Point travel	L17	4.7	
Shoulder room	W 3	58.8	
Hip room	W 5	60.0	
Upper body opening to ground	H50	48.9	48.4
REAR COMPARTMENT			
H Point couple distance	L50	30.6	
Effective head room	H63	36.3	
Min. effective leg room	L51	33.1	
H Point to Heel point	H31	9.5	
Min. knee room	L48	1.1	
Rear Compartment room	L 3	25.5	
Shoulder room	W 4	58.2	
Hip room	W 6	59.5	
Upper body opening to ground	H51	- - - - -	
LUGGAGE COMPARTMENT			
Usable luggage capacity	V 1	13.7	
Liftover height	H195	28.7	28.2
Position of spare tire storage		Horizontal	
Method of holding lid open		Torsion Bar	
STATION WAGON – THIRD SEAT			
Shoulder Room	W85	No Station Wagons	
Hip room	W86	- - - - - - - - -	
Effective leg room	L86	- - - - - - - - -	
Effective head room	H86	- - - - - - - - -	
Seat facing direction		- - - - - - - - -	
STATION WAGON – CARGO SPACE			
Cargo length at floor – front seat	L202	No Station Wagons	
Cargo length at belt – front seat	L204		
Cargo width – wheelbase	W201		
Opening width at belt	W204		
Maximum cargo height	H201		
Rear opening height	H202		
Cargo volume index (cu. ft.) $\frac{W4 \times L204 \times H201}{1728}$	V2		

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POWER TEAMS

(Indicate whether standard or optional)

MODEL AVAILABILITY	ENGINE					TRANSMISSION	AXLE RATIO (Std. first) (Indicate A/C ratio)
	Displ. cu. in.	Carburetor	Compr. Ratio	BHP RPM	Torque RPM		
GS "350"	350	1-4Bbl	10.25	280 @ 4600	375 @ 3200	Manual (3)	3.23 (Std) No Econ. 3.42 (Perf.) 3.64 (S.C.O.)
	350	1-4Bbl	10.25	280 @ 4600	375 @ 3200	Manual (4)	3.23 (Std) No Econ. 3.42 (Perf.)
	350	1-4Bbl	10.25	280 @ 4600	375 @ 3200	Automatic	3.23 (Std) No Econ. 3.42 (Perf.)
GS "400"	400	1-4Bbl	10.25	340 @ 5000	440 @ 3200	Manual (3&4)	3.42 (Std) No Perf. or Economy 3.91 (S.C.O.)
	400	1-4Bbl	10.25	340 @ 5000	440 @ 3200	Automatic	2.93 (Std) 3.42 (Perf) 3.64 (S.C.O.) 3.91 (S.C.O.)

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MODEL	"350" GS 43437	"400" GS 44637

ENGINE – GENERAL

Type, no. cyls., valve arr.		V8 - Valve-In-Head	
Bore and stroke (nominal)		3.800 x 3.850	4.040 x 3.900
Piston displacement, cu. in.		350	400
Bore spacing (℄ to ℄)		4.240	4.750
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	
Compres. ratio (nominal)		10.25	
Cylinder Head Material		Cast Iron	
Cylinder Block Material		Cast Iron	
Cyl. Sleeve-Wet, dry, none		None	
Number of mtg. points	Front	Two	
	Rear	One	
Engine installation angle		4° 37'	
Taxable horsepower $\frac{Dia^2 \times No.\ Cyl.}{2.5}$		46.2	52.23
Publishing max. bhp* @ eng. RPM		280 @ 4600	340 @ 5000
Publishing max. torque * (lb. ft. @ RPM)		375 @ 3200	440 @ 3200
Recommended fuel regular – premium		Premium	

ENGINE – PISTONS

Material		Cast Aluminum Alloy	
Description and finish		Cam Ground - Transverse Slot - Divorced Skirt	
Weight (piston only) oz.			23.152 ± .064
Clearance (limits)	Top land	.027 - .036	.034 - .042
	Skirt Top	.0008 - .0014	.0007 - .0013
	Skirt Bottom	.0013 - .0029	.017 - .033
Ring groove depth	No. 1 ring	.1930 - .1855	.2090 - .2165
	No. 2 ring	.1955 - .1880	.2115 - .2190
	No. 3 ring	.1955 - .1880	.1815 - .1890
	No. 4 ring	Not Used	

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

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MODEL	"350" 43437	"400" GS 44637

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.	None	
Compression	Description - material, coating, etc.	#1 - Cast Iron - Molybdenum Coated #2 - Cast Iron - Lubrited	
	Width	.077 - .078	
	Gap	.010 - .020	.013 - .023
Oil	Description - material, coating, etc.	SAE - 1070 Steel No Chrome	Chrome Plated
	Width	.0235 - .0245	.023 - .025
	Gap	.015 - .035	.015 - .055
Expanders		Hump Type	Steel Oil Ring(Abut. Type)

ENGINE – PISTON PINS

Material			Extruded SAE - 1018	
Length			3.060	3.520
Diameter			.9394 - .9397	.9994 - .9997
Type	Locked in rod, in piston, floating, etc.		Pressed-In Rod	
	Bushing	In rod or piston	None	
		Material	None	
Clearance	In piston		.0001 - .0004 (Selected)	
	In rod		.00075 - .00125 (Select Press)	
Direction & amount offset in piston			.040 (b)	.060 (b)

ENGINE – CONNECTING RODS

Material		Pearlitic Malleable Iron	Forged SAE - 1141 Steel
Weight (oz.)		22.800	24.384
Length (center to center)		6.385	6.598 - 6.602
Bearing	Material & Type	(a)	
	Overall length	.737	.816 - .826
	Clearance (limits)	.0002 - .0023	
	End play	.006 - .014	.005 - .012

(a) Steel Backed - M/400 Aluminum- Removeable
(b) Major Thrust Side

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MODEL	"350" 43437 GS	"400" 44637

ENGINE – CRANKSHAFT

Material			Nodular Iron	
Vibration damper type			Rubber Absorption	
End thrust taken by bearing (No.)			Three	
Crankshaft end play			.004 - .008	.003 - .009
Main bearing	Material & type		(a)	
	Clearance		.0004 - .0015	.0007 - .0018
	Journal dia. and bearing overall length	No. 1	2.9995 x .864	3.250 x .865
		No. 2	2.9995 x .864	3.250 x .865
		No. 3	2.9995 x 1.057	3.250 x 1.057
		No. 4	2.9995 x .864	3.250 x .865
		No. 5	2.9995 x .864	3.250 x 1.143
		No. 6	None	
		No. 7	None	
	Dir. & amt. cyl. offset		None	
Crankpin journal diameter			2.000	2.249 - 2.250

ENGINE – CAMSHAFT

Location			Above Crankshaft at Center of "V"	
Material			Cast Iron Alloy	
Bearings	Material		Steel Backed Babbitt	
	Number		Five	
Type of Drive	Gear or chain		Chain	
	Crankshaft gear or sprocket material		Sintered Iron	
	Camshaft gear or sprocket material		Nylon Coated Aluminum	
	Timing chain	No. of links	54	48
		Width	.875	.739
		Pitch	.375	.500

ENGINE – VALVE SYSTEM

Hydraulic lifters (Std., opt., NA)		Standard	
Valve rotator, type (intake, exhaust)		None	
Rocker ratio		1.55	1.59
Operating tappet clearance (indicate hot or cold)	Intake	None	
	Exhaust	None	

(Continued)

(a) Steel Backed - M/400 Aluminum Except #5 is Durex M/100

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MODEL				GS "350" 43437	GS "400" 44637
ENGINE – VALVE SYSTEM (cont.)					
Timing (based on top of ramp points)	Intake	Opens (°BTC)		24	14
		Closes (°ABC)		78	104
		Duration - deg.		282	298
	Exhaust	Opens (°BBC)		70	88
		Closes (°ATC)		38	47
		Duration - deg.		288	315
	Valve opening overlap			62	61
Intake	Material			SAE - 1041 (c)	
	Overall length			5.024 - 4.994	5.155 - 5.125
	Actual overall head dia.			1.880 - 1.870	2.005 - 1.995
	Angle of seat & face			45°	
	Seat insert material			None	
	Stem diameter			(a)	
	Stem to guide clearance			.0015 - .0035 (.0003 Max. Taper)	
	Lift (@ zero lash)			.3766	.4187
	Outer spring press. & length	Valve closed (lb.@in.)		75 ± 5 @ 1.727	72 ± 5 @ 1.890
		Valve open (lb.@in.)		180 ± 7 @ 1.340	177 ± 7 @ 1.450
	Inner spring press. & length	Valve closed (lb.@in.)		Not Used	
		Valve open (lb.@in.)		Not Used	
Exhaust	Material			21 - 2 (c)	N82152 - (21-4N) (c)
	Overall length			5.044 - 5.014	5.175 - 5.145
	Actual overall head dia.			1.505 - 1.495	1.630 - 1.620
	Angle of seat & face			45°	
	Seat insert material			None	
	Stem diameter			(b)	
	Stem to guide clearance			.0015 - .0035 (Top) - .0025 - .0045 (Bottom)	
	Lift (@ zero lash)			.3840	.4482
	Outer spring press. & length	Valve closed (lb.@in.)		75 ± 5 @ 1.727	72 ± 5 @ 1.890
		Valve open (lb.@in.)		180 ± 7 @ 1.340	177 ± 7 @ 1.450
	Inner spring press. & length	Valve closed (lb.@in.)		Not Used	
		Valve open (lb.@in.)		Not Used	
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			Splash & Nozzle	Drip From Frt. Cam Bearing
	Cylinder walls			Splash & Nozzle	

(a) .3725 ± .0005 Max. Allowable taper (Continued) to be .003 with smallest dia. @ Valve Head end.

(b) .3725 ± .0005 Top --- .3715 ± .0005 Bottom.

(c) Aluminized face and chrome flashed stem.

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MODEL	GS "350" 43437	GS "400" 44637

ENGINE – LUBRICATION SYSTEM (cont.)

Oil pump type	Gear	
Normal oil pressure (lb. engine rpm)	37 @ 2400	40 @ 2400
Oil press. sending unit (elect. or mech.)	Electrical	
Type oil intake (floating, stationary)	Stationary	
Oil filter system (full flow, part., other)	Full Flow	
Filter replacement (element, complete)	Element & Can	
Capacity of c case, less filter-refill (qt.)	Four	
Oil grade recommended (SAE viscosity and temperature range)	Anticipated Lowest Temp.	Use SAE Viscosity
	Above 32° F	10W-30; 20W or 20
	Below 32° F to Zero F	10W-30, 10W-40, 10W
	Below Zero F	5W-20, 5W-30, 5W
Engine Service Reqmt. (MM, MS, etc.)	Passing Car Makers Test - G.M. 6041M	

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 thick.)	Branch	- - - -
	Main	2.25 - .084 (Laminated)
Tail pipe dia. (O.D. & wall thickness)		2.00 - .060

ENGINE – CRANKCASE VENTILATION SYSTEM

Type (ventilates to atmos., induction system, other)		Standard	Closed Induction System
		Optional	None
Control Unit	Make and model		A.C.
	Location		Intake Manifold (Lifter Cavity) Rear
	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 Normally with Additional Discharge into Air Cleaner under Excessive Blow-By Condition
	Air inlet (breather cap, carburetor air cleaner, other)		Carburetor Air Cleaner
	Flame arrestor (screen, check valve, other)		Check Valve and Screen

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ENGINE – EXHAUST EMISSION CONTROL

			MODEL "350" 43437	GS MODEL "400" 44637
Type (Air injection, engine modifications, other)			Combustion Control	
Air Injection Pump	Type		Not Used	
	Displacement			
	Drive ratio			
	Drive type			
	Relief valve (type)			
	Filter (describe)			
Air Injection System	Air distribution (head, manifold, etc.)			
	Point of entry			
	Injection tube I.D.			
	Check valve type			
	Backfire protection (type)			
Carburetor	Make		Rochester	
	Model		4MV	
	Barrel size			
	Idle speed	Drive	550	600
		Neutral	700 (Manual Transmission)	
	Idle A/F mixture			
Distributor	Aux. Adv. Systems (type)		None	
	Make		Delco - Remy	
	Model			1111285
	Cent'fgal adv. in crank degrees @ eng. rpm	Start (rpm)	1100	
		Intermed. points deg. @ rpm		21 @ 1800
		Max. deg. @ rpm		32 @ 4600
	Vacuum adv. in crank degrees @ eng. rpm	Start (in Hg)	7"	
		Intermed. points deg. @ in. Hg	16" @ 15	
		Max. deg. @ in.	19.5 @ 25	
	Vacuum Source		Int. Man. Ported to Atmosphere at Idle	
Timing - Crank degrees @ rpm			0^{o} BTC @ 550	
Cooling System (describe changes)				
Exhaust System (describe changes)				

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MODEL	GS "350" 43437	GS "400" 44637

ENGINE – FUEL SYSTEM

(See supplemental page for Details of Fuel Injection, Supercharger, etc. if used)

Induction type: Carburetor, fuel injection, supercharger.			Carburetor	
Fuel Tank	Refill capacity (U.S. gals.)		20 (Approx.)	
	Filler location		Rear	
Fuel Pump	Type (elec. or mech.)		Mechanical	
	Locations		Engine	
	Pressure range		4.25 - 5.75 at Outlet (a)	5.5-7.0@Pump Otlt. (b)
Vacuum booster (std., optional, none)			None	
Fuel Filter	Type		Pleated Paper	Woven Plastic
	Locations		Carb. Inlet	Fuel Tank
Carburetor	Choke type		Remote (Manifold) - Auto	
	Intake manifold heat control (exhaust or water)		Exhaust	
	Air cleaner type	Standard	Oiled Paper Element	
		Optional	Heavy Duty Dual Stage Element	
	Idle speed (spec. neutral or drive)	Manual	700 (Neutral) - A/C Same with A/C "Off"	
		Automatic	600 (Drive) - A/C Same with A/C "Off"	
		Idle A/F mix.	14.5	14.6

CARBURETOR SUPPLEMENTARY INFORMATION

Model Usage	Engine Displ.	Transmission	Carburetors		No. Used and Type	Barrel Size
			Make	Model		
GS - "350"						
	350	Manual (3)	Rochester	4 MV	1-4 Bbl	(P)- 1.375 (S)- 2.250
	350	Automatic	Rochester	4 MV	1-4 Bbl	(P)- 1.375 (S)- 2.250
GS - "400"						
	400	Manual (3or4)	Rochester	4 MV	1-4 Bbl	Primary- 1.375 Secondary- 2.250
	400	Automatic	Rochester	4 MV	1-4 Bbl	Primary- 1.375 Secondary- 2.250

(a) 5.5 - 7.0 @ Outlet with V.R. Lines Blocked

(b) With Vapor Return Lines Blocked

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ENGINE – COOLING SYSTEM

MODEL			"350" 43437 GS	"400" 44637
Type system (pressure, pressure vented, atmospheric, other)			Pressure	
Radiator cap relief valve pressure			15 psi	
Circulation thermostat	Type (choke, bypass)		Choke	
	Starts to open at (°F)		190	
Water pump	Type (centrifugal, other)		Centrifugal	
	GPM @ 1000 pump rpm		10	15
	Number of pumps		One	
	Drive (V-belt, other)		V-Belt	
	Bearing type		Double Row	
By-pass recirculation type (inter., ext.)			External	
Radiator core type (cellular, tube and fin, other)			Cross-Flow	
Cooling system capacity	With heater (qt.)		13.45	16.17 (Std.)
	Without heater (qt.)		12.62	15.34
	Opt. equipment-specify (qt.)		13.52 (A.C.)	16.67 (A.C.)
Water jackets full length of cyl. (yes, no)			No	
Water all around cylinder (yes, no)			Yes	
Radiator hose	Lower	Number and type (molded, straight)	One Molded	
		Inside diameter	1.50	
	Upper	Number and type (molded, straight)	One Molded	
		Inside diameter	1.50	
	By-pass	Number and type (molded, straight)	One Molded	
		Inside diameter	.62	
Fan	Number of blades & spacing		4-(76 - 104°) 7 AC	4-(76 x 104°) 5 AC
	Diameter		18"	
	Ratio-fan to crankshaft rev.		85 (1.15 A/C)	.92 (1.30 A/C)
	Fan cutout type		None - (Thermo - Clutch with A/C)	
	Bearing type		Single Row Ball	
*Drive belts (indicate belt used by letter)	Fan		A D (A/C)	E
	Generator or alternator		A D (A/C)	E
	Water Pump		A D (A/C)	E
	Power Steering		B	F
	Air Conditioning		C	G

* Drive Belt Dimensions	A	B	C	D	E	F	G	H	I	J	K
Angle of V	38°	38°	38°	38°	38°	38°	38°				
Nominal length (SAE)	45.5	52.5	60.66	46.0	48.9	60.96	63.5				
Width	.38	.47	.47	.38	.38	.47	.47				

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MODEL				"350" 43437	GS "400" 44637
ELECTRICAL – SUPPLY SYSTEM					
Battery	Make and Model			Delco #R-58	Delco #R-68
	Voltage Rtg. & Total Plates			12-66	
	SAE Designation & Amp. Hr. Rtg.			9MJ3F-61	9TJ3-70
	Location			Right Front Fender Skirt	
	Terminal grounded			Negative	
Generator or Alternator	Make			Delco - Remy	
	Model			1100691 (a)	1100761 (a)
	Type and rating			Diode Rectified Alternator (b) (e)	
	Output at engine idle (neutral)			15 amp Min. (c)	
	Ratio–Gen. to Cr/s rev.			2.47 (d)	
Regulator	Make			Delco - Remy	
	Model			1119515	
	Type			Voltage Control	
	Cutout relay	Closing voltage - generator rpm		None	
		Reverse current to open		None	
	Regulated	Voltage		13.6 to 14.4 @ 125°	
		Current		None	
	Voltage test conditions	Temperature		None	
		Load		Run 15 Minutes at 10 Amps (Max.)	
		Other		Battery Must Be In Circuit	
ELECTRICAL – STARTING SYSTEM					
Starting Motor	Make			Delco - Remy	
	Model			1108380	1108354
	Rotation (drive end view)			Clockwise	
Motor control	Switch (solenoid, manual)			Solenoid	
	Starting procedure			Manual - Place selector lever in neutral and depress clutch. Auto. - Place selector lvr. in neutral or park. NOTE: Turn ignition switch key clockwise.	
Motor Drive	Engagement type			Solenoid with Over-Running Clutch	
	Pinion meshes (front, rear)			Front	
	Number of teeth	Pinion		9	
		Flywheel	Manual	160	166
			Auto.	160	166
	Flywheel tooth face width		Manual	.375	
			Auto.	.375	

(a) 1100774 with A/C
(b) 42 amps on "350"
37 amps on "400"
(c) 20 amps with A/C
(d) 2.93 with A/C
(e) 55 amps with A/C

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MODEL				"350" 43437	GS "400" 44637
ELECTRICAL – IGNITION SYSTEM					
Type	Conventional – Std., Opt., N.A.			Standard	
	Transistorized – Std., Opt., N.A.			Not Available	
	Other (specify)			None	
Coil	Make			Delco - Remy	
	Model			1115247	
	Amps	Engine stopped		3.8 @ 12.6 V	
		Engine idling		2.3 @ 12.6 V	
Distributor	Make			Delco - Remy	
	Model			1111330	1111285
	Cent'fgal adv. in c/shaft degrees@ engine rpm (nominal)	Start (rpm)		1100	
		Intermediate points deg.@rpm		19° @ 1750	21° @ 1800
		Max. deg.@rpm		28° @ 4600	32° @ 4600
	Vacuum adv. in c/shaft degrees@ in. Hg. (nominal)	Start (in. Hg.)		6-8	
		Intermediate points, deg.@in. Hg.		16.0 @ 15	
		Max. deg. in. Hg		19.5 @ 25	
	Breaker gap (in.)			.013 - .019	
	Cam angle (deg.)			30 ± 1	
	Breaker arm tension (oz.)			19 - 23	
Timing	Crankshaft deg.@rpm			0° @ 550	
	Mark location			Crankshaft Flange	Harmonic Damper
Spark Plug	Make			AC	
	Model			45TS	44TS
	Thread (mm)			14	
	Tightening torque (lb. ft.)			15	
	Gap			.030	
Cable	Conductor type			4000 ohms per foot (Resistance Cable)	
	Insulation type			Neoprene (with Inner Braid)	
	Spark plug protector			Hypalon Boot	
ELECTRICAL – SUPPRESSION					
Locations & type				(a)	

(a) TVRS Cable - Spark Plugs & Coil to Distributor
Ground Strap - Engine to Dash
By-Pass Capacitors on Delcotron, Coil & Regulator

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MAKE OF CAR BUICK MODEL YEAR 1968 DATE ISSUED 9-9-67 REVISED (•)

MODEL	GS "350" 43437	GS "400" 44637

ELECTRICAL – INSTRUMENTS AND EQUIPMENT

Speedometer	Type	Mechanical (Eddy Current)	
	Trip odometer (yes,no)	No	
Charge indicator – type		Indicator Light	
Temperature indicator – type		"Hot" Indicator Light Only	
Oil pressure indicator – type		Indicator Light - Pressure Switch	
Fuel indicator – type		Electrical	
Other			
Windshield wiper	Type – Standard	Electric - Dual Speed	
	Type – Optional	None	
Windshield washer	Type – Standard	Standard	
	Type – Optional	None	
Horn	Type	Solenoid	
	Number used	Two	
	Amp draw (each)	4.5/5.5	

DRIVE UNITS – CLUTCH (Manual Transmission)

Make & type		Borg & Beck (Dry)	
Type pressure plate springs		Belleville	
Total spring load (lb.)		1900 - 2100	2450 - 2750
No. of clutch driven discs		One	
Clutch facing	Material	Woven	
	Outside & inside dia.	10.4 - 6.5	11.0 x 6.50
	Total eff. area (sq.in.)	103.5	123.7
	Thickness	.135	.140
	Engagement cushioning method	Springs	
Release bearing	Type & method of lubrication	Ball Sealed	
Torsional damping	Methods: springs, friction material	Springs	

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MAKE OF CAR BUICK MODEL YEAR 1968 DATE ISSUED 9-9-67 REVISED (*)

MODEL	GS "350" 43437	GS "400" 44637

DRIVE UNITS – TRANSMISSIONS

Manual 3-speed (std. or opt.)	Standard
Manual 4-speed (std. or opt.)	Optional
Manual with overdrive (std. or opt.)	Not Available
Automatic (std. or opt.)	Optional

DRIVE UNITS – MANUAL TRANS.

Number of forward speeds			Three (b) (c)	
Transmission ratios	In first		2.54 (a)	2.42 (a)
	In second		1.50 (a)	1.61 (a)
	In third		(a)	(a)
	In fourth		- - - (a)	(a)
	In reverse		2.63 (a)	2.33 (a)
Synchronous meshing, specify gears			All Forward Gears	
Shift lever location			Steering Column (b) (c)	Floor
Lubricant	Capacity (pt.)		3.4	3.5
	Type recommended		Multi-Purpose Gear Lubricant (MIL-L-2105B)	
	SAE viscosity number	Summer	SAE 80	
		Winter	SAE 80	
		Extreme cold	SAE 80	

DRIVE UNITS – MANUAL TRANS. W/OVERDRIVE

(For transmission data see manual transmission section)

Type (planetary or other)			Not Available
Manual lockout (yes, no)			
Downshift accelerator control (yes, no)			
Minimum cut-in speed			
Gear ratio			
Lubricant	Capacity (pt.) (Overdrive only)		
	Separate filler (yes, no)		
	Type recommended		
	SAE viscosity number	Summer	
		Winter	
		Extreme cold	

(a) Optional 4-Speed Transmission Ratios Are:
1 - 2.20 3 - 1.28 Rev. - 2.27
2 - 1.64 4 - 1.00

(b) Heavy Duty 3-Speed Manual Transmission with Floor Shift - Optional on GS 350.

(c) 4-Speed Manual Transmission Available on All Styles - Optional on GS 350 - (Floor Shift)

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MAKE OF CAR BUICK MODEL YEAR 1968 DATE ISSUED 9-9-67 REVISED (•) 11-15-67

MODEL	GS "350" 43437	"400" 44637

DRIVE UNITS – AUTOMATIC TRANSMISSION

Trade name		Super Turbine (Optional)	
Type describe		Two Speed with Torque Converter	Three Speed with Torque Converter
Selector location		Lever - Steering Column Mounted (b)	
List gear ratios Selector Pattern and indicate which are used in each selector position		Drive Low Rev. 1st 1.765 1.765 1.765 2nd 1.000 - - - - - -	Drive L^2 L^1 Rev. 1st 2.48 2.48 2.48 2.08 2nd 1.48 1.48 - - - - 3rd 1.00 - - - - - -
Max. upshift speed–drive range (Nom)		62	1-2 = 43 2-3 = 80
Max. kickdown speed–drive range (Nom)		58	2-1 = 24 3-2 = 74
Torque convertor	Number of elements	Three	
	Max. ratio at stall	2.25	2.05
	Type of cooling (air, liquid)	Water	
	Nominal diameter		
Lubricant	Capacity–refill (pt.)	19.0 Total - 5.0 Drain	23.0 Total - 7.0 Drain
	Type recommended	"DEXRON" ® Automatic Trans. Fluid	
Special transmission features			

DRIVE UNITS – PROPELLER SHAFT

Number used		One	
Type (straight tube, tube-in-tube, internal-external damper, etc.)		Exposed	
Outer diam. x length* x wall thickness	Manual 3-speed trans.	3.00 x 56.00 x .065	
	Manual 4-speed trans.	Not Available	
	Overdrive transmission	Not Available	
	Automatic transmission	3.00 x 56.00 x .065 (a)	3.24 x 55.10 x .065 (a)

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

(Continued)

(a) With Rubber Biscuit Drive.

(b) Console Lever - Optional.

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MODEL			GS "350" 43437	GS "400" 44637
DRIVE UNITS – PROPELLER SHAFT (cont.)				
Intermediate bearing	Type (plain, anti-friction)		None	
	Lubrication (fitting, prepack)		None	
Slip Yoke	Type		Male Slip Yoke at Transmission Where Primary Slip Is Taken	
	Number of teeth		27 O.D. Fit-(Man. Trans.) 27 P.D. Fit-(Auto.Trans.)	28 O.D. Fit-(Man. Trans.) 32 P.D. Fit-(Auto.Trans.)
	Spline O.D.		1.1750 - 1.1745 (Manual) 1.166 - 1.150 (Automatic)	1.1995 - 1.1945 (Man. Trans.) 1.373 - 1.357 (Auto.)
Universal joints	Make and Mfg. No.		Saginaw	
	Number used		Two	
	Type (ball and trunnion, cross)		Cross	
	Rear attach.(u-bolt, clamp, etc.)		U-Bolt	
	Bearing	Type (plain, anti-friction)	Needle (Anti-Friction Type)	
		Lubric. (fitting, prepack)	Prepack	
Drive taken through (torque tube or arms, springs)			Arms	
Torque taken through (torque tube or arms, springs)			Arms	
DRIVE UNITS – AXLE				
Type (front, rear)			Rear	
Description			Salisbury Hypoid - Semi-Floating	
Limited Slip differential, type			Positive Traction (Optional)	
Drive Pinion Offset			1.750	
No. of differential pinions			2	
Pinion adjustment (shim, other)			Shim	
Pinion bearing adj. (shim, other)			Collapsible Spacer	
Wheel bearing type			Ball	
Lubricant	Capacity (pt.)		2.90	
	Type recommended		MIL-L-2105B	
	SAE viscosity number	Summer	80	
		Winter	80	
		Extreme cold	80	

AXLE RATIO TOOTH COMBINATIONS

(See page 3 for axle ratio usage)

Axle ratio		(a) 3.23	(b) 3.42	(c) 3.64	(d) 3.91	(e) 2.93
No. of teeth	Pinion	13	12	11	11	14
	Ring gear	42	41	40	43	41
Ring Gear O.D.		8.500				

(a) Std. - Manual (3) & Automatic (GS 350)
(b) Std. - Manual (3 & 4) - (GS 400) - Also Perf. Ratio - Automatic Asm.
(c) Perf. Ratio - Manual 3 & 4 (GS 400)
(d) S.C.O. - Manual 3 & 4 and Automatic (GS 400)
(e) Std. - Automatic (GS 400)

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MODEL			GS "350" 43437	GS "400" 44637
DRIVE UNITS – WHEELS				
Type & material			Disc Steel	
Rim (size & flange type)		Std.	14 x 6.00 "JK"	
		Opt.	None	
Attachment	Type (bolt or stud)		Stud	
	Circle diameter		4.750	
	Number and size		Five - .4375 - 20	
MODEL			GS "350" 43437	GS "400" 44637
DRIVE UNITS – TIRES				
Standard	Size, ply rating, & ply		7.75 - 14 (Two-Ply with 4-Ply Rating)	7.75 - 14 Whitewall
	Type (bias, radial, etc.)		Rayon - Polyester	
	Full rated Inflation Press.	Front	24	26
		Rear	26	
	Rev./Mile at 50 MPH		785	800
Optional	Size, ply rating, & ply		8.25 - 14 (Two-Ply with 4-Ply Rating) 205R-14 Radial or F70-14 Wide Oval Opt.	F70-14 Wide Oval (Red or White Line) (No Extra Cost)
BRAKES – PARKING				
Type of control			Step - On (Hand Release)	
Location of control			Left Side at Cowl Panel	
Operates on			Rear Shoes	
If separate from service brakes	Type (internal or external)		None	
	Drum diameter		None	
	Lining size (length x width x thickness)		None	

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BRAKES – SERVICE

				"350" 43437	GS "400" 44637
Type (drum or disc)				Drum Type - Duo-Servo (Std.)	
Self adjusting (std., opt., N.A.)				Standard	
Power brake make & type (remote, int., etc.)		Std.		- - - - - -	
		Opt.		Delco-Moraine (Int. Vac. Susp.)-(Pwr. Disc Frts. Opt.	
Effective area (sq. in.)*				152.0	
Gross lining area (sq. in.)**				158.1	
Swept area (sq. in.)***				268.6	
Percent brake effectiveness – front				62.4 (c)	
Drum or Disc	Diameter (nominal)		Front	9.495/9.505	
			Rear	9.495/9.505	
	Type and material			Composite Cast Iron	(a)
	Disc (vented or solid)			Vented - (Fronts Only - Optional)	
	No. pistons per caliper			4	
Wheel cylinder bore	Front			1.125	
	Rear			.875	
Master Cylinder	Bore			1.000	
	displacement distribution		Front %	59.0	
			Rear %	41.0	
Disc Brk. Valve	Type (proportion, delay, metering, other)			Metering	
Pedal arc ratio				6.46 (d)	
Line pressure at 100 lb. pedal load				830 psi (b)	
Shoe clearance adjustment				.015	
Brake lining	Drum or Disc			Drum (Power Disc Fronts - Optional)	
	Bonded or riveted			Riveted	
	Front Wheel	Material		Extruded Molded	
		Size (length x width x thickness)	Prim. or outboard	7.57 x 2.50 x .196 (Gross Min.)	.096 (Net)
			Second. or inboard	9.83 x 2.50 x .265 (Gross Min.)	.165 (Net)
		Segments per shoe		One	
	Rear Wheel	Material		Extruded Molded	
		Size (length x width x thickness)	Prim. or outboard	7.57 x 2.00 x .196 (Gross Min.)	.096 (Net)
			Second. or inboard	9.83 x 2.00 x .265 (Gross Min.)	.165 (Net)
		Segments per shoe		One	

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

(a) Fronts - Finned Aluminum with Cast Iron Liners.
Rears - Composite Cast Iron.
(b) 1130 psi with 30# Pedal Load with Optional Power Brakes.
(c) Based on wheel cylinder size only.
(d) 3.44 when power brake equipped.

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GS

MODEL	"350" 43437	"400" 44637

STEERING

Manual (std., opt., NA)				Standard	
Power (std., opt., NA)				Optional	
Adjustable steering wheel (tilt, swing, other)		Type and description		Tilt (a)	
		(std., opt., NA)		Optional (a)	Optional
Wheel diameter		Manual		16.00"	
		Power		16.00"	
Turning diameter (feet)	Outside front	Wall to wall (l. & r.)		41.55 - 42.20	
		Curb to curb (l. & r.)		38.38 - 38.96	
	Inside rear	Wall to wall (l. & r.)		21.44 - 22.48	
		Curb to curb (l. & r.)		22.12 - 23.12	
Outside whl. angle with inside whl. at 20°				18.8°	
Manual	Gear	Type		Recirculating Ball Nut	
		Make		Saginaw	
		Ratios	Gear	24.0	
			Overall	28.6	
	No. wheel turns			5.56	
Power	Type (coaxial, linkage, etc.)			In-Line Rotary Valve	
	Make			Saginaw	
	Gear	Type		Recirculating Ball-Nut (Integral with Power Piston)	
		Ratios	Gear	17.5	
			Overall	20.9 (b)	
	Pump driven by			Belt	
	Number wheel turns			4.06	
Linkage	Type			Parallelogram	
	Location (front or rear of wheels, other)			Front of Wheels	
	Drag link (trans. or longit.)			Transverse	
	Tie rods (one or two)			Two	
Steering Axis	Inclination or camber (deg.)			8° 0' @ 1° 0'	
	Bearings (type)	Upper		Ball Joint Suspension Used	
		Lower		Ball Joint Suspension Used	
		Thrust		Ball Joint Suspension Used	
Whl. Align. (range at curb wt. & preferred)	Caster (deg.)			- 1/2° ± 30' (Curb Height)	
	Camber (deg.)			+ 1/2° ± 30' (Curb Height)	
	Toe-in (outside track inches)			.12 to .25 (Curb Height)	
Steering spindle & joint type				Ball	
Wheel Spindle	Diameter	Inner bearing		1.3748/1.3743	
		Outer bearing		.8435/.8430	
	Thread size			.750 - 20 UNF	
	Bearing type			Tapered Roller	

(a) Not available with manual transmission with column shift.
(b) 17.9 with Optional 15-1 Gear.

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MODEL	"350" 43437	GS "400" 44637

SUSPENSION – GENERAL

(See Supplement page for details on Air Suspension)

Provision for car leveling		No
Provision for brake dip control		Yes
Provision for acc. squat control		Yes
Special provisions for car jacking		No
Shock absorber front & rear	Type	Direct
	Make	Delco
	Piston dia.	1.00
Other special features		None

SUSPENSION – FRONT

Type and description		Coil Springs and Ball Joint	
Spring	Type	Coil	
	Material	SAE - 9260 Steel	
	Size (coil design height & I.D. bar length x dia.)	11.30 Des. Ht. - 3.60 I.D. 122.44 x .643	11.40 Des. Ht.-3.60 I.D. 135.05 x .654
	Spring rate (lb. per in.)	410	390
	Rate at wheel (lb. per in.)	142	136
Stabilizer	Type (link, linkless, frameless)	Link	
	Material & bar diameter	.969	

SUSPENSION – REAR

Type and description		Coil Springs	
Drive and torque taken through		Arms	
Spring	Type	Coil	
	Material	SAE - 9260 Steel	
	Size (length x width, coil design height & I.D., bar length & dia.)	7.62 Design Height - 5.50 I.D. 144 x .570	115 x .530
	Spring rate (lb. per in.)	144	115
	Rate at wheel (lb. per in.)	144	116
	Mounting insulation type	Rubber	
	If leaf: No. of leaves	Not Used	
	If leaf: Shackle (comp. or tens.)	Not Used	
Stabilizer	Type (link, linkless, frameless)	Not Used	
	Material	Not Used	
Track bar type		Not Used	

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MAKE OF CAR BUICK MODEL YEAR 1968 DATE ISSUED 9-9-67 REVISED (•) 11-15-67

MODEL	"350" 43437 GS	"400" 44637
FRAME		
Type and description (Separate frame, unitized frame, partially - unitized frame)	Perimeter (Separate Frame)	
BODY – MISCELLANEOUS INFORMATION		
Drs. hinged (front, rr.) Front doors	Front	
Drs. hinged (front, rr.) Rear doors	Front	
Type of finish (lacquer, enamel, other)	Acrylic Lacquer	
Hood counterbalanced (yes, no)	Yes	
Hood release control (internal, external)	External	
Vehicle Indent. No. location	Left Side of Upper Instrument Panel	
Engine No. location	Left Cylinder Block at Front Below Head	Right Cylinder Head at Rear on Boss
Theft protection - type	None	
Vent window control method (crank, friction pivot) Front	Crank	
Vent window control method (crank, friction pivot) Rear	-----	
Seat cushion type Front	Zig - Zag	
Seat cushion type Rear	Zig - Zag	
Seat cushion type 3rd seat	- - - - -	
Seat back type Front	Zig - Zag	
Seat back type Rear	Zig - Zag	
Seat back type 3rd seat	- - - - -	
Windshield glass type (i.e., single curved - laminated plate)	Compound Curved (Laminated Type)	
Side glass type (i.e., curved - tempered plate)	Curved (Tempered Plate)	
Backlight glass type (i.e., compound curved - tempered plate, three piece)	Single Curved (Tempered Plate)	
Windshield glass exposed surface area	1208.7	
Side glass exposed surface area	1005.6	
Backlight glass exposed surface area	895.1	
Total glass exposed surface area	3109.4	

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MODEL			"350" 43437	GS "400" 44637
CONVENIENCE EQUIPMENT			(Indicate whether standard, optional or NA on each series)	
Power windows	Side windows		Optional	
	Vent windows		Not Available	
	Backlight or tailgate		Not Available	
Power seats (specify type as well as availability)			Optional (4-Way Tilt)	
Reclining front seat back (R-L or both)			Optional (Bucket Seats)	
Front seat head restrainer (R-L or both)			Optional	
Radios (specify type as well as availability)			Optional (Sonomatic or AM/FM)	
Rear seat speaker			Optional	
Power antenna			Not Available	
Clock			Optional	
Air conditioner (specify type and availability)			Optional	
Speed warning device			Optional (N.A. with Speed Control)	
Speed control device			Optional (Except with Manual Trans.)	
Ignition lock lamp			Not Available	
Dome lamp			Standard	
Glove compartment lamp			Optional	
Luggage compartment lamp			Optional	
Underhood lamp			Dealer Installed	
Courtesy lamp			Standard	
Map lamp			Not Available	
Auto. trans. quad. lamp			Optional	
Cornering light lamp			Not Available	
Emergency Flasher			**Standard**	
LAMP HEIGHT AND SPACING				
Height above ground to center of bulb or marker	Headlamp	Highest *	26.47	25.96
		Lowest	------	
	Tail	Highest	20.94	
		Lowest	------	
	Sidemarker	Front	22.31	21.8
		Rear	25.21	24.7
Distance from C/L of car to center of bulb	Headlamp	Inside	25.73	
		Outside *	32.11	
	Tail	Inside	20.78	
		Outside	27.96	
	Directional	Front	29.42	
		Rear	14.18	

* If single headlamps are used enter here.

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WEIGHTS

Model	CURB WEIGHT – POUNDS Front	Rear	Total	% PASS. WEIGHT DISTRIBUTION Pass. In Front Front	Pass. In Front Rear	Pass. In Rear Front	Pass. In Rear Rear	SHIPPING WEIGHT
GS "350"								
43437	1875	1622	3497	52.32	47.68	19.14	80.86	3375
GS "400"								
44637	1977	1659	3636	53.03	46.97	18.86	81.14	3514
44667	1998	1671	3669	53.12	46.88	18.83	81.17	3547

Accessories & Equipment Differential Weights				Remarks
Super Turbine Trans	4.9	1.8	6.7	2 Speed For G.S. 350
Super Turbine Trans	14.2	5.3	19.5	3 Speed For G.S. 400
Man Trans (4 Speed)	-1.9	-.7	-2.6	4 Speed Man for G.S. 350
Man Trans (4 Speed)	-20.4	-7.9	-28.3	4 Speed Man for G.S. 400
Power Steering	29.4	---	29.4	
Power Brakes	9.4	---	9.4	
Disc Brakes	19.3	3.5	22.8	Disc Brake for G.S. 350
Disc Brakes	29.4	3.5	32.9	Disc Brake for G.S. 400
Console - Full	8.2	5.5	13.7	
Consolette	6.9	6.9	13.8	
Sonomatic Radio	5.9	2.3	8.2	
AM/FM Radio	6.5	2.5	9.0	
Whitewall Tires	2.4	3.5	5.9	G.S. 350 (Standard - G.S. 400)
O/S Whitewalls	4.6	6.9	11.5	G.S. 350
O/S Whitewalls	9.0	13.5	22.5	G.S. 400 (F70-14 Wide Oval)
Radial Ply Tires	3.0	4.6	7.6	
Rallye Control Pkg	.6	12.8	13.4	
Air Conditioner	113.2	---	113.2	G.S. 350
Air Conditioner	115.6	---	115.6	G.S. 400
Power Seat - 4 Way	10.0	9.5	19.5	
Power Windows	10.5	11.0	21.5	
Tilt Strg Wheel	1.7	1.0	2.7	
Rallye Wheels	2.7	4.0	6.7	
Chrome Plated Wheels	.5	.8	1.3	

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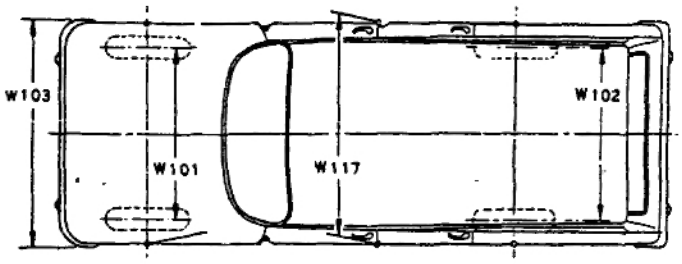
CAR AND BODY DIMENSIONS

KEY SHEET

EXTERIOR CAR AND BODY DIMENSIONS



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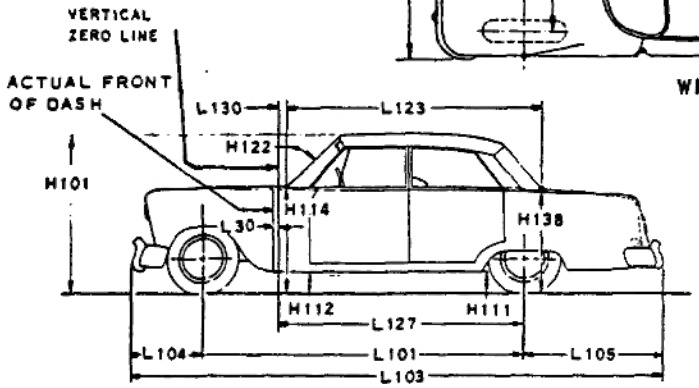

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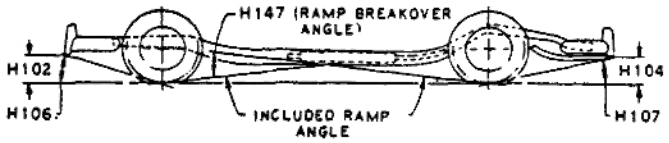
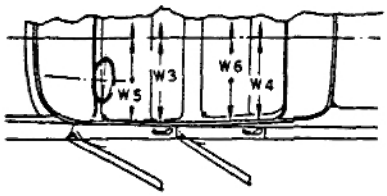


GROUND CLEARANCE

INTERIOR CAR AND BODY DIMENSIONS



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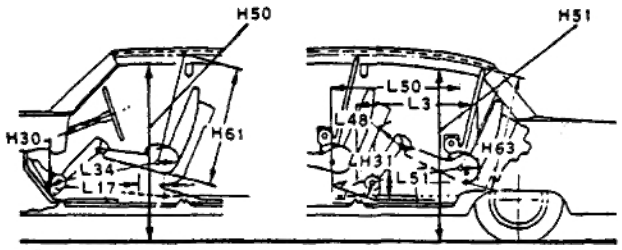
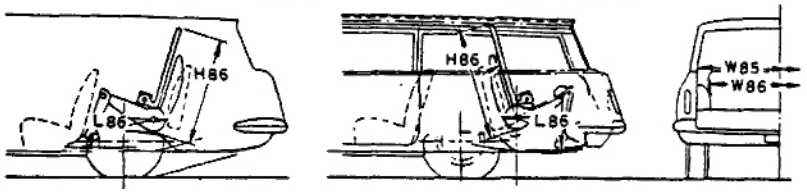
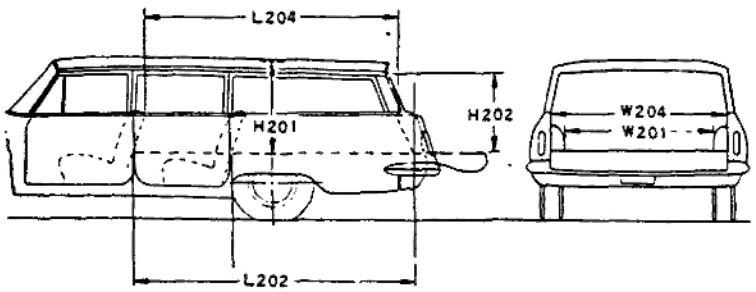


FRONT COMPT. REAR COMPT.



THIRD SEAT



CARGO SPACE

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CAR AND BODY DIMENSIONS

KEY SHEET

DIMENSION DEFINITIONS

EXTERIOR WIDTH DIMENSIONS

W101 WHEEL TREAD – FRONT. Measured at centerline of tires, with nominal camber, at ground.

W102 WHEEL TREAD – REAR. Measured at centerline of tires at ground.

W103 MAXIMUM OVERALL CAR WIDTH. Include bumpers, moldings, or sheet metal protrusions. Measured to outside of metal.

W117 MAXIMUM BODY WIDTH AT #2 PILLAR. Measured across body at #2 pillar, excluding hardware and applied moldings.

EXTERIOR LENGTH DIMENSIONS

L 30 VERTICAL ZERO LINE TO ACTUAL FRONT OF DASH. If actual Front of Dash is to the rear of Body Zero Line, it is identified by a minus (–) sign.

L101 WHEELBASE.

L103 OVERALL LENGTH. Include bumper guards if standard equipment.

L104 OVERHANG – FRONT. Measured from C/L of front wheels to front of car, including bumper guards if standard equipment.

L105 OVERHANG – REAR. Measured from C/L of rear wheels to rear of car, including bumper guards if standard equipment.

L123 BODY UPPER STRUCTURE LENGTH AT CAR CENTERLINE. The horizontal dimension from the Cowl Point to the Deck Point.

L127 VERTICAL ZERO LINE TO CENTERLINE OF REAR WHEELS. A horizontal dimension.

L130 VERTICAL ZERO LINE TO WINDSHIELD COWL POINT. The horizontal dimension from the vertical zero line to the theoretical intersection of extended windshield glass plane and normal cowl surface.

EXTERIOR HEIGHT DIMENSIONS

H101 OVERALL HEIGHT – DESIGN. Measured with the vehicle in Manufacturer's Design Weight attitude.

H114 COWL POINT TO GROUND. Measured at vehicle centerline.

H138 DECK POINT TO GROUND. Measured at vehicle centerline.

H112 ROCKER PANEL TO GROUND – FRONT. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at foremost point of rocker panel.

H111 ROCKER PANEL TO GROUND – REAR. The vertical dimension from ground to bottom of rocker panel, excluding flanges. Measured to the outside of sheet metal at front of rear wheel opening.

H122 WINDSHIELD SLOPE ANGLE. The angle between a vertical line and the windshield surface at car centerline. On compound-curved windshields the chord of the arc is used and limited to that section of the windshield comprehended by an 18-inch chord.

GROUND CLEARANCE DIMENSIONS

H102 BUMPER TO GROUND – FRONT. Minimum dimension, includes bumper guards.

H104 BUMPER TO GROUND – REAR. Minimum dimension, includes bumper guards.

H106 ANGLE OF APPROACH. The angle between ground and a line tangent to the front tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.

H107 ANGLE OF DEPARTURE. The angle between ground and a line tangent to the rear tire static loaded radius arc and the first point of interference, i.e., bumper, guard, gravel deflector, tail pipe, fender or other component, excluding license plate. This dimension may be determined graphically for reporting purposes.

H147 RAMP BREAKOVER ANGLE. The supplement of included ramp angle (180° minus included ramp angle) over which car can pass without interference; measured with car sitting on a level surface, using lines tangent to arcs of front and rear static loaded radii and intersecting at point on underside of car which defines the smallest angle. This dimension may be determined by calculation (see Design Standard DD 0.00 – 108) or graphically for reporting purposes.

H156 MINIMUM RUNNING GROUND CLEARANCE. Location of measurement on the car is to be clearly recorded.

FRONT COMPARTMENT DIMENSIONS

H 61 EFFECTIVE HEAD ROOM – FRONT. The dimension from H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.

L 34 MAXIMUM EFFECTIVE LEG ROOM – ACCELERATOR. Measured along a diagonal line from the Manikin ankle pivot center to the H Point plus a constant of 10.0 inches. For treadle type accelerator pedals, the leg room is measured with the Manikin's right foot on the accelerator pedal and the Manikin Heel Point at Accelerator Heel Point. All other types of accelerator pedals will be measured with the Manikin foot angle set at 87° and the shoe touching the pedal.

H 30 H POINT TO HEEL POINT – FRONT. The vertical dimension from the H Point to the Accelerator Heel Point.

L 17 H POINT TRAVEL. The horizontal dimension between the H Point in the most forward and rearward seat positions.

FRONT COMPARTMENT DIMENSIONS (Cont.)

W 3 SHOULDER ROOM – FRONT. The minimum lateral dimensions between the door garnish moldings or nearest interference, measured at the H Point station.

W 5 HIP ROOM – FRONT. The lateral dimension through the H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction if such construction exists.

H 50 UPPER BODY OPENING TO GROUND – FRONT. The vertical dimension from a point on the trimmed body opening to the ground, measured at the H Point station.

REAR COMPARTMENT DIMENSIONS

L 50 H POINT COUPLE DISTANCE. The horizontal dimension from the front seat H Point to the rear seat H Point.

H 63 EFFECTIVE HEAD ROOM – REAR. The dimension from the H Point to the headlining, plus a constant of 4.0 inches, measured along a line 8° to rear of vertical.

L 51 MINIMUM EFFECTIVE LEG ROOM – REAR. Measured along a diagonal line from the ankle pivot center to the H Point plus a constant of 10.0 inches, with the foot positioned to the nearest interference between the seat structure and toe, instep or lower leg.

H 31 H POINT TO HEEL POINT – REAR. The vertical dimension from the H Point to the Manikin Heel Point on the depressed floor covering.

L 48 MINIMUM KNEE ROOM – REAR. The minimum dimension from the Manikin knee pivot center to the back of the front seat back.

L 3 REAR COMPARTMENT ROOM. The horizontal dimension from the back of front seat to front of rear seat back at height tangent to the top of rear seat cushion.

W 4 SHOULDER ROOM – REAR. The minimum lateral dimension between the door garnish molding or nearest interference. Measured at H Point station.

W 6 HIP ROOM – REAR. The lateral dimension through H Point to trimmed body surfaces. Depress loose side wall cloth to trim foundation or other obstruction when such construction exists.

H 51 UPPER BODY OPENING TO GROUND – REAR. The vertical dimension from a point on the trimmed body opening to the ground, measured 13.0 inches forward of the H Point.

LUGGAGE COMPARTMENT DIMENSIONS

V 1 LUGGAGE CAPACITY – USABLE. The total luggage compartment luggage capacity in cubic feet with the tire and tools in place, determined in accordance with the Passenger Car Luggage Space Standard, DD 0.00 – 105.

H195 LIFTOVER HEIGHT. Vertical dimension from the highest point on the luggage compartment lower opening to ground, excluding corner radii.

STATION WAGON – THIRD SEAT DIMENSIONS

W 85 SHOULDER ROOM – THIRD SEAT. The minimum lateral dimension between the door garnish moldings or nearest interference. Measured at H Point station.

W 86 HIP ROOM – THIRD SEAT. The lateral dimension through H Point to trimmed surfaces.

L 86 EFFECTIVE LEG ROOM – THIRD SEAT. Measured along a diagonal line from ankle pivot center to H Point plus a constant of 10.0 inches. With rear-facing third seat, foot is positioned in foot well or to nearest interference with rear end or rear closure.

H 86 EFFECTIVE HEAD ROOM – THIRD SEAT. The dimension from H Point to the headlining, plus a constant of 4.0 inches. Measured along a line 8° to rear of vertical.

STATION WAGON – CARGO SPACE DIMENSIONS

L202 CARGO LENGTH AT FLOOR – FRONT SEAT. The horizontal dimension, measured at the floor level from the rear of the front seat back to the normal inside limiting interference on the tailgate, on the car centerline.

L204 CARGO LENGTH AT BELT – FRONT SEAT. The horizontal dimension measured from the top rear of front seat back to a vertical extension line from the normal inside limiting interference at the top of the tailgate, on the car centerline.

W201 CARGO WIDTH – WHEELHOUSE. The minimum horizontal dimension, measured between wheelhousings at floor level.

W204 OPENING WIDTH AT BELT. The minimum horizontal dimension, measured between the nearest normal inside limiting interferences of the rear opening at the top of the tailgate.

H201 MAXIMUM CARGO HEIGHT. The maximum vertical dimension, measured from the top of the floor covering to the headlining, on the car centerline.

H202 REAR OPENING HEIGHT. The vertical dimension measured from the top of the floor covering to the normal inside limiting interference at the top of the rear opening, on the car centerline, with both tail-and liftgates fully open.

V 2 CARGO VOLUME INDEX BEHIND FRONT SEAT. The total volume in cubic feet above the normal load floor and behind the front seat with the liftgate and tailgate closed.

$$\frac{W4 \times L204 \times H201}{1728}$$

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