

Automobile Manufacturers Association

Consolidated Specification Questionnaire

1950 MODEL

Mechanical Details

Make of Car.....Oldsmobile.....Model.....1950
 Oldsmobile Division
 Name of Maker.....General Motors Corporation.....Address.....Lansing, Michigan
 Date.....11-28-49.....

NOTE: (1) Subject to Correction: It is understood that the following data are subject to correction in the case of cars not in production at the time this completion was requested.

(2) Only standard equipment included in Factory Delivered price should be included in this questionnaire.

ENGINE

No. of cylinders.....6.....
 Valve arrangement.....L-Head.....
 Bore.....3 17/32".....Stroke.....4 3/8"
 Cylinder head, cast iron or aluminum.....Cast Iron.....
 Cylinder sleeve, Yes.....No.....No.....
 Piston displacement.....257.14 Cu. In.....
 Taxable horsepower.....29.9.....

Horsepower rating—

To be based on actual performance corrected to 60°F. at sea level (barometric pressure 29.92 inches of mercury) with standard fuel. (Octane No. of fuel.....80 Research

—With Bare Engine—

Maximum brake hp.....105.....at.....3400.....R.P.M.

—With Standard Accessories—*

Maximum brake hp.....99.....at.....3400.....R.P.M.

*Those standard accessories needed for normal operation including fan, generator, starter, air cleaner, muffler, manifolds, fuel and water pumps.

Maximum torque—

With bare engine, lb. ft.....202.....at.....1400.....R.P.M.

With standard accessories,* lb. ft.....197.....at.....1400.....R.P.M.

Compression Ratio—

Standard.....6.5:1.....Optional.....

Standard compression pressure —pounds—

At cranking speed.....125#.....

At what R.P.M.....160# @ 1000 R. P. M.....

PISTONS and RINGS

Piston

Make.....Own.....

Material.....Aluminum Alloy.....

Features—split skirt, laser strut, oval, tin-plated, aluminum

oxide finish, auto-thermic, V-Bridge, porous chrome plate,

etc. T-slot-Cam. Grnd. —Oxalic Sulphuric Acid

Weight—ounces—without rings, pin or bushing.....18.05 oz.....

Length.....4 1/32".....

Clearance—

Top land......023".....to......028"

Skirt, top......002 to .003.....bottom......0005 to .0010

PISTONS and RINGS (cont'd)

Piston ring groove depth—

Oil.....175".....Compression.....183"

No. of oil rings used per piston.....2.....

Width of oil rings.....3/16".....

Width of oil ring gap......007" to .15"

No. of compression rings used per piston.....2.....

Width of compression rings.....3/32".....

Width of compression ring gap......008" to .018"

Maximum wall thickness of oil rings......155"

Maximum wall thickness of compression rings......172"

Are ring expanders used, Yes.....No.....No.....

RODS and PINS

Wristpin—

Material.....S. A. E. #1117 Steel.....

Length.....3 5/32".....Diameter......8555"

Locked in rod, piston or floating.....Locked in Piston.....

Clearance in piston.....+.0002".....to.....-.0001"

Clearance in rod......0003".....to......0006"

Connecting rod—

Length—center to center.....7.13/16"

Material.....G. M. X-1335.....

Weight—ounces.....30.72 oz.....

Crankpin journal—

Diameter.....2.353".....Length.....1.128"

Lower bearing—

Material.....Steel Back Durex 100-A Babbitt Over-

Clearance......00075".....to......0015".....lay

End play......0055".....to......0105"

Ship—solid, laminated or none.....None.....

Spun or separate.....Separate.....

Rods and pistons removed from above or below.....Above.....

CRANKSHAFT

Material.....SAE 1145 Mod. Steel.....

Weight—stripped.....100#.....

Vibration dampener used—yes or no.....Yes.....

Type.....Leaf Spring.....

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CRANKSHAFT (cont'd)

Crankshaft counterweights used, number of...7
Which main bearing takes thrust...Front
Crankshaft end play...0.004" to 0.008"
Main bearing—
Type: Cast-in or.....Slip-in...Yes
If slip-in: Removable from below.....Yes
Necessary to align ream.....No
Material Durex 100-A with GM 4167 Babbitt Overlay
Clearance Rear...0.0005" to 0.002" Others...0.0005" to 0.003"
Shim—solid, laminated or none...None
Main bearing journal diameter x length—
No. 1...2.478" x 1.472"
No. 2...2.541" x 1.250"
No. 3...2.666" x 1.250"
No. 4...2.686" x 1.500"
No. 5.....
No. 6.....
No. 7.....
No. 8.....
No. 9.....
Crankshaft gear or sprocket—
Make...Link Belt
Material...SAE 1118

CAMSHAFT

Camschaft gear or sprocket—
Make...Link Belt
Material...Cast Iron 1X
Timing chain—
Make...Link Belt
Number of links...47
Width...15/16"
Pitch...5.00"

VALVES

INTAKE VALVE—

Make...Various
Material...S. A. E. 3140 Steel
Overall length...5.789"
Actual overall diameter of head...1.3/4"
Minimum port diameter...1.3/8"
Angle of seat...30°
Is valve seat an insert?...No
Stem diameter...3.420"
Stem to guide clearance...0.0022" to 0.0042"
Lift...3.10"
Spring pressure and length—
Outer—

VALVES (cont'd)

With valve closed—lb...55#...ins...2.1/4"
With valve open—lb...100#...ins...1.15/16"
Length out of engine—ins...2.5/8" Approx.
Inner—None
With valve closed—lb...ins.
With valve open—lb...ins.
Length out of engine—ins.

EXHAUST VALVE—

Make...Various
Material...Silchrom XCR Steel & 731 Stem
Overall length...5.816"
Actual overall diameter of head...1.27/64"
Minimum port diameter...1.1/4"
Angle of seat...45°
Is valve seat an insert?...No
Material...
Stem diameter...3.414"
Stem to guide clearance...0.0029" to 0.0047"
Lift...3.08"
Spring pressure and length—
Outer—
With valve closed—lb...55...ins...2.1/4"
With valve open—lb...100...ins...1.15/16"
Length out of engine—ins...2.5/8" Approx.
Inner—None
With valve closed—lb...ins.
With valve open—lb...ins.
Length out of engine—ins.
Operating tappet clearance (hot or cold)—intake...0.008" Hot.
Tappet clearance for valve timing—intake...0.0125"
Operating tappet clearance (hot or cold)—exhaust...0.011" Hot.
Tappet clearance for valve timing—exhaust...Open 0.0155"
Hydraulic valve lifters—yes or no...No Close 0.0156"
Valve timing—
Intake opens...4...degrees BUDC piston travel...0.007 inches
Intake closes...46... " ALDC " " 3.869 inches
Exhaust opens...44... " BLDC " " 3.910 inches
Exhaust closes...6... " AUDC " " 0.015 inches
Valve Timing Marks—on Flywheel, Vibration Damper, None...None

LUBRICATION

Lubricating system type—pressure or splash...Pressure
Oil pressure to—
Main bearings—yes or no...Yes
Connecting rods—yes or no...Yes
Wristpins—yes or no...Yes
Camshaft bearings—yes or no...Yes
Tappets—yes or no...No

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LUBRICATION (cont'd)

Timing gear or chain lubrication—*positive or splash*...Positive.
 Oil pump typeGear
 Oil grade recommended—SAE viscosity and temperature range—
See Lubrication Chart

Normal oil pressure—*lbs. at M.P.H.*...40 at 30 M. P. H.
 Pressure at which relief valve opens...40#
 Capacity of oil reservoir—*quarts, dry*...5...*refill*...5
 Oil pressure gauge make...A. C.
 Oil reservoir level gauge type...Dip Stick
 Floating type oil intake—*yes or no*...No
 External oil filter make...None
 Other type of oil cleaner...None
 Oil cooler make...None
 Chassis lubrication—Make...Various

FUEL

Gasoline tank—*capacity*...18 Gallons
 Fuel feed—
 Type—*vacuum tank, electric pump, gravity vacuum pump or camshaft pump*...Camshaft Pump
 Make...A. C. Model...Type A J
 Carburetor—
 Make...Carter Model...WA-1
 Number used...1
 Size...1 1/2"
 Type—
 Up or down draft...down Single or dual...single
 Intake manifold heat control—*manual, automatic or none*...Automatic
 Automatic choke, make...Carter Model...
 Air cleaner—intake silencer make...A. C.
 Type—*dry felt; oil bath; oil coated fibre*...Oil coated metal
 Heavy Duty type—Make...None Model...ribbon
 Muffler make...Hayes or Walker
 Tail pipe diameter...1 3/4"

COOLING

Water pump—
 Type...Sealed Centrifugal
 Drive...V-Belt
 Is pump equipped with packing nut...No
 Water circulation thermostat make...Harrison
 Pressure relief valve—*yes or no*...Yes
 By-pass for recirculation—*yes or no*...Yes
 Radiator core—
 Type...Tubular Vee Cell Copper Core
 Make...Harrison

COOLING (cont'd)

Cooling system—*capacity, quarts*...18 1/2 qts.
 Water jackets full length of cylinders—*yes or no*...Yes
 Water all around cylinder—*yes or no*...Yes
 Lower radiator hose—
 Inside diameter...1 3/4" Length...14 3/16"
 Upper radiator hose—...approx.
 Inside diameter...1 1/2" Length...8 1/4"
 Fan belt—
 Make...Various
 Angle of vee...28°
 Length, outside...43 3/8" Width, maximum...49/64"
 Fan—
 Make...Hayes No. of Blades...4

IGNITION

Ignition units—
 Make...Delco Remy Model...1110221
 Manual or octane selector, *degrees advance*...10° *retard*...10°
 Maximum centrifugal advance crankshaft, *degrees*...22° + 2°
 at...3200...engine R.P.M.
 Inches of Mercury Necessary to operate Vacuum Advance (Plus or minus 1 inch)...5 - 7
 Maximum Vacuum advance crankshaft, *degrees*...16° + 2°
 Breaker gap...0.021" Breaker arm tension...17-21 oz.
 Dwell angle...35° deg.
 Timing—Breaker points open...0...degrees crankshaft rotation
 or...inches piston travel (after or before) top center
 with octane selector in the Normal position.
 Timing mark location—*flywheel, vibration dampener or none*...Flywheel
 Firing order...1-5-3-6-2-4
 Amperage draw of ignition coil—
 With engine stopped...4.5 Amp.
 With engine idling...2.0 Amp.
 Spark plug—
 Thread—10 m.m., 14 m.m. or 18 m.m....14 m.m.
 Make...A. C. Model...#45
 Gap...0.040"
 Ignition cable make...G. M.

BATTERY

Make...Delco Remy Model...15AA4-W
 Capacity—*ampere hours*...100 A. H. @ 20 hour rate
 Number of plates per cell...15
 Bench charging rate—
 Start...12.5...Finish...4.5
 Which battery terminal is grounded...Negative
 Location of battery...Under Hood

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STARTING MOTOR

Make Delco Remy..... Model 1107955.....
 Normal engine cranking speed Summer 120 R. P. M.....
 Brush spring tension 24 to 28 oz.....
 Lock test—
 Amperage draw 600.....
 Volts 3.0.....
 Torque in pounds feet 15.0.....
 No load test—
 Amperage draw 80.....
 Volts 5.7..... R.P.M. 5500.....
 Type of drive—Bendix or sliding gear with overrunning clutch.....
 Starting device—Solenoid, manual, etc. Solenoid.....
 Starter operation—check items required to start engine
 1. Turn on ignition X.....
 2. Depress starter pedal
 3. Depress accelerator pedal
 4. Depress clutch pedal
 5. Operate button on dash X.....
 6. Pull out throttle
 Starting motor pinion meshes front or rear Front.....
 No. of teeth in flywheel 145.....
 Face width of flywheel teeth 1 1/2".....
 Gear ratio between starter armature and flywheel 16.11:1.....

GENERATOR

Make Delco Remy..... Model 1102706.....
 Type—third brush, shunt, etc. Shunt.....
 Brush spring tension 24 to 28 oz.....
 Current regulator, voltage regulator or current and voltage control unit Current and Voltage Control.....
 Maximum controlled charging rate
 Temperature 70° - 140°.....
 Amperes 40 Amp.....
 Voltage 8V.....
 R.P.M. 1880 at 70° - 2320 at 140°.....
 Cutout relay—
 Voltage at closing 6.5.....
 Amperes to open, reverse current 0 to -4.....
 Air gap .020".....
 Voltage regulator—
 Volts 7.3 @ 9 Amp.....
 Temperature 150°.....
 Air gap .075".....
 Current regulator—
 Amperes 40 Amp.....
 Temperature 150°.....
 Air gap .075".....
 Car speed for maximum charging rate 22 M. P. H. and up.....
 Ammeter or charge indicator make A. C.

LAMPS

Lighting switch make Delco Remy.....
 Are tail and dash lights in series No.....
 Headlights—
 Make Guide.....
 Location—in fender, in catwalk, or radiator shell Fender.....
 Parking or fender light make Guide.....
 Tail and stop light make Guide.....
 Horn—
 Type—vibrator or motor Vibrator No. used 2.....
 Make Delco Remy.....
 Amperage draw of each High Note 18 Amp.....
 Low Note 20 Amp.....

CLUTCH

Make Borg and Beck.....
 Drive type—
 Direct to flywheel face Yes.....
 Through fluid flywheel No.....
 Semi-centrifugal No.....
 Power operated unit—make None.....
 Vibration insulation or neutralizer—fabric, rubber blocks or springs Springs.....
 No. of clutch driving discs 1.....
 No. of clutch driven discs 1.....
 Clutch facing—
 Material—woven or moulded asbestos, cork Woven Moulded.....
 Inside diameter 7"..... Asbestos.....
 Outside diameter 10".....
 Thickness 1.25".....
 No. required 2.....

TRANSMISSION

Transmission—
 Make Own..... Model.....
 No. of forward speeds 3.....
 Manual shift—yes, no Yes.....
 Automatic or auxiliary shifting mechanism—yes..... no..... No.....
 If yes, Make.....
 Type—centrifugal, vacuum, electric or hydraulic.....
 Automatic overdrive—
 Make None.....
 Oil capacity—pints.....
 Oil grade recommended—S.A.E. viscosity
 Summer..... Winter.....
 Gear ratio in high—standard 5-passenger
 4-door sedan 1:1.....
 Transmission ratio—
 In overdrive..... In second 1:661:1.....
 In third 1:1..... In fourth.....
 In low 2.667:1..... In reverse 3.022:1.....

See Auxiliary sheet 4A attached, for information on Oldsmobile's Hydra-Matic Drive. This unit is available for all "76" model cars, car prices being increased accordingly. The information listed herein, under clutch and transmission applies to the 1950 design synchromesh transmission, standard equipment for all "76" model cars.

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Hydra-Matic Drive Specifications

Type	High efficiency fluid coupling combined with a fully automatic transmission.
Location	Unit with Engine
Type of Gearing	Planetary
Control Location	Steering Column & Throttle
Number of Forward Speeds	Four
Transmission Ratios:	
First	3.8195 to 1
Second	2.6341 to 1
Third	1.45 to 1
Fourth	1 to 1
Reverse	4.3045 to 1
Transmission Oil Capacity	10.5 Quarts Hydra-Matic Fluid Refill
Clutch	None
Axle Ratio - Standard	3.63 to 1
Optional	3.9 to 1

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TRANSMISSION (cont'd)

Constant mesh gears on second Yes
 Spur or helical gears—
 For second speed Helical
 For first speed Helical
 For reverse speed Helical
 For all speeds Helical
 Synchronous meshing and third gears Yes
 Transmission oil—
 Capacity—pints 2
 Grade recommended—S.A.E. viscosity
 Summer 90 Winter 90
 Universal joints—
 Make Mechanics or Saginaw Strg. Gr. Div
 Number used 2
 Type—metal with anti-friction
 bearing or metal with plain bearing
 Lubricated with Permanently
 Drive taken through springs, torque arm, torque tube or
 radius rods Stabilizing Arms
 Torque taken through springs, torque arm, torque
 tube or radius rods Stabilizing Arms

REAR AXLE

Rear axle—
 Make Own Model
 Type—*Semi, full or three-quarter floating*..... Semi-Floating
 Minimum road clearance under center of rear
 axle—*tires inflated* 8.1/8."
 Rear axle oil—
 Capacity—*pints* 3.3/4 pts.....
 Grade and type recommended—*S.A.E. viscosity*
 Summer See Lub. Chart Winter
 Type of gearing—*spiral bevel, worm, hypoid*..... Hypoid
 Gear ratio—*standard 5-passenger 4-door sedan*..... 4.1:1
 Optional gear ratios 43:10 (Hilly).
 Number of teeth—
 In ring gear 41..... In pinion 10
 How is pinion adjusted—*screw or shims*..... Shims
 How is pinion bearing adjusted—*screw or shims*..... Nut
 Are pinion bearings carried in sleeve No
 Backlash between pinion and ring gear 004" to .006"

TIRES and WHEELS

Tires—
Make Various
Size 7:10 x 15 No. of plies 4

TIRES and WHEELS (Cont'd)

Inflation pressure—Front 24# Rear 24#
Rim—Diameter 15" Width 5.50F
..... 5.50K
(Optional)

SPRINGS

FRONT SPRING—

Independent or conventional suspension Independent.....
Type—coil, semi-elliptic, transverse, torsion Coil.....
Make Own.....
Material Gm 926OM Spring Steel.....
Torsional stabilizer at front Yes.....

If leaf—
Length Width
Number of leaves—5-passenger, 4-door sedan.....
Are radius rods used on axle.....

If coil—
Free length 17 9/16".....
Length under curb weight 10".....

REAR SPRING—

Independent or conventional suspension Conventional
Type—coil, semi-elliptic, transverse, torsion... Coil
Make Own
Material GM 9260M Spring Steel
Torsional stabilizer at rear Yes

If leaf—
Length Width
Number of leaves—5-passenger, 4-door sedan

Spring leaves lubricated with
Spring cover, Yes No
Spring shackles—
Front—Type Make
Rear—Type Make

Spring bolts—
Type

If coil—
Free length 15 1/8"
Length under curb weight 9 1/2"
Rate for above 100# pounds per inch

Shock absorbers—
Make Delco
Type, one way with lever, two way with lever, or direct acting
Front Two Way with Lever
Rear Two Way with Lever
Fluid capacity (oz.)—front 134-140cc rear 154-163cc

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STEERING

Steering gear—
 TypeWorm and Roller.....
 MakeSaginaw.....Model420.....
 Ratio19:1.....
 Lubricant recommendedSee Chart.....
 Steering wheel diameter18".....
 Drag link longitudinal or transverseTransverse.....
 Tie rod—one or two2.....
 Is intermediate steering arm usedNo.....
 Number of turns of steering wheel for full left
 to right swing of wheels4 1/4".....
 Car turning radius—feet—right, left or both20.0'.....
 Caster—degrees0°.....to3/4° Neg.....
 Camber—degrees orinches 1/4° Neg to 3/4° Pos.....
 Toe-in—inches1/16".....to1/8".....
 Crosswise inclination of kingpin—degrees4° 29' 47".....
 Front axle—
 MakeNone.....Model
 Section type—I-beams, tubular or noneNone.....
 End type—Elliott or reverse ElliottReversed Elliott.....
 Minimum road clearance—tires inflated8 1/8".....

BRAKES

Foot brakes—
 MakeVarious.....
 Type of mechanism, hydraulic or mechanicalHydraulic.....
 If vacuum booster is standard, state makeNone.....
 Brake lining moulded, semi-moulded or woven—
 Primary shoeMoulded.....
 Secondary shoeMoulded.....
 Drum—
 MaterialCast Iron.....Diameter11".....
 Lining—
 FrontRear
 Length per wheel21 5/16".....24".....

BRAKES (cont'd)

WidthFrontRear
 Thickness221".....231".....
 Clearance—slee015".....heel015".....
 Total foot braking area159.8.....
 Percent braking power on rear wheels44%.....
 Hand lever operates on—transmission, separate rear brakes, rear service brakes or all four service brakesRear Service.....
 Hand brake, if separate from service brake—
 Internal or external
 Drum diameter
 Lining—
 Length per drum
 WidthThickness
 Clearance

FRAME and OTHER GENERAL DATA

Frame—
 Depth—maximum6.3/16".....
 Thickness—maximum120".....
 Flange width—maximum2 1/4".....
 Wheelbase119 1/2".....
 Tread—
 Front57".....
 Rear59".....
 Weight of standard 5-passenger, four-door sedan—
 Shipping3331.....
 Curb3481.....
 Price of standard 5-passenger, 4-door sedan
 First serial number, this series506M1001.....
 Serial number locationOn Body Left Front Door.....
Pillar.....
 Overall length of car—
 With bumpers and bumper guards202".....
 Overall width of car75 3/16".....
 Overall height, road to roof with no load62.7/16".....
 63 29/32" with 5 Passenger load.

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NOTE—In giving bearing dimensions, kindly use the following order: inside diameter, outside diameter and width. Where cup and cone bearings are used, give both cup and cone numbers.

BEARINGS

Water pump bearing—
 Make or type New Departure
 Size or number 954213

Fan bearing—
 Make or type None
 Size or number

Starting motor commutator end bearing—
 Make or type Plain
 Size or number

Starting motor drive end bearing—
 Make or type None
 Size or number

Starting motor outboard bearing—
 Make or type Bronze Graphite
 Size or number $1\frac{1}{2}'' \times 25/32''$

Generator commutator end bearing—
 Make or type Bronze
 Size or number $9/16'' \times 25/32''$

Generator drive end bearing—
 Make or type Ball Bearing
 Size or number W. D. 3203

Transmission main drive gear front pilot bearing—
 Make or type Durex
 Size or number 412562

Clutch throwout bearing—
 Make or type Graphite
 Size or number 411538

Transmission main drive gear rear bearing—
 Make or type New Departure Ball
 Size or number 954154

Transmission main shaft front pilot bearing—
 Make or type Roller
 Size or number 1294780

Transmission main shaft rear bearing—
 Make or type New Departure Ball
 Size or number 907506

Transmission countershaft front bearing—
 Make or type Needle
 Size or number 1302154

Transmission countershaft rear bearing—
 Make or type Needle
 Size or number 1302154

Transmission reverse idler bearing—
 Make or type Bronze Bushing

BEARINGS (cont'd)

Size or number 1307898

Overdrive shaft rear bearing—
 Make or type None
 Size or number

Overdrive shaft pilot bearing—
 Make or type None
 Size or number

Main shaft extension bearing—
 Make or type Steel Backed Bronze
 Size or number 1313790

Rear axle pinion shaft front bearing—
 Make or type Timken or Hyatt
 Size or number 188963 or 506917

Rear axle pinion shaft rear bearing—
 Make or type Timken or Hyatt
 Size or number 188960 or 506920

Differential right bearing—
 Make or type Hyatt or Bower
 Size or number 179243 or 502970

Differential left bearing—
 Make or type Hyatt or Bower
 Size or number 179243 or 502970

Rear wheel inner bearing—
 Make or type None
 Size or number

Rear wheel outer bearing—
 Make or type New Departure Ball
 Size or number 954172

Front wheel inner bearing—
 Make or type New Departure Ball
 Size or number 909052

Front wheel outer bearing—
 Make or type New Departure Ball
 Size or number 909001

Kingpin upper bearing—
 Make or type Steel Backed 4035 M. Bronze
 Size or number 231905

Kingpin lower bearing—
 Make or type Steel Backed 4035 M. Bronze
 Size or number 231905

Kingpin thrust bearing—
 Make or type Hoover Ball
 Size or number 230679

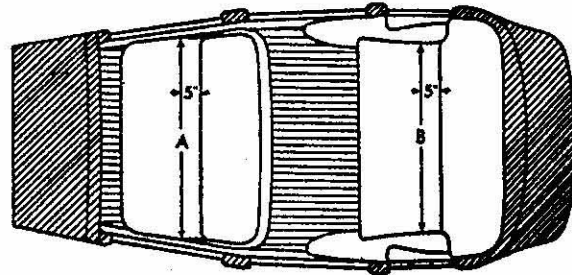
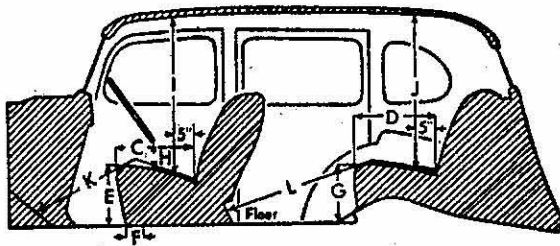
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- NOTE: (1) List only that equipment which is included in the factory delivered price. Special equipment which is fitted, but not included in the factory delivered price should be listed with its additional price.
 (2) Enter on top line your own model name, or series mark corresponding to Standard, DeLuxe or Custom.

EQUIPMENT	Models		
	Standard	DeLuxe	Custom
Catalog Designation of Model	"76"	"76"	
Lacquer make	Various	Various	
Body finish, <i>lacquer or syntbetic enamel</i>	Lacquer	Lacquer	
Fender finish, <i>lacquer or syntbetic enamel</i>	Lacquer	Lacquer	
Hardware make	Ternstedt	Ternstedt	
Speedometer make	A. C.	A. C.	
Gasoline gauge make	A. C.	A. C.	
Thermometer make	A. C.	A. C.	
Car lock make	Various	Various	
Car lock operates <i>on ignition or ignition and steering</i>	Ignition	Ignition	
Clock make <i>mechanical or electrical</i>	None	Electric	
Cigar lighter make	Various	Various	
Safety glass make	L. O. F.	L. O. F.	
Safety glass type, <i>laminated or tempered</i>			
In windshield	Laminated	Laminated	
In side windows	Laminated	Laminated	
In rear window	Tempered	Tempered	
Bumper make	Own	Own	
Bumper guard make	Brown-Lipe-Chapin	Brown-Lipe-Chapin	
Car heater make Type	None	None	
Direction signal make	None	Various	
Front—yes or no Rear—yes or no	None	Yes	
No. of tail lights included	2	2	
No. of visors included	2	2	
No. of horns included	2	2	
No. of windshield wipers included	2	2	
No. of spare tires included	1	1	

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BODY DIMENSIONS (Five-Passenger, Four-Door Sedan)



INTERIOR

All interior body dimensions taken with front seat in its rear position

Width of front seat cushion, measured 5 inches from back (A)	59 7/8"
Width of rear seat cushion, measured 5 inches from back (B)	58 7/16"
Depth of front seat cushion (C)	17 15/16"
Depth of rear seat cushion (D)	17 15/16"
Height of front seat cushion measured 12 1/2 inches from center line of body (E)	13 5/8"
Front seat horizontal adjustment, inches (F)	4 7/16"
Front seat vertical adjustment, inches	1 1/2"
Height of rear cushion measured 12 1/2 inches from center line of body (G)	12 7/16"
Vertical distance steering wheel and seat cushion (H)	5 5/8"
Head room at front seat, measured 5 inches from back (I)	35 15/16"
Head room at rear seat, measured 5 inches from back (J)	35 5/8"
Leg room in front seat, measured from 6 inches up on toe board, following contour of seat cushion (K)	42 5/8"
Leg room in rear seat, measured from center of foot rest, following contour of seat cushion (L)	40 7/8"
Trunk capacity, cubic feet	10.46 cu. ft.
Width of left front pillar on diagonal with door closed	

BODY DETAIL AND EQUIPMENT FORMS

Maka	Body Model	Body Make
Crescent 8-88	Roadster	Fisher
↓	Phaeton	↓
	Two-door sedan	Murray
	Four-door sedan	↓
	Coupe	Fisher
	Coupe with rumble	↓
	Cabriolet	Budd
Crescent 8-88	Roadster	↓
↓	Phaeton	Fleetwood
	Two-door sedan	LeBaron
	Four-door sedan	
	Coupe	
	Coupe with rumble	
	Cabriolet	
	Limousine	
	Landaulet	

Standard abbreviations may be used where space limitations make this necessary. Where sub-headings such as those shown in column for Body Make are identified with numerals, these numerals may be used in filling in form.

[illegible]

- 1—Two-door car with no rear seat.
- 2—Two-door car with rumble seat.
- 3—Two-door car with conventional rear cushion.
- 4—Four-door car with cushions front and rear.
- 5—Four-door car with cushions front and rear plus two auxiliary seats folding into front seat back.

- 6-Two-door car with two opera seats folding into sides of body.
- 7-Two-door car with two opera seats folding into rear of body.
- 8-Two-door car with one opera seat folding into rear of body and other seat stationary.
- 9-Two-door car with rear stationary seat for one passenger.