

## 1933 Service information and Adjustments

	<i>Essex Terraplane Six</i>	<i>Essex Terraplane Eight</i>	<i>Hudson Super Six</i>	<i>Hudson Eight Std. Series</i>	<i>Hudson Eight Major Series</i>
<i>Starting Serial Number</i>	364125	65001	1300501	936 703	251117
<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>FRONT AXLE</b>					
Type	Elliot	Elliott	Rev. Elliot	Rev. Elliot	Rev. Elliot
Caster (Actual on Car)	3°	3°	1°	1°	1°
Camber	2°	2°	1°	1°	1°
Toe-in	0-1 <sup>1</sup> / <sub>8</sub> "	0-1 <sup>1</sup> / <sub>8</sub> "	0-1 <sup>1</sup> / <sub>8</sub> "	0-1 <sup>1</sup> / <sub>8</sub> "	0-1 <sup>1</sup> / <sub>8</sub> "
Spindle Pin Inclination (Angle with Spring Pad)					
Transverse	7°	7°	7°	7°	7°
Forward	2°	2°	0°	0°	0°
Steering Spindle Pin Diameter	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>13</sup> / <sub>16</sub> "	<sup>13</sup> / <sub>16</sub> "	<sup>13</sup> / <sub>16</sub> "
Steering Spindle Thrust Brg.	Ball	Ball	Ball	Ball	Ball
Wheel. Bearing -Type	Taper Roller	Taper Roller	Taper Roller	Taper Roller	Taper Roller
End Play	.001"- .003"	.001"- .003"	.001"- .003"	.001"- .003"	.001"- .003"
Tie Rod Joint - Type	Rubber Cushion	Rubber Cushion	Rubber Cushion	Rubber Cushion	Rubber Cushion
Tie Rod Adjustment To Adjust Tie Rod	Screw	Screw	Screw	Screw	Screw
Turn Clockwise - To (As seen front right)	Lengthen	Lengthen	Lengthen	Lengthen	Lengthen
Turn Counter Clockwise - To (As seen fro, right)	Shorten	Shorten	Shorten	Shorten	Shorten
<b>REAR AXLE</b>					
Type	Semi-Floating	Semi-Floating	Semi-Floating	Semi-Floating	Semi-Floating
Ratio	4.11	4.11	4.64	4.64	4.64
Pinion Bearings					
Type	Roller	Roller	Roller	Roller	Roller
Adjustment	Shim	Shim	Shim	Shim	Shim
End Play	.000".001"	.000".001"	.000".001"	.000".001"	.000".001"
Differential Bearings					
Type	Roller	Roller	Roller	Roller	Roller
Adjustment	Screw	Screw	Screw	Screw	Screw
End Play	.009" Tension	.009" Tension	.009" Tension	.009" Tension	.009" Tension
Wheel Bearings					
Type	Roller	Roller	Roller	Roller	Roller
Adjustment	Shim	Shim	Shim	Shim	Shim
End Play	.004"- .010"	.004"- .010"	.004"- .010"	.004"- .010"	.004"- .010"
Pinion and Gear					
Adjustment	Shim	Shim	Shim	Shim	Shim
Lash in Gears	.004"- .008"	.004"- .008"	.004"- .008"	.004"- .008"	.004"- .008"
Lubrication					
Type - Summer	S.A.E. 110	S.A.E. 110	S.A.E. 110	S.A.E. 110	S.A.E. 110
Winter	S.A.E. 90	S.A.E. 90	S.A.E. 90	S.A.E. 90	S.A.E. 90
Quantity	3	3	4	4	4

	<i>Essex Terraplane Six</i>	<i>Essex Terraplane Eight</i>	<i>Hudson Super Six</i>	<i>Hudson Eight Std. Series</i>	<i>Hudson Eight Major Series</i>
<i>Starting Serial Number</i>	364125	65001	1300501	936 703	251117
<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>BRAKES</b>					
Location	4 Wheels	4 Wheels	4 Wheels	4 Wheels	4 Wheels
Operation by	Cables	Cables	Cables	Cables	Cables
Power Application	No	No	No	Vacuum	Vacuum
Drum Diameter	9"	9"	13"	13"	13"
Lining - Type	Moulded	Moulded	Moulded	Moulded	Moulded
Width	1- <sup>3</sup> / <sub>4</sub> "	2"	1- <sup>3</sup> / <sub>4</sub> "	1- <sup>3</sup> / <sub>4</sub> "	1- <sup>3</sup> / <sub>4</sub> "
Thickness	<sup>3</sup> / <sub>16</sub> "	<sup>3</sup> / <sub>16</sub> "	<sup>5</sup> / <sub>32</sub> "	<sup>7</sup> / <sub>32</sub> "	<sup>7</sup> / <sub>32</sub> "
Length per Wheel	19"	19"	21"	25"	25"
Pieces per Wheel	2	2	2	2	2
<i>Adjustments:</i>					
Anchor Pin - Movable	Radially	Radially	Radially	Radially	Radially
Upper Shoe	Eccentric	Eccentric	Eccentric	Eccentric	Eccentric
Lower Shoe	Screw	Screw	Screw	Screw	Screw
<i>Clearance:</i>					
Anchor Pin End of Shoes	.008"	.008"	.008"	.008"	.008"
Ad i Screw End of Shoes	.014"	.014"	.014"	.014"	.014"
<b>CLUTCH</b>					
Type-Single Disc in Oil.	Yes	Yes	Yes	Yes	Yes
Facing	Cork	Cork	Cork	Cork	Cork
No , Inserts (Cork)	66	66	80	80	80
Pilot Rearing	Ball	Ball	Ball	Ball	Ball
Throwout Bearing	Ball	Ball	Ball	Ball	Ball
<i>Lubrication:</i>					
Housing-Type	½ Kerosene - ½ Motor Oil	½ Kerosene - ½ Motor Oil	½ Kerosene - ½ Motor Oil	½ Kerosene - ½ Motor Oil	½ Kerosene - ½ Motor Oil
Quantity	1/3 Pint	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	Front of Flywheel
Throwout Bearing - Type	Fibre Grease	Fibre Grease	Fibre Grease	Fibre Grease	Fibre Grease
Quantity	1 Oz	1 Oz.	1 Oz.	1 Oz.	1 Oz.
Type of Filling	Alemite	Zerk	Alemite	Alemite	Alemite
Location of Filling.	Left Bell Housing	Left Bell Housing	Left Bell Housing	Left Bell Housing	Left Bell Housing
<b>ELECTRICAL EQUIPMENT</b>					
<i>Coil (Ignition):</i>					
Make - Auto-Lite	IG-4308	CE-4303	IG-4085	CE-4017	CE-4017
Location:	Inst. Panel	Inst. Panel	Dash Panel	Cyl. Head	Cyl. Head
<i>Distributor (Ignition):</i>					
Make - Auto-Lite	IGB-4074A	IGH-4024A	IGB-4074A	IGH-4009B	IGH-4009B
Drive:	Camshaft	Camshaft	Camshaft	Acc. Shaft	Acc. Shaft
Advance:	Automatic	Automatic	Automatic	Automatic	Automatic
Breaker Point Gap:	.020"	.020"	.020"	.020"	.020"
Timing:	D. C.	D. C.	D. C.	D. C.	D. C.
Firing Order	1-5-3-6-2-4	1-6-2-5-8-3-7-4	1-5-3-6-2-4	1-6-2-5-8-3-7-4	1-6-2-5-8-3-7-4
Lubrication:	Lt. Motor Oil	Lt. Motor Oil	Lt. Motor Oil	Lt. Motor Oil	Lt. Motor Oil
Quantity	Fill Cup	Fill Cup	Fill Cup	Fill Cup	Fill Cup

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<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>ELECTRICAL EQUIPMENT - (Cont'd)</b>					
<i>Generator:</i>					
Make -Auto-Lite:	GAM-4402	GBK-4602	GAM-4306	GAL-4544	GAM-4544
Drive:	V-Belt	V-Belt	V-Belt	V-Belt	V-Belt
<i>Belt Adjustment</i>	Swing Mtng.	Swing. Mtng.	Swing Mtng.	Swing Mtng.	Swing Mtng.
Regulation:	Third Brush	Third Brush	Third Brush	Third Brush	Third Brush
<i>Charging Rate:</i>					
At 8 VoIts	17	17	17	18	18
At 6 Volts	13	13	13	14	14
Lubrication	Motor Oil	Motor Oil	Motor Oil	Motor Oil	Motor Oil
Quantity - each Bearing:	2 Drops	2 Drops	2 Drops	2 Drops	2 Drops
<i>Lamps:</i>					
Bulb Voltage	6-8	6-8	6-8	6-8	6-8
Candle Power and Bases (Contact Single - S, Double - D)					
Head	2 1-21 (S)	2 1-21 (S)	2 1-21 (S)	2 1-21 (S)	2 1-21 (S)
Parking	3 (S)	3 (S)	3 (S)	3 (S)	3 (S)
Dash Signals	3 (S)	3 (D)	3 (S)	3 (D)	3 (S)
Instruments	3 (S)	3 (D)	3 (S)	3 (D)	3 (S)
Stop and Tail	2-21 (D)	2-21 (D)	2-21 (D)	2-21 (D)	2-21 (D)
Dome	15 (S)	15 (S)	15 (S)	15 (S)	15 (S)
Fuse (Light Switch)	20 Amps.	20 Amps	20 Amps.	20 Amps	20 Amps.
<i>Spark Plugs:</i>					
Size	14 m.m.	14 m.m.	14 m.m.	18 m.m.	18 m.m.
Gap	.20"- .025"	.20"- .025"	.20"- .025"	.20"- .025"	.20"- .025"
<i>Starting Motor:</i>					
Make: Auto-Lite	MAJ-4028	MAB-4051	MAJ-4025	MAB-4041	MAB-4041
Drive	Bendix	Bendix	Bendix	Bendix	Bendix
Control	Dash Button	Dash Button	Ign. Switch	Ign. Switch	Ign Switch
Lubrication	None	None	None	Motor Oil	Motor Oil
Quantity (Each Bearing)	None	None	None	2 Drops	2 Drops
<i>Battery:</i>					
Make	National	Exide	Exide	Exide	Exide
Capacity:	86 Amp. Hrs.	105 Amp. Hrs.	105 Amp. Hrs.	105 Amp. Hrs.	105 Amp. Hrs.
Dimensions - Length	9 <sup>1</sup> / <sub>8</sub> "	10 <sup>9</sup> / <sub>32</sub> "	10 <sup>9</sup> / <sub>32</sub> "	10 <sup>9</sup> / <sub>32</sub> "	10 <sup>9</sup> / <sub>32</sub> "
- Width	7 <sup>1</sup> / <sub>8</sub> "	7"	7"	7"	7"
- Height (Overall)	8- <sup>13</sup> / <sub>16</sub> "	9- <sup>7</sup> / <sub>32</sub> "	9- <sup>7</sup> / <sub>32</sub> "	9- <sup>7</sup> / <sub>32</sub> "	9- <sup>7</sup> / <sub>32</sub> "
Terminal Grounded	Neg.	Neg.	Neg.	Neg.	Neg.

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<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>ENGINE</b>					
Number of Cylinders	6	8	6	8	8
Arrangement	Vertical	Vertical	Vertical	Vertical	Vertical
Bore	2- <sup>15</sup> / <sub>16</sub> "	2- <sup>15</sup> / <sub>16</sub> "	2- <sup>15</sup> / <sub>16</sub> "	3"	3"
Stroke	4- <sup>3</sup> / <sub>4</sub> "	4- <sup>1</sup> / <sub>2</sub> "	4- <sup>3</sup> / <sub>4</sub> "	4- <sup>1</sup> / <sub>2</sub> "	4- <sup>1</sup> / <sub>2</sub> "
Piston Displacement	193	244	193	254	254
Taxable Horsepower	20.7	27.6	20.7	28.8	28.8
<i>Actual Horsepower:</i>					
Standard Compression:	70@3200	94@3600	73@3200	101@3600	101@3600
High Compression	80@3200		80@3200	110@3600	110@3600
<i>Compression Ratio:</i>					
Standard	5.8	5.8	6.2	5.8	5.8
Optional	7.1		7.1	6.5	6.5
Firing Order	1-5-3-6-2-4	1-6-2-5-8-3-7-4	1-5-3-6-2-4	1-6-2-5-8-3-7-4	1-6-2-5-8-3-7-4
Engine Mounting	Rubber	Rubber	Rubber	Rubber	Rubber
<i>Camshaft:</i>					
Drive	Gear	Gear	Gear	Chain	Chain
Adjustment	None	None	None	Eccentric	Eccentric
Number of teeth					
Camshaft Gear	56	56	56	38	38
Crankshaft Gear	28	28	28	19	19
Generator Gear	None	None	None	16	16
Timing Indicated by					
Marks on	Gears	Gears	Gears	Gears & Chain	Gears & Chain
Camshaft Bearings					
Diameter and Length					
No. 1	2 x 1- <sup>13</sup> / <sub>16</sub> "	2- <sup>1</sup> / <sub>32</sub> x 1- <sup>3</sup> / <sub>8</sub> "	2 x 1- <sup>13</sup> / <sub>16</sub> "	2- <sup>1</sup> / <sub>32</sub> x 1- <sup>3</sup> / <sub>8</sub> "	2- <sup>1</sup> / <sub>32</sub> x 1- <sup>3</sup> / <sub>8</sub> "
No. 2	1- <sup>31</sup> / <sub>32</sub> x 1- <sup>1</sup> / <sub>16</sub> "	2 x 1"	1- <sup>31</sup> / <sub>32</sub> x 1- <sup>1</sup> / <sub>16</sub> "	2 x 1"	2 x 1"
No. 3	1- <sup>1</sup> / <sub>2</sub> x 1- <sup>15</sup> / <sub>16</sub> "	1- <sup>31</sup> / <sub>32</sub> x 1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>2</sub> x 1- <sup>15</sup> / <sub>16</sub> "	1- <sup>31</sup> / <sub>32</sub> x 1- <sup>1</sup> / <sub>4</sub> "	1- <sup>31</sup> / <sub>32</sub> x 1- <sup>1</sup> / <sub>4</sub> "
No. 4		1- <sup>15</sup> / <sub>16</sub> x 1"		1- <sup>15</sup> / <sub>16</sub> x 1"	1- <sup>15</sup> / <sub>16</sub> x 1"
No. 5		1- <sup>1</sup> / <sub>2</sub> x 1- <sup>1</sup> / <sub>2</sub> "		1- <sup>1</sup> / <sub>2</sub> x 1- <sup>1</sup> / <sub>2</sub> "	1- <sup>1</sup> / <sub>2</sub> x 1- <sup>1</sup> / <sub>2</sub> "
Radial Clearance	.0015"	.0015"	.0015"	.0015"	.0015"
End Play Prevented by:	Spring	Spring	Spring	Spring	Spring
<i>Connecting Rods:</i>					
Material (Lbs.)	D. F. Steel	D. F. Steel	D. F. Steel	D. F. Steel	D. F. Steel
Weight (Lbs.)	1.84	1.84	1.84	1.84	1.84
Length (Center to Center)	8- <sup>3</sup> / <sub>16</sub> "	8- <sup>3</sup> / <sub>16</sub> "	8- <sup>3</sup> / <sub>16</sub> "	8- <sup>3</sup> / <sub>16</sub> "	8- <sup>3</sup> / <sub>16</sub> "
Lower End Bearing					
Diameter	1- <sup>15</sup> / <sub>16</sub> "	1- <sup>15</sup> / <sub>16</sub> "	1- <sup>15</sup> / <sub>16</sub> "	1- <sup>15</sup> / <sub>16</sub> "	1- <sup>15</sup> / <sub>16</sub> "
Length	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "
Clearance	.001"	.001"	.001"	.001"	.001"
End Play	.006-.010"	.006"-.010"	.006-.010"	.006"-.010"	.006"-.010"
Material	Spun Babbitt	Spun Babbitt	Spun Babbitt	Spun Babbitt	Spun Babbitt
Upper End Bearing					
Diameter	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "
Length	<sup>15</sup> / <sub>16</sub> "	<sup>15</sup> / <sub>16</sub> "	<sup>15</sup> / <sub>16</sub> "	<sup>15</sup> / <sub>16</sub> "	<sup>15</sup> / <sub>16</sub> "
Radial Clearance	.0003"	.0003"	.0003"	.0003"	.0003"
Material	Bronze	Bronze	Bronze	Bronze	Bronze

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<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>ENGINE - (Cont'd)</b>					
<i>Cooling system:</i>					
Circulation by:	Pump	Pump	Pump	Pump	Pump
Capacity (Gal.):	3	4	3- <sup>5</sup> / <sub>8</sub>	4- <sup>1</sup> / <sub>4</sub>	4- <sup>1</sup> / <sub>4</sub>
Upper Hose - Length	8"	8"	8"	9- <sup>3</sup> / <sub>8</sub> "	9- <sup>3</sup> / <sub>8</sub> "
- Diameter	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>15</sup> / <sub>16</sub> "	1- <sup>15</sup> / <sub>16</sub> "
Pump to Cylinder Hose -					
- Length	3- <sup>1</sup> / <sub>4</sub> "	3- <sup>1</sup> / <sub>4</sub> "	3- <sup>1</sup> / <sub>4</sub> "	5"	5"
- Diameter	1- <sup>5</sup> / <sub>16</sub> "	1- <sup>5</sup> / <sub>16</sub> "	1- <sup>5</sup> / <sub>16</sub> "	1- <sup>1</sup> / <sub>2</sub> "	1- <sup>1</sup> / <sub>2</sub> "
Pump Drive	V-Belt	V-Belt	V-Belt	V-Belt	V-Belt
Fan Drive	Pump Shaft	Pump Shaft	Pump Shaft	Pump Shaft	Pump Shaft
Belt Adjustment	Generator Mtng.	Generator Mtng.	Generator Mtng.	Fan Arm	Fan Arm
Pump Bearing Type	Bound Brook	Bound Brook	Bound Brook	Bound Brook	Bound Brook
Packing Gland Adjust.	Finger Tight	Finger Tight	Finger Tight	Finger Tight	Finger Tight
<i>Crankshaft:</i>					
Type	Fully Compensated	Fully Compensated	Fully Compensated	Fully Compensated	Fully Compensated
Number of Bearings	3	5	3	5	5
Bearing Material	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt	Bronze Backed Babbitt
Bearing Diameter and Length.					
No. 1	2- <sup>11</sup> / <sub>32</sub> x 1- <sup>5</sup> / <sub>8</sub> "	2- <sup>9</sup> / <sub>32</sub> x 1- <sup>5</sup> / <sub>8</sub> "	2- <sup>11</sup> / <sub>32</sub> x 1- <sup>5</sup> / <sub>8</sub> "	2- <sup>9</sup> / <sub>32</sub> x 1- <sup>5</sup> / <sub>8</sub> "	2- <sup>9</sup> / <sub>32</sub> x 1- <sup>5</sup> / <sub>8</sub> "
No. 2	2- <sup>3</sup> / <sub>8</sub> x 1- <sup>3</sup> / <sub>4</sub> "	2- <sup>5</sup> / <sub>16</sub> x 1- <sup>3</sup> / <sub>8</sub> "	2- <sup>3</sup> / <sub>8</sub> x 1- <sup>3</sup> / <sub>4</sub> "	2- <sup>5</sup> / <sub>16</sub> x 1- <sup>3</sup> / <sub>8</sub> "	2- <sup>5</sup> / <sub>16</sub> x 1- <sup>3</sup> / <sub>8</sub> "
No. 3	2- <sup>13</sup> / <sub>32</sub> x 2- <sup>3</sup> / <sub>8</sub> "	2- <sup>11</sup> / <sub>32</sub> x 1- <sup>7</sup> / <sub>8</sub> "	2- <sup>13</sup> / <sub>32</sub> x 2- <sup>3</sup> / <sub>8</sub> "	2- <sup>11</sup> / <sub>32</sub> x 1- <sup>7</sup> / <sub>8</sub> "	2- <sup>11</sup> / <sub>32</sub> x 1- <sup>7</sup> / <sub>8</sub> "
No. 4		2- <sup>3</sup> / <sub>8</sub> x 1- <sup>3</sup> / <sub>8</sub> "		2- <sup>3</sup> / <sub>8</sub> x 1- <sup>3</sup> / <sub>8</sub> "	2- <sup>3</sup> / <sub>8</sub> x 1- <sup>3</sup> / <sub>8</sub> "
No. 5		2- <sup>13</sup> / <sub>32</sub> x 2"		2- <sup>13</sup> / <sub>32</sub> x 2"	2- <sup>13</sup> / <sub>32</sub> x 2"
<i>Fuel System:</i>					
Carburetor - Carter - Marvel	W1-267S	W1-262S			
Type	Down Draft	Down Draft	XH-4 Up Draft	VE-3 Up Draft	VE-3 Up Draft
Size	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>2</sub> "	1- <sup>1</sup> / <sub>2</sub> "
Heat Control	Adjustable	Adjustable	Automatic	Automatic	Automatic
Fuel Delivery by:	Pump	Pump	Pump	Vacuum	Vacuum
Pump Drive from Camshaft by	Cam	Cam	Cam		
Air Cleaner and Silencer	Burgess	Monroe	A. C.	A. C.	A. C.
Gasoline Tank Capacity (Gallons)	11- <sup>1</sup> / <sub>2</sub>	16	16	16	16

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<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>ENGINE -- (Cont'd)</b>					
<i>Lubrication System:</i>					
Type - Hudson Duoflo					
Automatic Pump Drive	Yes	Yes	Yes	Yes	Yes
Oil Cooling by	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger	Oscillating Plunger
Screen Mesh Capacity - Total Reservoir Only	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir	Baffles in Reservoir
	50	50	50	50	50
	7	9	7	10	10
	6	7	7	8	9
<i>Pistons:</i>					
Type Material	Cam Ground Lo Ex Alum. Alloy	Cam Ground Lo Ex Alum. Alloy	Cam Ground Lo Ex Alum Alloy	Cam Ground Lo Ex Alum. Alloy	Cam Ground Lo Ex Alum. Alloy
Weight (oz.)	9- <sup>1</sup> / <sub>4</sub>	9- <sup>1</sup> / <sub>4</sub>	9- <sup>1</sup> / <sub>4</sub>	9- <sup>1</sup> / <sub>4</sub>	9- <sup>1</sup> / <sub>4</sub>
Length	9- <sup>3</sup> / <sub>16</sub> "	9- <sup>3</sup> / <sub>16</sub> "	9- <sup>3</sup> / <sub>16</sub> "	9- <sup>3</sup> / <sub>16</sub> "	9- <sup>3</sup> / <sub>16</sub> "
Pin Center to Top Clearance -					
Top of Skirt	.001-.0015"	.001-.0015"	.001-.0015"	.001-.0015"	.001-.0015"
Bottom of Skirt	.0005-.001"	.0005-.001"	.0005-.001"	.0005-.001"	.0005-.001"
Top of Piston	.016"	.016"	.016"	.016"	.016"
Depth of Grooves	<sup>5</sup> / <sub>32</sub> "	<sup>5</sup> / <sub>32</sub> "	<sup>5</sup> / <sub>32</sub> "	<sup>5</sup> / <sub>32</sub> "	<sup>5</sup> / <sub>32</sub> "
Piston Pin Hole - Size - Finish	<sup>3</sup> / <sub>4</sub> " Diamond Bore	<sup>3</sup> / <sub>4</sub> " Diamond Bore	<sup>3</sup> / <sub>4</sub> " Diamond Bore	<sup>3</sup> / <sub>4</sub> " Diamond Bore	<sup>3</sup> / <sub>4</sub> " Diamond Bore
<i>Piston Pin:</i>					
Type Method of Locking	Floating Snap Rings	Floating Snap Rings	Floating Snap Rings	Floating Snap Rings	Floating Snap Rings
Diameter	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "	<sup>3</sup> / <sub>4</sub> "
Length	2- <sup>7</sup> / <sub>16</sub> "	2- <sup>7</sup> / <sub>16</sub> "	2- <sup>7</sup> / <sub>16</sub> "	2- <sup>7</sup> / <sub>16</sub> "	2- <sup>7</sup> / <sub>16</sub> "
Fit in Piston (@ 200° F)	.0003"	.0003"	.0003"	.0003"	.0003"
Fit in Rod	.0003"	.0003"	.0003"	.0003"	.0003"
<i>Piston Rings:</i>					
Material	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Cast Iron
Joint -- Type	Mitre	Mitre	Mitre	Mitre	Mitre
Compression Rings No.	2	2	2	2	2
Width	<sup>3</sup> / <sub>32</sub> "	<sup>3</sup> / <sub>32</sub> "	<sup>3</sup> / <sub>32</sub> "	<sup>3</sup> / <sub>32</sub> "	<sup>3</sup> / <sub>32</sub> "
Gap	.009-.011"	.009-.011"	.009-.011"	.009-.011"	.009-.011"
Oil Rings - No	2	2	2	2	2
Width - Upper	<sup>1</sup> / <sub>8</sub> "	<sup>1</sup> / <sub>8</sub> "	<sup>1</sup> / <sub>8</sub> "	<sup>1</sup> / <sub>8</sub> "	<sup>1</sup> / <sub>8</sub> "
Width - Lower	<sup>3</sup> / <sub>16</sub> "	<sup>3</sup> / <sub>16</sub> "	<sup>3</sup> / <sub>16</sub> "	<sup>3</sup> / <sub>16</sub> "	<sup>3</sup> / <sub>16</sub> "
Gap	.009-.011"	.009-.011"	.009-.011"	.009-.011"	.009-.011"

	<i>Essex Terraplane Six</i>	<i>Essex Terraplane Eight</i>	<i>Hudson Super Six</i>	<i>Hudson Eight Std. Series</i>	<i>Hudson Eight Major Series</i>
<i>Starting Serial Number</i>	364125	65001	1300501	936 703	251117
<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>ENGINE - (Cont'd)</b>					
Head Outside - Diameter	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "	1- <sup>3</sup> / <sub>8</sub> "
Opening	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "	1- <sup>1</sup> / <sub>4</sub> "
Valve Lift	<sup>11</sup> / <sub>32</sub> "	<sup>11</sup> / <sub>32</sub> "	<sup>11</sup> / <sub>32</sub> "	<sup>11</sup> / <sub>32</sub> "	<sup>11</sup> / <sub>32</sub> "
Stem Length	5- <sup>3</sup> / <sub>32</sub> "	5- <sup>3</sup> / <sub>32</sub> "	5- <sup>3</sup> / <sub>32</sub> "	5- <sup>3</sup> / <sub>32</sub> "	5- <sup>3</sup> / <sub>32</sub> "
Stem Diameter	<sup>5</sup> / <sub>16</sub> "				
Valve Stem Guides	Removable	Removable	Removable	Removable	Removable
Valve Spring Pressure	53 lbs.	53 lbs.	53 lbs.	53 lbs.	53 lbs.
<b>SPRINGS</b>					
Front ---Type	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Material	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel
Length	31"	31"	36"	36"	36"
Width	1- <sup>3</sup> / <sub>4</sub> "	1- <sup>3</sup> / <sub>4</sub> "		2"	2" 2"
No of Leaves	7	8	8	9	9
Shackle Location	Front	Front	Rear	Rear	Rear
Shackle Type	Self- Adjusting	Self- Adjusting	Adjustable	Adjustable	Adjustable
Rear Type	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic	Semi-Elliptic
Material	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel	Silicon Manganese Steel
Length:	48"	48"	54- <sup>1</sup> / <sub>2</sub> "	54- <sup>1</sup> / <sub>2</sub> "	54- <sup>1</sup> / <sub>2</sub> "
Width	1- <sup>3</sup> / <sub>4</sub> "	1- <sup>3</sup> / <sub>4</sub> "	2"	2"	2"
No. of Leaves	6 or 8	6 or 8	7 or 8	9	9
Shackle Location	Rear	Rear	Rear	Rear	Rear
Lubricant - Leaves	Graphite Grease	Graphite Grease	Graphite Grease	Graphite Grease	Graphite Grease
Shackles	Heavy Oil	Heavy Oil	Heavy Oil	Heavy Oil	Heavy Oil
<b>STEERING GEAR</b>					
Type	Worm and Sector	Worm and Sector	Worm and Sector	Worm and Sector	Worm and Sector
Ratio	13	15	15	17	17
Adjustments					
Worm Shaft	Shims	Shims	Shims	Shims	Shims
Cross Shaft	Set Screw	Set Screw	Set Screw	Set Screw	Set Screw
Gear Mesh	Eccentric Cover Screw	Eccentric Cover Screw	Eccentric Cover Screw	Eccentric Cover Screw	Eccentric Cover Screw
Steering Wheel Height	Column Bracket	Column Bracket	Column Bracket	Column Bracket	Column Bracket
Lubricant	Heavy Gear Oil	Heavy Gear Oil	Heavy Gear Oil	Heavy Gear Oil	Heavy Gear Oil

	<i>Essex Terraplane Six</i>	<i>Essex Terraplane Eight</i>	<i>Hudson Super Six</i>	<i>Hudson Eight Std. Series</i>	<i>Hudson Eight Major Series</i>
<i>Starting Serial Number</i>	364125	65001	1300501	936 703	251117
<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
<b>TIRES</b>					
Size - Standard Models	17x5.25"	16x6.00"	17x5.50"	17x6.00"	17x6.50"
Special Models	16x6.00"				
Air Pressure - Minimum					
Standard Models	28 26	32	32	32	
Special Models	21				
<b>TRANSMISSION'</b>					
Location	Unit	Unit	Unit	Unit	Unit
Speeds - Forward	3	3	3	3	3
Speeds - Reverse	1	1	1	1	1
Main Drive Gear Type	Helical	Helical	Helical	Helical	Helical
Countershaft Gear Type	Helical	Helical	Helical	Helical	Helical
Countershaft Second Type	Helical	Helical	Helical	Helical	Helical
Mainshaft Second Gear Type	Helical	Helical	Helical	Helical	Helical
<i>Gear Ratios:</i>					
Low	2.42	242	2.44	2.44	244
Second	1.61	1.61	1.62	1.62	1.62
High	1	1	1	1	1
Reverse	3.30	3.30	3.26	3.26	3.26
Free Wheeling	No	No	Yes	Yes	Yes
Lubricant - Summer	S.A.E. 110	S.A.E. 110	S.A.E. 110	S.A.E. 110	S.A.E. 110
- Winter	S.A.E. 90	S.A.E. 90	S. A.E.. 90	S.A.E. 90	S.A.E. 90
Capacity (PST.)	2	2	3	3	3
<i>Bearings:</i>					
Mainshaft Pilot	Ball	Ball	Ball	Ball	Ball
Mainshaft Bearings	Ball	Ball	Ball	Ball	Ball
Mainshaft Pocket Bearing	Bound Brook	Bound Brook	Bound Brook	Bound Brook	Bound Brook
Countershaft Bearings					
- Type	Steel Backed Babbitt	Steel Backed Babbitt	Bronze	Bronze	Bronze
Size - Front	.812"	.812"	.871"	.871"	.871"
Rear	.812"	.812"	.871"	.871"	.871"
Clearance	.0005"	.0005"	.004"	.004"	.004"
Second Speed MS					
Gear Type	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt	Steel Backed Babbitt
Diameter	2.188"	2.188"	1.2487"	1.2487"	1.2487
Clearance	.0005"	.0005"	.0005"	.0005"	.0005"
End Play	.009"	.009"	.009"	.009"	.009"
Reverse Idler Bearings	Bound Brook	Bound Brook	Bronze	Bronze	Bronze
Diameter	.8075"	.8075"	.870"	.870"	.870"
Clearance	.003"	.003"	.003"	.003"	.003"
Mainshaft End Play	.006-.009"	.006-.009"	.006" -.009	.006-.009"	.006-.009"



	<i>Essex Terraplane Six</i>	<i>Essex Terraplane Eight</i>	<i>Hudson Super Six</i>	<i>Hudson Eight Std. Series</i>	<i>Hudson Eight Major Series</i>
<i>Starting Serial Number</i>	364125	65001	1300501	936 703	251117
<i>Starting Engine No.</i>	20501	15001	2001	63501	63501
TRANSMISSION - (Cont'd)					
Adjustment	Shims	Shims	Shims	Shims	Shims
Shim Location	Front Bearing	Front Bearing	Rear end of Mainshaft	Rear end of Mainshaft	Rear end of Mainshaft
Countershaft End Play	.005-.008"	.005-.008"			
Adjustment	Shims	Shims	None	None	None
Location	Rear Brg. Cap	Rear Brg. Cap			
WHEELS					
Type	Wire	Wire	Wire	Wire	Wire
Rim Type	Drop Base	Drop Base	Drop Base	Drop Base	Drop Base
Rim Size - Stand. Models	17x3.00"	16x4.00"	17x3.25"	17x3.62"	17x3.62"
	- Special Models	16x4.00"			
Hub Type	Demountable	Demountable	Demountable	Demountable	Demountable
CHASSIS AND GENERAL DIMENSIONS					
Overall Length (Including Bumpers)	166- <sup>3</sup> / <sub>8</sub> "	173- <sup>3</sup> / <sub>8</sub> "	177- <sup>1</sup> / <sub>2</sub> "	185- <sup>3</sup> / <sub>4</sub> "	198- <sup>3</sup> / <sub>4</sub> "
Turning Radius	19'-5"	20'-6"	20'-6"	21'-6"	24'-6"
Wheel Base	106"	113"	113"	119"	132 "
Tread - Front	56"	56"	57"	57- <sup>3</sup> / <sub>8</sub> "	57- <sup>3</sup> / <sub>8</sub> "
- Rear	56"	56"	59"	59- <sup>1</sup> / <sub>4</sub> "	59- <sup>1</sup> / <sub>4</sub> "
Road Clearance					
- Front Axle	8- <sup>1</sup> / <sub>2</sub> "	8- <sup>1</sup> / <sub>2</sub> "	7- <sup>1</sup> / <sub>2</sub> "	7- <sup>1</sup> / <sub>2</sub> "	7- <sup>1</sup> / <sub>2</sub> "
- Rear Axle	8- <sup>1</sup> / <sub>4</sub> "	8- <sup>1</sup> / <sub>4</sub> "	8	8	8
Clearance for Jack (One tire flat)					
- Front Axle	5- <sup>1</sup> / <sub>2</sub> "	5- <sup>1</sup> / <sub>2</sub> "	9- <sup>1</sup> / <sub>2</sub> "	9- <sup>1</sup> / <sub>2</sub> "	9- <sup>1</sup> / <sub>2</sub> "
- Rear Axle	6- <sup>5</sup> / <sub>8</sub> "	6- <sup>5</sup> / <sub>8</sub> "	8"	8"	8"