1937

TERRAPLANE

Mechanical &

Tune-up

Specifications

- 1937 Terraplane -

General Chassis Data

Series		Start Serial Number	Cylinders	Bore x Stroke	Displacement	NACC HP	Wheel-Base
70	Commercial	70-101 up	6	3 x 5	212	21.6	115
71	Deluxe	71-101 to 71-70346	6	3 x 5	212	21.6	115
72	Super	72-101 to 72-199907	6	3 x 5	212	21.6	115
78	Commercial	78-101 up	6	3 x 5	212	21.6	115

Starting motor numbers (all models) : 250,000

General Body Data

Passenger Cars

Body Style	71	72
2-Pass. Business Coupe	$740	$----
3-Pass. Coupe	755	835
5-Pass. Brougham	780	855
3-Pass. Victoria Coupe	800	875
5-Pass. Touring Brougham	800	875
5-Pass. Sedan	830	905
5-Pass. Touring Sedan	850	925
3-Pass. Convt. Coupe	875	(2-Pass.) 945

Commercial Cars

Body Style	70	78
3/4 Ton Chassis	$570	$600
3/4 Ton Chassis w/cab	670	700
3/4 Ton Pickup	700	740
1/2 Ton Utility Coupe	725	----
1/2 Ton Utility Cpe. Pickup	750	----
3/4 Ton Panel Delivery	----	880
5-Pass. Station Wagon	905	----

Electrical Equipment: Auto-Lite

Starter	: MAB-4075	- 1935 Hud. 8 after Eng. #63836; 1936-38 Hud. exc 89; 1939 early exc. 90, 91, 98; 1936-38 Terraplane
Generator	: GJC-4804A-1	- 1937 Terraplane 70, 71, 78
	: GJC-4803A	- 1937 Terraplane 72, 1937 Hudson all
Regulator	: CBA-4003	- 1935 Terra. G after Eng. #143134; 1936-38 Terra. 61, 70, 71, 80, 81; 1939 Hudson 90, 91, 98
	: VRD-4003A	- 1937 Terra. 72, 1937 Hudson all
Distributor	: IBW-4012A	- 1937 Terra. 70, 71
	: IGW-4013A	- 1937 Terra. 72, 1937 Hudson all
Ignition Coil	: IG-4644	- 1937 Terraplane all, 1937 Hudson 6

(Cont'd – Page 13)

Fuel System

Carburetor (Carter) : W1-348S - 1937 Terra. 71, Commc'l 70, 78
: W1-344 - 1937 Terra. 72 to 72-11023; early 1937 Hudson all
: W1-377S - 1937 Terra. after 72-11023; later 1937 Hudson all
Fuel Pump (AC) Type AK #1523289 - std all 19937-38 Terra.; 193739 Hudson exc. 90; 1940-42 all exc. 40, 48, 10
(AC) Type AB #1523390 - opt'l 1937-38 Hudson, Terraplane

Shipments

83,436 Passenger
8,058 Commercial

Notes

1) Introduction dates all models - October 1936
2) Body Suppliers : York Hoover - Panel Delivery
: U. S. Body & Forging - Station Wagon
3) Fuel Pump Data : AK #1523289 - Fuel pump
: AB #1523290 - Fuel/Vacuum pump

1937 Service Information and Adjustments

	Terraplane Commercial (117" WB)	*Terraplane Deluxe (117" WB)*	*Terraplane Super (117" WB)*	*Hudson Six (122" W B)*	*Hudson 8 Deluxe (122" WB)*	*Hudson 8 Custom (122" WB)*	*Hudson 8 Deluxe 129' WB)*	*Hudson 8 Custom (129" WB.)*	
Starting Serial No. (U. S. Plant	*70101*	*71101*	*72101*	*73101*	*74101*	*75101*	*76101*	*77101*	
Starting Engine No. (All Plants)		*230000*	*250000*	*250000*	*90000*	*18000*	*18000*	*18000*	*18000*
Starting Serial No. (Canadian)		*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
Special Order	3.89	3.99	3.89
Special Order	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

BRAKES

	Terraplane	*Hudson Six*	*Hudson Eight*
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	Single Disc in Oil	Single Disc in Oil
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 Lubricant	Viscous Chassis Lubricant	Viscous Chassis Lubricant	Viscous Chassis
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-4644	IG-4644	CE-4625
Location	Dash	Dash	Dash
Distributor (Ignition):			
Make - Autolite	IGW-4012-A (70, 71)	IGW-4013-A (also 72)	IGP-4008-A
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*
Generator:			
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.	26 Amps.	
Hot 24 Amps.	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.			
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
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
Spark Plugs:			
Make	Champion	Champion	Champion
Type Standard Head	J8	J8	J8
Type - Super Power Dome			
Head	H-10	H-10	
Size	14 mm	14 mm	14 mm
Gap	025"	.025"	.025"
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
Battery:			
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

	Terraplane	*Hudson Six*	*Hudson Eight*
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
Actual Horse Power:			
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	
Compression Ratio:			
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
Camshaft:			
Drive	Gear	Gear	Gear
Number of Teeth-			
	Camshaft Gear	56	56 56
	Crankshaft Gear	28	28 28
Timing Indicated by Marks on	Gears	Gears	Gears
Camshaft Bearings			
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
Connecting Rods:			
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
Cooling System:			
Circulation by	Pressure Pump	Pressure Pump	Pressure Pump
Temperature Control	Thermostat*	Thermostat	Thermostat
Capacity (Gal.)	3-1/4	3-1/4	5

*None on Terraplane Comm. and Deluxe

	Terraplane	*Hudson Six*	*Hudson Eight*
ENGINE - *(Cont'd)*			
Upper Radiator Hose - Length	10”	10”	10”
- Diameter	1-1/2”	1-1/2”	1-1/2”
Lower Radiator Hose -Length	8-1/2”	3”	8-1/2”
- Diameter	1-5/8”	1-5/8”	1-5/8”
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.			
Crankshaft:			
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
Fuel System:			
Carburetor-Make Carter	W1-348S (70, 71, 78)	W1-344S[1]	W1-377S[2]
	Type – Deluxe & Commercial		Down Draft
	Size	1-1/4”	
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	Manual		
Choke Control - Super	Automatic	Automatic	Automatic

[1]W1-344S – Model 72 to Ser. No. 72-11023; early 1937 Hudson all.
[2]W1-377S – Model 72 after Ser. No. 72-11023; later 1937 Hudson all.

ENGINE - *Fuel System (Cont'd)*	*Terraplane*	*Hudson Six*	*Hudson Eight*
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"
Lubrication System			
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
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	3/32"	3/32"	3/32"
Piston Pin Hole – Size	¾"	¾"	¾"
Finish	Diamond Bore	Diamond Bore	Diamond Bore
Piston Pin:			
Type	Floating	Floating	Floating
Method of Locking	Snap Rings	Snap Rings	Snap Rings
Diameter	¾"	¾"	¾"
Length	2-7/16"	2-7/16"	2-7/16"
Fit in Piston (at 200^0 F.)	.0003"	.0003"	.0003"
Fit in Rod	.0003"	.0003"	.0003"
Piston Rings:			
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"

	Terraplane	*Hudson Six*	*Hudson Eight*
ENGINE- *(Cont'd)*			
Valves and Tappets:			
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 Steel	Silicon Chrome Steel	Silicon Chrome 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	¾”	¾”	¾”
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” 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	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
STEERING GEAR			
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.
TIRES			
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

	Terraplane	*Hudson Six*	*Hudson Eight*
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
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
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”.	003”
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
WHEELS			
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

	Terraplane	*Hudson Six*	*Hudson Eight*
CHASSIS AND GENERAL DIMENSIONS			
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”

1937 Terraplane
70 - Commercial
71 – Deluxe, 72 – Super

Tune-up Specifications

MODEL IDENTIFICATION

SERIAL NUMBER: - First number 70-101 (Commercial 70), 71-101 (Deluxe 71), 72-101 (Super 72). On plate on right front door hinge pillar post.

ENGINE NUMBER: - First number 250,000 (all models). Stamped on left side of block opposite #6 cylinder.

TUNE-UP

COMPRESSION: - Ratio - 6.25-1 Standard cast-iron head. 7.0-1 Optional 'Super Power Dome' aluminum alloy head. NOTE-High octane fuel must be used with this head.

Pressure - Check pressure by removing all spark plugs and cranking engine with throttle wide open.

Cylinder Head	Compression Pressure
6.25-1	103 lbs., 170 R.P.M.
7.0-1	119 lbs., 170 R.P.M.

VACUUM READING: - 18-20" steady reading with engine idling at 350 R.P.M. or 6 M.P.H.

FIRING ORDER: 1-5-3-6-2-4. See diagram.

SPARK PLUGS: Champion Type J-8 (Std. 6.25-1 Eng.), Type H-10 (Opt'l. 7.0-1 Eng.). 14 mm. Metric type.

Gaps - .025".

IGNITION: See Coil, Condenser, and Distributor.

Breaker Gap - .020". Cam Angle 35º (closed).

Automatic Advance - 14º max at 1580 RPM (distr.).

IGNITION TIMING: See Ignition Timing.

Standard Setting - At TDC. with flywheel mark "UDC. 1-6/" at indicator in inspection hole in left front face of housing above starter.

CARBURETION: See Carburetor & Carb. Equipment.

Idle Setting (Single Carb.) - Idle screw 1/4-1 turn open. Idle speed 6 MPH.

Idle Setting (Dual Carb.) - Both idle screws 1/4-3/4 turn open. Idle speed 6 MPH.

Float Level (Single Carb.) - 3/8" gasket seat on cover to top of float at free end (invert to check).

Float Level (Dual Carb.) - 15/64" from gasket seat on cover to top of float at each end.

Accelerating Pump (Single Carb.) - Center hole (medium) Normal. Inner hole (Summer), Upper hole (Winter) for extreme temperatures.

Accelerating Pump (Dual Carb.) - Inner Hole for Summer, Outer - Winter. Requires partial dismantling of carburetor.

Fuel Pump Pressure: 4½ lbs. maximum.

VALVES: See Valve Timing.

Tappet Clearance - .006 Intake, .008" Exhaust, Hot.

STARTING: See Battery, Starter, Generator, and Regulator (when used).

IGNITION

Ignition Switch: - Mchellock Model 24-B, Type 7063. Connected to coil by armored cable.

Ignition Lock - Briggs & Stratton, Mitchell No. 6095.

COIL: Auto-Lite Model IG-4614. Service Winding (coil less Switch and Cable) IG-3224JS. Resistor unit mounted on distributor terminal connected in primary circuit. NOTE - This resistor not used when Regulator (VRD-4003A, B) used. Resistor should be removed when regulator installed.

Ignition Current - 2.5 amperes idling, 4.5 stopped.

CONDENSER: Auto-Lite Part No. IGB-102~J.

Capacity - 20-25 microfarad.

DISTRIBUTOR: Auto-Lite Model IGW-4012-A (70,71), IGW-4013-A (72). Single breaker, 6 lobe cam, full automatic advance type.

Breaker Gap - Set at .020".

Cam Angle or Dwell - 35º (closed), 25º (open).

Breaker Arm Spring Tension - 16-20 ounces.

Automatic Advance

Distributor		Engine	
Degrees	R.P.M.	Degrees	R.P.M.
Start	300	0	600
3	400	6	800
7	825	14	1650
11	1255	22	2510
14	1580	28	3160

Distributor Removal: - Mounted on right side of crankcase. To remove, take out hold-down screw in advance arm.

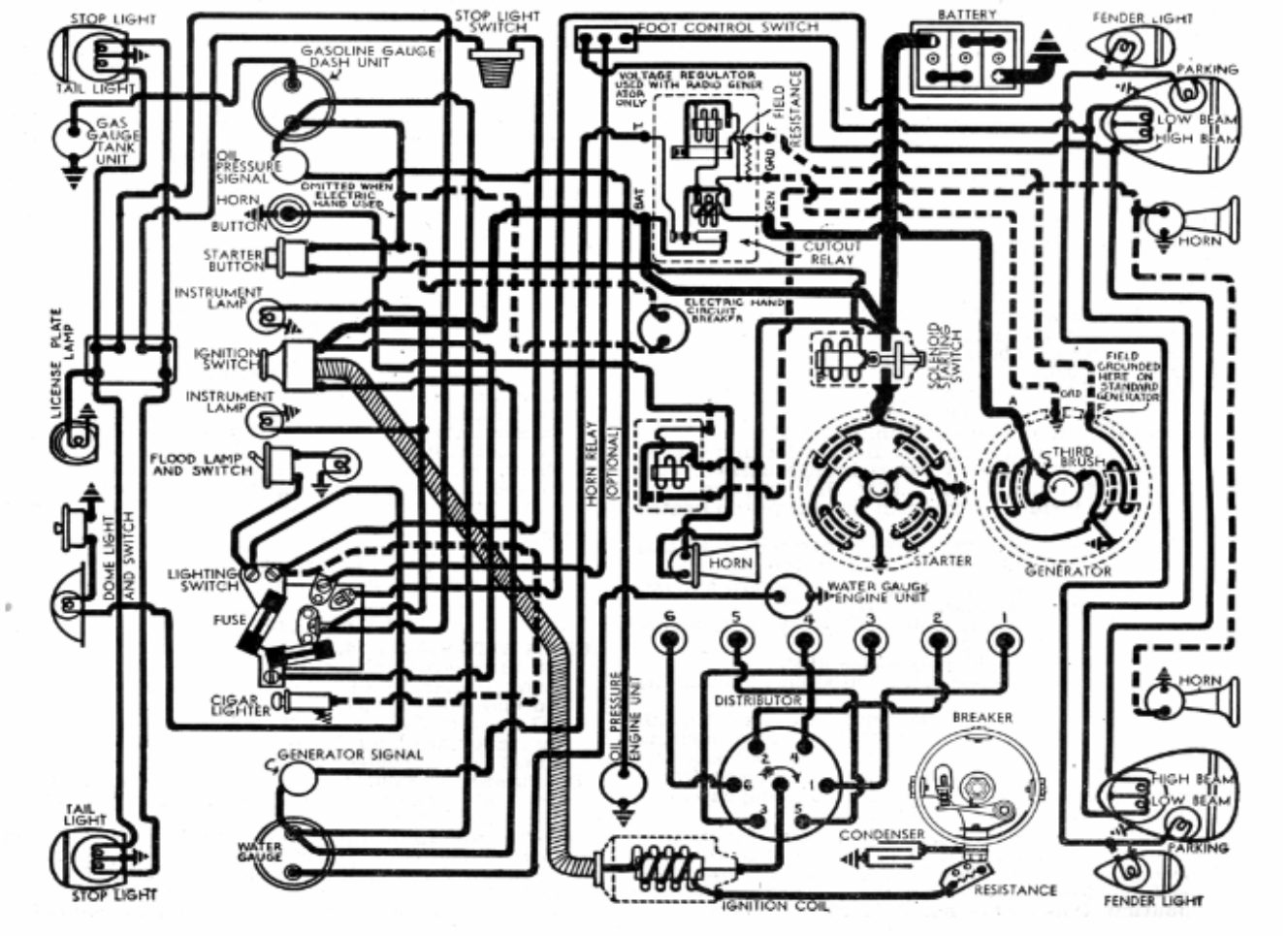
IGNITION TIMING

IGNITION TIMING: - Initial setting for all engines as shown. See Final Setting for adjustment dependent on octane rating of fuel used.

Flywheel Degrees	Piston Position
At TDC	.0000" TDC.

NOTE - High octane fuel must be used in engines with 7.0-1 high compression aluminum head.

1937 Terraplane



To Set Timing (Initial Setting) - With #1 piston on compression, crank engine over until flywheel mark "UDC.1-6/" lines up with pointer in left front face of flywheel housing. Loosen hold-down screw in advance arm, rotate distributor clockwise to limit of slot, then slowly rotate distributor counter-clock wise until contacts begin to open, tighten hold-down screw.

Final Ignition Setting - Road test car and note performance when accelerating from 10-15 M.P.H. with wide open throttle on level road (engine must be warm), slight spark knock should be evident. Adjust by loosening hold-down screw and rotating distributor one graduation on scale counter-clockwise (if no knock), clockwise (if knock too severe). Repeat test. Final setting must not be advanced more than 3/4" before "UDC.1-6/" mark on flywheel.

CARBURETOR
MODELS 70 & 71

Carter Model W1, Type 348-S. Single barrel, downdraft type with manual choke control.

Idle Adjustment - Engine must be warm so that choke valve wide open and throttle cracker inoperative. Set throttle lever stop-screw so that idling speed Is 6 M.P.H. Turn idle adjusting screw in until engine begins to miss, then out until engine begins to roll, finally turn screw in slowly until engine fires smoothly. Final setting should be 1/4-1 turn open from inner seated position. Readjust throttle stop-screw for correct idling speed.

Float Level - 3/8" from gasket seat on cover to top of float at free end with needle valve seated. Invert to check.

Accelerating Pump Setting - Pump lever (under dust over top of carburetor) has three holes for pump link connection. Change for seasonal requirements as follows:

Center Hole - Normal summer temperatures.
Inner (Min. stroke) - Extreme hot weather.
Upper (Max. stroke) - Extreme cold weather.

CARBURETOR
SUPER MODEL 72

Carter Model WDO, Type 344-S or 377-S. Dual (double barrel), downdraft type with Fast Idle and Carter Climatic Control (automatic choke).

Idle Adjustment - Engine must be warm so that fast idle and automatic choke control inoperative. Set throttle lever stop-screw so that idling speed is 6 M.P.H. Turn each idle adjusting screw, in succession, in until engine begins to miss, then slowly out until engine fires smoothly. Final setting should be 1/4-3/4 turn out from inner seated position and screws must be adjusted equally so that engine fires smoothly on all cylinders. Readjust throttle stop-screw if necessary.

Float Level - 15/64" from gasket seat on cover to top of float with needle valve seated. Invert assembly and check at each side of soldered seam.

Accelerating Pump Setting - Adjustable for minimum and maximum stroke. Requires partial dismantling of carburetor to change setting.

CARB. EQUIPMENT

Throttle Cracker (348-S): Set to open throttle valve .036-.040" with choke valve fully closed. No adjustment provided.

Fast Idle (344-S, 377-S): Integral type (part of automatic choke assembly).

Adjustment - With choke valve closed, adjust fast idle screw for.01811 throttle opening.

Automatic Choke (344-S, 377-S): Carter Climatic Control. Mounted on carburetor.

Setting - Centered (344-S), 2 Points Rich (377-S).

Air Cleaner: AC No. 1523159 (Std. 70, 71), 1528161 (Std. 72), 1528158 (70 71 with Electric Hand), 1528160 (72 with Electric Hand), Oil-wetted type. Heavy duty oil-bath type Optional.

Fuel Pump: - AC. Type AX #1523289. Diaphragm type standard, Type AB #1523290 combination fuel-and-vacuum type optional.

Gasoline Gauge: - King-Seeley Electric Type. K-S No. 6190 (dash unit), 5835 (tank unit)

BATTERY

BATTERY: - National, Type ST-817X. 6 volt, 17 plate, 96 ampere hour capacity (20 hour rate).

Starting Capacity - 120 amperes for 20 minutes.

Zero Capacity - 300 amperes for 3.2 minutes.

Grounded Terminal - Positive (+) terminal.

Location - In left front fender. Accessible from engine compartment by taking out 3 slotted screws in cover flange (2 top, 1 rear) and removing cover.

STARTER

Auto-Lite Model MAB-4075. Armature MAB-2113.

Drive - Inboard Barrel type Bendix No. A-1673.

Rotation - Counter-clockwise at commutator end.

Brush Spring Tension - 42-53 ozs. (new brushes).

Cranking Engine - 150 RPM., 120-125 amps., 5 volts.

Performance Data

Torque	R.P.M.	Volts	Amperes
0 ft. lbs	3700	5.5	60
.6 " "	1910	5.5	100
3.4 " "	1100	5.0	200
6.6 " "	695	4.5	300
10.15 " "	420	4.0	400
15.8 " "	Lock	3.0	582
22.5 " "	Lock	4.0	775

NOTE - Lock torque figures correct without switch.

Removal: - Starter flange mounted on left front face of flywheel housing. To remove, take out flange mounting screws.

Starting Switch: - Type SS-4001. Magnetic solenoid type mounted on starter field frame. Controlled by pushbutton (R.B.M. Model 1815) on Instrument panel. Operative only with Ignition on (and clutch disengaged on cars with Electric Hand).

GENERATOR

Auto-Lite Model GCJ - 4804A-1 (70,71), GCJ-4803-A (72). Armature No. GCJ-2006. Third brush control type. Ventilated by fan on drive pulley. Cutout Relay standard on Models 70, 71. Vibrating Voltage Regulator standard on Model 72 (also Models 70,71 with radio).

NOTE - On standard 70, 71 cars (without Voltage Regulator) field terminal on generator frame is grounded by ground cup assembled on terminal stud. This ground cap must be removed if regulator installed.

Maximum Charging Rate - 16 amperes (cold), 12.4 amperes (hot) without regulator, 25 amperes (cold) 22 amperes (hot) with regulator.

Charging Rate Adjustment - Remove commutator cover band, shift third brush by hand, counterclockwise to increase or clockwise to decrease charging rate. Third brush held in position by friction. Do not exceed maximum rate as given above. Actual charging rate, on cars with regulator, determined by regulator setting and dependent upon battery condition (see Regulator Section below).

Generator (Cont'd)

Performance Data-GCJ - 4804A-1

Cold	Without Regulator		Hot		
Amps.	Volts	R.P.M.	Amps	Volts	RPM.
0	6.4	835	0	6.4	920
4	6.6	1025	4	6.9	1100
8	7.2	1225	8	7.4	1325
12	7.6	1460	12.4	8.0	2400
16	8.0	2250			

Performance Data-GCJ-4804A-1 & 4803-A

Cold	Cars with Regulator		Hot		
Amps.	Volts	R.P.M.	Amps.	Volts	R.P.M.
0	6.4	760	0	6.4	850
4	6.65	920	4	6.7	1020
8	6.9	1080	8	7.0	1240
12	7.2	1240	12	7.3	1400
16	7.45	1400	16	7.6	1650
20	7.7	1580	20	7.9	2100
25	8.0	2500	22	8.0	2700

Rotation - Counter-clockwise at commutator end.
Brush Spring Tension - 53 ozs. max. (new brushes).
Field Current - 1.9-2.1 amperes at 6.0 volts.
Motoring Current - 4.0-4.4 amperes at 6.0 volts.
Removal: - Generator pivot mounted at left front of engine. To remove, take out clamp bolt and pivot bolts.
Belt Adjustment: - Loosen pivot bolts and clamp bolt, swing generator out until total sideplay or deflection midway between generator and fan pulleys is 3/4-1/4".

CUTOUT RELAY

Auto-Lite Model CBA-4003 (GCJ-4804A-1 Generator). Mounted on dash. Relay has extra "ground" contacts for generator charge signal control.
Cuts In - 6.5-7.25 volts.
Cuts Out - 1.5-4.5 amperes discharge current after charging at 16 amperes.
Contact Gap - .015-.045" with upper ground contacts closed 'Upper contacts must open when main contacts close)
Air Gap - .010-.030" with contacts closed.

REGULATOR

Auto-Lite Model VRD-4003-A, B (GCJ-4803-A Gen. & 4804A-1 Gen. with Radio). Voltage Type. Consists of Cutout Relay and vibrating type voltage regulator in case on the dash. Cutout Relay has extra "ground" contacts for generator charge signal control.
NOTE - Regulator cover is sealed. Serviced on exchange basis if seals unbroken. Cover must be removed to make adjustments.

Cutout Relay

Cuts In - 6.4-7.0 volts Cold.
Cuts Out - .5 ampere Min., 3.0 amperes Max. Cold.
Contact Gap - .015" minimum (with ground contacts closed-ground contacts must be open with main contacts closed).
Air Gap - .0341' Min., .0381, Max. with contacts open. Measure at hinge end of core.

Voltage Regulator

Setting (VRD-4003-A) - 7.5-7.8 volts at 70º F. (Before #8R-000001), 7.35-7.65 volts at 701F (After #8R-000001).
Setting (VRD-4003-B) - 7.8-8.1 volts at 70º F (Before #8R-000001). 7.35-7.65 volts at 701F (After #8R-000001).
To Check - Connect ammeter in charging line at 1B' terminal on regulator (use short heavy leads), connect voltmeter between regulator 'B' and "GD' terminals. Operate generator, charging fully charged battery, at speed equivalent to 30 M.P.H. car speed until voltage is steady. Voltmeter reading should be within limits of 7.4-7.9 volts (VRD-4003-A before #8R-000001), 7.8-8.1 volts (VRD-4003-B before #8R-000001), 7.1-7.8 volts (all models after #8R-000001). If outside these limits, regulator is defective.
To Adjust - Change regulator armature spring tension by bending lower spring hanger.
Contact Gap - .010" Minimum, .020" Maximum with armature against stop pin.
Air Gap - .0595-.0625" with contacts just opening.

LIGHTING

LIGHTING: - Headlamps. Hall, pre-focused type. Lenses interchangeable. Aim headlamps straight ahead with top of beam 39" above floor level at 25' (car unloaded, upper beam lighted). Upper and lower beams controlled by foot selector switch with lighting switch in driving (right hand) position.

Switches

Lighting - R.B.M.
Foot Selector - R.B.M. No. 1076.
Dome Light - R.B.M. No. 1220.
Stop Light - R.B.M. No. 965.

Bulb Specifications

Position	Candlepower	Mazda No.
Headlamps	32-32	2331
Headlamps (export)	50-21	2520
Park, Instrument	1½	55

Bulb Specifications (Cont'd)

Position	Candlepower	Mazda No.
Signals, Service	1	51
Fender (Pot's.) License	3	63
Stop-Tail	21-3	1158
Dome	15	87

MISC. ELECTRICAL

SIGNAL LIGHTS: - Oil Pressure Indicator and Generator Charge Indicator mounted on instrument board. Similar to design used previously except that bulb lights up word 'Not' on dials.

FUSES: - Lighting - Two 20 ampere type on back of lighting switch.

HORNS (70,71): - Delco-Remy, Klaxon K16 Type 2010. Vibrator type. Current draw 6.5-8.5 amperes at 6.0 volts.

Air Gap - .025-.029".

HORNS (72): - Delco-Remy K-33-S Standard, K-33-F Optional. Blended tone, twin horns operated by relay.

Horn	Current (6 volts)	Air Gap
K-33-S, 2051 (low note)	11-13 amps	.042~.046"
K-33-S, 2052 (high note)	10-12 "	.032-.036"
K-33-F, 2117 (low note)	11-13 "	.040-.044"
K-33-F, 2118 (high note)	9-11 "	.032-.036"

Horn Relay Model 271-A: - Contacts close at 2.7-4.0 volts.

Contact Gap - .015-.030".

Air Gap - .010-.025".

ENGINE

ENGINE SPECIFICATIONS: - 6 cyl. L head type.

Bore - 3", **Stroke** - 5". **Displacement** - 212 cubic inches.

Rated Horsepower - 21.6 A.M.A.

Developed Horsepower -	**70,71**	**72**
Std. 6.25-1	96 @ 3900	101@4000
Opt'l. 7.0-1 'Super Power'	102 @ 3900	107 @ 4000

Compression Ratio & Pressure - Check at cranking speed, spark plugs removed, throttle wide open.

Standard 6.25-1 head 103 lbs. at 170 R.P.M.

Optional 7.0-1 head 119 lbs. at 170 R.P.M.

Vacuum Reading - 18-21" at 350 RPM or 6 MPH.

PISTONS: - Own Lo-Ex aluminum alloy, "T" slot, cam ground type. Use finished replacement pistons.

Weight - 5 ounces stripped. Length - 3 3/16".

Removal - May be removed from above or below.

Clearance - .016" top, .002" skirt (see below).

Original Bore Size: - See Hudson Shop Notes.

Replacement Pistons: - See Hudson Shop Notes.

Fitting New Pistons: - 3-4 lb. tension should be required to withdraw .0015" feeler 1/2" wide from between piston and cylinder wall on side opposite slot at right angles to pin bosses.

Installing Pistons: - Slot away from camshaft side.

PISTON RINGS: - Two compression, one oil ring above pin, 1 oil ring below pin. Rings positioned by pin in grooves.

Ring	Width	End Gap	Side Clearance
Compression	3/32"	009-.011"	.001"
Oil (both)	3/16"	009-.011"	.001"

Replacement Rings: - See Hudson Shop Notes.

PISTON P|IN: - Diameter - ¾". Length – 2-7/16".

Pin floats in piston and rod, held by locking rings. Pin hole in rod bronze-bushed. Pins furnished std., .002", .005", .010" oversize.

Pin Fit in Piston - .0003" clearance or hand push fit with piston heated to 200º F.

Pin Fit in Rod Bushing - .0003" clearance.

CONNECTING ROD: - Weight 29.4 ozs. Length 8-3/16".

Crankpin Journal Diameter – 1-15/16".

Lower Bearing - Spun-babbitt. Rods exchanged. Finished bearings furnished standard and undersize (special order).

Clearance - .001". Side play - .006-.010".

Bearing Adjustment: - Laminated shims. Do not file.

Installing Rods:-Offset. Install rods with widest half of bearing toward rear (#1, 2, 4), toward front 43, 5, 6). Oil scoop on all rods toward camshaft.

CRANKSHAFT:-3 bearing, integral counterweights

Journal Diameters - #l, 2-11/32"; #2, 2-3/8"; #3, 2-13/32".

Bearing Type - Bronze-backed, babbitt-lined. Furnished std., and unfinished (1/32" extra stock - ream to desired undersize). Clearance-.001".

Bearing Adjustment: - Shims. See Hudson Shop Notes.

End Thrust: - Taken by center bearing. Replace bearing to adjust. Endplay.006-.012".

CAMSHAFT: - Three bearing. Gear driven.

Journal Diameters - #1, 2"; #2, l-31/32"; #3, 1½".

Bearing Clearance - .0015".

End Thrust: - Taken by thrust washer assembled between front face of crankcase and rear side of camshaft front flange. and by spring-loaded button in camshaft hub and thrust plate on gear cover. See that spring and button in place under cover.

Timing Gears: - Crankshaft gear cast-iron. Camshaft gear GE. or Continental Diamond Fibre Bakelite. 1941 Hudson Type Timing Gear Set can be installed on these models (tooth angle redesigned to provide quieter operation). See Hudson Shop Notes for data.

Engine (Cont'd)

Camshaft setting: - Mesh marked tooth of crankshaft gear between two marked teeth on camshaft gear..

VALVES: -	**Head Diameter**	**Stem Diameter**	**Length**
All Valves	1-3/8"	3/8"	5 11/32"
	Seat Angle	Lift	Stem Clearance
Intake	45º	11/32"	.0015-.003"
Exhaust	45º	11/32"	.003-.005"

Valve Guides: - 2-9/16" long. Top 1-1/16" below top of block. Finish ream to size after installation.

Valve Springs: - Springs are cadmium plated. Dampeners originally used on bottom of all springs, but car manufacturer recommends that they be omitted whenever valves are serviced. Spring check (out of engine) - 34 lbs. min. at 2".

	Spring Pressure	Spring Length
Valve Closed	44 lbs	2"
Valve Open	102 lbs	1-21/32"

Valve Lifters: - Roller shoe type, fitted in removable guides.

VALVE TIMING

Tappet Clearance: - 006" Int., .008" Exh., engine hot

Valve Timing: - See camshaft setting above.

Intake Valves - Open 14º 40', BTDC. Close 60º ALDC. Exhaust Valves - Open.50º BLDC. Close 18º 40' ATDC. These figures correct with .010" tappet clearance.

To Check Timing - Set tappet clearance #1 intake valve at .010". This valve should open with piston 10º 40' or .0562" BTDC. when point on flywheel approximately 3.94 teeth before 'UDC.1-6/' mark lines up with pointer in hole in left front face of flywheel housing. Reset tappet clearance at .00611 hot.

LUBRICATION

LUBRICATION: - Duo-flow (pressure and positive splash) system.

Oil Pump: - Oscillating plunger type, gear driven by camshaft. Mounted on right side of crankcase.

Normal Oil Pressure - 3 lbs. (no gauge).

Oil Pressure Regulator: - Located on right side of crankcase at rear. Opens at 3 pounds. Not adjustable.

Oil Pressure Indicator: - Teleflash Oil Pressure indicator.

Checking Oiling System: - See Hudson Shop Notes.

Crankcase Capacity: - 5 quarts. (refill), 6 quarts. (dry).

COOLING

COOLING SYSTEM: - Water Pump. Centrifugal, belt driven, packless type.

Removal - With water drained and fan belt removed, disconnect water hoses at pump, remove mounting bolts and lift fan and pump assembly off.

Thermostat: - On 72 only. In water outlet on cylinder head.

Setting - Start to open 150 - 155º F. Fully open 185º F.

Water Capacity: - 13 quarts.

CLUTCH

CLUTCH: - Own make. Single plate, cork insert type, operating in oil.

Driven Member - Thickness .203". Inside Diameter 5.375", Outside Diameter 8.625". Facing 90 cork inserts.

Automatic Clutch Control: - Optional equipment.

Adjustment: - Pedal free movement must be 1½". To adjust, remove clevis pin at lower end of connecting link on throw-out shaft lever, loosen locknut, turn clevis. On cars with Automatic Clutch control, check setting whenever clutch adjusted.

Clutch Oil Servicing: - See Hudson Shop Notes for data.

Removal: - Remove transmission (see Transmission Removal following), take out 16 clutch cover capscrews and remove clutch assembly from below.

TRANSMISSION

TRANS5HSSION: - Own make. Constant-mesh, helical gears with synchronizing unit (second and high speeds). Sliding spur gears (low and reverse).

Electric Hand: - Bendix type electro-pneumatic gear shift Optional Equipment.

Removal: - Remove Electric Hand and Automatic Clutch Control units and wiring from transmission first, if car so equipped. Disconnect transmission side bumpers, interlock straps., speedometer cable and drive shaft at front universal. Take out bell housing-to-engine mounting bolts, pull transmission straight back.

UNIVERSALS

UNIVERSAL JO|INTS: - Spicer. 1271 (front), 1278 (rear). Needle bearing type.

REAR AXLE

REAR AXLE: - Own make. Semi-floating, spiral bevel gear type.

Ratio - 4.11-1 Standard, 4.56-1 Optional. 3.89-1, 3.56-1 Special.

Backlash - .0005-.003". Screw adjustment.

Removal: - Remove rear wheel and hub assembly (use screw type puller only) take out four nuts on bearing cap bolts, push bolts out through backing plate remove shims, pull wheel bearing and axle shaft, disconnect

REAR AXLE (Cont'd)

drive shaft at rear universal, remove 8 nuts from axle housing-to-carrier stud bolts, withdraw differential assembly.

Wheel Bearing Adjustment: - Controlled by shims under bearing cap. Measure endplay by dial indicator clamped to backing plate with plunger against end of axle shaft. To adjust, remove bearing caps (as directed above), add or remove shims equally at both wheels. **Endplay** - .004-.010".

SHOCK ABSORBERS

SHOCK ABSORBERS: - Monroe. 637502 (front), 635703 (rear). Hydraulic, direct acting type.

FRONT SUSPENSION

Front Suspension: - Conventional 'I' beam section front axle with Elliott type ends and semi-elliptic springs. Axle alignment maintained by torque arm at each end (71, 72 - not used on 70).

Kingpin Inclination - 7º crosswise. NOTE - Loose ball type thrust bearing used. See 1936 page for data. Caster-1-2º and equal within 1/2º for both wheels. To adjust (71, 72) 1 loosen capscrews at front of torque arm, Insert shim between arm and axle at upper screw or remove shim at lower screw to decrease caster, remove shim at upper screw or Insert shim at lower screw to Increase caster. Shims .020" thick, change caster 1/2º. To adjust (70), install wedge shims between spring and spring seat.

Camber - 1-1½º. No adjustment.

Toe In - 1/8" measured 10" up from ground. Adjust by loosening clamp bolts and turning tie rod

Steering Geometry - Inner wheel 20º. Outer 17¾".

STEERING GEAR

Steering Gear: Gemmer Model 305. Worm-and-Roller type with "push-pull" adjustments.

BRAKES

BRAKES: - Service - Bendix Hydraulic, Duo-servo, Single anchor type with Mechanical follow-up. Hand lever applies rear service brakes.

Drum - Alloy-steel. Diameter - 10-1/16".

Lining - Moulded and woven type. Width 1¾". Thickness 7/32". Length 22=1/8" per wheel.

Clearance - .010" heel and toe of each shoe.

Hand Brake: - See Service Brakes above.

Hill-Holder: - Optional on all models. See Brake Section for complete data.