

# 1936 Service Information and Adjustments

	<i>Terraplane Deluxe (115" WB)</i>	<i>Terraplane Custom (115" WB)</i>	<i>Hudson Six (120" WB)</i>	<i>Hudson 8 Deluxe (120" W B)</i>	<i>Hudson 8 Custom (120" WB)</i>	<i>Hudson 8 Deluxe (127" WB)</i>	<i>Hudson 8 Custom (127" WB)</i>
<i>Starting Serial No. (U. S. Plant)</i>	61-101	62-101	63-101	64-101	65-101	66-101	67-101
<i>Starting Engine No. (All Plants)</i>	157000	157000	79000	1000	1000	1000	1000
<i>Starting Serial No. (Canadian)</i>	63C-101	C101	63C-101	64C-101	65C-101	66C-101	67C-101

*Terraplane*

*Hudson Six*

*Hudson Eight*

## FRONT AXLE

Type	Elliot	Elliot	Elliot
Caster (Actual on Car)	2° to 2½°	2° to 2½°	2° to 2½°
Max. Variation-Right and Left Ends	½°	½°	½°
Camber	1° - 1½°	1° - 1½°	1° - 1½°
Toe-in - at Felloe	0 - 1/8"	0 - 1/8"	0 - 1/8"
Spindle Pin Inclination (Angle with Spring Pad)			
Transverse	7°	7°	7°
Steering Spindle Pin Diameter	¾"	¾°	¾°
Steering Spindle Thrust Bearing	Ball	Ball	Ball
Wheel Bearing-Type	Taper Roller	Taper Roller	Taper Roller
End Play	.001" - .003"	.001" - .003"	.001" - .003"
Tie Rod Joint --Type	Ball Bearing	Ball Bearing	Ball Bearing
Tie Rod Adjustment	Screw	Screw	Screw
To Adjust Tie Rod			
Turn Clockwise - To (As seen from right)	Lengthen	Lengthen	Lengthen
Turn Counter-clockwise To	Shorten	Shorten	Shorten

## REAR AXLE

Type	Semi-floating	Semi-floating	Semi-floating
Ratio - Standard	4.11	4.11	4,11
- Optional.	4.56	4.56	4.56
Pinion Bearings			
Type	Roller	Roller	Roller
Adjustment	Shim	Shim	Shim
End Play .	.000" - .001"	.000" - .001"	.000" - .001"
Differential Bearings			
Type	Roller	Roller	Roller
Adjustment.	Screw	Screw	screw
End Play	.009" Tension	.009" Tension	.009" Tension
Wheel Bearings Type	Taper Roller	Taper Roller	Taper Roller
Adjustment	Shim	Shim	Shim
End Play	.004" - .010"	.004" - .010"	.004" - .010"
Pinion and Gear Adjustment	Shim	Shim	Shim
Lash in Gears.	0005" .003'	.0005" - .003"	.0005" - .003"

*Terraplane**Hudson Six**Hudson Eight***BRAKES**

Location .....	4 Wheels	4 Wheels	4 Wheels
Operation by .....	Hydraulic Control	Hydraulic Control	Hydraulic Control
Drum Diameter	10-1/16"	10-1/16"	11-1/16"
Drum Material	Alloy Steel	Alloy Steel	Alloy Steel
Lining-Type ... ..	Moulded and Woven	Moulded and Woven	Moulded and Woven
Width	1-3/4"	1-3/4"	1-3/4"
Thickness	7/32"	7/32"	7/32"
Length per Wheel	22-1/8"	22-1/8"	23-15/16"
Pieces per Wheel -----	2	2	2

*Adjustments:*

Anchor Pin - Movable ....	Radially	Radially	Radially
Upper Shoe .....	Eccentric	Eccentric	Eccentric
Lower Shoe	Screw	Screw	Screw

*Clearance:*

Anchor Pin End of Shoes	.010"	.010"	.010"
Adj. Screw End of Shoes	.010	.010"	.010"
Max. Variation per Shoe	.003"	.003"	.003"

**CLUTCH**

Type - Single Disc in Oil	Yes	Yes	Yes
Facing	Cork	Cork	Cork
No. Inserts (Cork).	90	90	108
Pilot Bearing	Ball	Ball	Ball
Throwout Bearing	Ball	Ball	Ball

*Lubrication:*

Housing . ... ..	Hudsonite	Hudsonite	Hudsonite
Quantity	1/3 Pint	1/3 Pint	1/3 Pint
Location of Filler . .	Front of Flywheel	Front Of Flywheel	Front of Flywheel
Throwout Bearing	Viscous Chassis	Viscous Chassis	Viscous Chassis
Lubricant	Lubricant	Lubricant	Lubricant
Quantity ..	1 Oz.	1 Oz.	1 Oz.
Type of Fitting	Zerk	Zerk	Zerk
Location of Fitting	Right Bell Housing	Right Bell Housing	Right Bell Housing

**ELECTRICAL EQUIPMENT***Coil (Ignition):*

Make (Autolite)	IG-4633	IG-4633	CE-4617
Location	Dash	Dash	Dash

*Distributor (Ignition):*

Make - Autolite	IGW-4301-B	IGW-4301-B	IGP-4001-B
Drive	Camshaft	Camshaft	Camshaft
Advance	Automatic	Automatic	Automatic
Breaker Point Gap	.020	.020"	.020"
Timing	D. C.	D. C.	D. C.
Firing Order	1-5-3-6-2-4	1-5-3-6-2-4	1-6-2-5-8-3-7-4
Lubrication	Light Motor Oil	Light Motor Oil	Light Motor Oil
Quantity	Fill Cup	Fill Cup	Fill Cup

*Terraplane**Hudson Six**Hudson Eight*

## Electrical Equipment (Cont'd)

*Generator:*

Make - Autolite	GJC-4072 <sup>1</sup>	GAR-4701-6 <sup>2</sup>	GAR-4701-6
Drive	V-Belt	V-Belt	V-Belt
<i>Belt Adjustment</i>	Swing Mounting	Swing Mounting	Swing Mounting
Regulation - Internal	Third Brush	Third Brush	Third Brush
- External <sup>3</sup>	Voltage Regulator	Voltage Regulator	Voltage Regulator
Charging Rate - Cold	17 Amps.	22 Amps.	22 Amps.
Hot	13 Amps.	17 Amps.	17 Amps.
Lubrication	Motor Oil	Motor Oil	Motor Oil
Quantity - each Bearing	2 Drops	2 Drops	2 Drops

<sup>1</sup> - Generator GJC-4072 – Terraplane Model 61<sup>2</sup> - Generator GAR-4701-6 – Terraplane Model 62, 1936 Hudson all<sup>3</sup> - None on Terraplane De Luxe without radio*Lamps:*

Bulb Voltage	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
Parking - “ “ 55	1-S	1-S	1-S
Dash Signals - “ “ 55	1-S	1-S	1-S
Instruments - “ “ 55	1-S	1-S	1-S
Service - “ “ 55	1-S	1-S	1-S
Stop and Tail - “ “ 1158	2-21-D	2-21-D	2-21-D
Dome - “ “ 87	15-S	15-S	15-S
Fuse - Headlamp Circuit	20 Amps	20 Amps	20 Amps
Tail Lamp Circuit	20 Amps	20 Amps	20 Amps
Charge Control	None	7½ Amps.	7½ Amps.

*Spark Plugs:*

Make	Champion	Champion	Champion
Type - Standard Head	J8	J8	J8
- High Compression			
Head	J-9	J-9	J-9
Size	14 m.m.	14 m.m.	14 m.m.
Gap	.022”	.022”	.022”

*Starting Motor:*

Make - Autolite	MAB-4075	MAB-4075	MAB-4075
Drive	Bendix	Bendix	Bendix
Control	Solenoid	Solenoid	Solenoid
Lubrication	Motor Oil	Motor Oil	Motor Oil
Quantity (Each Bearing)	2 Drops	2 Drops	2 Drops



	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>Electrical Equipment (Cont'd)</b>			
<i>Connecting Rods:</i>			
Material	D. F. Steel	D. F. Steel	D. F. Steel
Weight (Ounces)	29.4	29.4	29.4
Length (C to C)	8-3/16"	8-3/16"	8-3/16"
Lower End Bearing			
Diameter	1-15/16"	1-15/16"	1 -15/16"
Length	1-3/8	1-3/8	1-3/8"
Clearance	.001"	.001"	.001
End Play	.006"-.010	.006"-.010"	.006"-.010"
Material	Spun Babbitt	Spun Babbitt	Spun Babbitt
Upper End Bearing			
Diameter	3/4"	3/4"	3/4"
Length	15/16"	15/16"	15/16"
Radial Clearance	.0003"	.0003"	.0003"
Material	Bronze	Bronze	Bronze
<i>Cooling System</i>			
Circulation by	Pressure Pump	Pressure Pump	Pressure Pump
*Temperature Control	Thermostat*	Thermostat	Thermostat
Capacity (Gallons)	3-1/4	3-1/4	5
Upper Rad. Hose - Length	10-5/8"	3"	10-5/8"
- Diameter	1-1/2"	1-1/2"	1-1/2"
Lower Rad. Hose -Length	8-1/2"	3"	8-1/2"
- Diameter	1-5/8"	1-5/8"	1-5/8"
Pump Hose Outlet - Length	1 1/2"	1 1/2"	1 1/2"
- Diameter	3"	3"	3"
*By-Pass - Length	2-5/16"	2-5/16	2-5/16"
- Diameter	1"	1"	1"
Pump Drive	V-Belt	V-Belt	V-Belt
Fan Drive	Pump Shaft	Pump Shaft	Pump Shaft
Belt Adjustment	Generator Mtg.	Generator Mtg.	Generator Mtg.
Pump Bearing Type	Bronze	Bronze	Bronze
Lubrication Fitting	Alemite	Alemite	Alemite
Packing Gland Adjustment	Automatic	Automatic	Automatic
*None on Terraplane Deluxe			
<i>Crankshaft:</i>			
Type	Fully Compensated	Fully Compensated	Fully Compensated
Number of Bearings	3	3	5
Bearing Material	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt
Bearing Diameter and Length			
No. 1	2 11/32x1-5/8"	2-11/32"x1-5/8"	2-9/32x1-5/8"
No. 2	2-3/8x1-3/4"	2 3/8x1-3/4"	2-5/16"x1-3/8"
No. 3	2-13/32x2-3/8"	2-13/32x2-3/8"	2-11/16x1-7/8"
No. 4			2 3/8"x1-3/8"
No. 5			2-13/32x2"

<b>ENGINE - (Cont'd)</b> (Crankshaft)	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
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End Play Taken by Bearing No.	2	2	3
Bearing End Play	.006"-.012"	.006"-.012"	.006"-.012"
Bearing Clearance	.001"	.001"	.001"
Adjustment Type	Shim	Shim	Shim

*Fuel System:*

Carburetor Make - Carter	W1-331S <sup>1</sup>	W1-329S <sup>1</sup>	W1-330S
Type – Deluxe & Commercial	Down Draft	Down Draft	Down Draft
Size	1-1/4"	1-1/4"	1-1/4"
Heat Control	Adjustable	Automatic	Automatic
Choke Control	Manual	Automatic	Automatic
Fuel Delivery by	Pump	Pump	Pump
Pump Drive from Camshaft by	Cam	Cam	Cam
Air Cleaner and Silencer - Dry	A. C.	A. C.	A. C.
Gasoline Tank Capacity (Gal.)	16-1/2"	16-1/2"	16-1/2"

<sup>1</sup>W1-331S – 1936 Terraplane 61.

<sup>2</sup>W1-329S – 1936 Terraplane 62, 1936 Hudson Six

*Lubrication System:*

Type - Hudson Duoflo Automatic	Yes	Yes	Yes
Pump Type	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger
Pump Drive	Camshaft	Camshaft	Camshaft
Oil Cooling	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir
Oil Filter	Screen	Screen	Screen
Screen Mesh	40	40	40
Capacity – Total (Quarts)	6	6	9
Reservoir (Quarts)	5	5	7

*Pistons:*

Type	Cam Ground	Cam Ground	Cam Ground
Material	Lo-Ex Alum. Alloy	Lo-Ex Alum. Alloy	Lo-Ex. Alum. Alloy
Weight (Oz.)	10.5	10.5	10.5
Length	3-3/16"	3-3/16"	3-3/16"
Pin Center to Top	1-11/16"	1-11/16"	1-11/16"
Clearance			
Skirt	.002"	.002"	.002"
Top of Piston	.016"	.016"	.016"
Depth of Grooves	5/32"	5/32"	5/32"
Piston Pin Hole – Size	3/4"	3/4"	3/4"
– Finish	Diamond Bore	Diamond Bore	Diamond Bore

*Piston Pin:*

Type	Floating	Floating	Floating
Method of Locking	Snap Rings	Snap Rings	Snap Rings
Diameter	3/4"	3/4"	3/4"
Length	2-7/16"	2-7/16"	2-7/16"
Fit in Piston (at 200 <sup>0</sup> F.)	.0003"	.0003"	.0003"
Fit in Rod	.0003"	.0003"	.0003"

<b>ENGINE - Fuel System (Cont'd)</b>	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<i>Piston Rings:</i>			
Material	Cast Iron	Cast Iron	Cast Iron
Joint – Type	Straight Cut	Straight Cut	Straight Cut
Compression Rings – No.	2	2	2
Width	3/32"	3/32"	3/32"
Gap	.009-.011"	.009-.011"	.009-.011"
Oil Rings – No.	2	2	2
Width			
Upper (above pin)	3/16"	3/16"	3/16"
Lower (below pin)	3/16"	3/16"	3/16"
Gap	.009-.011"	.009-.011"	.009-.011"

**Valves and Tappets:**

Inlet Valve – Material	Silicon Steel	Silicon Steel	Silicon Steel
Head – Outside Diameter	1-3/8"	1-3/8"	1½"
Opening	1¼"	1¼"	1-3/8"
Valve Lift	11/32"	11/32"	11/32"
Stem Length	5-11/32"	5-11/32"	5-3/32"
Stem Diameter	3/8"	3/8"	3/8"
Exhaust Valve – Material	Silicon Chrome Steel	Silicon Chrome Steel	Silicon Chrome Steel
Head – Outside Diameter	1-3/8"	1-3/8"	1-3/8"
Opening	1¼"	1¼"	1¼"
Valve Lift	11/32"	11/32"	11/32"
Stem Length	5-11/32"	5-11/32"	5-3/32"
Stem Diameter	3/8"	3/8"	3/8"
Valve Stem Guides	Removable	Removable	Removable
Valve Spring Pressure	44 lbs. @ 2" 102 lbs. @ 1-21/32"	44 lbs. @ 2" 102 lbs. @ 1-21/32"	44 lbs. @ 2" 102 lbs @ 1-21/32"

**SPRINGS**

Front - Type	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Length	33"	37-1/2"	37-1/2"
Width.	1-3/4"	1-3/4"	1-3/4"
No. of Leaves	8	8	9
Shackle Location	Front and Rear	Front and Rear	Front and Rear
Shackle Type	Self Adjusting	Self Adjusting	Self Adjusting
Rear - Type	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Length	52"	52"	52"
Width	1¾"	1¾"	1¾"
No. of Leaves	9	9	9
Shackle Location	Rear	Rear	Rear

**STEERING GEAR**

Type	Worm and Sector	Worm and Sector	Worm and Sector
Ratio	17	17	17
Adjustments			
Worm Shaft	Shims	Shims	Shims
Cross Shaft	Set Screw	Set Screw	Set Screw
Gear Mesh	Eccentric Cover Screw	Eccentric Cover Screw	Eccentric Cover Screw
Steering Wheel Height	Column Bracket	Column Bracket	Column Bracket

*Terraplane**Hudson Six**Hudson Eight***ENGINE- (Cont'd)****TIRES**

Size - Standard	16x6.00	16x6.00	16x6.25
Air Pressure 16 x 6.00: (Front/Rear)	24/32	24/32	24/32
Air Pressure 17 x 5.00 (Front/Rear)	22/32	22/32	22/32

**TRANSMISSION**

Location	Unit	Unit	Unit
Speeds - Forward	3	3	3
Speeds - Reverse	1	1	1
Main Drive Gear Type	Helical	Helical	Helical
Countershaft Gear Type	Helical	Helical	Helical
Countershaft Second Type	Helical	Helical	Helical
Mainshaft Second Gear Type	Helical	Helical	Helical

*Gear Ratios:*

Low	2.42	2.42	2.42
Second	1.61	1.61	1.61
High	1.	1.	1.
Reverse	2.99	2.99	2.99
Free Wheeling	No	No	No
Capacity (Pints)	3	3	3

*Bearings:*

Mainshaft Pilot	Ball	Ball	Ball
Mainshaft Bearings	Ball	Ball	Ball
Mainshaft Pocket Bearing	Roller	Roller	Roller
Mainshaft Pocket Thrust Bearing	Ball	Ball	Ball
Countershaft Bearings-Type	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Size - Front	.812"	.812"	.812"
Rear	.812"	.812"	.812"
Clearance	.0005"	.0005"	.0005"
Second Speed M. S. Gear Type	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Diameter	2.188"	2.188"	2.188"
Clearance	.0005"	.0005"	.0005"
End Play	.009"	.009"	.009"
Reverse Idler Bearings	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Diameter	.683"	.683"	.683"
Clearance	.003"	.003"	.003"
Mainshaft End Play	.006-.009"	.006-.009"	.006-.009"
Adjustment	Shims	Shims	Shims
Shim Location	Front Bearing Cap	Front Bearing Cap	Front Bearing Cap
Countershaft End Play	.005-.008"	.005-.008"	.005-.008"
Adjustment	Shims	Shims	Shims
Location	Rear Bearing Cap	Rear Bearing Cap	Rear Bearing Cap

*Terraplane*

*Hudson Six*

*Hudson Eight*

**WHEELS**

Type	Steel Artillery	Steel Artillery	Steel Artillery
Rim Type	Drop Base	Drop Base	Drop Base
Rim Size - Standard	16x4.00"	16x4.00"	16x4.00"
Hub Type	Demountable	Demountable	Demountable

**CHASSIS AND GENERAL DIMENSIONS**

Wheel Base	115"	120"	120" - 127"
Tread - Front	56"	56"	56"
Rear	57-1/2"	57-1/2"	57-1/2"
Road Clearance			
Front Axle - Center	8-9/16"	8-9/16"	8-9/16"
Rear Axle - Center	8-7/16"	8-7/16"	8-7/16"
Overall Length (Including Bumpers)			
5 Passenger Closed Cars	195"	199-5/8"	199-5/8" - 206-5/8"
Coupes	200"	204-5/8"	204-5/8"
Overall Height (No Load)			
5 Passenger Closed Cars	69½"	69½"	69½"
Coupe - Business and Rumble	68"	68"	68"
Coupe - Convertible	64"	64"	64"
Overall Width	70"	70"	70"