# WA1 SINGLE CARBURETER

CARTER CARBURETOR CORPORATION
ST. LOUIS, MO., U. S. A.

# HUDSON
## SPECIFICATIONS
## 6 CYLINDER
## 1940-42

| Carb. No. | Casting No. | Year | PARTS PACKAGE | | Gasket Assortment |
|---|---|---|---|---|---|
| | | | Standard | 1 Size Lean | |
| 454S | 298 | 1940-42 Early | 1078 | 1178 | 139A |

**NOTES:** Late 1942 models used 524S carbureter, refer to catalog sheet listing W1 carbureters, Form 9535.

For 1940-42 do not confuse above die-cast WA1 carbureters with cast-iron W1 models also used during part of that period. W1 carbureters are covered on a separate sheet, Form 9535. Dual (WDO) carbureters are also listed on a separate sheet, Form 9536.

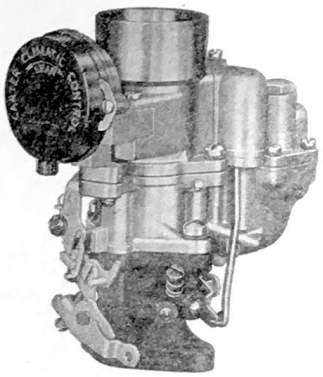
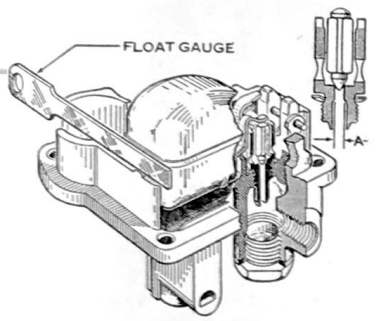


Figure shows 454S carbureter

## 1. FLOAT CIRCUIT



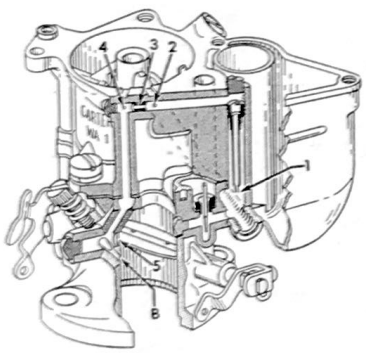

**Needle Seat Orifice "A" and Part No.:**

48 Dr. (25-33S) ..... 1940-42

**Float Level Setting:**

3/8" ..... 1940-42

## 2. LOW SPEED CIRCUIT




**(1). Low Speed Jet Orifice and Part No.:**

70 Dr. (11-163S) ..... 1940-42

**(2). By-Pass Orifice:**

53 Dr. ..... 1940-42

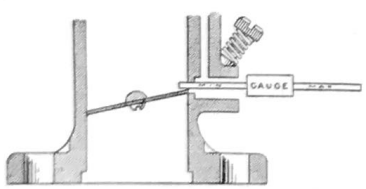
**(3). Economizer Orifice:**

.0755"-.0765" ..... 1940-42

**(4). Idle Bleed Orifice:**

50 Dr. ..... 1940-42

**(5). Idle Port Opening:**




.120"-.124" ..... 1940-42

**Note:** Idle port opening is measured above valve, with valve closed tight.

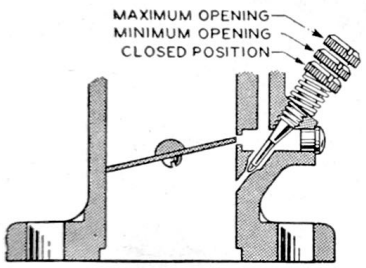
**Idle Mixture Screw Orifice "B":**

46 Dr. ..... 1940-42

**Idle Mixture Screw Setting,**

**Minimum and Maximum turns open:**

3/4-1 1/2 ..... 1940-42

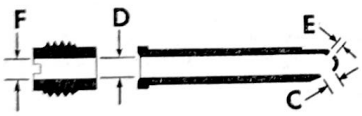



**Minimum Idling Speed, mph—in high gear:**

7 1/2-8 mph. ..... 1940-42

## 3. HIGH SPEED CIRCUIT

**Nozzle Specifications:**

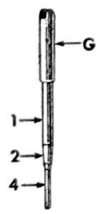



| C-Outlet Orifice | D-Inner Diameter | E-Upper Orifice | F-Plug Orifice & Part No. | Part No. | Year and Model |
|---|---|---|---|---|---|
| 48 Dr. | 30 Dr. | 75 Dr. | 30 Dr. (11B-34) | 12-261 | 1940-42 |

**Metering Rod, Standard, Step Sizes and Part No.:**

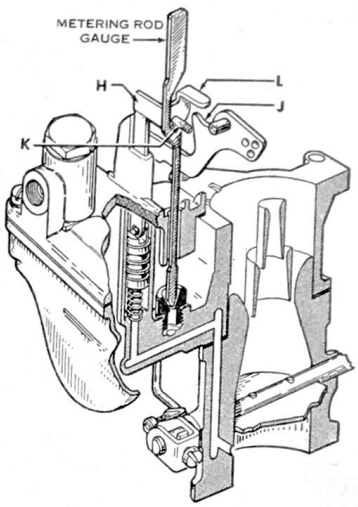
| Economy Step Size | Middle Step Size | Power Step Size | Part No. | Year and Model |
|---|---|---|---|---|
| .072" | .072"-.064" | .044" | 75-407 | 1940-42 |

**Note:** Leaner than standard rods for use at high altitudes may be found in parts list.




"G"—Typical 3-Step Metering Rod.

**Metering Rod Gauge and Part No.:**



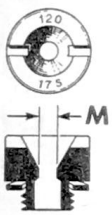

T109-102 ..... 1940-42

**Metering Rod Setting:**

Back out throttle adjusting screw to permit throttle valve to seat in carbureter bore. Hold vacauum piston link "H" so that lip "L" rests lightly against point "J" of metering rod arm. With metering rod gauge in position, there should be less than .005" clearance at "K." Adjust by bending lip "L."

**Note:** Adjust pump travel before metering rod setting.

**Metering Jet Orifice "M" and Part No.:**

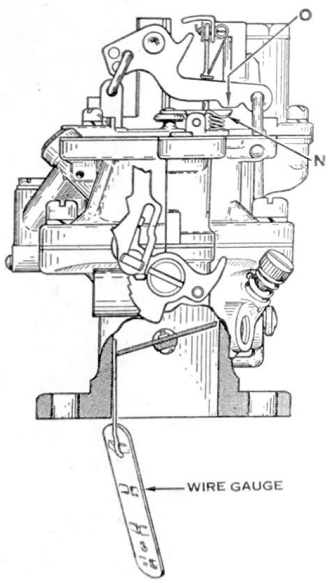



.096" (120-17S) ..... 1940-42

**Vacuum Piston Spring:**

61-175 ..... 1940-42

**Anti-Percolator Setting:**





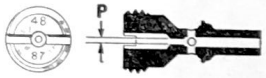

CARBURETER
TRADE MARK REG. U. S. PAT. OFF.
MARCA REGISTRADA

PRINTED IN U.S.A.

...en throttle valve .030" by placing a .030" wire gauge directly opposite the idle port. Adjust by bending the anti-percolator arm "N" to provide .010" clearance between anti-percolator arm "N" and pump arm "O". Make this adjustment after setting pump travel and metering rod.

## 4. PUMP CIRCUIT

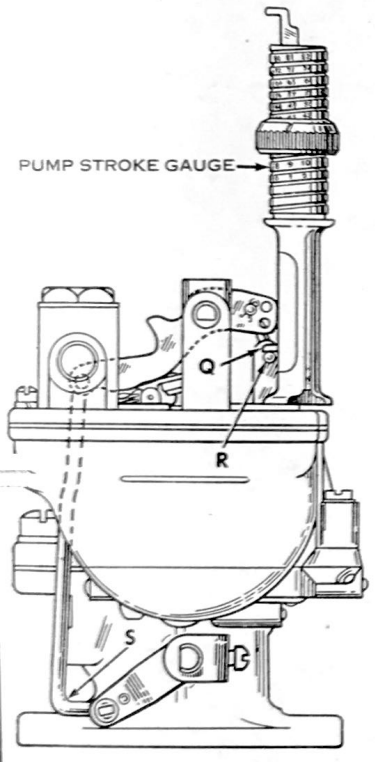
Pump Jet Orifice "P" and Part No.:




68 Dr. (48-87) ..... 1940-42

Pump Cylinder Spring

**Pump Plunger Travel:**




12/64" short stroke ..... 1940-42

**Pump Travel Setting:**

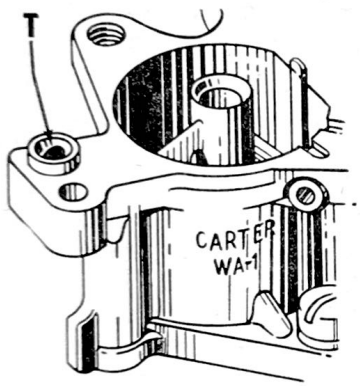
Back out throttle adjusting screw to permit throttle valve to seat in carbureter bore and see that pump connector link is in short stroke position. Place pump travel gauge on bowl cover ridge and rotate the knurled nut on gauge until the finger "Q" rests on the top surface of the lower end of pump connector link "R," then read the figure on gauge even with the notch on the knurled nut. Repeat the operation with throttle opened fully and again read the figure on the gauge. When correctly adjusted, the difference between these two figures should be 12. (12/64" pump travel.) To adjust, bend throttle connector rod at "S."

**Note:** Adjust pump travel before metering rod and anti-percolator setting.

## 5. CHOKE CIRCUIT

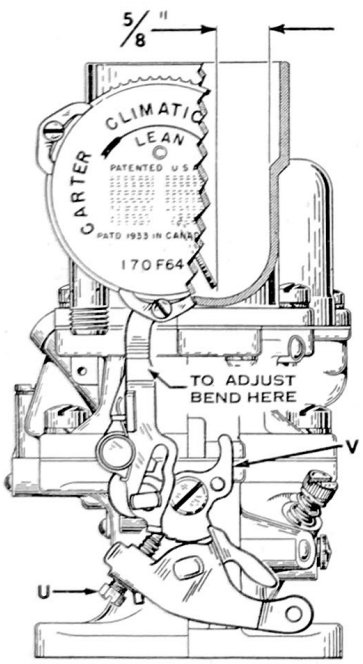
**Coil Setting and Part No.:**
Center index (170F64S) .... 1940-42


Choke Heat Suction Hole "T" in Body:



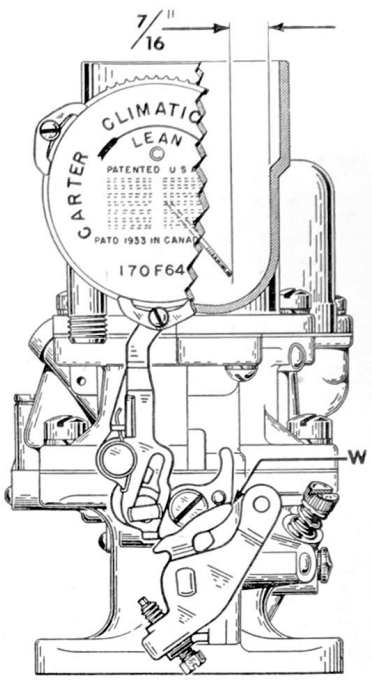

36 Dr. ..... 1940-42

**Fast Idle Setting:**




With throttle closed, idle speed adjusting screw "U" is set against first step on fast idle cam "V." Bend fast idle connector link until clearance between lower edge of choke valve and inner wall of air horn is 5/8". (1940-42.)

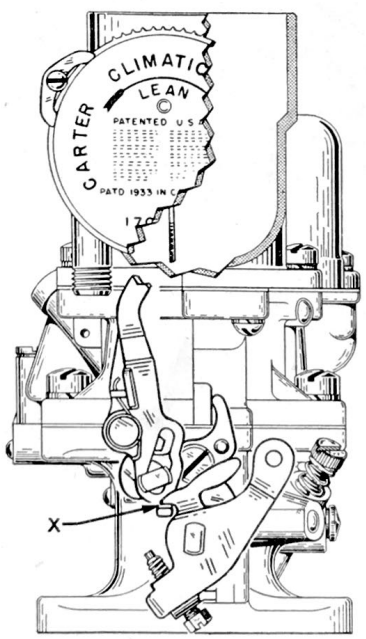
Unloader Setting:




With throttle valve wide open, there should be 7/16" clearance between lower edge of choke valve and inner wall of air horn. Adjust by bending cam "W" on throttle lever.

7/16" ..... 1940-42

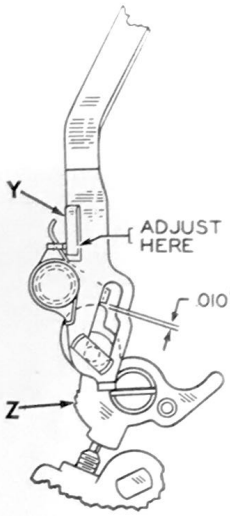
**Lock Out Clearance:**




There should be 1/32" clearance between throttle lever lock and lip on choker link at "X" when both throttle and choke valves are fully open.

**Trip Lever Adjustment:**

With choke valve closed and fast idle cam pin resting at bottom of




slot in fast idle connector link, adjust trip lever stop "Y" to give .010" clearance between fast idle cam "Z" and trip lever lip.

# HUDSON

## MOTOR TUNE-UP

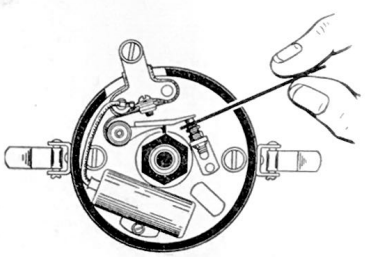
## 6 CYLINDER

## 1940-42

**SPARK PLUG GAP**

.032" ..... 1940-42

**BREAKER POINT GAP**

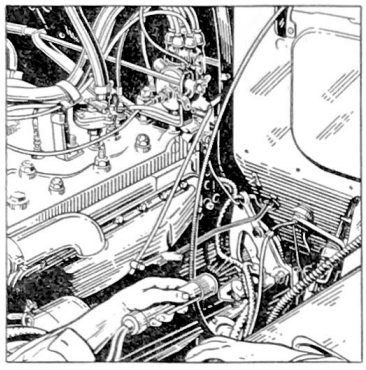


.020" ..... 1940-42

**IGNITION TIMING**

**Breaker Points to Open:**

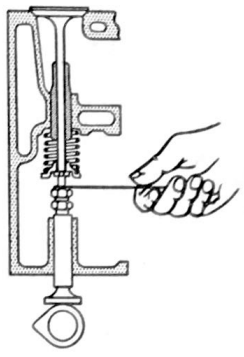
T.D.C. ..... 1940
1/2" B.T.D.C. ..... 1941-42




## FLYWHEEL MARKINGS

**VALVE SETTING**

**With Motor at Operating Temperature:**

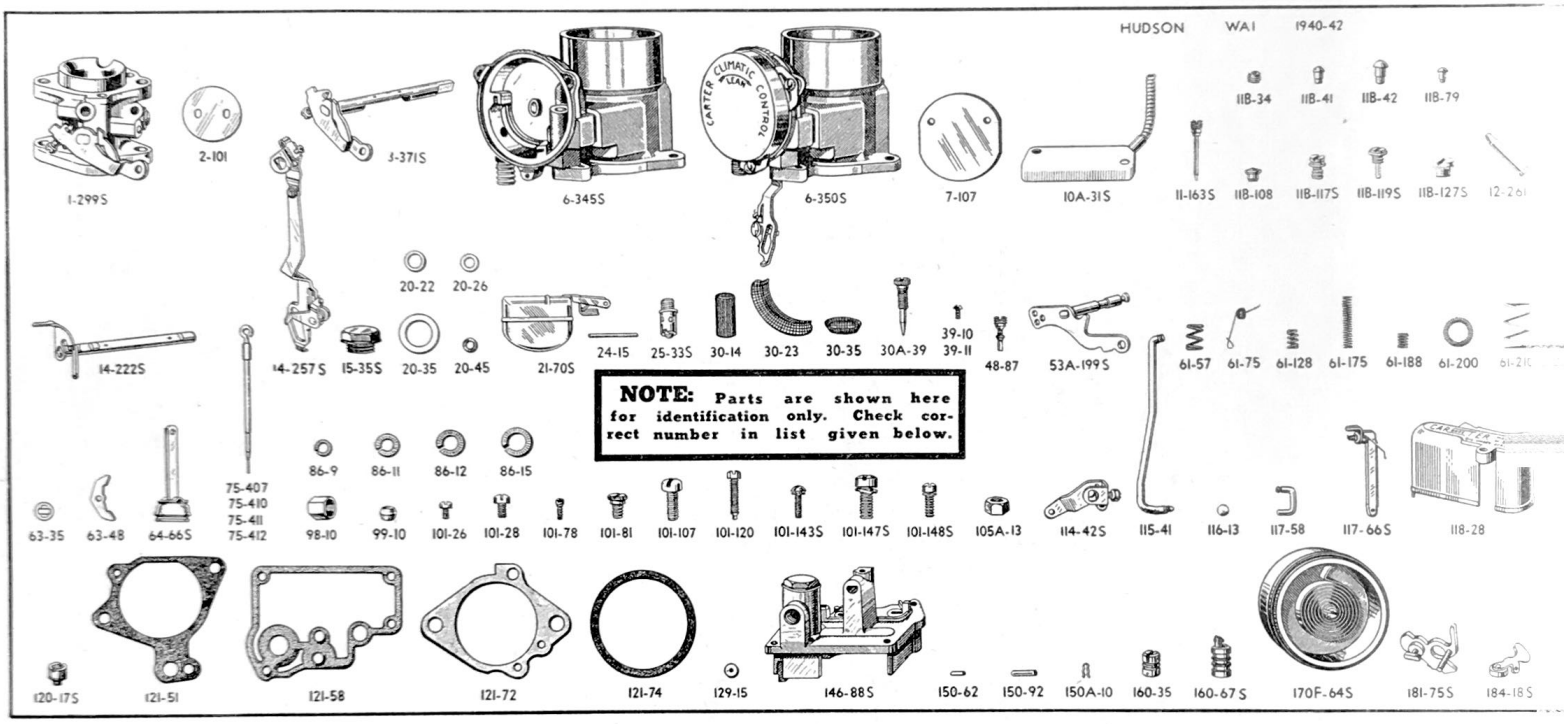


| Intake | Exhaust | |
|---|---|---|
| .006" | .008" | 1940-1941 to Eng. 106848 |
| .010" | .012" | 1941, Eng. 106849 and later |
| .010" | .012" | 1942 |

**Note:** Be sure to run the engine long enough to thoroughly warm the engine oil in the crankcase before attempting to adjust valves.

**Abbreviations:**

T.D.C.—Top dead center
B.T.D.C.—Before top dead center




# HUDSON

## PARTS LIST

## 6 CYLINDER

## 1940-42

**FLANGE**
1-299S .....1940-42

**THROTTLE VALVE**
2-101 .....1940-42

**THROTTLE SHAFT**
3-371S .....1940-42

**AIR HORN**
6-345S .....1940-42

**AIR HORN AND CLIMATIC CONTROL**
6-350S .....1940-42

**CHOKE VALVE**
7-107 .....1940-42

**MANIFOLD STOVE AND TUBING**
10A-31S .....1940-42

**LOW SPEED JET**
11-163S .....1940-42

**NOZZLE RETAINER PLUG**
11B-34 .....1940-42

**RIVET PLUG**
11B-41 .....1940-42

**FLANGE RIVET PLUG**
11B-42 .....1940-42

**RIVET PLUG**
11B-79 .....1940-42

**IDLE PORT PASSAGE RIVET PLUG**
11B-108 .....1940-42

**LOW SPEED JET PASSAGE SCREW PLUG**
11B-117S .....1940-42

**DISCHARGE BALL RETAINER PLUG**
11B-119S .....1940-42

**PUMP JET PASSAGE OR NOZZLE PASSAGE PLUG**
11B-127S .....1940-42

**NOZZLE**
12-261 .....1940-42

**CHOKE SHAFT**
14-222S .....1940-42

**CHOKE LEVER AND LINK**
14-257S .....1940-42

**BOWL COVER STRAINER PLUG**
15-35S .....1940-42

**NEEDLE SEAT OR PASSAGE PLUG GASKET**
20-22 .....1940-42

**METERING ROD JET GASKET**
20-26 .....1940-42

**BOWL COVER STRAINER GASKET**
20-35 .....1940-42

**NOZZLE GASKET**
20-45 .....1940-42

**FLOAT**
21-70S .....1940-42

**FLOAT PIN**
24-15 .....1940-42

**NEEDLE AND SEAT**
25-33S .....1940-42

**BOWL COVER STRAINER GAUZE**
30-14 .....1940-42

**CHOKE HOUSING STRAINER**
30-23 .....1940-42

**PUMP CYLINDER STRAINER**
30-35 .....1940-42

**IDLE MIXTURE ADJUSTMENT SCREW**
30A-39 .....1940-42

**CHOKE VALVE SCREW**
39-10 .....1940-42

**THROTTLE VALVE SCREW**
39-11 .....1940-42

**PUMP JET**
48-87 .....1940-42

**PUMP ARM**
53A-199S .....1940-42

**IDLE MIXTURE ADJ. SCREW SPRING**
61-57 .....1940-42

**METERING ROD SPRING**
61-75 .....1940-42

**CONNECTOR ROD SPRING**
61-128 .....1940-42

**VACUUM PISTON SPRING**
61-175 .....1940-42

**ANTI-PERCOLATOR ARM SPRING**
61-188 .....1940-42

**LEATHER EXPANDER SPRING**
61-200 .....1940-42

**CONNECTOR ROD SPRING RETAINER**
63-93 .....1940-42

L HOUSING
ETAINER
3-48 .....1940-42

UMP PLUNGER
4-66S .....1940-42

IETERING ROD,
TANDARD
5-407 .....1940-42

IETERING ROD,
SIZE LEAN
5-410 .....1940-42

IETERING ROD,
SIZES LEAN
5-411 .....1940-42

IETERING ROD,
SIZES LEAN
5-412 .....1940-42

BOWL COVER SCREW
OR AIR HORN LOWER
SCREW LOCK WASHER
6-9 .....1940-42

AIR HORN UPPER
SCREW LOCK WASHER
' 11 .....1940-42

BODY TO FLANGE
SCREW LOCK WASHER
86-12 .....1940-42

FLANGE STUD NUT
LOCK WASHER
86-15 .....1940-42

HOT AIR TUBING
COUPLING NUT
98-10 .....1940-42

HOT AIR TUBING
COUPLING CONE
99-10 .....1940-42

COIL HOUSING SCREW
101-26 .....1940-42

THROTTLE SHAFT ARM
SCREW
101-28 .....1940-42

CHOKE LEVER SCREW
101-78 .....1940-42

FAST IDLE CAM SCREW
101-81 .....1940-42

AIR HORN UPPER
SCREW
101-107 .....1940-42

IDLE SPEED ADJUSTING
SCREW
101-120 .....1940-42

AIR HORN LOWER
SCREW
101-143S .....1940-42

BODY TO FLANGE
SCREW
101-147S .....1940-42

BOWL COVER OR DUST
COVER SCREW
101-148S .....1940-42

FLANGE STUD NUT
105A-13 .....1940-42

THROTTLE SHAFT ARM
114-42S .....1940-42

PUMP CONNECTOR ROD
115-41 .....1940-42

PUMP BALL CHECK
116-13 .....1940-42

PUMP CONNECTOR LINK
117-58 .....1940-42

VACUUM PISTON LINK
117-66S .....1940-42

DUST COVER
118-28 .....1940-42

METERING ROD JET
120-17S .....1940-42

AIR HORN GASKET
121-51 .....1940-42

BOWL COVER GASKET
121-58 .....1940-42

BODY TO FLANGE
GASKET
121-72 .....1940-42

COIL HOUSING GASKET
121-74 .....1940-42

METERING ROD DISK
129-15 .....1940-42

BOWL COVER AND
STRAINER
146-88S .....1940-42

CHOKE PISTON PIN
150-62 .....1940-42

ANTI-PERCOLATOR PIN
150-92 .....1940-42

CONNECTOR ROD PIN
SPRING
150A-10 .....1940-42

CHOKE PISTON
160-35 .....1940-42

VACUUM PISTON
160-67S .....1940-42

THERMOSTATIC COIL
AND HOUSING
170F64S .....1940-42

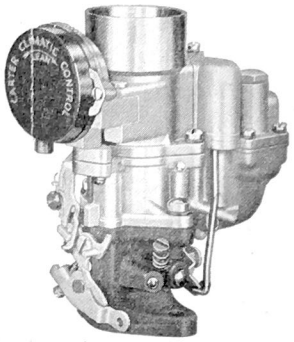
FAST IDLE CAM
181-75S .....1940-42

ANTI-PERCOLATOR CAP
AND ARM
184-18S .....1940-42

ADD 5% TO PRICES SHOWN WITH FRACTIONAL ADJUSTMENT TO NEAREST EVEN CENT. (See Form 3423.) TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE PRICES LISTED HEREIN ARE NOT IN EXCESS OF THE PRICES PROVIDED BY THE APPLICABLE PRICE REGULATION OF THE OFFICE OF PRICE ADMINISTRATION.

## CAR AND MOTOR NUMBERS

1940—40101 and Higher
1941—10101 and Higher
1942—20101 and Higher




Casting No. 298 on face of flange

# HUDSON
# "40" SIX—1940
# "10" SIX—1941
# "20" SIX—1942
## U. S. A. PRODUCTION

**WA1 Down-Draft Climatic Control Carbureter—Model 454S—List Price $20.00**

A $5.00 exchange allowance is deducted from the list price if buyer turns in old carbureter.

## CARBURETER SPECIFICATIONS

For Hudson 6 Cylinder Engine: 3 Inch Bore, 4 1/8 Inch Stroke

**Dimensions:** Flange size, 1 1/4 inch S. A. E.
Primary venturi, 11/32 inch I. D.
Secondary venturi, 11/16 inch I. D.
Main venturi, 1 1/4 inch I. D.

**Float Level:** Distance from seam of float (at free end) to tip on lower edge of float chamber cover, when needle is seated, to be 3/8 inch.

**Vents:** Outside, No. 10 drill. Inside, none.

**Gasoline Intake:** Square vertical needle. Size No. 48 drill hole in needle seat.

**Gas Line Connection:** 5/16 inch Weatherhead nipple.

**Low Speed Jet Tube:** Jet size, No. 70 drill.
By-pass, size No. 53 drill.
Economizer, .0755-.0765 inch diameter.
Idle bleed, size No. 50 drill.

**Idle Port:** Length .165 inch; width .032 inch.

**Idle Port Opening:** .120 to .124 inch above valve with valve closed tight.

**Idle Screw Seat:** No. 46 drill.

**Set Idle Adjustment Screw:** 3/4 to 1 1/2 turns open. For richer mixture, turn screw out. Do not attempt to idle engine below a speed equivalent to 7 1/2-8 M.P.H. on level road.

**Main Nozzle:** In primary venturi, angle 45°. Closed tip. Inside diameter No. 30 drill.
Upper hole: No. 75 drill on 45° angle.
Lower hole: No. 48 drill on 70° angle.

**Metering Rod (Vacumeter Type):** Economy step, .072 inch diameter; middle step tapers to .064 inch; power step, .044 inch diameter.
Length 3-9/64 inches.

**Metering Rod Jet:** .096 inch diameter.

**Metering Rod Setting:** Use gauge, part No. T109-102 (2.468 inches).

**Accelerating Pump:** Low pressure type with adjustable stroke.
Discharge jet, size No. 68 drill.
Intake ball check, size No. 40 drill.
Discharge ball check, size No. 32 drill.
Relief passage (to outside), size No. 42 drill.

**Pump Adjustment:** 12/64 inch plunger travel (full throttle position) short stroke. Use gauge No. T109-117S

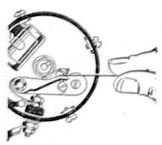
**Choke:** Carter Climatic Control, set at index. Butterfly type, offset valve. Choke Heat Suction Hole, in body, size No. 36 (.1065") drill.

**Vacuum Spark Port:** .039 to .041 inch diameter. Bottom of port .021 to .029 inch above valve.

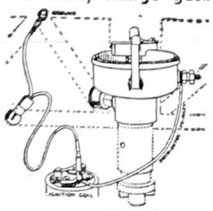
## Motor Tune-Up—Be Accurate! Always Use Feeler Gauges!

CAUTION: Change worn or leaky flange gaskets. Tighten manifold bolts and test compression before adjusting carbureter.

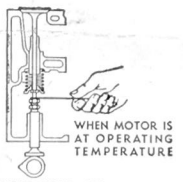
Spark Plug Gap .032"



Set Breaker Points .020"



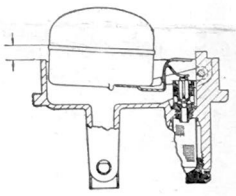
Use Timing Light
Breaker Points to Open:
1940—T. D. C.
1942—1/2" B. T. D. C.
Ethyl Fuel—Maximum Setting
3/4" B. T. D. C.



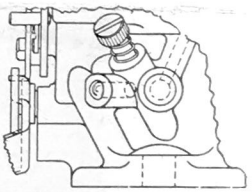

VALVE CLEARANCE

Set Valves

| | | |
|---|---|---|
| 1940-41 (thru 106848) | Intake | .006" |
| | Exhaust | .008" |
| 1941 (106849 and higher) 1942 | Intake | .010" |
| | Exhaust | .012" |



Correct Float Level (Measure from machined surface of small projection to top of seam) 3/8 inch



Idle Adjustment Screw Setting 3/4 to 1 1/2 Turns Open

## BRIEF CARBURETER ADJUSTMENTS

**PUMP ADJUSTMENT:** With throttle valve seated and connector link in place (short stroke: hole nearest countershaft), pump plunger should travel 12/64" from closed to wide open position. Adjustment should be made by bending throttle connector rod at lower angle. Pump travel can be measured by using universal pump stroke gauge T109-117S. Place base of gauge on ridged portion of bowl cover so that projecting portion of pump gauge rests on top surface of connector link at pump shaft. Hold gauge vertical. The difference between the number shown by index mark on gauge, at wide open and closed positions, should be 12.

**METERING ROD ADJUSTMENT:** Correct setting of metering rod is important and must be made after pump adjustment. Insert gauge (tool No. T109-102) in place of metering rod, seating tapered end in metering rod jet. Hold gauge vertical to insure seating. With throttle valve seated, press down lightly on piston link directly over piston. There should be less than .005" clearance between metering rod pin and shoulder in notch of gauge. Gauge must not drag on pin. Adjustment can be made by bending lip on piston link so that it contacts pump arm. (Use tool T109-105.) Remove gauge and install metering rod and disk. Connect metering rod and spring.



CARBURETER
TRADE MARK REG. U. S. PAT. OFF.
MARCA REGISTRADA

PRINTED IN U.S.A.

ANTI-PERCOLATOR ADJUSTMENT: Crack throttle valve .030" by placing gauge T109-29 between valve and bore of carbureter (side opposite port). Bend rocker arm (use tool T109-105) until there is a clearance of .005" to .015" between rocker arm and pump arm.

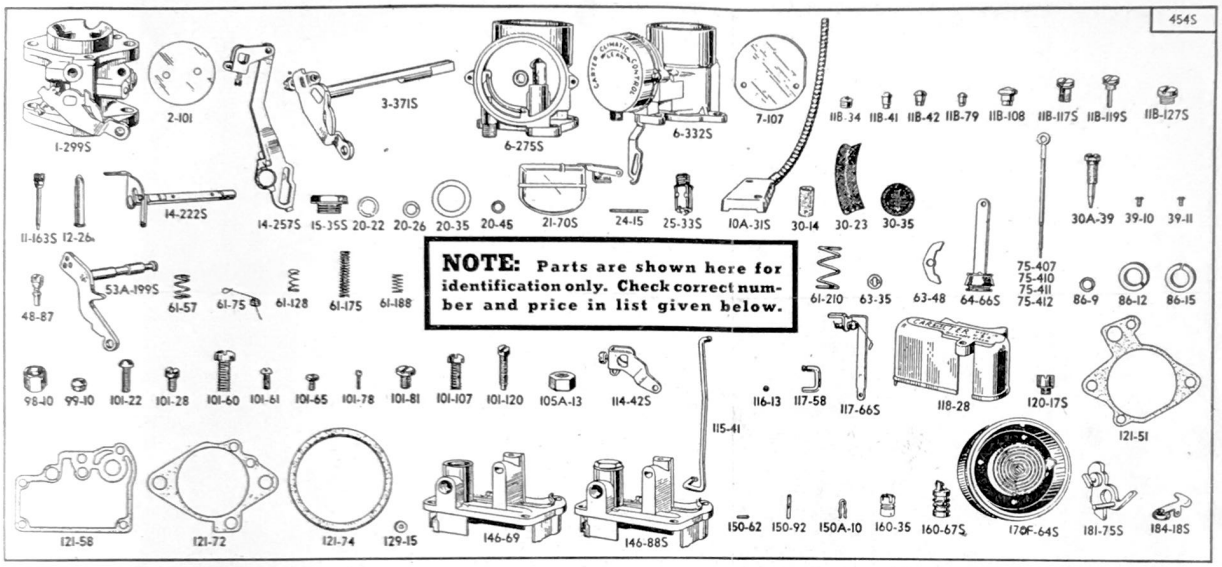
FAST IDLE ADJUSTMENT: With fast idle cam held in normal idle position, tighten throttle lever adjusting screw until it just seats against cam. Hold throttle lever closed and pull cam back until first (or lower) step on cam is against (not on) set screw.

There should now be 5/8" clearance between inside wall of air horn and lower edge of choke valve. (Use tool T109-85.) Adjustment can be made by bending at offset portion of fast idle link. (Use tool T109-41.)

UNLOADER ADJUSTMENT. With throttle valve wide open there should be 7/16" clearance between lower edge of choke valve and inner wall of air horn. (Use tool T109-81.) Adjustment should be made by bending cam on throttle lever. (Use tool T109-41.)

LOCK-OUT ADJUSTMENT: With throttle and choke valves wide open, choke should lock in wide open position. Adjustment should be made by bending lip at lower end of fast idle link to give 1/32" clearance between lip and throttle lever lock, with throttle and choke valves held wide open. (Use tool T109-105.)


TRIP LEVER ADJUSTMENT: After making all choke linkage adjustments, hold choke valve tightly closed with pin on fast idle cam resting at bottom of slot in fast idle link. Adjust stop for trip lever to give .010" clearance between fast idle cam and trip lever lip. (See cut.)




## Hudson 6—1940-41—No. 454S—List Price $20.00

WHEN SERVICING, USE GASKET ASSORTMENT No. 139A—PRICE $0.70; REPAIR PACKAGE No. 1078, PRICE $3.95

PART NAMES IN BOLD TYPE, LISTED BELOW, INDICATE CONTENTS OF REPAIR PACKAGE

| Part No. | PART NAME | List Price |
|---|---|---|
| 1-299S | Body flange assembly | $3.75 |
| 2-101 | Throttle valve | .10 |
| 3-371S | Throttle shaft and lever assembly | .80 |
| 6-275S | Air horn and housing ass'y (Sup. by 6-345S) | 2.00 |
| 6-332S | Air horn & clim. con. ass'y (Sup. by 6-350S) | 5.50 |
| 6-345S | Air horn and piston housing assembly | 2.00 |
| 6-350S | Air horn and climatic control assembly | 5.50 |
| 7-107 | Choke valve | .20 |
| 10A-31S | Manifold stove, connection and tubing ass'y | .50 |
| 11-163S | Low speed jet assembly—No. 70 drill | .30 |
| 11B-34 | Nozzle retainer plug | .10 |
| 11B-41 | Rivet plug | .02 |
| 11B-42 | Body flange rivet plug | .02 |
| 11B-79 | Rivet plug (5) | .02 |
| 11B-108 | Idle port rivet plug | .02 |
| 11B-117S | Idle passage plug and gasket assembly | .10 |
| 11B-119S | Ball retainer plug and gasket assembly | .10 |
| 11B-127S | Pump jet and nozzle plug and gasket ass'y (2) | .10 |
| 12-261 | Nozzle | .30 |
| 14-222S | Choke piston lever link and shaft ass'y | .60 |
| 14-257S | Choke lever, screw and link assembly | .60 |
| 15-35S | Strainer nut and gasket assembly | .30 |
| 20-22 | *Needle seat gasket (3) | .05 |
| 20-26 | *Metering rod jet gasket (3) | .05 |
| 20-35 | Bowl strainer gasket | .05 |
| 20-45 | Nozzle gasket | .05 |
| 21-70S | Float and lever assembly | .80 |
| 24-15 | Float lever pin | .05 |
| 25-33S | Needle and seat assembly | .80 |
| 30-14 | Bowl strainer gauze | .10 |
| 30-23 | Piston housing strainer | .15 |
| 30-35 | Pump strainer | .10 |
| 30A-39 | Idle adjustment screw | .30 |
| 39-10 | Choke valve attaching screw (2) 2 for | .05 |
| 39-11 | Throttle valve attaching screw (2) 2 for | .05 |
| 48-87 | Pump jet—No. 70 drill | .20 |
| 53A-199S | Pump arm and countershaft assembly | .50 |
| 61-57 | Adjustment screw spring | .05 |
| 61-75 | Metering rod spring | .10 |
| 61-128 | Connector rod spring | .05 |
| 61-175 | Vacuum piston spring | .05 |
| 61-188 | Rocker arm spring | .10 |
| 61-210 | Pump spring | .10 |
| 63-35 | Spring retainer | .05 |
| 63-48 | Housing retainer (3) | .05 |
| 64-66S | Plunger and rod assembly (Identify by Shaft No. 49-123) | .70 |
| 75-407 | Metering rod—standard—.072"-.072" to .064"-.044" | .30 |
| 75-410 | Meter'g rod—1 size lean—.074"-.074" to .066"-.046" | .30 |
| 75-411 | Meter'g rod—2 sizes lean—.076"-.076" to .068"-.048" | .30 |
| 75-412 | Meter'g rod—3 sizes lean—.078"-.078" to .070"-.050" | .30 |
| 86-9 | Bowl cover lock washer (Use with 101-22 and 101-61) (6) | .01 |
| 86-11 | Air horn lock washer (2) | .01 |
| 86-12 | Body flange lock washer (Use with 101-60) (2) | .01 |
| 86-15 | Flange stud lock washer (2) | .01 |
| 98-10 | Compression coupling nut | .15 |
| 99-10 | Compression coupling cone | .10 |
| 101-22 | Piston housing attach. screw (Sup. by 101-143S) | .05 |
| 101-26 | Thermostat housing attaching screw (3) 2 for | .05 |
| 101-28 | Throttle shaft arm clamp screw | .05 |
| 101-60 | Body flange attach. screw (Sup. by 101-147S) (2) | .05 |
| 101-61 | Bowl cover attach. screw (Sup. by 101-148S) (5) | .05 |
| 101-65 | Thermostat housing attaching screw (Sup. by 101-26) 2 for | .05 |
| 101-78 | Choke lever clamp screw | .05 |
| 101-81 | Fast idle cam screw | .10 |
| 101-107 | Air horn attaching screw (2) | .05 |
| 101-120 | Throttle lever adjusting screw | .05 |
| 101-143S | Piston housing attaching screw and washer ass'y | .05 |
| 101-147S | Body flange attaching screw and washer ass'y | .05 |
| 101-148S | Bowl cover attaching screw and washer ass'y | .05 |
| 105A-13 | Flange stud nut (2) | .05 |
| 114-42S | Throttle shaft arm and screw assembly | .20 |
| 115-41 | Throttle connector rod | .25 |
| 116-13 | Ball (2) | .02 |
| 117-58 | Pump connector link | .05 |
| 117-66S | Piston link and spring assembly | .25 |
| 118-28 | Dust cover | .50 |
| 120-17S | Metering rod jet and gasket assembly—.096" | .30 |
| 121-51 | Air horn gasket | .05 |
| 121-58 | Bowl gasket | .10 |
| 121-72 | Body flange gasket | .10 |
| 121-74 | Coil housing gasket | .05 |
| 129-15 | Metering rod disk | .02 |
| 146-69 | Bowl cover (Not sold separately, part of 146-88S) | |
| 146-88S | Bowl cover and strainer assembly | 1.30 |
| 150-62 | Piston pin | .02 |
| 150-92 | Anti-percolator pin | .02 |
| 150A-10 | Pin spring (3) | .01 |
| 160-35 | Choke piston | .20 |
| 160-67S | Vacuum piston and pin assembly | .30 |
| 170F-64S | Thermostat housing and coil assembly | 2.00 |
| 181-75S | Fast idle cam and pin assembly | .20 |
| 184-18S | Anti-percolator cap and rocker arm ass'y | .25 |

*Gaskets so marked must be soaked in 90 proof denatured alcohol for 15 minutes, installed on part and let dry before using.

NOTE: Small figures in parentheses preceding list prices indicate number of pieces used in one carbureter. Where no figure is shown, only one is used.

ADD 5% TO PRICES SHOWN WITH FRACTIONAL ADJUSTMENT TO NEAREST EVEN CENT. (See Form 3423.) TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE PRICES LISTED HEREIN ARE NOT IN EXCESS OF THE PRICES PROVIDED BY THE APPLICABLE PREVAILING PRICE REGULATION OF THE OFFICE OF PRICE ADMINISTRATION.

# HUDSON 1941

## 6, 8

1941 Models

| MOTOR | | MOTOR OIL RECOMMENDATIONS | | | | CAPACITY (Qts.) | DRAINING INTERVALS | COOLING SYSTEM CAPACITY | GAS TANK CAPACITY |
|---|---|---|---|---|---|---|---|---|---|
| TYPE | MODEL | Below +15° | 15° to 35° | 35° to 90° | Hard Driving Above 90° | | | | |
| 6 Cyl. | 6 | SAE 10 | SAE 20 | SAE 20 | SAE 30 | 4½ | 1000 | | |
| 8 Cyl. | 8 | SAE 10 | SAE 20 | SAE 20 | SAE 30 | 7 | 1000 | | |
| **TRANSMISSION** | | **LUBRICANT RECOMMENDED** | | | | **CAPACITY (Pts., Lbs.)** | **DRAINING INTERVALS** | | |
| TYPE | MODEL | Below +15° | 15° to 45° | 45° to 90° | Above 90° | | | | |
| Syn. Mesh. | 6, 8 | SAE 90 EP | SAE 90 EP | SAE 90 EP | SAE 90 EP | 2 | 5000 | | |
| Overdrive | 6, 8 | SAE 90 EP | SAE 90 EP | SAE 90 EP | SAE 90 EP | 3¼ | 5000 See Note | | |
| **DIFFERENTIAL** | | **LUBRICANT RECOMMENDED** | | | | **CAPACITY (Pts., Lbs.)** | **DRAINING INTERVALS** | Qt. | Gal. |
| TYPE | MODEL | Below +15° | 15° to 45° | 45° to 90° | Above 90° | | | | |
| Spiral Bevel | 6 | SAE 90 EP | SAE 90 EP | SAE 90 EP | SAE 90 EP | 2¾ | 5000 | 13 | See Note |
| Spiral Bevel | 8 | SAE 90 EP | SAE 90 EP | SAE 90 EP | SAE 90 EP | 2¾ | 5000 | 18 | 16½ |

| UNIT | TYPE | LUBRICANT | INSTRUCTIONS |
|---|---|---|---|
| DISTRIBUTOR | Grease Cup (6 Cyl.) Oiler (8 Cyl.) Wick | Ballroll Light Motor Oil SAE 20 | Turn down 1 turn every 1000 miles. Also 2 drops Homelube on wick under rotor every 2000 miles. |
| WATER PUMP | Metered Fitting | Chassis Lubricant | Fill every 1000 miles. |
| FAN HUB BEARING | | | No lubrication required. |
| GENERATOR | 2 Oilers | Motor Oil SAE 20 | Two drops every 1000 miles. |
| STARTER | 2 Oilers | Motor Oil SAE 20 | Two drops every 1000 miles. |
| CLUTCH RELEASE BEARING | Fitting | Ballroll Light | Lubricate every 1000 miles. |
| STEERING GEAR | Plug | Gear Oil SAE 140 EP | Remove plug and fill every 1000 miles. |
| UNIVERSAL JOINT | | Chassis Lubricant | See Note. |
| UNIVERSAL SPLINE | Plug | Chassis Lubricant | Lubricate every 1000 miles. |
| SPRING SHACKLES | 4 Fittings | Chassis Lubricant | Lubricate every 1000 miles. |
| CHASSIS POINTS | 21 Fittings | Chassis Lubricant | Lubricate every 1000 miles. See Note. |
| FRONT WHEEL BEARINGS | Remove | Ballroll Light | Remove and repack every 5000 miles. |
| REAR WHEEL BEARINGS | Remove | Ballroll Light | Remove and repack every 10,000 miles. |
| SPRINGS | Fabric Covers | Spring Lubricant | Service every 5000 miles. |
| PARKING BRAKE CABLES | Conduits | Spring Lubricant | Service every 5000 miles. See Note. |
| WET CLUTCH | | Hudsonite Special Clutch Oil | Lubricate every 5000 miles. See Note. |
| | | | |

LUBRICATION POINTS: 43

LUBRICANTS REQUIRED: 7

STOP-WEAR LUBRICATION

**NOTES:**

1. Chassis Points: Support arm shafts 4; support arms 4; spindle supports 4; king pins 2; tie rods 4; drag link 2; pedal shaft 1.
2. Shock Absorbers (Delco or Monroe; telescoping type): Refer to Stop-Wear Manual. Service every 5000 miles.
3. Refer to Stop-Wear Manual for: Air cleaner (AC, wire gauze); heavy duty air cleaner (AC, special); springs.
4. Battery: Under hood, left side.
5. Transmission with Overdrive: Two drain plugs and two filler plugs. Drain through both drain plugs.
6. Gas Tank: Capacity 16½ gal., except 10T, 10P, 10C and Utility models, 12½ gal.
7. Universal Joints (Spicer): Disassembly necessary every 20,000 miles; refer to Stop-Wear Manual.
8. Parking Brake Cables: Partial disassembly or special tool needed; refer to Stop-Wear Manual.
9. Clutch: Capacity ⅓ pt. Plug in flywheel reached through opening between engine and starter.
10. Automatic Vacuum Clutch Control: If so equipped, remove plug at rear of cylinder and inject 1 oz. Homelube every 10,000 miles.
11. Miscellaneous: Oil all moving chassis metal parts. Do not spray or oil rubber mounted parts. Use Union Stop Squeak on all rubber shackles and rubber mountings.

# HUDSON Six 1941

Series 10, 18

Serial No. (see reverse side) U.S. * *

**A. E. A. TUNE-UP SYSTEM**

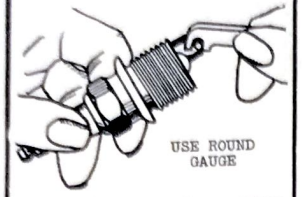
**Standards of Adjustment**
**Automotive Electric Association**

Issued November 1941

Form No. HU-31

## IGNITION

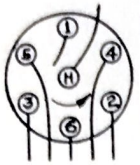
### SPARK PLUGS




Size 14mm. Gap .032"
Original Equipment
Champion Type J-9

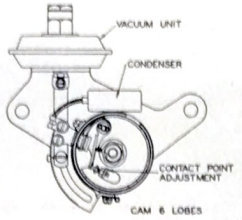
For Cooler or Hotter Type See Manufacturer's Chart *

### DISTRIBUTOR

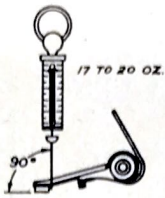



Auto-Lite
No. IGW-4203A

Firing Order
1-5-3
6-2-4




Breaker-Arm Spring



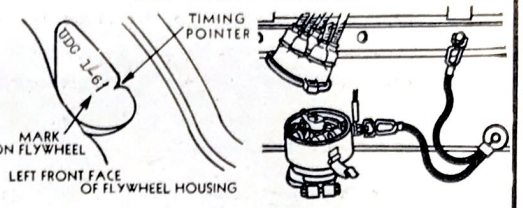

**Breaker Contact Gap** – .020" **Cam Angle** – 35°
**Condenser** – Part No. IGW-3075C **Capacity** – .20 – .25 Mfds.
**Rotation** – Counterclockwise (viewed from top of distributor)
**Adjustment** – Loosen screw connecting vacuum linkage to base
**Vacuum Control** – No. VC-3060ES. 5.75" – 7.75" hg. to start plunger travel; 6.5° – 8.5° distributor advance at 10" hg.-max.
**Automatic Advance** – Full Automatic – Start 0° at 400 R.P.M.; Intermediate 7° at 1100 R.P.M.; Maximum 11.8° at 1570 R.P.M. (Distributor degrees at distributor R.P.M.)

### COIL

Auto-Lite
No. IG-4098

Servicing Coil
No. IG-4098

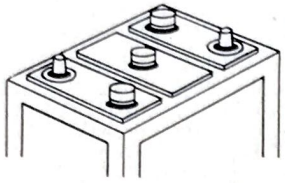
### IGNITION TIMING




**Use Timing Light** – Breaker contacts to open for No. 1 cylinder when mark "UDC 1-6" on flywheel is 1/2" ahead of pointer on the inspection hole. (see reverse side) 3*

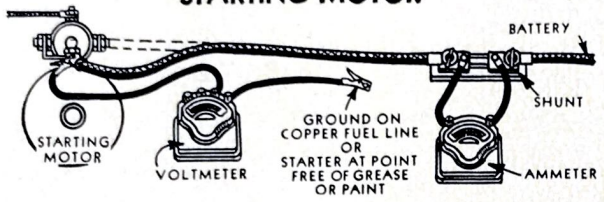
## STARTING & LIGHTING

### BATTERY



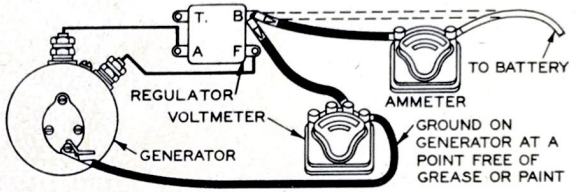
NATIONAL – Type HT-17
**Capacity** – 96 Amp. Hour (20 hr. rate)
**Location** – On left side of engine compartment.
**Ground** – Positive terminal grounded.

### STARTING MOTOR

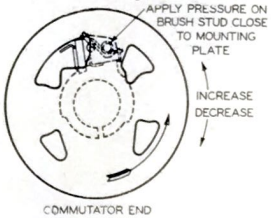



AUTO-LITE No. MZ-4092
**Drive** – L.H. Inboard Bendix – No. EBA-29
**Free Running Speed** – 4300 Min. R.P.M. 70 Max. Amps. 5.5 Volts
**Lock Torque (Stalled)** – 11.8 Ft. Lbs. 560 Amps. 4.0 Volts
**Control** – Solenoid Switch No. SS-4001

### GENERATOR



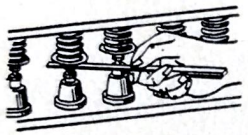

Third Brush Adjustment




AUTO-LITE No. GDS-4801A
**Maximum Output Safe Setting:**
Cold – 32 – 34 Amps. 8.0 Volts
**Regulator No. VRR-4001A** (see reverse side) 4*
**Cut-Out Relay** – (combined with regulator)
**Brush Spring Tension** – 53 oz. maximum with new brushes
**Rotation** – Clockwise (viewing drive end)
**Regulation** – Third Brush and Vibrating Voltage Regulator

## VALVES

### CLEARANCE



USE NEW FEELER STOCK FOR EACH JOB

**Engine Warm**

Up to car No. 106848
Intake – .006"
Exhaust – .008"

After car No. 106848
Intake – .010"
Exhaust – .012"

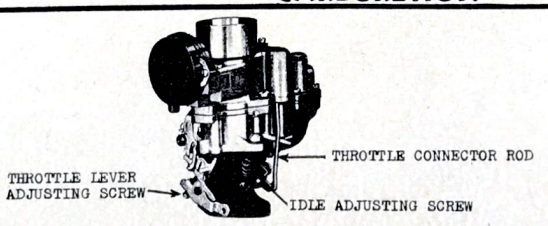
With engine oil and coolant at normal operating temperatures *

### TIMING

Previous to car No. 106848, intake valves open 10-2/3° before top dead center. After car No. 106848, inlet valves open 28-1/2° before top dead center.

**Tappet Lash** for timing: .010" (Cold)

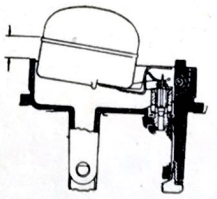
## CARBURETION




Casting No. 298 on Face of Flange

**CARTER – Model 454S** 5* **TYPE – 1-1/4" Single Downdraft**
**Idle Adjustment** – 3/4 to 1-1/2 turns open. Idle at 7-1/2 M.P.H. or 350 R.P.M. To make richer, turn screw out. 6*
**Fixed Jets** – Metering Rod – Standard Part No. 75-407
Metering Rod – 1 Size Lean Part No. 75-410
Metering Rod – 2 Sizes Lean Part No. 75-411
Metering Rod – 3 Sizes Lean Part No. 75-412
Metering Rod Jet Assembly Part No. 120-178
**Accelerating Pump** – (see reverse side) 7*
**Metering Rod Adjustment** – (see reverse side) 8*
**Manifold Heat Control** – (see reverse side) 9*

### FUEL LEVEL



**Float Level** – 3/8" remove cork gasket. Measure from float (at free end) to float chamber cover when needle is seated.

## ADDITIONAL SPECIFICATIONS

**Cooling System** –
**Capacity** – 13 Qts. (U.S. Meas.)
**Radiator Gravity Flow – Service** 21 Gals. Per Min. (U.S. Meas.)
**Thermostat** – In cylinder head water outlet Starts to open at 150° – 155° F. Fully open at 185° F.
**Temperature Gauge** – King-Seeley Dash Unit No. 8310 Motor Unit No. 7000
**Crankcase – Capacity** 4-1/2 Qts. refill (U.S.)
**Fuel Pump** – (Model 10) AC Type AF No. 1523753
TEST: Using AC Fuel Pump Analyzer No. 1521551
CAPACITY – 1 pint or over in 1 minute
PRESSURE – 3-1/2 lbs. maximum
(Model 18) AC Type AK No. 1523289
TEST: Using AC Fuel Pump Analyzer No. 1521551
CAPACITY – 1 pint or over in 45 seconds
PRESSURE – 4-1/2 lbs. maximum
**Air Cleaner** – AC Oil-Wetted (with silencer) No. 1528159

(Continued – 10* – see reverse side)

# A. E. A. Tune-Up System

IGNITION LOCK

Briggs & Stratton

| | |
|---|---|
| KEY SERIES | HG01 – H1100 |
| KEY BLANK PART NO. | 42755 |
| LOCK PART NO. | 50184 |

Form No. HU-31

## ADDITIONAL DATA

**This information applies to the items on reverse side, marked as follows:**

* Consult A.E.A. SERVICE MANUAL for more complete information.

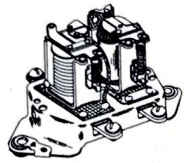
* * **Serial Number** – On plate on right hand front door hinge pillar.
Series 10 – 10,101 and up (U.S.).
Series 18 – 18,101 and up (U.S.).

**Wheelbase** – Series 10 – 116".
Series 18 – 128".

**Engine Number** – Stamped on top of cylinder block left hand side between No. 1 and No. 2 exhaust manifold flanges. Same as Serial Number.

3 * **Ignition Timing** – When Ethyl or premium gasoline, with an octane rating of 80 or higher, is used or in high altitudes, a more advanced setting may be used. At proper timing under these conditions, a slight "ping" should be noted at between 10 to 15 M.P.H. when accelerating with wide open throttle from 8 M.P.H. However, timing should never be advanced so that pointer is more than 1" ahead of the "UDC 1-6" mark on flywheel.

4 * **Voltage Regulator** – Test meter connections: Disconnect the wire from the "B" terminal on the regulator and connect the test ammeter in series between the terminal and the wire removed from the terminal. Connect the test voltmeter from the regulator "B" terminal to the regulator base.



Before test: Run the engine before taking any test readings at a speed equivalent to 30 M.P.H. for several minutes until the voltage remains constant and the charging rate has dropped back from its peak. Have regulator cover on the unit while balancing voltage and taking test readings.

Test figures: Circuit breaker closes at 6.4 to 7.0 volts; opens at 2.0 to 6.0 amperes discharge. Voltage regulator operates at 7.1 to 7.4 volts at 110° F.

5 * **Carburetor** – Carter 501S used on cars with optional 3" x 5" engine. (see opposite column for specifications)

6 * **Fast Idle Adjustment** – With fast idle cam held in normal idle position, tighten throttle lever adjusting screw until it just seats against cam. Hold throttle lever closed and pull cam back until first (or lower) step on cam is against (not on) set screw. There should now be 5/8" clearance between inside wall of air horn and lower edge of choke valve. (Use tool T109-85.) Adjustment can be made by bending at offset portion of fast idle link. (Use tool T109-41.)

7 * **Accelerating Pump** – Set to longest stroke for cold weather, center hole for moderate weather, short stroke for hot weather.

**Pump Adjustment** – With throttle valve seated and connector link in place (short stroke: hole nearest countershaft), pump plunger should travel 3/16" from closed to wide open position. Adjustment should be made by bending throttle connector rod at lower angle. Pump travel can be measured by using universal pump stroke gauge T109-117S by placing base of gauge on ridged portion of bowl cover so that projecting portion of pump gauge rests on top surface of connector link at pump shaft. Hold gauge vertical. The difference between the number shown by index mark on gauge, at wide open and closed positions, should be 12.

8 * **Metering Rod Adjustment** – Correct setting of metering rod is important and must be made after pump adjustment. Insert gauge (tool T109-102) in place of metering rod, seating tapered end in metering rod jet. Hold gauge vertical to insure seating. With throttle valve seated, press down lightly on piston link directly over piston. There should be less than .005" clearance between metering rod pin and shoulder in notch of gauge. Gauge must not drag on pin. Adjustment can be made by bending lip on piston link so that it contacts pump arm. (Use tool T109-105.) Remove gauge and install metering rod and disk. Connect metering rod and spring.

9 * **Manifold Heat Control** – For normal operation, set at "W" position.

10 * **Gasoline Gauge** – King-Seeley
Dash Unit No. 8305
Tank Unit No. 7550

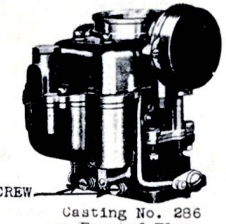
**Speedometer** – Stewart-Warner No. 587-G
Inner Core (Series 10) No. 96926 – 65-13/16" (Standard), 71-13/16" (Overdrive)
Inner Core (Series 18) No. 96926 – 87-13/16"

**Windshield Wiper** – Trico
Service Motor No. SSM-103

**Recommended Tire Pressure** –
16" x 5.50" – Front and Rear – 32 lbs. cold, 35 lbs. hot
16" x 6.00" – Front – 26 lbs. cold – 29 lbs. hot
Rear – 30 lbs. cold – 33 lbs. hot

**Battery Cables and Wiring** – Battery to Ground Cable – Length 7"; Gauge No. 1. Battery to Switch Cable – Length 33"; Gauge No. 0.

CARBURETOR




Casting No. 286
on Face of Flange

**CARTER – 501S** **TYPE – 1" Dual Downdraft**
(used on 3" x 5" engines)

**Idle Adjustment** – 1/2 to 1-1/2 turns open. Idle at 7-1/2 M.P.H. To make richer, turn screw out.

**Fast Idle Adjustment** – With choker valve tightly closed and fast idle screw on upper step of fast idle cam, adjust screw to give .045" opening between edge of throttle valve and bore of carburetor side opposite port.

**Fixed Jets** –

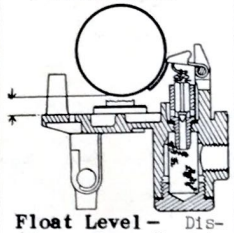
| | |
|---|---|
| Metering Rod – Standard | Part No. 75-467 |
| Metering Rod – 1 Size Lean | Part No. 75-474 |
| Metering Rod – 2 Sizes Lean | Part No. 75-475 |
| Metering Rod Jet Assembly | Part No. 120-65S |

**Pump Adjustment** – With pump connector link in long stroke (outer) hole in pump arm, and throttle adjustment screw backed out, pump plunger should travel 9/32" from closed to wide open position. Adjustment can be made by bending throttle connector rod at lower angle. (Use tool T109-75.) Pump travel can be measured by using gauge T109-117S. Difference between reading at wide open and seated throttle should be 18. Projecting portion of indicator should be placed on top surface of lower portion of connector link at pump shaft.

**Metering Rod Adjustment** –
(1) Insert one metering rod gauge T109-113 in place of metering rods. Be sure gauge seats in metering rod jet after backing out throttle lever adjusting screw, so that throttle valves seat.
(2) Install metering rod pin and pin spring in metering rod arm.
(3) Press lightly on vacuum piston link until piston rests in bottom of cylinder. There may be less than .005" clearance between metering rod pin and gauge.
(4) With throttle valve seated, bend lip on anti-percolator arm until this clearance is obtained (between metering rod gauge and metering rod pin).
(5) Remove gauge and metering rod pin, and install metering rods, discs, spring, pin and pin spring and hook metering rod spring on metering rods.

**Climatic Control Adjustment** – For average driving and climatic conditions, center index mark on coil housing should be set one point lean.

**Float Level**



**Float Level** – Distance from float to bowl cover, when needle is seated, to be 1/8".

**NOTE:** The SYMBOL "hg. used on this chart designates "Inches Vacuum" (mercury).

Original equipment service parts and accurate work to manufacturers' specifications with proper tools and equipment will restore original performance.

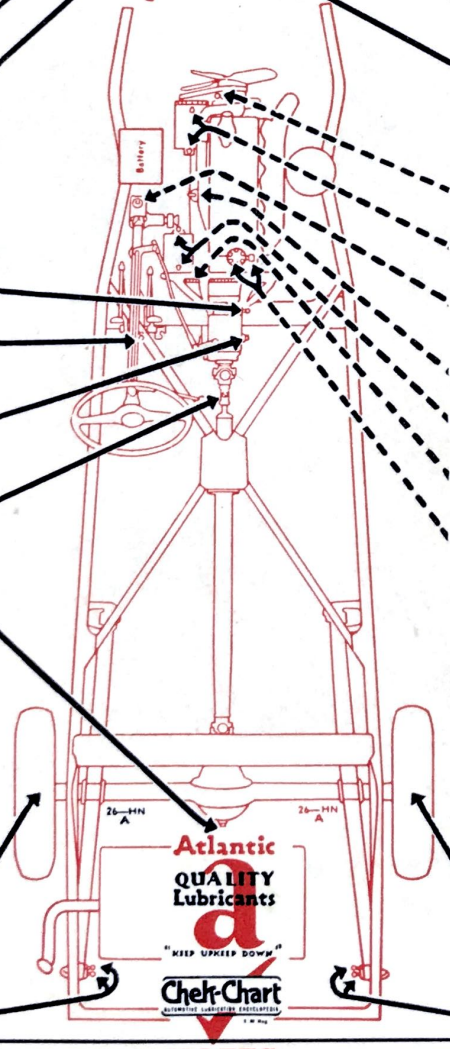
# HUDSON 6, 8–1941

(Passenger Cars, Business Cars)

43 LUBRICATION POINTS
5 ATLANTIC LUBRICANTS

(Spiral Bevel Rear Axle—Roller Bearing Universals—Threaded Shackles—Independently Sprung Front Wheels—Wet Type Clutch—Transmission Overdrive optional)

| CAPACITIES: | Crankcase (A) | Transmission (B) | Differential (C) | Cooling System | Gas Tank | Battery | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | No. Plates | Amp. Hrs. | Term. Grounded |
| 6 Cyl. | 4½ qt. | *2 pt. or lb. | *2¾ pt. or lb. | 13 qt. | ♦16½ gal. | 17 | 96 | Positive |
| 8 Cyl. | 7 qt. | *2 pt. or lb. | *2¾ pt. or lb. | 18 qt. | 16½ gal. | 19 | 108 | Positive |
| | | *See Notes | *See Note | | ♦10T, 10P, 10C, Utility, 12½ gal. | | | |




1 Support Arm Shafts, Rear — ATLANTIC Chassis Lubricant
1 Support Arm, Upper — ATLANTIC Chassis Lubricant
1 Spindle Support, Lower — ATLANTIC Chassis Lubricant
1 Spindle Support, Upper — ATLANTIC Chassis Lubricant
5 Front Wheel Bearings — ATLANTIC Lubricant "A"
1 King Pin (Metered fitting on Series 14, 15 and 17) — ATLANTIC Chassis Lubricant
1 Tie Rod — ATLANTIC Chassis Lubricant
1 Drag Link — ATLANTIC Chassis Lubricant

1 Support Arm Shafts, Front — ATLANTIC Chassis Lubricant
1 Support Arm, Upper — ATLANTIC Chassis Lubricant
1 Spindle Support, Lower — ATLANTIC Chassis Lubricant
1 Spindle Support, Upper — ATLANTIC Chassis Lubricant
5 Front Wheel Bearings — ATLANTIC Lubricant "A"
1 King Pin (Metered fitting on Series 14, 15 and 17) — ATLANTIC Chassis Lubricant
1 Tie Rod — ATLANTIC Chassis Lubricant
1 Tie Rod, Inner — ATLANTIC Chassis Lubricant

1 Clutch Release Bearing — ATLANTIC Lubricant "A"
1 Pedal Shaft — ATLANTIC Chassis Lubricant
1 (Some models, oiler) — ATLANTIC Motor Oil Heavy
5 Transmission (See Table B) Conventional or Overdrive (See Note) — ATLANTIC Gear Oil
Refer to ATLANTIC Recommendation Chart
1 Universal Joint Spline (plug) — ATLANTIC 140 Gear Oil
5 Differential (See Table C) — ATLANTIC Gear Oil
Refer to ATLANTIC Recommendation Chart

## UNDER HOOD POINTS

1 Water Pump (Metered fitting) — ATLANTIC Chassis Lubricant
1 Generator — ATLANTIC Motor Oil Light Medium
1 Steering Gear (plug) — ATLANTIC 140 Gear Oil
1 Crankcase (See Table A) — ATLANTIC Motor Oil
Refer to ATLANTIC Recommendation Chart
1 Starter — ATLANTIC Motor Oil Light Medium
5 Clutch (wet type, Cap. ⅓ pt.) — ATLANTIC ZEROL (See Note)
1 Distributor (6 cyl.) grease cup — ATLANTIC Lubricant "A"
1 (8 cyl. oiler on right side) — ATLANTIC Motor Oil Heavy
1 Wick under rotor — ATLANTIC Motor Oil Light Medium

## TIRES

| Size | Inflation Pressures Front | Rear |
|---|---|---|
| Passenger Cars | | |
| 5.50—16 | 32 | 32 |
| 6.00—16, 6.25—16, 6.50—16, 7.00—15 | 26 | 30 |
| Business Cars | | |
| 6.00—16, 6.50—16, 7.00—15 (4 ply) | 26 | 30 |
| 6.00—16, 6.50—16, 7.00—15 (6 ply) | 26 | 40 |

## MILEAGE LEGEND

1 = every 1000 miles
5 = every 5000 miles
10 = every 10000 miles
20 = every 20000 miles

10 Rear Wheel Bearings — ATLANTIC Lubricant "A" (Removal necessary)
1 Spring Shackle — ATLANTIC Chassis Lubricant

10 Rear Wheel Bearings — ATLANTIC Lubricant "A" (Removal necessary)
1 Spring Shackle — ATLANTIC Chassis Lubricant

## NOTES

STARTING SERIAL No. Traveler, DeLuxe, Business Cars (10)—10101; Super 6 (11)—11101; Commodore 6 (12)—12101; Commodore 8 (14)—14101; Commodore 8 Custom Coupe (15)—15101; Commodore 8 Custom Sedan (17)—17101; 6 Big Boy Business Cars (18)—18101. On right front door hinge pillar post.

SHOCK ABSORBERS—Delco or Monroe, telescoping type. See General Instructions. If service is required, refer to car dealer.

10 SPRINGS—Fitted with fabric covers. Remove covers and repack with ATLANTIC CHASSIS LUBRICANT.

AIR CLEANERS—AC wire gauze, AC heavy duty (special),

ATLANTIC MOTOR OIL EXTRA HEAVY above 32 deg., ATLANTIC MOTOR OIL LIGHT MEDIUM below 32 deg. See General Instructions.

TRANSMISSION AND DIFFERENTIAL—When checking oil level, allow car to stand long enough to permit the lubricant to reach its actual level before checking.

TRANSMISSION WITH OVERDRIVE—Capacity 3¼ pt. or lb. Two drain plugs and two filler plugs. Drain through both drain plugs. Fill overdrive unit with 1¼ pt. or lb. and transmission unit with 2 pt. or lb.

20 UNIVERSAL JOINTS—Packed at assembly. Disassemble, clean and relubricate with ATLANTIC CHASSIS LUBRICANT. See General Instructions.

5 PARKING BRAKE CABLES—ATLANTIC CHASSIS LUBRICANT. Partial disassembly necessary.

5 AUTOMATIC VACUUM CLUTCH CONTROL—If so equipped, remove plug at rear of cylinder and inject 1 oz. ATLANTIC ZEROL.

CLUTCH (Wet Type)—Plug in flywheel reached through opening between engine and starter.

OIL CAN POINTS—Under Hood—Throttle Linkage, etc., ATLANTIC MOTOR OIL LIGHT MEDIUM. DO NOT OIL AUTOMATIC CHOKE LINKAGE.

POINTS REQUIRING NO LUBRICATION—
Fan, Rear Spring Front Bolts, Intermediate Steering Arm.



*Supplement No. 6 — December, 1940*

# 1941 HUDSON PRICES and EQUIPMENT

**Prices in effect Sept. 22, 1940. Subject to change without notice.**
**Nothing is to be added to these prices for Federal Tax.**

| BODY TYPE | Factory Delivered Price | Groups A & B | Detroit Delivered Inc. Grps. A & B | Transportation Charge | Local Delivered Price | License and Local Tax | Weight |
|---|---|---|---|---|---|---|---|
| **(10-T) HUDSON SIX TRAVELER—116″ W.B.—92 H.P.—Tires, 16 x 5.50** | | | | | | | |
| 2-Dr. Touring Sedan | $765 | $18 | $783 | | | | 2850 |
| 4-Dr. Touring Sedan | 793 | 18 | 811 | | | | 2900 |
| 3-Pass. Coupe | 695 | 18 | 713 | | | | 2790 |
| Club Coupe | 788 | 18 | 806 | | | | 2840 |
| **(10-P) HUDSON SIX DE LUXE—116″ W.B.—92 H.P.—Tires, 16x6.00** | | | | | | | |
| 2-Dr. Touring Sedan | $822 | $20 | $842 | | | | 2900 |
| 4-Dr. Touring Sedan | 856 | 20 | 876 | | | | 2950 |
| 3-Pass. Coupe | 801 | 20 | 821 | | | | 2840 |
| Club Coupe | 848 | 20 | 868 | | | | 2895 |
| Convertible | 1063 | 20 | 1083 | | | | 2980 |
| **(11) HUDSON SUPER SIX—121″ W.B.—102 H.P.—Tires, 16 x 6.00** | | | | | | | |
| 2-Dr. Touring Sedan | $901 | $20 | $921 | | | | 3000 |
| 4-Dr. Touring Sedan | 932 | 20 | 952 | | | | 3050 |
| 3-Pass. Coupe | 881 | 20 | 901 | | | | 2935 |
| Club Coupe | 936 | 20 | 956 | | | | 2980 |
| Convertible | 1155 | 20 | 1175 | | | | 3125 |
| Station Wagon | | | | | | | |
| **(12) HUDSON COMMODORE SIX—121″ W.B.—102 H.P.—Tires, 16 x 6.25** | | | | | | | |
| 2-Dr. Touring Sedan | $966 | $46 | $1012 | | | | 3050 |
| 4-Dr. Touring Sedan | 994 | 46 | 1040 | | | | 3100 |
| 3-Pass. Coupe | 935 | 46 | 981 | | | | 3000 |
| Club Coupe | 997 | 46 | 1043 | | | | 3045 |
| Convertible | 1204 | 43 | 1247 | | | | 3160 |
| **(14) HUDSON COMMODORE EIGHT—121″ W.B.—128 H.P.—Tires, 16 x 6.25** | | | | | | | |
| 2-Dr. Touring Sedan | $1003 | $46 | $1049 | | | | 3210 |
| 4-Dr. Touring Sedan | 1039 | 46 | 1085 | | | | 3260 |
| 3-Pass. Coupe | 978 | 46 | 1024 | | | | 3135 |
| Club Coupe | 1040 | 46 | 1086 | | | | 3210 |
| Convertible | 1254 | 43 | 1297 | | | | 3350 |
| **(15) HUDSON COMMODORE CUSTOM EIGHT—121″ W.B.—128 H.P.—Tires, 16 x 6.50** | | | | | | | |
| 3-Pass. Coupe | $1064 | $46 | $1110 | | | | 3185 |
| Club Coupe | 1127 | 46 | 1173 | | | | 3235 |
| **(17) HUDSON COMMODORE CUSTOM EIGHT—128″ W.B.—128 H.P.—Tires, 16 x 6.50** | | | | | | | |
| 4-Dr. Touring Sedan | $1232 | $46 | $1278 | | | | 3400 |
| 8-Pass. Sedan | 1438.50 | 32.50 | 1471 | | | | |
| **(10) HUDSON BUSINESS CARS—116″ W.B.—92 H.P.—Tires, 16 x 6.00*** | | | | | | | |
| Cab and Chassis | $687 | $9 | $696 | | | | |
| Cab Pick-Up | 723 | 9 | 732 | | | | 2910 |
| Utility Coach | 781 | 18 | 799 | | | | 2825 |
| Utility Coupe | 721 | 18 | 739 | | | | 2900 |
| All-Purpose Delivery | 1117 | 9 | 1126 | | | | 3150 |
| **(18) HUDSON BIG BOY PASSENGER CARS—128″ W.B.—98 H.P.—Tires, 16 x 6.00** | | | | | | | |
| 8-Pass. Sedan | 1154 | 18 | 1172 | | | | |
| Carry-All | 1025 | 18 | 1043 | | | | |
| **(18) HUDSON BIG BOY BUSINESS CARS—128″ W.B.—98 H.P.—Tires, 16 x 6.00** | | | | | | | |
| Cab and Chassis | $736 | $9 | $745 | | | | |
| Cab Pick-Up | 775 | 9 | 784 | | | | 3050 |

*Tires: 16 x 5.50 on Utility Coach and Coupe.
16 x 6.00 6-ply on All-Purpose Delivery.

**FACTORY TOWN DELIVERED PRICES INCLUDE THE ITEMS MARKED "X" AS STANDARD EQUIPMENT**

| EQUIPMENT | 10-T and Utilities | 10-P | 11 | 12 & 14 | 15 & 17 | 10 & 18 Cab Cab Pk. | 18 Carry-All | 18 8-P Sedan | 10 All-Purpose Delivery |
|---|---|---|---|---|---|---|---|---|---|
| Remote Control Gear Shift | x | x | x | x | x | x | x | x | x |
| Auto-Poise Control | x | x | x | x | x | | x | x | |
| Airfoam Seats | | | | x | x | | | Fr.-x | |
| Safety Glass | x | x | x | x | x | x | x | x | x |
| Dual Carburetion | | | x | x | x | | | | |
| Automatic Choke and Heat Control | | | x | x | x | | | | |
| Auto. Choke Manual Heat Control | x | x | | | | x | x | x | x |
| Ventilator Wings | | x | x | x | x | | | | |
| Extra Air Horn | | Grp. A | Grp. A | x | x | | | | |
| Extra Tail Light | Grp. A | Grp. A | Grp. A | x | x | | Grp. A | Grp. A | |
| Extra Windshield Wiper | Grp. B | Grp. B | Grp. B | x | x | Grp. A | Grp. B | Grp. B | Grp. A |
| Chrome Outside Window Mouldings | | | | x | x | | | | |
| Sun Visor—Convertibles | | 2–x | 2–x | 2–x | | | | | |
| Others | 1–x | 1–x | 1–x | #{1–x, 1–Grp. A} | #{1–x, 1–Grp. A} | | 1–x | 1–x | |
| Voltage Regulator | x | x | x | x | x | x | x | x | x |
| Radiator Thermostat | x | x | x | x | x | x | x | x | x |
| Spring Covers | Grp. A | x | x | x | x | | Grp. A | Grp. A | |
| Bumpers—Front | x | x | x | x | x | x | x | x | x |
| Rear | x | x | x | x | x | | x | x | x |
| Grille Guard | | | | | x | | | | |
| Bumper Guards—Front | Grp. B | x | x | x | x | Grp. A | Grp. B | Grp. B | Grp. A |
| Rear | Grp. B | x | x | x | x | | Grp. B | Grp. B | |
| Bumper Wings | | | | Grp. B | Grp. B | | | | |
| Fenders in Body Color | x | x | x | x | x | x | x | x | |
| Extra Wheel | x | x | x | x | x | x | x | x | x |
| Spare Tire and Tube | x | x | x | x | x | x | x | x | |
| Luggage Compartment Light | x | x | x | x | x | | x | x | |
| Bonnet Ornament Lights | x | x | x | x | x | x | x | x | |
| Headlight Indicator | x | x | x | x | x | x | x | x | x |
| Vacumotive Drive | | | | | | | | | x |
| Instrument Light Dimmer | | | | x | x | | | | |
| Ash Trays—Front | –x | 1–x | 1–x | 1–x | 1–x | 1–x | 1–x | 1–x | |
| Rear | | 2–x* | 2–x* | 2–x* | 2–x | | | | |
| Package Compartment Lock | x | x | x | x | x | | x | x | |
| Large Hub Caps | | | | x | x | | | | |
| Front Door Arm Rests | | 1–x | 1–x | 1–x | 2–x | | | | |
| Assist Straps— | | | | | | | | | |
| 2-Dr. Touring Sedan & Club Cpe. | | 1–x | 1–x | 1–x | 1–x | | | | |
| 4-Dr. Touring Sedan | | 2–x | 2–x | 2–x | 2–x | | | | |
| Cigar Lighters | | | | 1–x | 15 1–x<br>17 2–x | | | | |
| Arm Rest—Rear Center | | | | | x | | | | |
| Direction Indicator | | | | | x | | | | |
| Arm Rest—Front Seat Center | | | | | x† | | | | |
| Fender Lamps | | | | Grp. B | Grp. B | | | | |
| Radiator Ornament | x | x | x | x | x | x | x | x | x |
| Gravel Deflector | Grp. B | Grp. B | Grp. B | x | x | | Grp. B | Grp. B | |
| Rear Lateral Sway Eliminator | | x | x | x | x | | x | x | |
| Dome Lamp —Front | x | x* | x* | x* | x | x | x | x | x |
| Rear—Sedans Only | | | | x | x | | | | x |
| Independent Suspension | x | x | x | x | x | x | x | x | x |
| Clock (Wind) | Grp. A | Grp. A | Grp. A | | | Grp. A | Grp. A | Grp. A | Grp. A |
| Clock (Electric) | | | | Grp. A | Grp. A | | | | |
| De Luxe Steering Wheel | | | | Grp. A | Grp. A** | | | | |
| De Luxe Running Boards | | | | x | x | | | | |
| Chrome Wheel Rings | | | | | x | | | | |
| Group A Price | $9.50 | $13.50 | $13.50 | $30.00* | $30.00** | $9.00 | $9.50 | | $9.50 |
| Group B Price | 8.50 | 6.50 | 6.50 | 16.00 | 16.00 | | 8.50 | 8.50 | |
| Group A Price—8-Pass. Sedans and Convertibles | | 13.50 | 13.50 | 27.00 | 16.50 | | | 9.50 | |

†6-Passenger Sedans only.
*Except Convertibles.
**Except 8-Passenger Sedans.
#Swivel Type.

## COLOR OPTIONS (All Models)

| Standard | | Extra Cost | |
|---|---|---|---|
| K—Black | H—Hollywood Tan | NH—Newport Tan—lower, Hollywood Tan—upper | †*.....$12.50 |
| G—Gunmetal | B—Baronet Blue | QR—Quaker Gray—lower, Richmond Gray—upper | †*..... 12.50 |
| P—Pine Green | S—Silver Green# | PS—Pine Green—lower, Silver Green—upper | †*..... 12.50 |
| N—Newport Tan | J—Jewel Blue# | BR—Baronet Blue—lower, Richmond Gray—upper | †*..... 12.50 |
| Q—Quaker Gray | M—Maroon# | CC—Crystal Bronze | ..... 10.00 |
| R—Richmond Gray# | | RR—Regal Red | ..... 10.00 |

*Note—Standard on Models 15 and 17. All-Purpose Delivery in Prime Only.
All colors except black are opalescent.
Delivered prices include fenders in color to match body.
#Extra cost on Cab and Cab Pick-Up $10.00 list.
†N. A. on Business Cars except Utilities.

## UPHOLSTERY (All Models except Convertibles)

| Model | Material | Color | Option | Standard with Body Colors |
|---|---|---|---|---|
| Six Traveler | Boucle | Tan | | All |
| Six De Luxe | Broadcloth | Tan | W 3 | K-P-N-H-S-M-CC-RR-NH-PS |
| | | Gray | W 4 | K-G-Q-B-J-R-QR-BR |
| Super Six | Hockanum Tweed Cloth | | | |
| Commodore Six and Eight | Hockanum Twill Cord | Tan | W 3 | K-N-H-M-CC-RR-NH |
| | | Gray | W 4 | K-G-Q-B-J-R-QR-BR |
| Commodore Custom Six and Eight* | Hockanum Bedford Cord | Green | W 5 | K-P-S-PS |
| Business Cars and Carry All | Imitation Leather | Brown | | All |
| *8-Pass. Sedans (Models 17 and 18) | Bedford Cord | Gray | | All |

Mohair—"W 1"—optional at no charge on Models 10P and 11 except Convertible, Cab Pickup, Delivery Car, and Carry All; and on Model 10T at extra charge of: Sedans and Utility Coach $9.50, 3-Pass. Coupe and Utility Coupe $5.75, Club Coupe $7.00. Mohair not supplied on Models 12, 14, 15 and 17. Leather front seat optional in 8-Pass. Sedans at no extra charge.

## LEATHER

**CONVERTIBLES:**

Six De Luxe — Light tan deep-buffed leather (AA-1) is standard. Hand-buffed leather choice of four colors $25.00 extra, list. (Specify AA-2, 3, 4 or 5. See below.*)

Other Models — Hand-buffed leather is standard in choice of four colors AA 2, 3, 4 or 5. See below.*

**CLOSED BODY TYPES:**

| MODEL | 2 and 4 Dr. Sedans | 8-Pass. Sedan | 3-Pass. Coupe | Club Coupe | Leather Option |
|---|---|---|---|---|---|
| Six Traveler | $21.00 | | $15.00 | $19.00 | AA-1 Only |
| Big Boy | | | | | AA-1 Only |
| Six De Luxe | 37.50 | | 26.50 | 33.00 | AA-2, 3, 4 or 5. See below.* |
| Super Six | 37.50 | | 26.50 | 33.00 | |
| Commodore 6 & 8 | 33.50 | | 25.50 | 32.00 | |
| Commodore Custom 8 | 33.50 | | 25.50 | 32.00 | |

*If color number is not specified leather will be supplied to harmonize with body color, as follows:

*AA-1—Light tan deep-buffed leather.....with all body colors
AA-2—Maroon hand-buffed leather.....with M-RR-CC
AA-3—Tan hand-buffed leather.....with N-H-NH
AA-4—Gray hand-buffed leather.....with G-Q-B-J-R-QR-BR
AA-5—Green hand-buffed leather.....with K-P-S-PS

## CONVERTIBLE TOP MATERIAL

| Body Color | Standard Top Material | Optional Top Material | Price |
|---|---|---|---|
| K-G-Q-B-J-M-R-RR | Black | Tan (Specify Tan Top) | N.C. |
| P-N-H-S-CC | Tan | Black (Specify "YY") | N.C. |
| | Special Top Material | | |
| N-H-CC-M-RR-K | Red Tan | | $40.00 list |
| G-Q-R-B-J-K | Blue Gray | | |
| P-S-K | Sage Green | | |

## PRICES OF FACTORY INSTALLED OPTIONAL EQUIPMENT

| Option | ITEM | 10 and 18 Business | 18 Pass. | 10-T Six Traveler | 10-P Six De Luxe | 11 Super Six | 12 and 14 Commodore Six and Eight | 15 and 17 Commodore Custom Eight |
|---|---|---|---|---|---|---|---|---|
| | **TIRE OPTIONS** | | | | | | | |
| WW | Standard Size—White Sidewall | $ 9.5 | $ 9.57 | $ 8.50 | $ 9.57 | $ 9.57 | $10.93 | $11.79 |
| TT | Standard Size—6-Ply Heavy Duty (N.A. with WW) | 19.2 | 19.21 | 17.00 | 19.21 | 19.21 | 21.93 | 23.29 |
| EE | 16 x 6.00—4-Ply | Std. | Std. | 15.21 | Std. | Std. | N.A. | N.A. |
| EEWW | 16 x 6.00—White Sidewall | | | 24.79 | | | | |
| EETT | 16 x 6.00—6-Ply | | | 34.43 | | | | |
| EE | 16 x 6.50—4-Ply | 19.7 | 19.71 | N.A. | 19.71 | 19.71 | 10.14 | Std. |
| EEWW | 16 x 6.50—White Sidewall | 31.5 | 31.50 | N.A. | 31.50 | 31.50 | 21.93 | |
| EETT | 16 x 6.50—6-Ply | 43.0 | 43.00 | N.A. | 43.00 | 43.00 | 33.43 | |
| A | 15 x 7.00 | 29.2‡ | 29.29 | N.A. | N.A. | 29.29 | 19.71 | 12.50 |
| AWW | 15 x 7.00—White Sidewall | 42.2‡ | 42.21 | N.A. | N.A. | 42.21 | 32.64 | 22.50 |
| ATT | 15 x 7.00—6-Ply | 55.0‡ | 55.07 | N.A. | N.A. | 55.07 | 45.50 | 35.36 |
| | **RADIOS** | | | | | | | |
| Y | Custom Radio—8 Tube | $63.5 | $63.50 | $63.50 | $63.50 | $63.50 | $63.50 | $63.50 |
| L | De Luxe Radio—6 Tube | 46.5 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 | 46.50 |
| PP | Vacuum Antenna | 6.5 | 6.50 | 6.50 | 6.50 | 6.50 | 6.50 | 6.50 |
| | **OVERDRIVE AND VACUMOTIVE DRIVE** | | | | | | | |
| T | Overdrive | $59.5 | $59.50 | $59.50 | $59.50 | $59.50 | $59.50 | $59.50 |
| C | Vacumotive Drive | 27.5 | 27.50 | 27.50 | 27.50 | 27.50 | 27.50 | 27.50 |
| | **MISCELLANEOUS** | | | | | | | |
| D | De Luxe Heater and Defroster | $21.6 | $21.60 | $21.60 | $21.60 | $21.60 | $21.60 | $21.60 |
| E | Fender Lamps | 10.9 | 10.90 | 10.90 | 10.90 | 10.90 | Grp. B | Grp. B |
| O | Oil Bath Air Cleaner | 2.2 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 | 2.25 |
| U | Less Running Boards | N.A. | N.C. | N.C. | N.C. | N.C.■ | N.C. | N.C. |
| V | Extra Visor | 2.2 | 2.25 | 2.25 | 2.25 | 2.25 | Grp. A | Grp. A |
| X | Weathermaster and Defroster | 33.5 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 | 33.50 |
| Z | Chrome Outside Window Mouldings —Sedans | N.A. | N.A. | N.A. | 12.50 | 12.50 | Std. | Std. |
| | —Coupes | N.A. | N.A. | N.A. | 7.00 | 7.00 | Std. | Std. |
| DD | Direction Indicator | 18.0 | 18.00 | 18.00 | 18.00 | 18.00 | 10.00 | Std. |
| GG | Vacuum Booster Pump | 5.0 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| HH | Model 11 Motor | | N.A. | | | Std. | N.A. | N.A. |
| II | Front Door Ventilator Wing | 10.0 | 10.00 | 10.00 | Std. | Std. | Std. | Std. |
| KK | De Luxe Steering Wheel | 13.5 | 13.50# | 13.50 | 13.50 | 13.50 | Grp. A | Grp. A# |
| MM | Airfoam Seats—Sedans and Club Coupes only† | N.A. | 12.00▾ | 12.00 | 12.00 | 12.00■ | Std. | Std. |
| NN | Chrome Wheel Rings | 8.75* | 8.75 | 8.75* | 8.75 | 8.75 | 8.75 | Std. |
| QQ | Special Running Board Mouldings | 15.0 | 15.00 | 15.00 | 15.00 | 15.00 | Std. | Std. |
| UU | Large Hub Caps | 6.5 | 6.50 | 6.50 | 6.50 | 6.50 | Std. | Std. |
| VV | Airfoam Seats—Front only† | N.A. | 6.00▾ | 6.00 | 6.00 | 6.00■ | Std. | Std.▾ |
| XX | Electric Clock | 9.5 | 9.50 | 9.50 | 9.50 | 9.50 | Grp. A | Grp. A |
| ZZ | Grained Instrument Panel and Window Mouldings with "W4" or "W5" Trim only—Std. with "W3" Trim | Std. | Std. | Std. | Std. | N.C. | N.C. | N.C. |
| SPECIAL | ORDER—Two Swivel Visors instead of One Hinge Type | 3.50 | 3.50 | 3.50 | 3.50 | 3.50 | 1–Std. 1–Grp. A | 1–Std. 1–Grp. A |
| | Twin Air Horns | 7.00 | 7.00 | 7.00 | Grp. A | Grp. A | Std. | Std. |
| | Right-Hand Front Door Arm Rest | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | Std. |
| | Commodore Type Bumpers and Wings | N.A. | N.A. | N.A. | 16.00 | 16.00 | Std. | Std. |

Key to abbreviations:
‡Model 18 only.
†Standard on Convertibles.
▾N.A. on Carry All—Standard in Front Seat Cushion and Front Seat Back in 8-Pass. Sedans.

*With 16 x 6.00 Tires only.
#Except 8-Pass. Sedans.
■N.A. on Station Wagon.
Std.—Standard Equipment.
N.A.—Not Available.
N.C.—No Charge.

# HUDSON 1941

## OPERATING INSTRUCTIONS

## IMPORTANT

### Read Carefully Before Driving Your Car

The instructions given on this card are necessarily brief as it is intended to give only such information as is essential to operating the car. More complete information on this subject can be found by referring to the Owner's Manual.

Be sure Owner's Policy and Ownership Card are filled in by your Hudson Dealer.
Be sure the car battery is registered by your Hudson Dealer.
Be sure the car key numbers are recorded on the Ownership Card and by your Hudson Dealer.

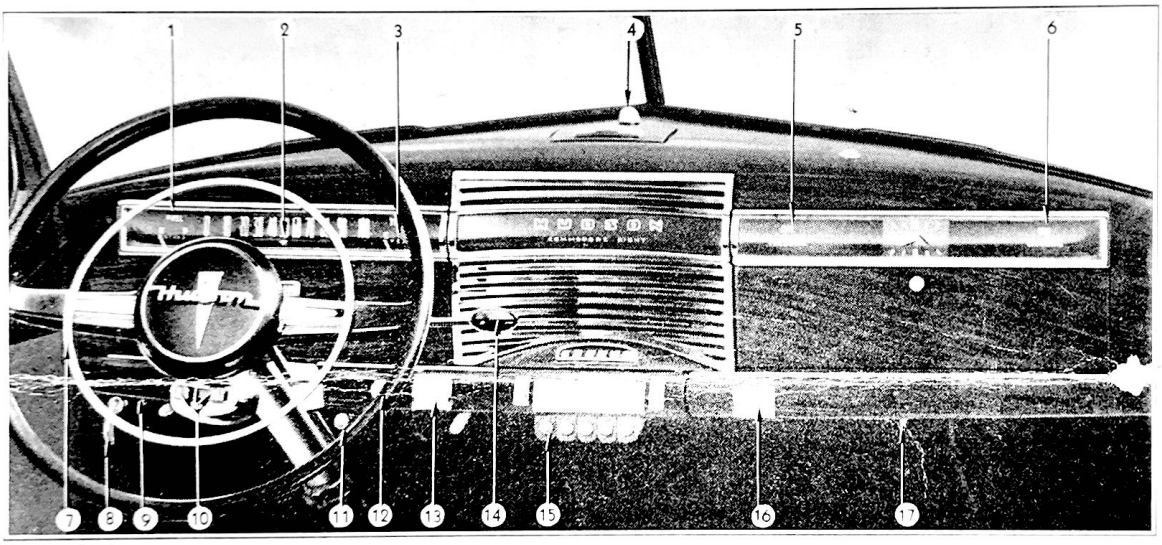
### LUBRICATION

The lubricants placed in your car at the time of assembly are of the finest quality procurable and NEED NOT be changed until the recommended change period has been reached.

For complete information on the lubrication of your car please refer to the Owner's Manual.

*Caution:—Whenever flushing fluids are used in the engine, be sure the oil reservoir is removed and thoroughly cleaned out before adding new oil.*

Be sure to read the Owner's Manual for full information on your new Hudson car.




1. Fuel Gauge
2. Headlamp Beam Indicator
3. Water Temperature Gauge
4. Windshield Wiper Control
5. Oil Pressure Indicator
6. Generator Charging Indicator
7. Horn Button Ring (All Models Except 10, 11, 18)
8. Hand Brake Lever
9. Rheostat (All Models Except 10, 11, 18)
10. Direction Indicator (Models 15 and 17)
11. Overdrive Control Button (Optional Equipment)
12. Ignition Switch
13. Starter Button
14. Transmission Control Lever
15. Vacumotive Drive (Optional Equipment)
16. Lighting Switch
17. Dome Lamp Switch (Models 12-14-15-17-18 P Sedans)

SEAT ADJUSTING LEVER—Located on left side of front seat near front corner. Raise lever with finger and slide seat backward or forward for most suitable position and release lever.

ACCELERATOR PEDAL—Controls the throttle opening and engine speed. Never pump the pedal when starting the engine as it will cause engine to flood.

On cars equipped with OVERDRIVE and with the control button pushed in, momentarily release the accelerator pedal when a speed of approximately 22 miles per hour in high gear has been reached to engage overdrive. To disengage OVERDRIVE for passing other cars, depress accelerator pedal to full extent of its travel. To re-engage OVERDRIVE, release accelerator pedal momentarily as before.

BRAKE PEDAL—Hydraulically operates brakes on all wheels. In event of disablement of the hydraulic system, continued pressure on the same pedal automatically applies the mechanical brake system on rear wheels.

CLUTCH PEDAL—Should be depressed fully to floor board when starting the engine and when shifting gears. When car is equipped with Vacumotive Drive clutch pedal need be depressed only when starting the engine.

DIRECTION INDICATOR (Models 15 and 17)—Push "R" button for right turn and "L" button for left turn. Push center button to turn off signal.

DOME LAMP SWITCH (on instrument panel Models 12-14-15-17-18 P Sedans)—is of the sliding type.

FUEL GAUGE—Indicates the fuel level only when ignition is turned on. When pointer reaches empty mark approximately 2 gallons of fuel remains in reserve.

GENERATOR CHARGING INDICATOR—Shows red when ignition is turned on and engine is idling at low speed. Should go out as speed is increased.

HAND BRAKE LEVER—Apply by pulling straight back *and at same time depress brake pedal.* Release lever by turning ¼ turn to right and push it downward as far as it will go.

HEADLAMP BEAM INDICATOR—Shows red when headlamp beam is in country (upper) position.

HEADLAMP FOOT SWITCH—On toe board to left of clutch pedal. Press down with left foot if headlamp beam indicator is red when approaching on-coming traffic and release. Pressing switch second time restores driving headlamp beam.

HORN BUTTON RING (All Models except 10, 11, 18)—Press down from any position to operate horns.

IGNITION SWITCH—Insert key and turn to right to turn "on" ignition.

LIGHTING SWITCH—With lights out pressing button once turns on instrument lights, parking lamps and tail lamps. Pressing button the second time turns on headlamps in addition to other lamps previously lighted and pressing the button the third time turns off all lights.

OIL PRESSURE INDICATOR—Shows red when ignition is turned on and engine is not running. Light should go out when engine is started.

OVERDRIVE CONTROL BUTTON (Optional Equipment)—Must be pushed in to operate in overdrive. This can be done at any speed. Pull out to disengage overdrive and at same time depress clutch pedal momentarily. This may be done at any speed up to 60 miles per hour.

RHEOSTAT (All Models Except 10, 11, 18)—Controls brilliancy of instrument lights. Turning knob to right decreases light. Turning knob to left increases brilliancy and extreme left position turns out instrument lights.

STARTER BUTTON—Press in to close switch. Do not press button while engine is running or car is in gear. Button will not operate starter until ignition is turned on.

TRANSMISSION CONTROL LEVER (Handy Shift)—Place in neutral before starting engine. Raise knob and move forward for reverse and move rearward for low gear. Move to neutral, depress and slide forward for second gear and move rearward for high gear.

VACUMOTIVE DRIVE (Optional Equipment)—Push knob in for automatic control and pull out for manual clutch operation.

WATER TEMPERATURE GAUGE—Indicates temperature of cooling fluid when ignition is turned on. Pointer returns to "H" position at right side of dial when ignition is turned off.

WINDSHIELD WIPER CONTROL—Turn to left to operate wipers.

## To Start Engine

1. Place transmission control lever in neutral position.
2. Depress clutch pedal.
3. Turn on ignition switch.
4. If engine is completely COLD, depress accelerator pedal at least half way and release *slowly*. Then press starter button. After engine has started depress accelerator pedal slightly and release it to reduce engine speed.
5. If engine is WARM, depress the accelerator pedal one-quarter to one-half way and hold in this position while cranking.

## To Start Car

After engine has been started and clutch pedal is depressed—

1. Raise transmission control lever and move rearward for low gear position; release and depress clutch pedal alternately, moving transmission control lever into intermediate and high gear positions. For reverse gear raise lever from neutral and slide forward. When car is equipped with Vacumotive Drive it is not necessary to use clutch pedal—merely release accelerator pedal momentarily as gears are shifted and depress for normal operation.

## Door Locks

To lock doors from inside raise knob projecting from lower window finish moulding.

Right hand front door can be locked from inside by raising knob in window finish moulding, or from outside by turning safety lock key one-quarter turn clockwise and back to starting position.

To unlock safety lock turn key one-quarter turn counter-clockwise and back to starting position.

PRINTED IN U. S. A. 2-41

# HUDSON

Models 10, "Traveler", "DeLuxe" and "Business", 6 cyls., (1941)

**Automatic Advance**—11-3/4 degrees (Distributor).

| Eng. R.P.M. | Dist. R.P.M. | Degrees Advance (Dist.) |
|---|---|---|
| 800 | 400 | Start |
| 1000 | 500 | 1 |
| 1200 | 600 | 2 |
| 1400 | 700 | 3 |
| 1600 | 800 | 4 |
| 1800 | 900 | 5 |
| 2000 | 1000 | 6 |
| 2200 | 1100 | 7 |
| 2400 | 1200 | 8 |
| 2600 | 1300 | 9 |
| 2800 | 1400 | 10 |
| 3000 | 1500 | 11 |
| 3150 (Max.) | 1575 | 11-3/4 |

**Breaker Plate**—Auto-Lite, IGW-2010.
**Condenser**—Auto-Lite, IGW-3075-C.
**Contact Point**—Auto-Lite, IGP-33.
**Breaker Lever and Point**—Auto-Lite, IGW-3028-L.
**Rotor**—Auto-Lite, IGB-1239.
**Distributor Cap**—Auto-Lite, IGB-1240.
**Flexible Lead (Ground)**—Auto-Lite, DG-107.
**Ignition Coil**—Auto-Lite, IG-4098.
**Ignition Switch and Cable**—(Not Auto-Lite.)

## GENERATOR

Rotation, L. H., Com. End
Auto-Lite, GDS-4801-A

NOTE:—This is an especially designed third brush current control generator, to be operated in conjunction with a vibrating-point voltage regulator. The following performance readings were taken with the generator field terminal grounded to the generator frame, and the voltage regulator inoperative.

**Performance Data**—Gen. cold.

| Amps. | R.P.M. | Volts |
|---|---|---|
| 0 | 850 | 6.30 |
| 2 | 880 | 6.45 |
| 4 | 910 | 6.60 |
| 6 | 942 | 6.75 |
| 8 | 980 | 6.90 |
| 10 | 1030 | 7.05 |
| 12 | 1080 | 7.20 |
| 14 | 1140 | 7.35 |
| 16 | 1200 | 7.50 |
| 18 | 1265 | 7.75 |
| 20 | 1360 | 7.80 |
| 22 | 1450 | 7.90 |
| 24 | 1550 | 8.08 |
| 26 | 1670 | 8.20 |
| 28 | 1830 | 8.35 |
| 29 | 1950 | 8.43 |
| 30 | 2200 | 8.50 |

**Motoring Freely**—5.1 to 5.45 amps. at 6 volts.
**Max. Stall Current**—29 to 32 amps. at 5.1 volts.
**Field Test**—1.65 to 1.82 amps. at 6 volts.
**Brush Spring Tension**—53 ounces max. on each (new brushes). Brush spring tension should be measured by a scale hooked in hole at end of brush arm, and the pull exerted at right angles to force exerted by brush spring.
**Armature**—Auto-Lite, GDF-2006.
**Main Brush Setting**—The main brushes should be set 1 to 1-1/2 commutator bars ahead of neutral.
**Third Brush Adjustment**—Loosen cover band. Shift third brush by hand. Mounting plate held in any position by friction clamp washers. Third brush should be set 1 bar minus 1 mica (min.) to 1 bar (max.) from the insulated main brush.

## RELAY-REGULATOR

Auto-Lite, VRR-4001-A Pos. Ground

A combination of Cut-Out Relay and Vibrating Point Voltage Regulator, with auxiliary set of points on relay armature.

### CUT-OUT RELAY

**Resistance of Voltage Winding**—29.8 to 33.0 ohms.
**Points Close**—6.4 to 6.6 volts.
**Points Open**—4.2 to 4.8 volts (points open with a discharge of approximately 4 to 6 amperes).
**Contact Point Gap**—.015 inch minimum.
**Armature Air Gap**—.031 to .034 inch.
**Armature Spring**—12-3/4 turns.

### VOLTAGE REGULATOR

**Resistance of Voltage Winding**—10.8 to 12.0 ohms.
**Resistance Unit**—Auto-Lite, TC-51-L, marked "30"; Ohms 28 to 32.
**Armature Air Gap**—.048 to .052 inch (the distance between core and underside of armature when contacts just open).
**Contact Point Gap**—.012 inch minimum (armature pressed down against stop pin).
**Operating Voltage**—7.35 to 7.65 (70° F.)
**Armature Spring**—14-1/2 turns.

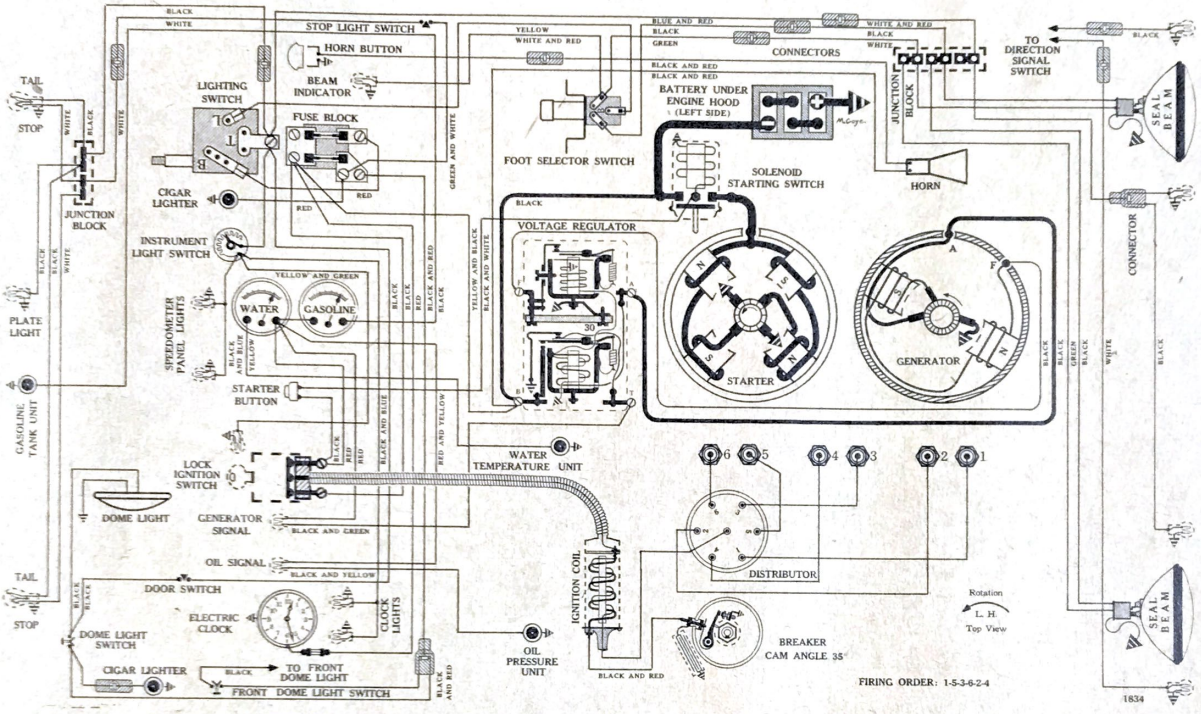
## LIGHTING

**Switch**—H. A. Douglas Mfg. Co., No. 5842.
**Location**—Behind instrument board.
**Fuses**—Two 30 amp. fuses (type 3AG-30) mounted on fuse block; one fuse protects the stop light, body light and cigar lighter circuits, while the other protects the lighting switch circuits. Single 2 amp. fuse (type 1AG-2) on back of clock.
**Stop Light Switch**—H. A. Douglas Mfg. Co., No. 5529.
**Foot Selector Switch**—Hudson, 160089.
**Lamps**—HEAD--4030; PARKING--55; FENDER--63; BEAM INDICATOR--51; GENERATOR AND OIL INDICATOR--55; INSTRUMENT--55; IGNITION LOCK--51; CLOCK--51 and 55; RADIO--44; DOME--87; LICENSE PLATE--63; STOP AND TAIL--1154.

# HUDSON

Engine { Bore 3 / Stroke 5

Models 11 "Super", 12 "Commodore" and 18 "Big Boy", 6 cyls., (1941)




## BATTERY

National, HT-17, 6 Volts
Positive Terminal Grounded

Starting Capacity—120 amps. for 20 minutes.
Minutes of Discharge at 300 Amps., Zero Degrees F.—3.5
Lighting Capacity—4.8 amps. for 20 hours (96 amp. hour).
Case—Length, 10-9/16; width, 7-1/4; height, 7-13/16 inches.

## STARTER

A-L Test 162 Rotation, L. H., Com. End
Auto-Lite, MZ-4092

Connection to Engine—Bendix Drive, Type A-1684.
Running Free—70 amps. at 5-1/2 volts, 4300 R.P.M.
Stall Data—7.8 pound-feet, 420 amps. at 3 volts.
Brush Spring Tension—42 to 53 ounces on each (new brushes). Brush spring tension should be measured by a scale hooked under the brush spring at the bend just beyond the brush, and the reading taken at moment spring leaves the brush. The pull should be exerted at right angles to force exerted by the brush spring.
Solenoid Starting Switch—Auto-Lite, SS-4001.
Push Button Starting Switch—H. A. Douglas Mfg. Co., No. 5841.
Armature—Auto-Lite, MZ-2138.

## IGNITION

A-L Test 715 Rotation, L. H., Top View
Auto-Lite, IGW-4203-A

(Full Automatic Spark Advance in conjunction with Vacuum Chamber which moves the entire Distributor.)

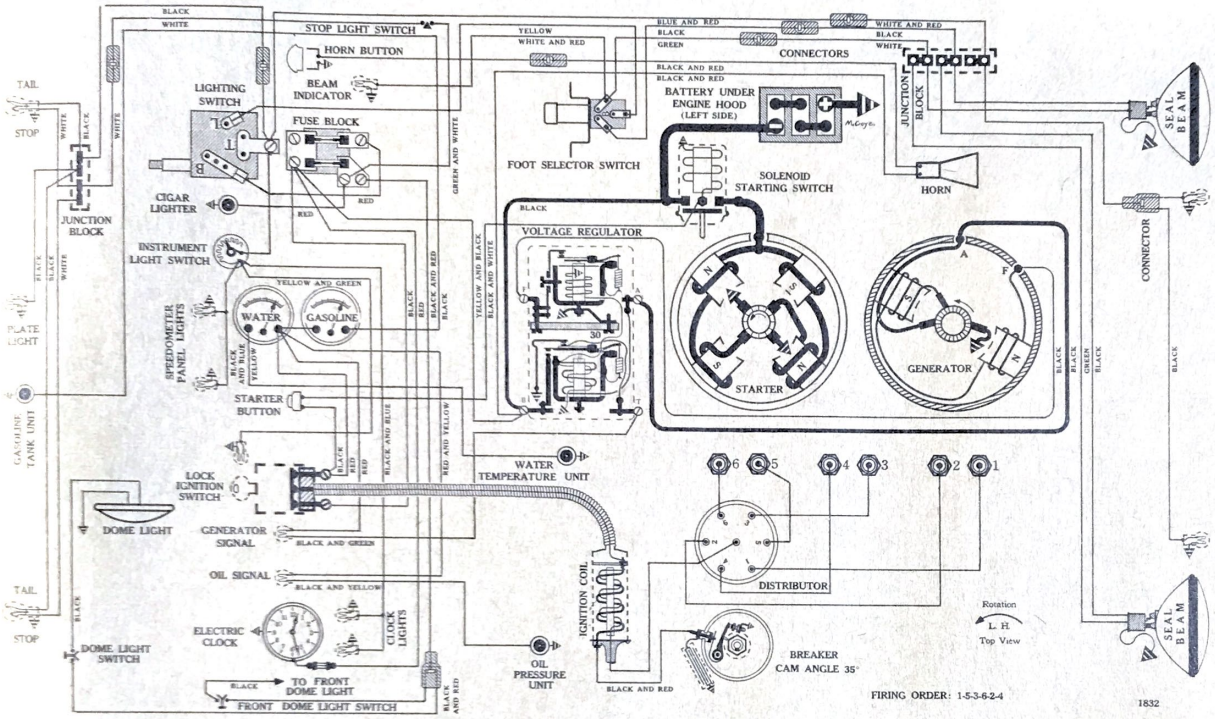
Breaker—Contact separation .020 inch.
Cam Angle—35 degrees.
Percentage of Dwell—59%.
Contact Spring Tension—18 to 20 ounces.
Timing—3 degrees before top dead center. Flywheel mark "U.D.C. 1-6" should register one-half inch before the pointer on the engine rear support plate when breaker points open. This is the recommended timing for low altitudes with standard brands of nonpremium gasoline, having an octane rating of approximately 70. Lower grade fuels may necessitate a slight retard. In high altitudes, or when using premium gasolines, timing may be advanced not to exceed a distance of one inch before pointer.
Spark Plugs—14-MM (Champion type J-9); Gap .032 inch.
Firing Order—1-5-3-6-2-4.
Vacuum Distributor Control (Auto-Lite, VC-3060-E; Test No. 661)—7½ degrees advance (Dist.). Starts with vacuum of 6-3/4 inches of mercury. Requires a vacuum of 10 inches for full travel.
Vacuum Chamber Advance Table—

| Inches of Mercury | Degrees Dist. Advance |
|---|---|
| 6.75 | Start |
| 7.18 | 1 |
| 7.61 | 2 |
| 8.04 | 3 |
| 8.48 | 4 |
| 8.91 | 5 |
| 9.34 | 6 |
| 9.78 | 7 |
| 10.00 | 7½ |

# HUDSON

Engine { Bore 3 / Stroke 4-1/8

Models 10, "Traveler", "DeLuxe" and "Business", 6 cyls., (1941)




## BATTERY

National, HT-17, 6 Volts
Positive Terminal Grounded

**Starting Capacity**—120 amps. for 20 minutes.
**Minutes of Discharge at 300 Amps., Zero Degrees F.**—3.5
**Lighting Capacity**—4.8 amps. for 20 hours (96 amp. hour).
**Case**—Length, 10-9/16; width, 7-1/4; height, 7-13/16 inches.

## STARTER

A-L Test 162 Rotation, L. H., Com. End
Auto-Lite, MZ-4092

**Connection to Engine**—Bendix Drive, Type A-1684.
**Running Free**—70 amps. at 5-1/2 volts, 4300 R.P.M.
**Stall Data**—7.8 pound-feet, 420 amps. at 3 volts.
**Brush Spring Tension**—42 to 53 ounces on each (new brushes). Brush spring tension should be measured by a scale hooked under the brush spring at the bend just beyond the brush, and the reading taken at moment spring leaves the brush. The pull should be exerted at right angles to force exerted by the brush spring.
**Solenoid Starting Switch**—Auto-Lite, SS-4001.
**Push Button Starting Switch**—H. A. Douglas Mfg. Co., No. 5841.
**Armature**—Auto-Lite, MZ-2138.

## IGNITION

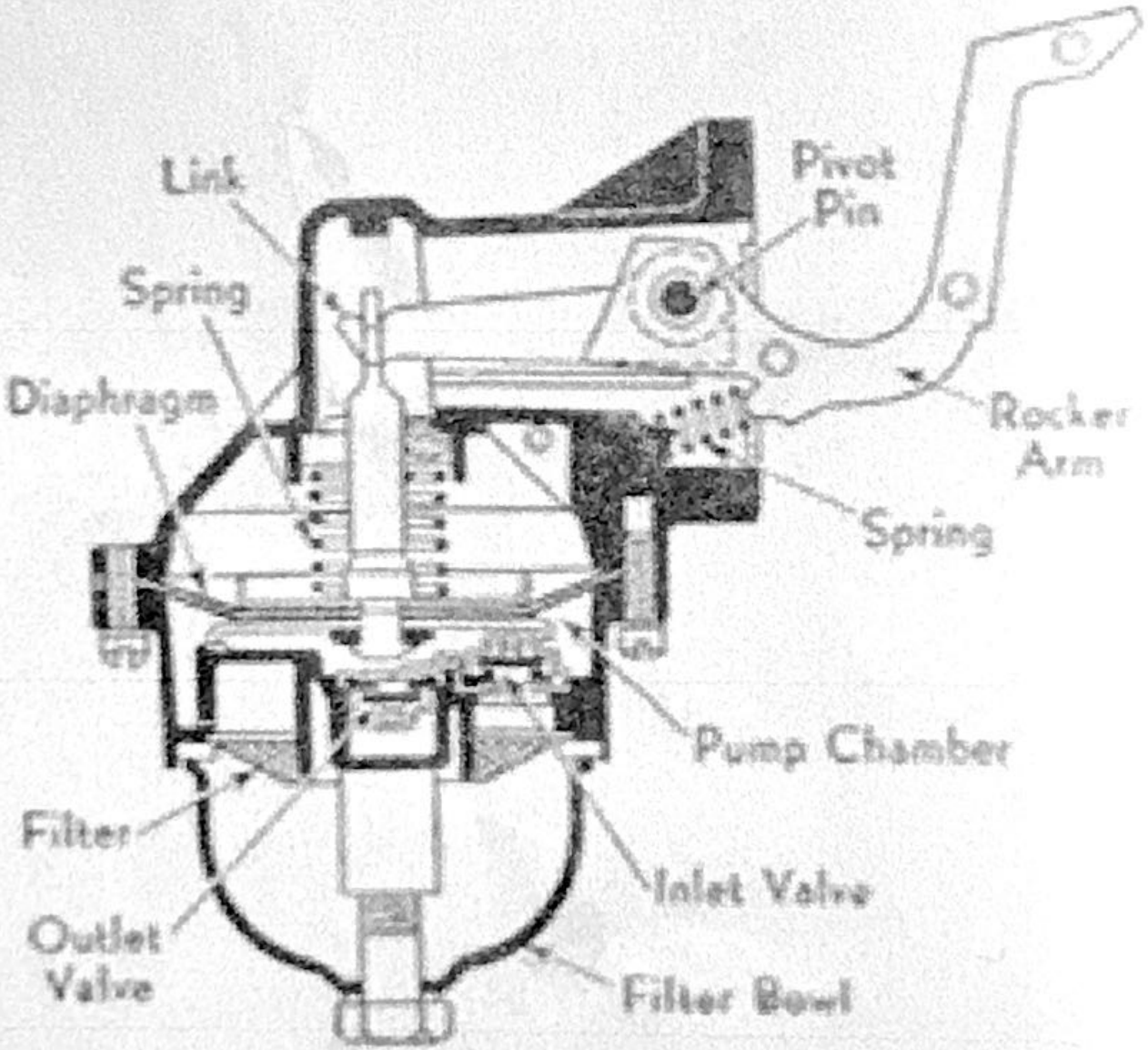
A-L Test 715 Rotation, L. H., Top View
Auto-Lite, IGW-4203-A

(Full Automatic Spark Advance in conjunction with Vacuum Chamber which moves the entire Distributor.)

**Breaker**—Contact separation .020 inch.
**Cam Angle**—35 degrees.
**Percentage of Dwell**—59%.
**Contact Spring Tension**—18 to 20 ounces.
**Timing**—3 degrees before top dead center. Flywheel mark "U.D.C. 1-6" should register one-half inch before the pointer on the engine rear support plate when breaker points open. This is the recommended timing for low altitudes with standard brands of nonpremium gasoline, having an octane rating of approximately 70. Lower grade fuels may necessitate a slight retard. In high altitudes, or when using premium gasolines, timing may be advanced not to exceed a distance of one inch before pointer.
**Spark Plugs**—14-MM (Champion type J-9); Gap .032 inch.
**Firing Order**—1-5-3-6-2-4.
**Vacuum Distributor Control (Auto-Lite, VC-3060-E; Test No. 661)**—7½ degrees advance (Dist.). Starts with vacuum of 6-3/4 inches of mercury. Requires a vacuum of 10 inches for full travel.
**Vacuum Chamber Advance Table**—

| Inches of Mercury | Degrees Dist. Advance |
|---|---|
| 6.75 | Start |
| 7.18 | 1 |
| 7.61 | 2 |
| 8.04 | 3 |
| 8.48 | 4 |
| 8.91 | 5 |
| 9.34 | 6 |
| 9.78 | 7 |
| 10.00 | 7½ |

## For reference only-some pumps differ




MODEL AH—AW IS SIMILAR