

# 1937 Service Information and Adjustments

	<i>Terraplane Commercial (117" WB)</i>	<i>Terraplane Deluxe (117" WB)</i>	<i>Terraplane Super (117" WB)</i>	<i>Hudson Six (122" WB)</i>	<i>Hudson 8 Deluxe (122" WB)</i>	<i>Hudson 8 Custom (122" WB)</i>	<i>Hudson 8 Deluxe 129" WB)</i>	<i>Hudson 8 Custom (129" WB.)</i>
<i>Starting Serial No. (U. S. Plant</i>	71101	71101	72101	73101	74101	75101	76101	77101
<i>Starting Engine No. (All Plants)</i>	230000	230000	250000	250000	90000	18000	18000	18000
<i>Starting Serial No. (Canadian )</i>	70C101	70C101	71C101	72C101	73C101	74C 101	75C101	76C101 77C101

## FRONT AXLE

	Terraplane	Hudson Six	Hudson Eight
Type	Elliot	Elliot	Elliot
Caster (Actual on Car)	1 deg. to 2 deg.	1 deg. to 2 deg	1 deg. to 2 deg.
Max. Variation-Right and Left Ends	½ deg	½ deg	½ deg
Camber	1 deg. - 1½ deg.	1 deg. - 1½ deg.	1 deg - 1½ deg.
Toe-in - at Felloe	0 - 1/8"	0 - 1/8"	0 - 1/8"
Spindle Pin Inclination (Angle with Spring Pad)			
Transverse	7 deg.	7 deg.	7 deg.
Steering Spindle Pin Diameter	15/16"	15/16"	15/16"
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	Plain Bearing	Plain Bearing	Plain 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	Semifloating	Semifloating	Semifloating
Ratio - Standard	4.11	4.11	4,11
- Optional.	4.56	4.56	4.56
<i>Special Order</i>	3.89	3.99	3.89
<i>Special Order</i>	3.16	3.56	3.56
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"
Lubrication - Type - Summer	S.A.E. 160 E.P.	S.A.E. 160 E.P.	S.A.E. 160 E.P
- Winter	S.A.E. 90 E.P.	S.A.E. 90 E.P.	S.A.E. 90 E.P.
Quantity (Pints).	3	3	3

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<i>Generator:</i>			
Make - Autolite	GJC-4804A-1 (70, 71)	GJC-4803A (72, 73)	GJC-4803A
Drive	V-Belt	V-Belt	V-Belt
Belt Adjustment	Swing Mounting	Swing Mounting	Swing Mounting
Regulation - Internal	Third Brush	Third Brush	Third Brush
External	Voltage Regulator*	Voltage Regulator	Voltage Regulator
Charging Rate - Deluxe and Comm'cl Cold		17 Amps.	
Hot	15 Amps.		
Charging Rate - Super - Cold	26 Amps.	26 Amps.	
Hot	24 Amps.	24 Amps.	
Lubrication	Motor Oil	Motor Oil	Motor Oil
Quantity - each Bearing	2 Drops	2 Drops	2 Drops
*None on Terraplane Deluxe without Radio.			
<i>Lamps:</i>			
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
Head - Export 2250-D	21-50-D	21-50-D	21-50 D
Parking - No. 55	1-S	1-S	1-S
Dash Signals - No. 55	1-S	1-S	1-S
Instruments - No. 55	1-S	1-S	1-S
Service - No. 51	1-S	1-S	1-S
Dome - No. 87	15-S	15-S	15-S
Stop and Tail - No. 1158	3-21-D	3-21-D	3-21-D
License Lamp - No. 63	3-S	3-S	3-S
Fuse - Headlamp Circuit	20 Amps	20 Amps	20 Amps
Tail Lamp Circuit	20 Amps	20 Amps	20 Amps
<i>Spark Plugs:</i>			
Make	Champion	Champion	Champion
Type Standard Head	J8	J8	J8
Type - Super Power Dome			
Head	H-10	H-10	
Size	14 m.m.	14 m.m.	14 m.m
Gap	.025"	.025"	.025"
<i>Starting Motor:</i>			
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>Battery:</i>			
Location	Engine Compartment	Engine Compartment	Engine Compartment
		Left Side	Left Side Left Side
Make	National	National	National
No. Plates	17	17	19
Capacity	105 Amp. Hours.	105 Amp. Hours	125 Amp. Hours.
Dimensions - Length	10-9/16"	10-9/16"	11-13/16".
Width	7-1/4"	7-1/4"	7-1/4"
Height (Overall)	7-15/16"	7 15/16"	7 15/16"
Terminal Grounded	Positive	Positive	Positive

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<i>Generator:</i>			
Make - Autolite	GJC-4804A-1 (70, 71)	GJC-4803A (72, 73)	GJC-4803A
Drive	V-Belt	V-Belt	V-Belt
Belt Adjustment	Swing Mounting	Swing Mounting	Swing Mounting
Regulation - Internal	Third Brush	Third Brush	Third Brush
External	Voltage Regulator*	Voltage Regulator	Voltage Regulator
Charging Rate - Deluxe and Comm'cl Cold		17 Amps.	
Hot	15 Amps.		
Charging Rate - Super - Cold	26 Amps.	26 Amps.	
Hot	24 Amps.	24 Amps.	
Lubrication	Motor Oil	Motor Oil	Motor Oil
Quantity - each Bearing	2 Drops	2 Drops	2 Drops
*None on Terraplane Deluxe without Radio.			
<i>Lamps:</i>			
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
Head - Export 2250-D	21-50-D	21-50-D	21-50-D
Parking - No. 55	1-S	1-S	1-S
Dash Signals - No. 55	1-S	1-S	1-S
Instruments - No. 55	1-S	1-S	1-S
Service - No. 51	1-S	1-S	1-S
Dome - No. 87	15-S	15-S	15-S
Stop and Tail - No. 1158	3-21-D	3-21-D	3-21-D
License Lamp - No. 63	3-S	3-S	3-S
Fuse - Headlamp Circuit	20 Amps	20 Amps	20 Amps
Tail Lamp Circuit	20 Amps	20 Amps	20 Amps
<i>Spark Plugs:</i>			
Make	Champion	Champion	Champion
Type Standard Head	J8	J8	J8
Type - Super Power Dome			
Head	H-10	H-10	
Size	14 m.m.	14 m.m.	14 m.m.
Gap	.025"	.025"	.025"
<i>Starting Motor:</i>			
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>Battery:</i>			
Location	Engine Compartment	Engine Compartment Left Side	Engine Compartment Left Side Left Side
Make	National	National	National
No. Plates	17	17	19
Capacity	105 Amp. Hours.	105 Amp. Hours	125 Amp. Hours.
Dimensions - Length	10-9/16"	10-9/16"	11-13/16".
Width	7-1/4"	7-1/4"	7-1/4"
Height (Overall)	7-15/16"	7 15/16"	7 15/16"
Terminal Grounded	Positive	Positive	Positive

**ENGINE**

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
Number of Cylinders	6	6	8
Arrangement	Vertical	Vertical	Vertical
Bore	3"	3"	3
Stroke	5"	5"	4 1/2"
Piston Displacement	212	212	254
Taxable Horse Power	21.6	21.6	28.6
<i>Actual Horse Power:</i>			
Models 70, 71 Standard Head	96 @ 3900	101 @ 4000	122 @ 4200
Super Power Dome Head	102 @ 3900		
Model 72 Standard Head	101 @ 4000		
Super Power Dome Head	107 @ 4000	107 @ 4000	
<i>Compression Ratio:</i>			
Standard	6.25	6.25	6.25
Super Power Dome	7.00 to 1	7.00 to 1	n/a
Firing Order	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
<i>Camshaft:</i>			
Drive	Gear	Gear	Gear
Number of Teeth-			
	Camshaft Gear	56	56 56
	Crankshaft Gear	28	28 28
Timing Indicated by Marks on Camshaft Bearings	Gears	Gears	Gears
Diameter and Length			
No. 1	2 x 1-3/16"	2 x 1-3/16"	2-1/32 x 1-3/8"
No. 2		1-31/32 x 1-1/16"	1-31/32 x -1/16" 2 x 1
No. 3	1-1/2 x 15/16"	1-31/32 x 1-1/16"	1-31/32 x 1-1/4"
No. 4			1-15/16 x 1"
	No. 5		1-1/2 x 1-1/2"
Radial Clearance	.0015"	.0015"	.0015"
End Play Prevented by	Spring	Spring	Spring
<i>Connecting Rods:</i>			
Material	D. F. Steel	D. F. Steel 1	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 Bronze
<i>Cooling System:</i>			
Circulation by	Pressure Pump	Pressure Pump	Pressure Pump
Temperature Control	Thermostat*	Thermostat	Thermostat
Capacity (Gal)	3-1/4	3-1/4	5

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>ENGINE - (Cont'd)</b>			
Upper Rad. Hose - Length	10"	10"	10"
- 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"
*None on Terraplane Comm. and Deluxe			
Pump Hose			
Outlet - Length	3-1/4"	3-1/4"	3-1/4" "
Diameter	1-1/2"	1-1/2"	1-1/2"
*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 and Commercial.			
<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"
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
<i>Fuel System:</i>			
Carburetor-Make Carter	W1-348S (70, 71, 78)	W1-344S <sup>1</sup>	W1-377S <sup>2</sup>
	Type – Deluxe & Commercial		Down Draft
Super Type	Down Draft - Duplex	Down Draft - Duplex	Down Draft - Duplex
Size	1"	1"	1"
Heat Control - Deluxe and			
	Commercial	Manual	
Heat Control - Super	Automatic	Automatic	Automatic
Choke Control - Deluxe and			
	Commercial		
Choke Control - Super	Automatic	Automatic	Automatic

<sup>1</sup>W1-344S – Model 72 to Ser. No. 72-11023; early 1937 Hudson all.<sup>2</sup>W1-377S – Model 72 after Ser. No. 72-11023; later 1937 Hudson all.

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>ENGINE - Fuel System (Cont'd)</b>			
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.
Air Cleaner and Silencer - Oil Bath opt'l	United	United	United
Gasoline Tank Capacity (Gal.)	16-1/2"	16-1/2"	16-1/2"
<i>Lubrication System</i>			
Type	Hudson Duoflo Automatic	Hudson Duoflo Automatic	Hudson Duoflo Automatic
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
Capacity - Total (Quarts)	6	6	9
Reservoir (Quarts)	5	5	7
<i>Pistons:</i>			
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	3/32"	3/32"	3/32"
Piston Pin Hole - Size	3/4"	3/4"	3/4"
Finish	Diamond Bore	Diamond Bore	Diamond Bore
<i>Piston Pin:</i>			
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°F.)	.0003"	.0003"	.0003"
Fit in Rod	.0003"	.0003"	.0003"
<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"

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>ENGINE- (Cont'd)</b>			
<i>Valves and Tappets:</i>			
Inlet Valve – Material	Silicon Steel	Silicon Steel	Silicon Steel
Head – Outside Diameter	1-3/8"	1-3/8"	1-3/8"
Opening	1-1/4"	1-1/4"	1-1/4"
Valve Lift	11/32"	11/32"	11/32"
Stem Length	5-11/32"	5-11/32"	5-11/32"
Stem Diameter	3/8"	3/8"	3/8"
Exhaust Valve – Material	Silicon Chrome	Silicon Chrome	Silicon Chrome
Steel	Steel	Steel	Steel
Head – Outside Diameter	1-3/8"	1-3/8"	1-3/8"
Opening	1-1/4"	1-1/4"	1-1/4"
Valve Lift	11/32"	11/32"	11/32"
Stem Length	5-11/32"	5-11/32"	5-11/32"
Stem Diameter	3/4"	3/4"	3/4"
Valve Stem Guides	Removable	Removable	Removable
Valve Guide Length	2-9/16"	2-9/16"	2-9/16"
Top of Guide to Top of Block	1-1/6"	1-1/6"	1-1/6"
Valve Spring Pressure	44 lbs. @ 2"	44 lbs. @ 2"	44 lbs. @ 2"
	102 lbs. @ 1-21/32"	102 lbs. @ 1-21/32"	102 lbs @ 1-21/32"
<b>SPRINGS</b>			
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	9	10	10
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	52-1/2"	52-1/2"	52-1/2"
Width	1-3/4"	1-3/4"	1-3/4"
No. of Leaves	10	10	10
Shackle Location	Rear	Rear	Rear
Lubricant - Leaves	Viscous Chassis Lube	Viscous Chassis Lube	Viscous Chassis Lube
Shackles	Viscous Chassis Lube	Viscous Chassis Lube	Viscous Chassis Lube
<b>STEERING GEAR</b>			
Type	Worm and Roller Tooth	Worm and Roller Tooth	Worm and Roller
Tooth Ratio	18.2	18.2	18.2
Adjustments			
Worm Shaft	Shims	Shims	Shims
Cross Shaft	Set Screw	Set Screw	Set Screw
Gear Mesh	Set Screw	Set Screw	Set Screw
Steering Wheel Height	Column Bracket	Column Bracket	Column Bracket
Lubricant - Summer	SAE 160 E.P.	SAE 160 E.P.	SAE 160 E.P.
Winter	SAE 90 E.P.	SAE 90 E.P.	SAE 90 E.P.
<b>TIRES</b>			
Size - Standard	16x6.00	16x6.00	16x6.25
Optional	15x7.00"	15x7.00"	15x7.00"
Air Pressure 16 x 6.00: (Front/Rear)	24/32	24/32	24/32
Air Pressure 17 x 5.00 (Front/Rear)	22/28	22/28	22/28

	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>TRANSMISSION</b>			
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
<i>Gear Ratios:</i>			
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
Lubricant - Summer	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.
Capacity (Pts.)	3	3	3
<i>Bearings:</i>			
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"	.003" .003"
Clearance	.006-.009"	.006-.009"	.006-.009"
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
<b>WHEELS</b>			
Type	Steel Disc	Steel Disc	Steel Disc
Rim Type	Drop Base	Drop Base	Drop Base
Rim Size - Standard	16x4.00"	16x4.00"	16x4.00"
Rim Size - Optional	15x5.00"	15x5.00"	15x5.00"
Bolts Per Wheel	5	5	5
Hub Type	Demountable	Demountable	Demountable



	<i>Terraplane</i>	<i>Hudson Six</i>	<i>Hudson Eight</i>
<b>CHASSIS AND GENERAL DIMENSIONS</b>			
Wheel Base	117"	122"	122" - 129"
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	194-1/2"	199"	199" - 202-3/8"
Coupes	194-1/2"	199"	199"
Overall Height (No Load)			
5 Passenger Closed Cars	70-1/2"	70-1/2"	70-1/2" (Model 76, 77) 76-3/4" (Model 74, 75)
Coupe - Business and Rumble	70-1/2"	70-1/2"	70-1/2" (Model 76, 77) 76-3/4" (Model 74, 75)
Coupe - Convertible	70-1/2"	70-1/2"	70-1/2" (Model 76, 77) 76-3/4" (Model 74, 75)
Overall Width	72"	72"	72"
Turning Radius	20' 3"	20' 3"	20' 3"