

AUTOMOBILE MANUFACTURERS ASSOCIATION CONSOLIDATED SPECIFICATION QUESTIONNAIRE

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MAKE OF CAR: STUDEBAKER		MODEL NAME	SYMBOL
COMPANY: STUDEBAKER-PACKARD CORPORATION		Golden Hawk	56J (K) Hardtop
MODEL YEAR: 1956	DATE Nov. 22, 1955		

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- NOTES: 1. The specifications set forth herein are those in effect at the date of compilation and are subject to change without notice.
2. All specifications are standard for the models under which they are listed unless otherwise indicated.
3. All dimensions are nominal engineering dimensions unless otherwise indicated.
4. Unless otherwise indicated, specifications apply to 5 or 6 passenger, 4-door sedan or equivalent.

GENERAL SPECIFICATIONS

Model		GOLDEN HAWK
Wheelbase		120-1/2
Tread	Front	56-11/16
	Rear	55-11/16
Maximum Overall Dimensions	Length (L-103)	203-15/16
	Width (W-103)	70-7/16
	Height (H-101)	56-5/16
Steering ratio—overall		24-33.8-24
Turning diameter (curb to curb) R & L		40-41
Shipping weight*		N.A.
Transmission— (Specify standard, optional, not avail.)	Conventional	-
	Overdrive	Std.
	Automatic	Opt. - Extra Cost
Axle ratio	Conventional	-
	Overdrive	3.92
	Automatic	3.07
Tire size		7.10X15
Engine	Type	90° Vee
	No. of cylinders	8
	Valve arrangement	In-Head
	Bore and stroke	4X3-1/2
	Piston displacement, cu. in.	352
	Standard compression ratio	9.5-1
	Maximum bhp at engine rpm	275 at 4600
	Maximum torque at rpm	380 at 2800

*Standard car weight, not including gas and water.

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ENGINE—GENERAL

Type	V, In-line, other	Vee
	Angle of V	90°
No. of cylinders		8
Valve arrangement		In-Head
Bore and stroke		4x3-1/2
Piston displacement, cu. in.		352
Numbering system	L. Bank	1-3-5-7
(front to rear)	R. Bank	2-4-6-8
Firing order		1-8-4-3-6-5-7-2
Compression ratio	Standard Head	9.5-1
	Optional Head	-
Cylinders	Head Material	Cast Iron
	Standard	None
	Optional	None
	Sleeve—Wet, dry, other, none	None
Number of mounting points	Front	2
	Rear	1
Taxable horsepower	(Dia. ² x No. Cyl.) 2.5	51.2
Advertised max. brake horsepower at engine RPM*	Standard head	275 at 4600
	Optional head	-
	With fuel (Octane and method)	93 (Research)
	Standard Head	
	Optional Head	
Max. torque (lb. ft. @ RPM)	Standard head	380 at 2800
	Optional head	-
Recommended idle speed (neutral)		450

ENGINE—PISTONS

Material		Alum. Alloy
Description and finish		Cam Ground, Autothermic Flat Head, Slipper Type Skirt, Tin Plated
Weight (piston only) oz.		24.762
Clearance	Top land	.0205-.0265
	Skirt	Top
		Bottom
		.001-.0015
		.000-.0015
Ring groove depth	No. 1 ring	.213
	No. 2 ring	.213
	No. 3 ring	.213
	No. 4 ring	.213

*Corrected as defined by SAE Engine Test Code, with the following standard power consuming accessories:

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ENGINE—RINGS

Type (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.	-
No. rings above piston pin		3
Compression	Material	Cast Iron
	Coating	Chrome (Upper Ring) Ferrox (Lower Ring)
	Width	5/64
	Gap	.019
	Maximum wall thickness	.200
Oil	Material	Spring Steel
	Coating	O.D. Chrome Plated Sides and I.D. Black Oxide
	Width	.0245 Each Rail
	Gap	.015
	Maximum wall thickness	.186
Location of expanders		Oil Ring

ENGINE—PISTON PINS

Material		S.A.E. 1117 Steel Heat Treated
Length		3-1/4
Diameter		.9803
Type	Locked in rod, in piston, floating, etc.	Floating
	Bushing	In rod
		Bronze
Clearance	In piston	.0000-.0002 W/Piston at 70°-160° F.
	In rod	.0000-.0004
Direction offset in piston		.0625 Toward Major Thrust Side

ENGINE—CONNECTING RODS

Material		Steel Forging
Weight (oz.)		26.688
Length (center to center)		6.781
Bearing	Material	Steel Back Babbitt Lined
	Type (cast-in or removable)	Removable
	Effective length	15/16
	Clearance	.0005-.0025
	End play	.003-.011 Two Rods

ENGINE—CRANKSHAFT

Material		Cast Steel
Weight (lb.)		56

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ENGINE—CRANKSHAFT (cont.)

Vibration damper type			Non-Bonded Rubber		
End thrust taken by bearing (No.)			No. 5 Rear Main		
Crankshaft end play			.0035-.0085		
Main bearing	Material		Steel Back Babbitt Lined		
	Type (cast-in or removable)		Removable		
	Clearance		.0003-.0023		
	Journal dia. and bearing effective length	No. 1	2.4990 x .950		
		No. 2	2.4990 x .950		
		No. 3	2.4990 x .950		
		No. 4	2.4990 x .950		
		No. 5	2.4990 x 1.736		
		No. 6	-		
		No. 7	-		
Direction offset from cyl. bore		None			
Connecting rod crankpin journal diameter			2-1/4		

ENGINE—CAMSHAFT

Material		Alloy Cast Iron	
Bearings	Material	Steel Back Babbitt Lined	
	Number	5	
Type of drive	Gear or chain		Chain
	Crankshaft gear or sprocket material		Heat Treated Steel
	Camshaft gear or sprocket material		Alloy Cast Iron
	Timing chain	Make	Morse
		No. of links	64
		Width	1.000
		Pitch	.375

ENGINE—VALVE SYSTEM

Hydraulic lifters (yes, no)		Yes	
Special provision for valve rotation (intake, exhaust)		No	
Rocker ratio		1.6-1	
Operating tappet clearance (indicate hot or cold)	Intake	Automatic Takeup	
	Exhaust	Automatic Takeup	
Tappet clearance for timing	Intake	Automatic Takeup	
	Exhaust	Automatic Takeup	
Timing marks on fly-wheel, damper, other		Damper	

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ENGINE—VALVE SYSTEM (cont.)

Timing	Intake	Opens (°BTC)	14
		Closes (°ABC)	62
	Exhaust	Opens (°BBC)	54
		Closes (°ATC)	18
Intake	Material		Silichrome Steel
	Overall length		5.712
	Actual overall head dia.		2
	Angle of seat		29° Nominal
	Seat insert material		-
	Stem diameter		.3725
	Stem to guide clearance		Selected for .001-.002
	Lift		.398
	Outer spring press. and length	Valve closed (lb. @ in.)	87-97 at 1-3/4
		Valve open (lb. @ in.)	173-187 at 1-3/8
	Inner spring press. and length	Valve closed (lb. @ in.)	-
		Valve open (lb. @ in.)	-
Exhaust	Material		Head S.A.E. 2112 Stem S.A.E. 3140 or 8645
	Overall length		5.690
	Actual overall head dia.		11/16
	Angle of seat		44.5° Nominal
	Seat insert material		-
	Stem diameter		.3715
	Stem to guide clearance		Selected For .002-.003
	Lift		.388
	Outer spring press. and length	Valve closed (lb. @ in.)	87-97 at 1-3/4
		Valve open (lb. @ in.)	173-187 at 1-3/8
	Inner spring press. and length	Valve closed (lb. @ in.)	-
		Valve open (lb. @ in.)	-

ENGINE—LUBRICATION SYSTEM

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

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ENGINE—LUBRICATION SYSTEM (cont.)

Oil pump type	Gear
Normal oil pressure (lb. @ rpm)	45-50 at 2800
Oil pressure gage type (electric or mechanical)	Mechanical
Type oil intake (floating, stationary)	Floating
Oil filter type (full flow, partial flow)	Partial
Capacity of crankcase, less filter—refill (qt.)	5
Oil grade recommended (SAE viscosity and temperature range)	Lowest Anticipated Temperature: +32° - S.A.E. 30 +10° - S.A.E. 20 -10° - S.A.E. 10W Below -10° - S.A.E. 5W
Oil type recommended	MS

ENGINE—FUEL SYSTEM

Recommended fuel	Standard head	Premium
Fuel Tank	Optional head	-
	Capacity (gals.)	18
	Filler Location	Left Side In Rear Fender
Fuel Filter	Type	Ceramic
	Location	Carburetor Inlet
Fuel pump	Type (elec. or mech.)	Mechanical
	Location	Right Side - Front of Engine
	Pressure range	3-1/2 - 5-1/2 P.S.I.
	Vacuum booster (std., optl., none)	None
	Make	Carter
	Model number	WCFB 2394S
	Number used	1
Carburetor	Type	Downdraft, side inlet, other
		Single or dual
	Intake manifold heat control (manual, auto., none)	Automatic
	Automatic choke type (integral, other)	Integral
	Air cleaner type	Standard
		Optional
		Oil Bath

ENGINE—EXHAUST SYSTEM

Type (single, single with cross-over, dual, other)	Dual
Muffler type (rev. flow, str. thru, sep. resonator)	Reverse Flow
Exhaust pipe dia.	Branch
	Main
Tail pipe diameter	1-3/4

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ENGINE—COOLING SYSTEM

Type (pressure system, atmospheric, other)		Pressure System	
Radiator cap relief valve press.		13 lbs.	
Circulation thermostat	Type (choke, bypass)	Choke	
	Starts to open at	170°	
Water pump	Type (centrifugal, other)	Centrifugal	
	Number of pumps	One	
	Drive (V-belt, other)	V-Belt	
	Bearing type	Double Row Ball	
By-pass recirculation type (internal, external)		None	
Radiator core type (cellular, tube and fin)		Cellular-Tubular	
Cooling system capacity	With heater (qt.)	26.5	
	Without heater (qt.)	25	
Water jackets full length of cylinder (yes, no)		Yes	
Water all around cylinder (yes, no)		Yes	
Radiator hose	Lower	Number and type (molded, straight)	1 Molded Elbow
		Inside diameter and length	1-1/2
	Upper	Number and type (molded, straight)	1 Molded Elbow
		Inside diameter and length	1-3/4
	By-pass	Number and type (molded, straight)	-
		Inside diameter and length	-
Drive belts	Fan	Number used	One
		Angle of V	38 - 40
		Outside length	56-11/16
		Width	3/8
	Generator	Angle of V	-
		Outside length	-
		Width	-
Fan	Number of blades and spacing	4-76° and 104°	
	Diameter	20-1/16	
	Ratio—fan to crankshaft revolutions	.92-1	
	Bearing type	See Water Pump	

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ELECTRICAL—SUPPLY SYSTEM

Battery	Make and Model		Willard HDW-2SM-60
	Voltage Rtg. & Plates/cell		12 Volt - 9 Plates Per Cell
	SAE Designation & Amp Hr. Rtg		60
	Location		Under Hood Left Fender
Generator	Terminal grounded		Negative
	Make		Auto-Lite
	Model		GJC-7002F
	Type		Shunt
Regulator	Ratio—Gen. to Cr/s rev.		2.25
	Make		Auto-Lite
	Model		VRX-5008A
	Type		Current and Voltage Control
	Cutout relay	Closing voltage @ generator rpm	13-13.75
		Reverse current to open	.5-.4 Amp
	Regulated	Voltage	14.24-14.90 at 70° F.
		Current	30 Amp
	Min. Gen. rpm required		2200
	Voltage test conditions	Temperature	70° F
Load		10 Amp	
Other			

ELECTRICAL—STARTING SYSTEM

Starting motor	Make		Auto-Lite
	Model		MDF-5008
	Rotation (drive end view)		Clockwise
	Engine cranking speed		140
	Test conditions		Normal Engine Temp.
	Lock test	Amps	395
		Volts	6.1
		Torque (lb. ft.)	14.6
	No load test	Amps	75
Volts		11.0	
RPM (min.)		4400	
Motor control	Switch (solenoid, manual)		Solenoid
	Starting procedure		<ol style="list-style-type: none"> 1. Rotate ignition key to start position. 2. When engine starts permit key to return to normal ignition 'on' position.

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ELECTRICAL—STARTING SYSTEM (cont.)

Motor drive	Engagement type		Solenoid Actuated Shift
	Pinion meshes (front, rear)		Front
	Number of teeth	Pinion	9
		Flywheel	182
	Flywheel tooth face width		3/8

ELECTRICAL—IGNITION SYSTEM

Coil	Make		Auto-Lite
	Model		CAD-4001
	Amps	Engine stopped	-
		Engine idling	-
Distributor	Make		Auto-Lite
	Model		IBJ-4001-C
	Spark advance data (at distributor shaft)	Centr. advance start (rpm)	300
		Centr. advance max. deg. @ rpm	20 at 1700
		Vacuum advance start (in. Hg.)	0 at 7
		Vac. adv. (max. deg. @ in. Hg.)	20 at 13
	Breaker gap (in.)		.015
	Cam angle (deg.)		28 - 34
	Breaker arm tension (oz.)		17 - 20
	C/S deg. @ rpm		5° BTDC
Timing	Mark location		Vibration Damper
	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
Spark plug	Make and model		Champion N18-67B
	Thread (mm)		14
	Tightening torque (lb. ft.)		25 - 30
	Gap		.033 - .038
Cable	Conductor type		Copper Wire - Tinned
	Insulation type		Neoprene
	Spark plug protector		Hypalon

ELECTRICAL—SUPPRESSION

Description	.5 MFD Condenser-Ignition Coil .5 MFD Condenser-Generator Armature .5 MFD Condenser-Voltage Regulator 10,000 OHM Resistor-Integral with Distributor Cap Ground Bonded-Oil Pipe
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ELECTRICAL—INSTRUMENTS AND SWITCHES

Speed-ometer	Make	Stewart-Warner
	Trip odometer (yes, no)	No
Charge indicator—type		Electric
Temperature indicator—type		Electric
Oil pressure indicator—type		Hydrostatic
Fuel indicator—type		Electric
Ignition switch	Identify positions in order and circuits controlled	Center-off Turn to Right - All Circuits On Turn to Extreme Right - All Circuits Off except Ignition and Starter Solenoid Turn to Left - Gas Gage, Temperature Indicator and Accessories
	Provision for illumination	None
	Location	Instrument Board - Right of Steering Wheel
	Theft protection type	-
Main light-ing switch	Identify positions and lights controlled	Toggle Type - Down for Parking and Tail Lights; Up for Head and Tail Lights
Other light switches	Locations and lamps controlled	Instrument Light Switch - Toggle Type.
Other switches	Locations and de-vices controlled	Climatizer and Defroster - Separate Switches - Toggle Type on Instrument Board Right of Steering Wheel Windshield Wiper Switch - Toggle Type on Instrument Board Right of Steering Wheel
Windshield wiper	Make	Auto-Lite and Bosch
	Type	Electric
	Vacuum booster provision	No
	Washer provision	Yes
Horn	Type	Vibrator
	Number used	2
	Amp draw (each)	10 Amp at 14 Volts

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ELECTRICAL—LAMP BULBS

Give quantity used and trade number, e.g., Headlamp 2-4030.
Indicate accessories which are not standard equipment by an asterisk following the numbers.

Headlamp	2-5400
Headlamp beam indicator	1-53
Parking light	2-1034
Tail light	2-1034
Stop light	2-1034
Direction indicator	Front 2-1034*
	Rear 2-1034*
	Tell-Tale 2-53*
License plate light	1-67
Instrument light	3-57
Ignition lock light	-
Map light	-
Dome light	1-1004
Clock light	1-57*
Radio dial light	2-1891*
Glove compartment light	1-57
Courtesy light	-
Trunk compartment light	1-1003*
Other	
Auto. Trans. Shift Indicator Light	1-53*
Cigar Lighter Light	1-53*
Back Up Lamp Light	2-1073*
Hand Brake Warning Light	1-57*

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 light: SFE-10 (a), Direction indicator: same as (a).

Headlamp	20 C.B. (a)
Headlamp beam indicator	Same as (a)
Parking light	Same as (a)
Tail light	Same as (a)
Stop light	15 C.B. (b)
Direction indicator	SFE 9
License plate light	Same as (a)
Instrument light	Same as (a)
Ignition light	-
Map light	-
Dome light	Same as (b)
Clock	1 AG 3
Clock light	Same as (a)
Radio	SFE 9
Glove compartment light	Same as (b)
Courtesy light	-
Trunk compartment light	Same as (a)
Other	
Windshield Wiper	5 C.B.
Trans. O.D.	3 AG 20
Clim. and Defroster	SFE 14

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DRIVE UNITS—CLUTCH (PEDAL OPERATED)

Make	Long
Type (dry or wet plate)	Dry
In combination with fluid coupling (yes, no)	No
Semi-centrifugal (yes, no)	Yes
Type pressure plate springs	Coil Springs
Total plate pressure (lb.)	1467
No. of clutch driven discs	One
Material	Woven Asbestos
Inside diameter	7
Outside diameter	11
Total eff. area (sq. in.)	133.1
Thickness	1/8
Number required	2
Engagement cushioning method	Torbend Disc
Release bearing	Ball
Method of lubrication	Prelubricated
Method (springs, other)	Coil Springs
Frict. mat.	Molded Asbestos

DRIVE UNITS—TRANSMISSIONS

Conventional (std. or opt.)	None
Conventional with overdrive (std. or opt.)	Std.
Automatic (std. or opt.)	Opt.

DRIVE UNITS—CONVENTIONAL TRANSMISSION

Number of forward speeds	3
In first	2.49-1
In second	1.587-1
In third	1.00-1
In fourth	-
In reverse	3.154-1
Constant mesh gears in 2nd (yes, no)	Yes
Spur gear used in (indicate speeds)	None
Helical gears used in (indicate speeds)	All
Synchronous meshing in 2nd and 3rd gears (yes, no)	Yes

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DRIVE UNITS—CONVENTIONAL TRANSMISSION (cont.)

Lubricant	Capacity (pt.)		3.70 Including Overdrive
	Type recommended		-
	SAE viscosity number	Summer	-
		Winter	-
		Extreme cold	-

DRIVE UNITS—CONVENTIONAL TRANSMISSION WITH OVERDRIVE

For transmission data see conventional transmission section

Overdrive	Type (planetary or other)		Planetary	
	If planetary, No. of pinions		4	
	Manual lockout (yes, no)		Yes	
	Downshift accelerator control (yes, no)		Yes	
	Minimum cut-in speed		Approx. 22 MPH	
	Gear ratio		.722-1	
	Lubricant	Capacity (O.D. only)		1-1/4 pt.
		Separate filter (yes, no)		No
		Type recommended		Mineral Oil Gear Lubricant
		SAE viscosity number	Summer	S.A.E. 90
Winter			S.A.E. 90	
Ext. cold	S.A.E. 90			

DRIVE UNITS—AUTOMATIC TRANSMISSION

Trade name	ULTRAMATIC
Type (fluid coupling with gears, torque convertor with gears, other)	Lockup Torque Converter with 2-Speed Automatically Controlled Planetary Gear Set
Manual selector positions, left to right (show symbols and define, e.g., N- Neutral)	P - Park N - Neutral ▼D - High (Triangle to Left of D) D▼ - Drive (Triangle to Right of D) L - Low R - Reverse
List gear ratios in each drive position (range)	High-Torque Converter, High, Automatically Upshifting to Direct Drive Drive - Torque Converter Plus 1.82 Gear Ratio Automatically Upshifting to High Direct Drive Low - Torque Converter Plus 1.82 Gear Ratio Reverse - Torque Converter Plus 1.63 Gear Ratio
Shifting within drive position range by accelerator control and speed limiting governor (yes, no)	Yes
By governor—forced shift (yes, no)	Yes
Downshift of gears in high range, possible up to (mph)	Down to Converter and Low at Speeds below 45 MPH.

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DRIVE UNITS—AUTOMATIC TRANSMISSION (cont.)

Torque convertor	Number of elements		4
	Max. ratio at stall at engine rpm		2.90 at 1650
	Mechan- ical lockup	Provided (yes, no)	Yes
		Speed range	24-70 MPH
		Releases at (speed range, mph)	20
	Type of cooling (forced air, oil cooler and type, other)		Liquid Cooled
Lubricant	Anti-creep device (yes, no)		No
	Capacity—refill (pt.)		22
	Type recommended		Type "A" Automatic Transmission Fluid
	Grade	Summer	Type "A" Automatic Transmission Fluid
		Winter	Type "A" Automatic Transmission Fluid
		Extreme cold	Type "A" Automatic Transmission Fluid

DRIVE UNITS—PROPELLER SHAFT

Number used			2	
Type (exposed, torque tube)			Exposed	
Outer diameter x length* x wall thickness	Conventional trans.		-	
	Overdrive trans.		Front 2 x 18-5/16 x .065 Rear 2-1/2 x 42-15/16 x .065	
	Automatic trans.		Front 2 x 18-5/16 x .065 Rear 2-1/2 x 42-15/16 x .065	
Inter-mediate bearing	Type (plain, anti-friction)		Anti-Friction	
	Lubri. (fitting, prepack)		Sealed	
Universal joints	Make		Spicer	
	Number used		3	
	Type (ball and trunnion, cross, other)		Cross	
	Bearing	Type (plain, anti-friction)	Needle Bearing	
		Lubric. (fitting, prepack)	Fitting	
Drive taken through (torque tube or arms, spring)			Rear Springs	
Torque taken through (torque tube or arms, springs)			Rear Springs	

*Centerline to centerline of joints or centerline of rear attachment point.

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DRIVE UNITS—REAR AXLE

Type (semi-floating, other)	Semi-floating	
Gear type (hypoid, other)	hypoid	
Gear ratio and No. of teeth	Conventional trans.	-
	Overdrive trans.	3.92-1
	Automatic trans.	3.07-1
Pinion adjustment (shim, other)	Shim	
Pinion bearing adj. (shim, other)	Shim	
Lubricant	Capacity (pt.)	3
	Type recommended	Hypoid Lubricant
	SAE viscosity number	Summer S.A.E. 90
		Winter S.A.E. 90
		Extreme cold S.A.E. 90

DRIVE UNITS—WHEELS

Type (disc, other)	Disc	
Rim (size and flange type)	Drop Center 15x5K	
Attachment	Type (bolt or stud)	Stud
	Circle diameter	4.5
	Number and size	5-1/2

DRIVE UNITS—TIRES

Size and ply rating	Standard	7.10x15-4 Tubeless*
	Optional	-
Rev/mile at 30 mph	739	
Inflation press. (cold)	Front	26
	Rear	24**

BRAKES—SERVICE

Type	Hydraulic	
Booster type	Opt.	
Effective area (sq. in.)	195.25	
Percent brake effectiveness—rear	38	
Drum	Diameter	Front 11
		Rear 10
	Type and material	Budd Composite

* - All tires available with White Side-walls/6 Ply/with tubes

** - Under conditions where car loading of four or more passengers is considered normal, 26 lbs. pressure is recommended.

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BRAKES—SERVICE (cont.)

Brake lining	Bonded or riveted		Riveted	
	Primary	Material		Marshall-Eclipse 2201-H8
		Size (length x width x thickness)	Front wheel	12 x 2-1/4 x 3/16
			Rear wheel	10-29/32 x 2 x 3/16
		Segments per shoe		One
	Secondary	Material		Marshall-Eclipse 2201-H8
		Size (length x width x thickness)	Front wheel	12 x 2-1/4 x 7/32
			Rear wheel	10-29/32 x 2 x 3/16
		Segments per shoe		One
Wheel cylinder bore	Front	1-1/16		
	Rear	7/8		
Master cylinder bore		1		
Available pedal travel		6		
Line pressure at 100 lb. pedal load		890		
Shoe clearance adjustment		.006-.008		

BRAKES—PARKING

Type of control	Handle		
Location of control	Right of Steering Column		
Operates on	Rear Brakes		
If separate from service brakes	Type (internal or external)		-
	Drum diameter		-
	Lining size (length x width x thickness)		-

FRAME

Type and description	Box Section - Ladder Type 6 Crossmembers
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FRONT SUSPENSION

Type and description	Independent Coil Springs
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FRONT SUSPENSION (cont.)

Spring	Type	Independent Coil Springs
	Material	S.A.E. 5160
	Size (length x width x No. leaves or coil I.D.)	4-3/16
	Spring rate (lb. per in.)	296
	Rate at wheel (lb. per in.)	125
	Normal load (lb. @ rated length)	1565 at 9-1/8
Shock absorbers	Manufacturer	Monroe or Delco
	Type (direct or lever)	Direct
	Piston diameter	1
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material	S.A.E. 1065

STEERING

Type used (Standard or optional)			Mechanical	Std.	
			Power	Opt.	
Wheel diameter				17-1/4	
Turning diameter	Outside front	Wall to wall (r. & l.)		43-44	
		Curb to curb (r. & l.)		40-41	
	Inside rear	Wall to wall (r. & l.)		25.5-26.5	
		Curb to curb (r. & l.)		26-27	
Inside wheel angle with outside wheel at 20°				22-1/2 - 23-1/2	
Mechanical	Gear	Type		Cam and Twin Lever	
		Make		Ross	
		Ratios	Gear	18.5-16.5-18.5	
			Overall	24-33.8-24	
	No. wheel turns		5-1/4		
Power	Type		Integral		
	Make		Saginaw		
	Trade name		-		
	Gear	Type		Recirculating Ball	
		Ratios	Gear	21.3-1	
			Overall	20-1	
	Pump driven by		Belt		
	Overall torque ratio		-		
	Number wheel turns		4-1/4		
	Type				Center Steering with Equal Length Tie Rods
Linkage	Location (front or rear of wheels)			Rear	
	Drag link (trans. or long)			Longitudinal	
	Tie rods (one or two)			2	

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STEERING (cont.)

Kingpin	Inclination at camber (deg.)		6 at 0 Camber
	Diameter		Upper 1-1/4 Lower 1-1/8
	Bearings (type)	Upper	Bushing
		Lower	Needle
		Thrust	Ball or Tapered Roller
Wheel alignment (range and preferred)	Caster (deg.)		-1 to -2-1/2 Not more than 3/4° Variation between wheels
	Camber (deg.)		0 to +1 1/2° Greater Camber favored on Driver's side
	Toe-in (outside tread- inches)		1/16-1/8
	Steering knuckle type		Reverse Elliott
Wheel spindle	Diameter	Inner bearing	1.25
		Outer bearing	.75
	Thread size		3/4 - 16
	Bearing type		Tapered Roller

REAR SUSPENSION

Type			Leaf		
Drive and torq. taken through (see page 14)			Rear Springs		
Spring	Type		Semi-Elliptic		
	Material		S.A.E. 5150		
	Size (length x width x No. leaves or coil I.D.)		50 x 2-1/2 x 4		
	Spring rate (lb. per in.)		90		
	Rate at wheel (lb. per in.)		100		
	Normal load (lb. at rated length)		700		
	Mounting insulation type		Rubber Bushings		
	If leaf	No. of leaves		4	
		Covers (yes, no)		No	
		Lubricated (yes, no)		No	
		Inserts	Type and size	Full Length and Width	
Material			Extruded Plastic		
	Shackle (comp. or tens.)		Compression		
Shock absorbers	Manufacturer		Monroe or Delco		
	Type (direct or lever)		Direct		
	Piston diameter		1		
Stabilizer	Type (link, linkless, frameless)		-		
	Material		-		
Track bar type			-		

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BODY—GENERAL DEFINITIONS

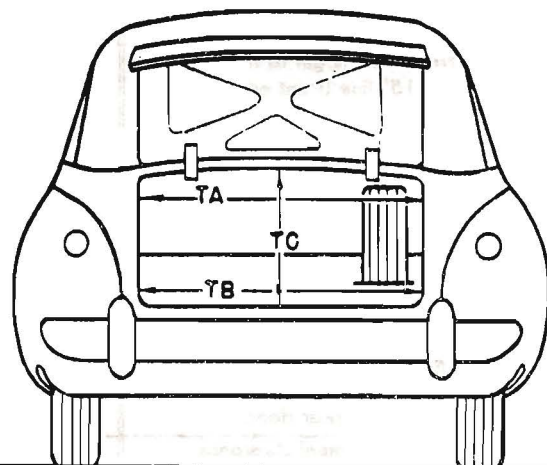
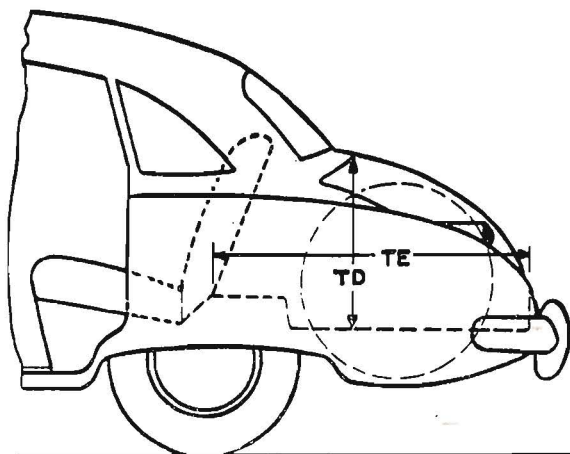
NOTE: Included in the dimension definitions listed on this and the following pages are those which have been proposed for adoption by the SAE. These are indicated by a number following the type of dimension, e.g., L 3. Additional dimensions have been added by the AMA Specifications Body Sub-Committee for inclusion in the Questionnaire. These are shown by an additional letter, e.g., HA. The dimensions are developed from the following basic points:

1. Front and rear seat "A" points are taken 5" forward of vertical tangent to seat back 15" from center of body.
2. Front seat is in the rear position.
3. Loaded position—5 passengers, front 300 lb., rear 450 lb., includes spare wheel, tire and tools, and full complement of gas, oil, water, etc. and tires to recommended pressure, etc.
4. C. L. (centerline).
5. D. L. O. (daylight opening, exposed glass dimension).
6. Ramp breakover angle (page 20-A) is the supplement of the included ramp angle (180° minus the included ramp angle) over which a car can pass without hanging up.

MODEL

GOLDEN HAWK

BODY—TRUNK OPENING DIMENSIONS



TA—Width across the top	48-1/2
TB—Width across the bottom	44-1/4
TC—Diagonal dimension at CL from top of opening to bottom	39-3/4
TD—Vertical height of opening (floor to top, inside edge of opening)	20-1/2
TE—Max. horizontal depth (forward from vertical projection of inside edge of opening)	51-1/2
Position of spare tire stowage	Horizontal
Method of holding lid open	Spring Loaded Hinge

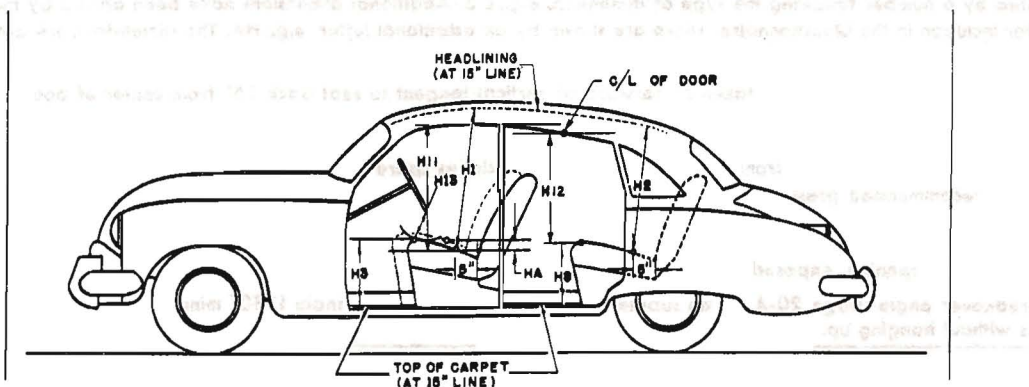
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MODEL GOLDEN HAWK

BODY—HEIGHT DIMENSIONS—INTERIOR



H1. Front headroom—from "A" pt. to headlining at 8° back of vertical on 15" line. (For "A" pt. see note 1, page 19)	35-5/8
H2. Rear headroom—from "A" pt. to headlining at 8° back of vertical on 15" line.	34
H3. Front seat height to floor carpet on 15" line (front edge of cushion).	10-3/4
H8. Rear seat height to floor carpet on 15" line (front edge of cushion).	12
H11. Entrance—front—cushion "A" point to bottom windcord vertical.	31-1/4
H12. Entrance—rear—top of cushion to bottom windcord vertical at C/L of rear door.	None
H13. Steering wheel clearance to seat cushion taken on arc.	4-1/4
HA. Front seat vertical rise at "A" pt. (inches.)	15/16

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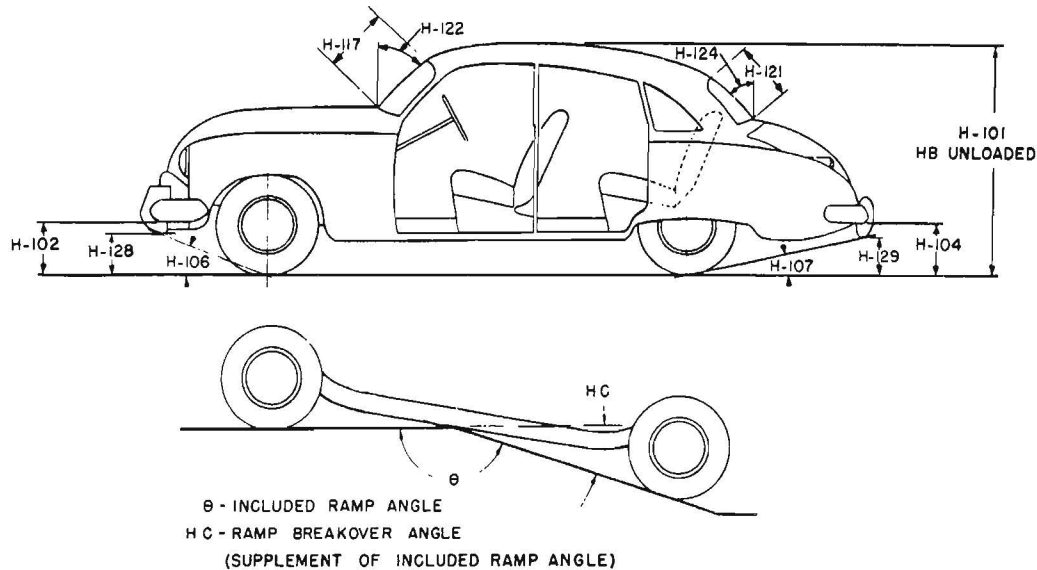
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MODEL

GOLDEN HAWK

BODY—HEIGHT DIMENSIONS—EXTERIOR



H101. Overall height.	56-5/16
HB. Overall height—unloaded.	58-1/8
H102. Front bumper bottom to ground at normal section.	13-3/4
H104. Rear bumper bottom to ground at normal section.	11-29/32
H106. Angle of approach—from the tire rolling radius to lowest point on front bumper or guard.	20°
H107. Angle of departure—from the tire rolling radius to lowest point on rear bumper or guard.	19°
HC. Ramp breakover angle.*	14-1/2
H117. Windshield DLO—slant height.	17
H121. Backlight DLO*—Max., slant height.	15-9/16
H122. Windshield slope angle to vertical line on car axis.	51-1/2
H124. Backlight slope angle to vertical line on car axis.	54
H128. Ground to bottom of front bumper guard.	11-15/16
H129. Ground to bottom of rear bumper guard.	11-29/32
HD. Min. road clearance (location and dimension).	6-15/32**
HE. Min. road clearance at rear axle.	8-3/16

*See Notes, page 19.

** Body Front Pillar Crossmember

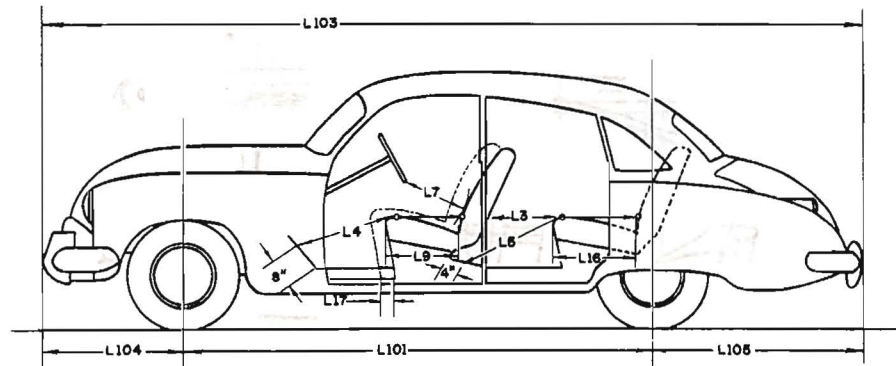
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MODEL GOLDEN HAWK

BODY—LENGTH DIMENSIONS



Interior	L3. Rear compartment back of front seat back to rear seat back.	26-5/8
	L4. Leg room—front—diagonal—ball of foot to top of seat to front seat back—15" line.	43-3/4
	L5. Leg room—rear—diagonal—from ball of foot to top of rear seat cushion and to seat back.	36
	L7. Steering wheel clearance to seat back taken on arc.	13-3/4
	L9. Front seat depth (front edge to vert. tan. to seat back on 15" line).	19
	L16. Depth of rear seat (front edge to seat back).	18
	L17. Total adjustment of front seat at floor.	5-1/2
Exterior	L101. Wheel base.	120-1/2
	L103. Overall length (bumper to bumper inc. guards).	203-15/16
	L104. Overhang—front including bumper guards.	34-7/8
	L105. Overhang—rear including bumper guards.	48-9/16

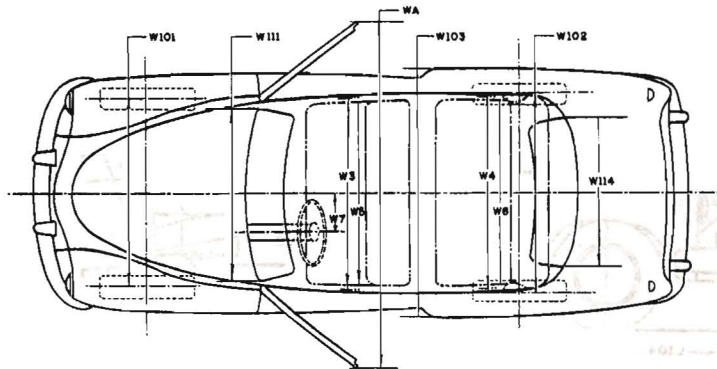
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MODEL GOLDEN HAWK

BODY—WIDTH DIMENSIONS



Interior	W3. Front shoulder room, at garnish moulding height or nearest interference 5" forward of seat back.	55
	W4. Rear shoulder room, at garnish moulding height or nearest interference 5" forward of seat back.	53
	W5. Front hip room, at top of seat 5" forward of vert. tan. to seat back.	59-1/2
	W6. Rear hip room, at top of seat 5" forward of vert. tan. to seat back.	26*
	W7. Steering wheel center to center of body.	14
Exterior	W101. Front tread at ground.	56-11/16
	W102. Rear tread at ground.	55-11/16
	W103. Max. overall width of car including bumpers or mouldings.	70-7/16
	WA. Max. overall width of car with doors open.	151-7/8
	W111. Windshield DLO, max. width.	51-3/4
	W114. Back window DLO, max. width.	54

* Rear Seat Divided - Overall Width 58

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MODEL

GOLDEN HAWK

BODY—MISCELLANEOUS INFORMATION

Doors hinged (front, rear)	Front	Front
	Rear	Front
Type of finish (lacquer, enamel)		Synthetic Enamel
Hood opening (front, side; semi-full, full, half)		Front - Full
Hood counterbalanced (yes, no)		No
Hood release control (internal, external)		External
Vent window control method (crank, friction, pivot).		Friction Pivot
Windshield (one piece, two piece; curved, flat)		One Piece Curved
Rear window type (one piece, two piece, three piece; curved, flat)		One Piece Curved
Windshield glass area		858 Sq. In.
Backlight glass area		910 Sq. In.
Total glass area		2866 Sq. In.

BODY—TYPES AND STYLE NAMES

Body type, number of passengers, and style names (use letter code shown below followed by passenger capacity and style name e.g., N-6 Ranchwagon)

J-5 GOLDEN HAWK

Body type code

A—Coupe—2 door flatback
B—Coupe—2 door notchback
C—Sedan—2 door flatback
D—Sedan—2 door notchback
E—Sedan—4 door flatback (4 windows)
F—Sedan—4 door flatback (6 windows)
G—Sedan—4 door notchback (4 windows)
H—Sedan—4 door notchback (6 windows)
J—Hardtop—2 door
K—Hardtop—4 door

L—Convertible—2 door
M—Convertible—4 door
N—Station wagon—2 door
P—Station wagon—4 door
Q—Combined passenger and utility—2 door
R—Combined passenger and utility—4 door
S—Sedan delivery
T—Limousine

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