

HUDSON Service MAGAZINE

INFORMATION ON PARTS • ACCESSORIES
AND TECHNICAL MATTERS

HUDSON Terraplane

HUDSON Six

HUDSON Eight

Specifications Supplement — October 1937 — Issue No. 1 — 1938 Series

KNOW YOUR PRODUCT



With the introduction of the new models it is highly important that we get to know the product as quickly as possible and acquaint ourselves with the new features and changes in constructional detail, as well as the reasons therefor. In addition, it is most essential that we study the new models from the service angle and become conversant with the recommended procedure in servicing them.

By this means those engaged in selling and servicing our products are enabled to carry a merchandising story to the public in an effective manner and maintain a satisfactory relationship with owners of Hudson and Hudson Terraplane cars.

Through the medium of this Hudson Magazine Supplement, the Mechanical Procedure Manual, the monthly issues of the Hudson Service Magazine and the Flat Rate Manual as well as charts and bulletins, the Technical Division of The Hudson Motor Car Company offers the field organization for 1938 complete information regarding the mechanical details and procedure methods in servicing our cars.

E. J. BLUM
Technical Service Manager

HUDSON MOTOR CAR CO.

DETROIT, MICH.,

U. S. A.

1938 Service Information and Adjustments

	<i>Hudson Terraplane Business Cars (117" W. B.)</i>	<i>Hudson Terraplane Business Cars (124" W. B.)</i>	<i>Hudson Terraplane Deluxe (117" W. B.)</i>	<i>Hudson Terraplane Super (117" W. B.)</i>	<i>Hudson Six (122" W. B.)</i>	<i>Hudson Eight Deluxe (122" W. B.)</i>	<i>Hudson Eight Custom (122" W. B.)</i>	<i>Hudson Eight Custom (129" W. B.)</i>
<i>Starting Serial and Engine No.</i>	89101	88101	81101	82101	83101	84101	85101	87101
	<i>Hudson Terraplane Business Cars</i>		<i>Hudson Terraplane</i>		<i>Hudson Six</i>		<i>Hudson Eight</i>	
FRONT AXLE								
Type.....	Elliot		Elliot		Elliot		Elliot	
Radial Arms.....	No		Yes		Yes		Yes	
Caster (Actual on Car).....	1° to 2°		1° to 2°		1° to 2°		1° to 2°	
Max. Variation—Right and Left								
Ends.....	1/2°		1/2°		1/2°		1/2°	
Camber.....	1°-1 1/2°		1°-1 1/2°		1°-1 1/2°		1°-1 1/2°	
Toe-in— at Felloe.....	0-1/8"		0-1/8"		0-1/8"		0-1/8"	
Spindle Pin Inclination (Angle with Spring Pad)								
Transverse.....	7°		7°		7°		7°	
Steering Spindle Pin Diameter.....	1 1/8"		1 1/8"		1 1/8"		1 1/8"	
Steering Pin Thrust Bearing.....	Ball		Ball		Ball		Ball	
Wheel Bearing—Type.....	Taper Roller		Taper Roller		Taper Roller		Taper Roller	
End Play.....	.001"-.003"		.001"-.003"		.001"-.003"		.001"-.003"	
Tie Rod Joint—Type.....	Plain Bearing		Plain Bearing		Plain Bearing		Plain Bearing	
Tie Rod Adjustment.....	Screw		Screw		Screw		Screw	
To Adjust Tie Rod								
Turn Clockwise—To.....	Lengthen		Lengthen		Lengthen		Lengthen	
(As seen from right)								
Turn Counter-Clockwise—To	Shorten		Shorten		Shorten		Shorten	
REAR AXLE								
Type.....	Semi-Floating		Semi-Floating		Semi-Floating		Semi-Floating	
Ratio—Standard.....	4 5/9		4 1/9		4 1/9		4 1/9	
Optional.....	4 1/9-5 1/8		4 5/9		4 5/9		4 5/9	
Model 80 Cab								
80 Cab Pickup								
80 Panel Delivery								
80 Station Wagon								
Standard.....	4 1/9							
Optional.....	4 5/9							
Model 80 Utility Coupe								
80 Utility Coach								
80 Sedan								
88 Sedan								
Standard.....	5 1/8							
Optional.....	4 5/9							
Model 88 Cab								
88 Cab Pickup								
88 Panel Delivery								

	Hudson Terraplane Business Cars	Hudson Terraplane	Hudson Six	Hudson Eight
REAR AXLE—(Cont'd)				
Optional—Extra Cost.....		3 $\frac{5}{8}$	3 $\frac{5}{8}$	3 $\frac{5}{8}$
Optional—Extra Cost.....		3 $\frac{8}{8}$	3 $\frac{8}{8}$	3 $\frac{8}{8}$
Pinion Bearings				
Type.....	Taper Roller	Taper Roller	Taper Roller	Taper Roller
Adjustment.....	Shim	Shim	Shim	Shim
End Play.....	.000"-.001"	.000"-.001"	.000"-.001"	.000"-.001"
Differential Bearings				
Type.....	Taper Roller	Taper Roller	Taper Roller	Taper Roller
Adjustment.....	Screw	Screw	Screw	Screw
End play.....	.009" Tension	.009" Tension	.009" Tension	.009" Tension
Wheel Bearings				
Type.....	Taper Roller	Taper Roller	Taper Roller	Taper Roller
Adjustment.....	Shim	Shim	Shim	Shim
End Play.....	.004"-.010"	.004"-.010"	.004"-.010"	.004"-.010"
Pinion and Gear				
Adjustment.....	Shim	Shim	Shim	Shim
Lash in Gears.....	.0005"-.003"	.0005"-.003"	.0005"-.003"	.0005"-.003"
Lubrication				
Type—Summer and Winter.....	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.
Quantity (Pints).....	2 $\frac{3}{4}$ (1.24 Kgs.)	2 $\frac{3}{4}$ (1.24 Kgs.)	2 $\frac{3}{4}$ (1.24 Kgs.)	2 $\frac{3}{4}$ (1.24 Kgs.)
BRAKES				
Location.....	4 Wheels	4 Wheels	4 Wheels	4 Wheels
Operation by.....	Hydraulic Control	Hydraulic Control	Hydraulic Control	Hydraulic Control
Drum Diameter.....	10 1/16"	10 1/16"	10 1/16"	11 1/16"
Drum Material.....	Alloy Steel	Alloy Steel	Alloy Steel	Alloy Steel
Lining—Type.....	Moulded and Woven	Moulded and Woven	Moulded and Woven	Moulded and Woven
Width.....	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "
Thickness.....	$\frac{7}{32}$ "	$\frac{7}{32}$ "	$\frac{7}{32}$ "	$\frac{7}{32}$ "
Length per Wheel.....	22 $\frac{1}{8}$ "	22 $\frac{1}{8}$ "	22 $\frac{1}{8}$ "	23 $\frac{1}{8}$ "
Pieces per Wheel.....	2	2	2	2
Adjustments:				
Anchor Pin—				
Movable.....	Radially	Radially	Radially	Radially
Rear Shoe.....	Eccentric	Eccentric	Eccentric	Eccentric
Front Shoe.....	Screw	Screw	Screw	Screw
Clearance:				
Anchor Pin End of Shoe.....	.010"	.010"	.010"	.010"
Adj. Screw End of Shoe.....	.010"	.010"	.010"	.010"
Max. Variation per Shoe.....	.003"	.003"	.003"	.003"
CLUTCH				
Type.....	Single Disc in Oil	Single Disc in Oil	Single Disc in Oil	Single Disc in Oil
Facing.....	Cork	Cork	Cork	Cork

	<i>Hudson Terraplane Business Cars</i>	<i>Hudson Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
CLUTCH—(Cont'd)				
No. Inserts (Cork).....	108 exc. 80 Ut. Coupe Ut. Coach Sedan 90 Ut. Coupe Ut. Coach Sedan	108 exc. Deluxe Models 90 Deluxe Models	108	108
Pilot Bearing.....	Ball	Ball	Ball	Ball
Throwout Bearing.....	Ball	Ball	Ball	Ball
Lubrication:				
Housing.....	Hudsonite	Hudsonite	Hudsonite	Hudsonite
Quantity.....	1/3 Pint	1/3 Pint	1/3 Pint	1/3 Pint
Location of Filler.....	Front of Flywheel	Front of Flywheel	Front of Flywheel	Front of Flywheel
Throwout Bearing.....	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant
Quantity.....	1 Oz.	1 Oz.	1 Oz.	1 Oz.
Type of Fitting.....	Zerk	Zerk	Zerk	Zerk
Location of Fitting.....	Right Bell Housing	Right Bell Housing	Right Bell Housing	Right Bell Housing

ELECTRICAL EQUIPMENT

Coil (Ignition):

Make.....	Autolite	Autolite	Autolite	Autolite
Location.....	Dash	Dash	Dash	Dash

Distributor (Ignition):

Make.....	Autolite	Autolite	Autolite	Autolite
Drive.....	Camshaft	Camshaft	Camshaft	Camshaft
Advance.....	Automatic	Automatic	Automatic	Automatic
Breaker Point Gap.....	.020"	.020"	.020"	.017"
Timing.....	D. C.	D. C.	D. C.	D. C.
Firing Order.....	1-5-3-6-2-4	1-5-3-6-2-4	1-5-3-6-2-4	1-6-2-5-8-3-7-4
Lubrication.....	Lt. Mtr. Oil	Lt. Mtr. Oil	Lt. Mtr. Oil	Lt. Mtr. Oil
Quantity.....	Fill Cup	Fill Cup	Fill Cup	Fill Cup

Generator:

Make.....	Autolite	Autolite	Autolite	Autolite
Drive.....	V-Belt	V-Belt	V-Belt	V-Belt

Belt Adjustment..... Swing Mtng. Swing Mtng. Swing Mtng. Swing Mtng.

Regulation—Internal..... Thrd. Brush Thrd. Brush Thrd. Brush Thrd. Brush
External..... None* Voltage Voltage Voltage
Regulator** Regulator Regulator

Charging Rate—Max. Cold..... 19 Amps. 32 Amps.*** 32 Amps. 32 Amps.
Min. Cold..... 17 Amps. 29 Amps.*** 29 Amps. 29 Amps.
Max. Hot..... 18 Amps. 29 Amps.*** 29 Amps. 29 Amps.
Min. Hot..... 16 Amps. 26 Amps.*** 26 Amps. 26 Amps.

Lubrication..... Motor Oil Motor Oil Motor Oil Motor Oil
Quantity—each Bearing..... 2 Drops 2 Drops 2 Drops 2 Drops

*Used on Series 88 Sedan only.

**None on Deluxe models without Radio.

***Deluxe models without Radio.

*Hudson
Terraplane
Business Cars*

*Hudson
Terraplane*

*Hudson
Six*

*Hudson
Eight*

ELECTRICAL EQUIPMENT—(Cont'd)

Max. Cold 19 Amps.
Min. Cold 17 Amps.
Max. Hot 18 Amps.
Min. Hot 16 Amps.

Lamps:

Bulb Voltage.....	6-8	6-8	6-8	6-8
Candle Power and Bases (Contact Single—S—Double—D)				
Head—Mazda No. 2331.....	32-32-D	32-32-D	32-32-D	32-32-D
Head—Exp.—Mazda No. 2520-D.....	21-50-D	21-50-D	21-50-D	21-50-D
Parking—Mazda No. 55.....	1½-S	1½-S	1½-S	1½-S
Fender Lamp—Mazda No. 63.....	3-S	3-S	3-S	3-S
Dash Signals—Mazda No. 51.....	1-S	1-S	1-S	1-S
Instruments—Mazda No. 55.....	1½-S	1½-S	1½-S	1½-S
Service—Mazda No. 55.....	1½-S	1½-S	1½-S	1½-S
Dome—Mazda No. 87.....	15-S	15-S	15-S	15-S
Stop and Tail—Mazda No. 1158.....	3-21-D	3-21-D	3-21-D	3-21-D
License Lamp—Mazda No. 63.....	3-S	3-S	3-S	3-S
Fuse—Headlamp Circuit.....	20 Amps.	20 Amps.	20 Amps.	20 Amps.
Tail Lamp Circuit.....	20 Amps.	20 Amps.	20 Amps.	20 Amps.

Spark Plugs:

Make.....	Champion	Champion	Champion	Champion
Type—Standard Head.....	J8-A	J8-A	J8-A	J8-A
Type—Super Power Dome Head.....	H-10	H-10	H-10	H-10
Size.....	14 m.m.	14 m.m.	14 m.m.	14 m.m.
Gap.....	.032"	.032"	.032"	.032"

Starting Motor:

Make.....	Autolite	Autolite	Autolite	Autolite
Drive.....	Bendix	Bendix	Bendix	Bendix
Control.....	Solenoid	Solenoid	Solenoid	Solenoid
Lubrication.....	Motor Oil	Motor Oil	Motor Oil	Motor Oil
Quantity (Each Bearing).....	2 Drops	2 Drops	2 Drops	2 Drops

Battery:

Location.....	Engine Com- partment Left Side	Engine Com- partment Left Side	Engine Com- partment Left Side	Engine Com- partment Left Side
Make.....	National	National	National	National
No. Plates.....	17	17	17	19
Capacity.....	105 Amp. Hrs.	105 Amp. Hrs.	105 Amp. Hrs.	125 Amp.
Dimensions—Length.....	10 9/16"	10 9/16"	10 9/16"	11 13/16"
Width.....	7¼"	7¼"	7¼"	7¼"
Height (overall).....	7 15/16"	7 15/16"	7 15/16"	7 15/16"
Terminal Grounded.....	Pos.	Pos.	Pos.	Pos.

ENGINE

Number of Cylinders.....	6	6	6	8
Arrangement.....	Vertical	Vertical	Vertical	Vertical

	Hudson Terraplane Business Cars	Hudson Terraplane	Hudson Six	Hudson Eight
ENGINE—(Cont'd)				
Bore.....	3"	3"	3"	3"
Stroke.....	5"	5"	5"	4½"
Piston Displacement.....	212	212	212	254
Taxable Horse Power.....	21.6	21.6	21.6	28.8
Actual Horse Power:				
Standard Head.....	96 @ 3900		101 @ 4000	122 @ 4200
Super Power Dome Head.....	102 @ 3900		107 @ 4000	
Standard Head—Deluxe.....		96 @ 3900		
Standard Head—Super.....		101 @ 4000		
Super Power Dome Head—Deluxe.....		102 @ 3900		
Super Power Dome Head—Super.....		107 @ 4000		
Compression Ratio:				
Standard.....	6.25	6.25	6.25	6.25
Super Power Dome.....	7.00 to 1	7.00 to 1	7.00 to 1	
Firing Order.....	1-5-3-6-2-4	1-5-3-6-2-4	1-5-3-6-2-4	1-6-2-5-8-3-7-4
Engine Mounting.....	Rubber	Rubber	Rubber	Rubber
Camshaft:				
Drive.....	Gear	Gear	Gear	Gear
Number of Teeth—				
Camshaft Gear.....	56	56	56	56
Crankshaft Gear.....	28	28	28	28
Timing Indicated by Marks on.....	Gears	Gears	Gears	Gears
Camshaft Bearings:				
Diameter and Length—				
No. 1.....	2x1 3/16"	2x1 3/16"	2x1 3/16"	2 1/32x1 3/8"
No. 2.....	1 31/32x1 1/16"	1 31/32x1 1/16"	1 31/32x1 1/16"	2x1"
No. 3.....	1½x1½"	1½x1½"	1½x1½"	1 31/32x1¼"
No. 4.....				1 15/16x1"
No. 5.....				1½x1½"
Radial Clearance.....	.0025"	.0025"	.0025"	.0025"
End Play Prevented by.....	Spring	Spring	Spring	Spring
Connecting Rods:				
Material.....	D. F. Steel	D. F. Steel	D. F. Steel	D. F. Steel
Weight (Ounces).....	30.3	30.3	30.3	30.3
Length (C to C).....	8 3/16"	8 3/16"	8 3/16"	8 3/16"
Lower End Bearing				
Diameter.....	1½"	1½"	1½"	1½"
Length.....	1¾"	1¾"	1¾"	1¾"
Clearance.....	.001"	.001"	.001"	.001"
End Play.....	.006"-.010"	.006"-.010"	.006"-.010"	.006"-.010"
Material.....	Spun Babbitt	Spun Babbitt	Spun Babbitt	Spun Babbitt
Upper End Bearing				
Diameter.....	¾"	¾"	¾"	¾"
Length.....	1½"	1½"	1½"	1½"
Radial Clearance.....	.0003"	.0003"	.0003"	.0003"
Material.....	Bronze	Bronze	Bronze	Bronze

	Hudson Terraplane Business Cars	Hudson Terraplane	Hudson Six	Hudson Eight
ENGINE—(Cont'd)				
Cooling System:				
Circulation by.....	Pressure Pump	Pressure Pump	Pressure Pump	Pressure Pump
Temperature Control.....	None	*Thermostat	Thermostat	Thermostat
Capacity (Quarts).....	12½ (10½ Imp. Qts.-11¾ Liters)	12½ (10½ Imp. Qts.-11¾ Liters)	12½ (10½ Imp. Qts.-11¾ Liters)	17½ (14½ Imp. Qts.-16½ Liters)
Upper Rad. Hose—Length.....	10"	10"	10"	10"
Diameter.....	1½"	1½"	1½"	1½"
Lower Rad. Hose—Length.....	8½"	8½"	3"	8½"
Diameter.....	1⅝"	1⅝"	1⅝"	1⅝"
Pump Hose Outlet—Length.....	3¼"	3¼"	3¼"	3¼"
Diameter.....	1½"	1½"	1½"	1½"
By-Pass—Length.....	None	*2 5/16"	2 5/16"	2 5/16"
Diameter.....	None	1"	1"	1"
Pump Drive.....	V-Belt	V-Belt	V-Belt	V-Belt
Fan Drive.....	Pump Shaft	Pump Shaft	Pump Shaft	Pump Shaft
Belt Adjustment.....	Generator Mntg.	Generator Mntg.	Generator Mntg.	Generator Mntg.
Pump Bearing Type.....	Bronze	Bronze	Bronze	Bronze
Lubrication Fitting.....	Alemite	Alemite	Alemite	Alemite
Packing Gland Adjustment.....	Automatic	Automatic	Automatic	Automatic

*None on Deluxe Model.

Crankshaft:

Type.....	Fully Com- pensated	Fully Com- pensated	Fully Com- pensated	Fully Com- pensated
Number of Bearings.....	3	3	3	5
Bearing Material.....	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt
Bearing Diameter and Length				
No. 1.....	2 11/32x1 5/8"	2 11/32x1 5/8"	2 11/32x1 5/8"	2 9/32x1 5/8"
No. 2.....	2 3/8x1 3/4"	2 3/8x1 3/4"	2 3/8x1 3/4"	2 5/16x1 3/8"
No. 3.....	2 13/32x2 3/8"	2 13/32x2 3/8"	2 13/32x2 3/8"	2 11/32x1 7/8"
No. 4.....				2 3/8x1 3/8"
No. 5.....				2 13/32x2"
End Play Taken by Bearing No.....	2	2	2	3
Bearing End Play.....	.006"-.012"	.006"-.012"	.006"-.012"	.006"-.012"
Bearing Clearance.....	.001"	.001"	.001"	.001"
Adjustment Type.....	Shim	Shim	Shim	Shim

Fuel System:

Carburetor—Make.....	Carter	Carter	Carter	Carter
Type.....	Down Draft Single	*Down Draft Duplex	Down Draft Duplex	Down Draft Duplex
Size.....	1¼"	**1"	1"	1"
Heat Control.....	Manual	***Automatic	Automatic	Automatic
Choke Control.....	Manual	***Automatic	Automatic	Automatic
Fuel Delivery by.....	Pump	Pump	Pump	Pump
Pump Drive from Camshaft by.....	Cam	Cam	Cam	Cam
Air Cleaner and Silencer—				
Oil Wetted.....	A. C.	A. C.	A. C.	A. C.

	<i>Hudson Terraplane Business Cars</i>	<i>Hudson Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
ENGINE—(Cont'd)				
Air Cleaner and Silencer—				
Oil Bath Optional.....	United	United	United	United
Gasoline Tank Capacity (Gal.).....	16½ (13¾ Imp. Gals.-62½ Liters)	16½ (13¾ Imp. Gals.-62½ Liters)	16½ (13¾ Imp. Gals.-62½ Liters)	16½ (13¾ Imp. Gals.-62½ Liters)
*Down Draft Single on Deluxe Mode				
**Size 1¼" on Deluxe Models.				
***Manual on Deluxe Models.				
Lubrication System:				
Type.....	Hudson Duo-flo Automatic	Hudson Duo-flo Automatic	Hudson Duo-flo Automatic	Hudson Duo-flo Automatic
Pump Type.....	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger
Pump Drive.....	Camshaft	Camshaft	Camshaft	Camshaft
Oil Cooling by.....	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir
Oil Filter.....	Screen	Screen	Screen	Screen
Screen Mesh.....	40	40	40	40
Capacity—Total.....	6 Qts. (5 Imp. Qts.-5¾ Liters)	6 Qts. (5 Imp. Qts.-5¾ Liters)	6 Qts. (5 Imp. Qts.-5¾ Liters)	9 Qts. (7½ Imp. Qts.-8½ Liters)
Reservoir Only.....	5 Qts. (4¼ Imp. Qts.-4½ Liters)	5 Qts. (4¼ Imp. Qts.-4½ Liters)	5 Qts. (4¼ Imp. Qts.-4½ Liters)	7 Qts. (5⅞ Imp. Qts.-6⅝ Liters)
Pistons:				
Type.....	Cam Ground	Cam Ground	Cam Ground	Cam Ground
Material.....	Lo-Ex. Alum. Alloy	Lo-Ex Alum. Alloy	Lo-Ex Alum. Alloy	Lo-Ex Alum. Alloy
Weight (Oz.).....	10.5	10.5	10.5	10.5
Length.....	3 3/16"	3 3/16"	3 3/16"	3 3/16"
Pin Center to Top.....	1 11/16"	1 11/16"	1 11/16"	1 11/16"
Clearance—				
Skirt.....	.002"	.002"	.002"	.002"
Top of Piston.....	.016"	.016"	.016"	.016"
Depth of Grooves.....	5/32"	5/32"	5/32"	5/32"
Piston Pin Hole—Size.....	¾"	¾"	¾"	¾"
Finish.....	Diamond Bore	Diamond Bore	Diamond Bore	Diamond Bore
Piston Pin:				
Type.....	Floating	Floating	Floating	Floating
Method of Locking.....	Snap Rings	Snap Rings	Snap Rings	Snap Rings
Diameter.....	¾"	¾"	¾"	¾"
Length.....	2 7/16"	2 7/16"	2 7/16"	2 7/16"
Fit in Piston (at 200° F.).....	.0003"	.0003"	.0003"	.0003"
Fit in Rod.....	.0003"	.0003"	.0003"	.0003"
Piston Rings:				
Material.....	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Joint—Type.....	Straight Cut	Straight Cut	Straight Cut	Straight Cut
Compression Rings—No.....	2	2	2	2
Width.....	3/32"	3/32"	3/32"	3/32"
Gap.....	.009-.011"	.009-.011"	.009-.011"	.009-.011"

	Hudson Terraplane Business Cars	Hudson Terraplane	Hudson Six	Hudson Eight
ENGINE—(Cont'd)				
Oil Rings—No.....	2	2	2	2
Width—				
Upper (above pin).....	3/16"	3/16"	3/16"	3/16"
Lower (below pin).....	3/16"	3/16"	3/16"	3/16"
Gap.....	.009-.011"	.009-.011"	.009-.011"	.009-.011"

Valves and Tappets:

Inlet Valve—Material.....	Silicon Steel	Silicon Steel	Silicon Steel	Silicon Steel
Head Outside Diameter.....	1 3/8"	1 3/8"	1 3/8"	1 1/2"
Opening.....	1 1/4"	1 1/4"	1 1/4"	1 3/8"
Valve Lift.....	11/32"	11/32"	11/32"	11/32"
Stem Length.....	5 11/32"	5 11/32"	5 11/32"	5 3/32"
Stem Diameter.....	11/32"	11/32"	11/32"	11/32"
Exhaust Valve—Material.....	Silicon Chrome Steel	Silicon Chrome Steel	Silicon Chrome Steel	Silicon Chrome Steel
Head Outside—Diameter.....	1 3/8"	1 3/8"	1 3/8"	1 3/8"
Opening.....	1 1/4"	1 1/4"	1 1/4"	1 1/4"
Valve Lift.....	11/32"	11/32"	11/32"	11/32"
Stem Length.....	5 11/32"	5 11/32"	5 11/32"	5 3/32"
Stem Diameter.....	11/32"	11/32"	11/32"	11/32"
Valve Stem Guides.....	Removable	Removable	Removable	Removable
Valve Guide Length.....	2 9/16"	2 9/16"	2 9/16"	2 9/16"
Top of Guide to top of block.....	1 1/16"	1 1/16"	1 1/16"	15/16"
Valve Spring Pressure.....	44 lbs @ 2" 102 lbs. @ 1 2 1/32"	44 lbs @ 2" 102 lbs. @ 1 2 1/32"	44 lbs @ 2" 102 lbs. @ 1 2 1/32"	44 lbs @ 2" 102 lbs. @ 1 2 1/32"

SPRINGS

Front—Type.....	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Length.....	33"	33"	37 1/2"	37 1/2"
Width.....	1 3/4"	1 3/4"	1 3/4"	1 3/4"
No. of Leaves.....	10	9	10	10
Shackle Location.....	Front	Front and Rear	Front and Rear	Front and Rear
Shackle Type.....	Self-Adjusting	Self-Adjusting	Self-Adjusting	Self-Adjusting
Rear—Type.....	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Length.....	52 1/2"	52 1/2"	52 1/2"	52 1/2"
Width.....	1 3/4"	1 3/4"	1 3/4"	1 3/4"
No. of Leaves.....	*15	10	10	10
Shackle Location.....	Rear	Rear	Rear	Rear
Spring Covers.....	No	**Yes	Yes	Yes
Lubricant—Leaves.....	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant
Shackles.....	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant

*Except Utility Coupe, Utility Coach and Sedan which have 10 Leaves.

**None on Deluxe Models.

	<i>Hudson Terraplane Business Cars</i>	<i>Hudson Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
STEERING GEAR				
Type.....	Worm and Roller Tooth	Worm and Roller Tooth	Worm and Roller Tooth	Worm and Roller Tooth
Ratio.....	18.2	18.2	18.2	18.2
Adjustments:				
Worm Shaft.....	Shims	Shims	Shims	Shims
Cross Shaft.....	Set Screw	Set Screw	Set Screw	Set Screw
Gear Mesh.....	Set Screw	Set Screw	Set Screw	Set Screw
Steering Wheel Height.....	Column Bracket	Column Bracket	Column Bracket	Column Bracket
Lubricant—Summer and Winter.....	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.

TIRES

Size—Standard—4 Ply.....	16x6.00"	16x6.00"	16x6.00"	16x6.50"
Optional—4 Ply.....		15x7.00"	15x7.00"	15x7.00"
6 Ply.....	16x6.50"			
Air Pressure 16x6.00"—				
Front.....	24	24	24	24
Rear.....	32	32	32	32
Air Pressure 17x5.00"—				
Front.....	22	22	22	22
Rear.....	28	28	28	28

TRANSMISSION

Location.....	Unit	Unit	Unit	Unit
Speeds—Forward.....	3	3	3	3
Speeds—Reverse.....	1	1	1	1
Main Drive Gear Type.....	Helical	Helical	Helical	Helical
Countershaft Gear Type.....	Helical	Helical	Helical	Helical
Countershaft Second Type.....	Helical	Helical	Helical	Helical
Mainshaft Second Gear Type.....	Helical	Helical	Helical	Helical
Gear Ratios:				
Low.....	2.42	2.42	2.42	2.42
Second.....	1.61	1.61	1.61	1.61
High.....	1.	1.	1.	1.
Reverse.....	2.99	2.99	2.99	2.99
Free Wheeling.....	No	No	No	No
Lubricant—Summer.....	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.	S. A. E. 90 E. P.
Winter.....	S. A. E. 80 E. P.	S. A. E. 80 E. P.	S. A. E. 80 E. P.	S. A. E. 80 E. P.
Capacity (Pts.).....	3 (1.36 Kgs.)	3 (1.36 Kgs.)	3 (1.36 Kgs.)	3 (1.36 Kgs.)
Bearings:				
Mainshaft Pilot.....	Ball	Ball	Ball	Ball
Mainshaft Bearings.....	Ball	Ball	Ball	Ball
Mainshaft Pocket Bearing.....	Roller	Roller	Roller	Roller
Mainshaft Pocket Thrust Bearing.....	Ball	Ball	Ball	Ball
Countershaft Bearings—Type.....	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt

	<i>Hudson Terraplane Business Cars</i>	<i>Hudson Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
TRANSMISSION—(Cont'd)				
Size—Front.....	.812"	.812"	.812"	.812"
Rear.....	.812"	.812"	.812"	.812"
Clearance.....	.0005"	.0005"	.0005"	.0005"
Second Speed M. S. Gear Type.....	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Diameter.....	2.188"	2.188"	2.188"	2.188"
Clearance.....	.0005"	.0005"	.0005"	.0005"
End Play.....	.009"	.009"	.009"	.009"
Reverse Idler Bearings.....	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Diameter.....	.683"	.683"	.683"	.683"
Clearance.....	.003"	.003"	.003"	.003"
Mainshaft End Play.....	.006-.009"	.006-.009"	.006-.009"	.006-.009"
Adjustment.....	Shims	Shims	Shims	Shims
Shim Location.....	Front Bearing Cap	Front Bearing Cap	Front Bearing Cap	Front Bearing Cap
Countershaft End Play.....	.005-.008"	.005-.008"	.005-.008"	.005-.008"
Adjustment.....	Shims	Shims	Shims	Shims
Location.....	Rear Bearing Cap	Rear Bearing Cap	Rear Bearing Cap	Rear Bearing Cap

WHEELS

Type.....	Steel Disc	Steel Disc	Steel Disc	Steel Disc
Rim Type.....	Drop Base	Drop Base	Drop Base	Drop Base
Rim Size—Standard.....	16x4.00"	16x4.00"	16x4.00"	16x4.50"
Rim Size—Optional.....	15x5.00"	15x5.00"	15x5.00"	15x5.00"
Bolts—per Wheel.....	5	5	5	5
Hub Type.....	Demountable	Demountable	Demountable	Demountable

CHASSIS AND GENERAL DIMENSIONS

Wheelbase.....	117"-124"	117"	122"	122"-129"
Tread—Front.....	56"	56"	56"	56"
Rear.....	59½"	59½"	59½"	59½"
Road Clearance				
Front Axle—Center.....	8 9/16"	8 9/16"	8 9/16"	8 9/16"
Rear Axle—Center.....	8 7/16"	8 7/16"	8 7/16"	8 7/16"
Overall Length (Including Bumpers)				
5 Passenger Closed Cars.....	194 3/16"	194 3/16"	198 9/16"	198 9/16"-206 5/8"
Sedan—124" W. B.....	201 3/16"			
Coupe.....	194 3/16"	194 3/16"	198 9/16"	198 9/16"
Cab and Chassis—117" W. B.....	179 1/8"			
Cab and Chassis—124" W. B.....	186 1/8"			
Cab Pickup—117"-124" W. B.....	202 9/16"			
Panel Delivery—117"-124" W. B.....	204 5/16"			
Station Wagon—117" W. B.....	192 1/16"			

	<i>Hudson Terraplane Business Cars</i>	<i>Hudson Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
CHASSIS AND GENERAL DIMENSIONS—(Cont'd)				
Overall Height (No Load)				
5 Passenger Closed Cars.....	70½"	70½"	70½"	70½" Model 84, 85 70¾"
Coupe.....	69⅝"	70½"	70½"	70½"
Coupe—Convertible.....	70½"	70½"	70½"	70½"
Brougham—Convertible.....	70½"	70½"	70½"	70½"
Cab and Chassis (Loaded).....	68¼"			70½"
Cab Pickup.....				
Panel Delivery—117" W. B.....	76⅝"			
Panel Delivery—124" W. B.....				
Station Wagon.....	75"			
Overall Width.....	72"	72"	72"	72"
Turning Radius.....	20' 3" 124"-21' 6"	20' 3"	21' 3"	122"-21' 3" 129"-22' 6"