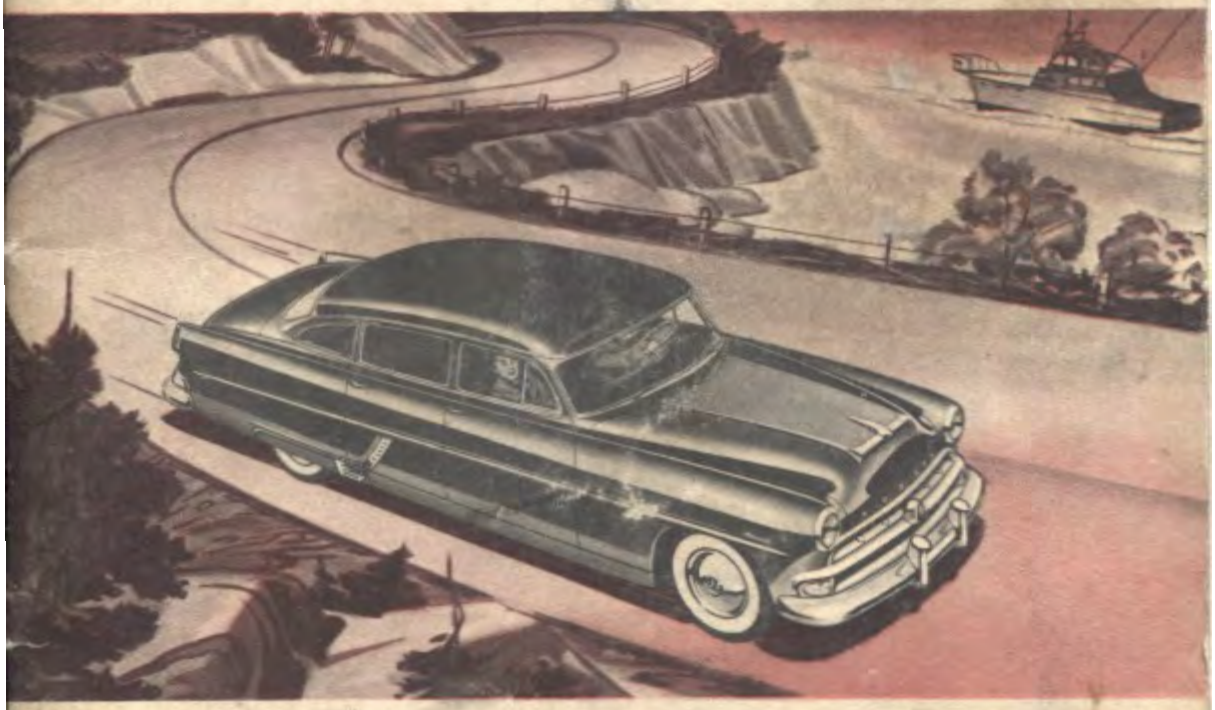
HUDSON

HORNET • SUPER WASP • WASP

OWNER MANUAL



Things you'll want to know about

DRIVING **OPERATION**

LUBRICATION **MAINTENANCE**

For handy future reference, keep this manual in the glove compartment of your car.

HUDSON MOTOR CAR COMPANY
Detroit 15, Mich., U.S.A.

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Welcome

Your selection of a new Hudson Motor car is gratifying to us and we are happy to welcome you to the ever growing family of Hudson owners.

We share in your pride of ownership and are sure you will derive the many miles of enjoyable service which you looked forward to when purchasing it. Your new Hudson has been skillfully engineered and built and naturally you will want to keep it trouble free and protect the investment in your purchase to the utmost.

With this thought in mind, we have prepared this Owner Manual which contains comprehensive information to assist in giving this fine automobile the care and attention it deserves. In its pages you will find many suggestions to acquaint you with its construction, operating features and maintenance requirements.

Take a few minutes to study this manual at your early convenience. It contains a wealth of information — just the things you will want to know. Place this manual in the glove box where it will be available for future reference.

HUDSON MOTOR CAR COMPANY

Service Department

Warranty

"We warrant each new car manufactured by us to be free from defects in material and workmanship under normal use and service, our obligation under this warranty being limited to making good at our factory any part or parts thereof, including all equipment or trade accessories (except tires) supplied by the Car Manufacturer, which shall, within ninety (90) days after making delivery of such vehicle to the original purchaser, or before such vehicle has been driven 4,000 miles, whichever event shall first occur, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been thus defective; this warranty being expressly in lieu of all other warranties expressed or implied, and of all other obligations or liabilities on our part, and we neither assume nor authorize any other person to assume for us any other liability in connection with the sale of our vehicles. "This warranty shall not apply to any vehicle which shall have been repaired or altered by other than an Authorized Hudson Dealer in any way so as, in the judgment of the Manufacturer, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident."

HUDSON MOTOR CAR COMPANY

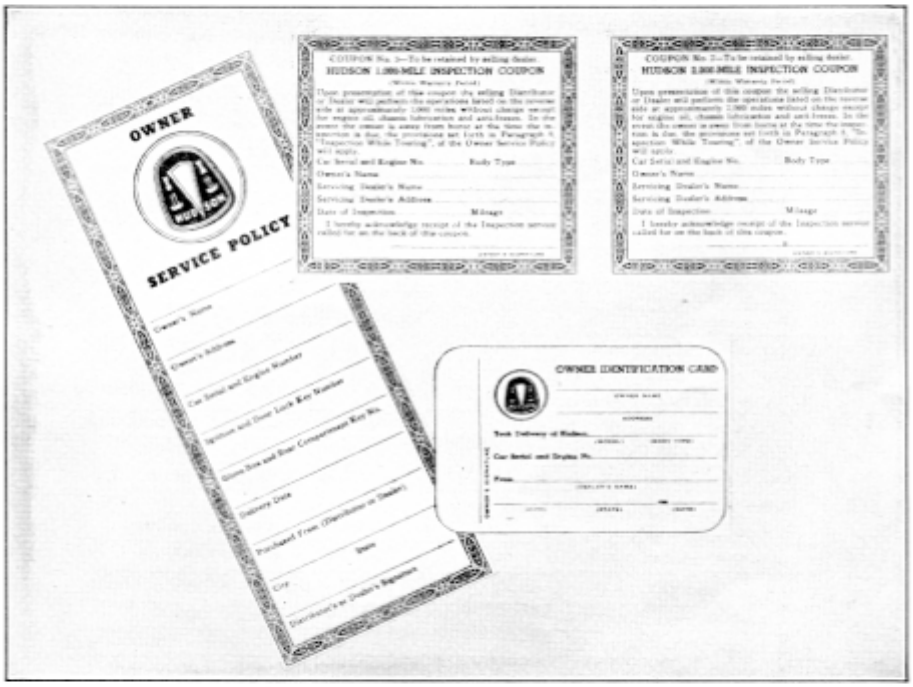
Detroit 15, Michigan, U.S.A.

The Hudson Motor Car Company reserves the right to make any changes in or improvements on its products without incurring any liability or obligation whatever, and without being required to make any corresponding changes or improvements on products theretofore manufactured or sold.

OWNER SERVICE POLICY

When you took delivery of your new Hudson, the Distributor or Dealer from whom you purchased it, presented you with your Hudson Owner Service Policy and Identification Card. Please read it carefully and make sure that:

1. Owner Service Policy has been properly filled in and its provisions fully explained to you.
2. Owner Idenification Card filled in on both sides and key numbers recorded.
3. Radio Warranty Registration tag is filled in and attached to radio, if car is so equipped.



This policy includes two coupons which entitle you to the 1000 and 2000 Mile Inspections without charge and outlines our obligations as Manufacturer as well as those of the Car Dealer and Owner. It also contains other pertinent information regarding the new car inspections and fully explains the provisions of the new car warranty concerning the replacement of parts.

A full knowledge of its contents will preclude the possibility of misunderstandings should it be necessary to consult your own or some other Hudson Dealer in regard to the provisions outlined.

PERIODIC MAINTENANCE

Regular maintenance, properly performed, is a preventive service and more than anything else governs owner satisfaction and freedom from costly emergency repairs and delays.

Listed below in chart form are suggested maintenance operations at stated mileage. Observe them for your driving pleasure.

INSTRUMENTS AND OPERATING CONTROLS

Arrangements and functions of the instruments and controls of your new Hudson have been planned for the convenience and comfort of the driver. As you should know all about the operation of the controls before driving your new car, we recommend that you read the following instructions carefully.

DOOR LOCKS AND KEYS

KEYS—Two sets of keys are furnished with each new car. The keys with the round handles fit the ignition and front door locks. The keys with the octagonal shaped handles fit the locker box door and rear compartment lock. All keys are numbered and these numbers should be registered on your Owner Identification Card as well as some other suitable place for reference should the keys become lost. New keys can be obtained from your Hudson Dealer only by key number.

Figure 1

TO UNLOCK CAR — To unlock door, insert key with round handle fully in the door lock cylinder and turn lock one-quarter turn to the left, return key to vertical position and remove.

To open door from outside — grasp door handle and press the door button with the thumb.

TO LOCK CAR — To lock car, close windows. With doors closed, push inside safety button (F, Figure 3) down on all doors except the front door from which you are leaving. Close the front door, insert key in lock and turn key one-quarter turn to the right until safety button is down to the locked position. Turn key back to vertical position and remove. Push in on button (Figure 2) to insure that door is locked.

Rear doors may also be locked by pressing down inside buttons while doors are open and then closing doors.

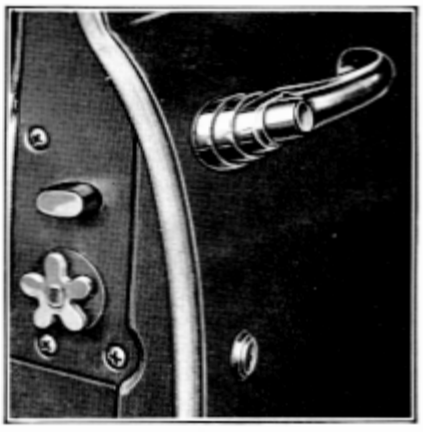


Figure 2

CAUTION: Many cars are stolen because they are left unlocked. Make it a practice to lock the car and remove the keys if it is to be left unattended even for a few minutes.

TO OPEN DOOR FROM INSIDE — Front Door — Rotate inside handle (C) by pulling it backward.

Rear Door — Rotate inside handle by pulling it downward.

NOTE: On the rear doors, the inside safety buttons (F) must be in the "UP" position before the doors can be opened by either the inside or outside handles.

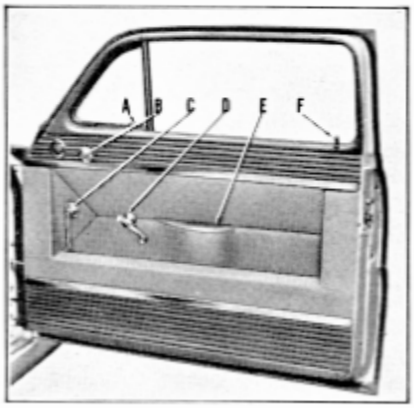


Figure 3

VENTILATOR WINGS — Friction Type-ventilator wing can be opened by pressing in the small button and turning the handle upward.

Crank Type-ventilator wing is opened by turning the crank handle to the left (counter-clockwise).

DOOR WINDOWS — The door windows are opened and closed by cranking the regulator handles.

QUARTER WINDOWS — The quarter windows on the two-door Sedan and Coupe models are the crank type. Four-door Sedans (except the Wasp series) are of the friction ventilator wing type.

REAR COMPARTMENT

DOOR — To Unlock — insert key in lock and turn key one-quarter turn clockwise, Figure 4, while exerting slight downward pressure against the compartment door ornament.

To Lock — Remove key and close the door.

Figure 4

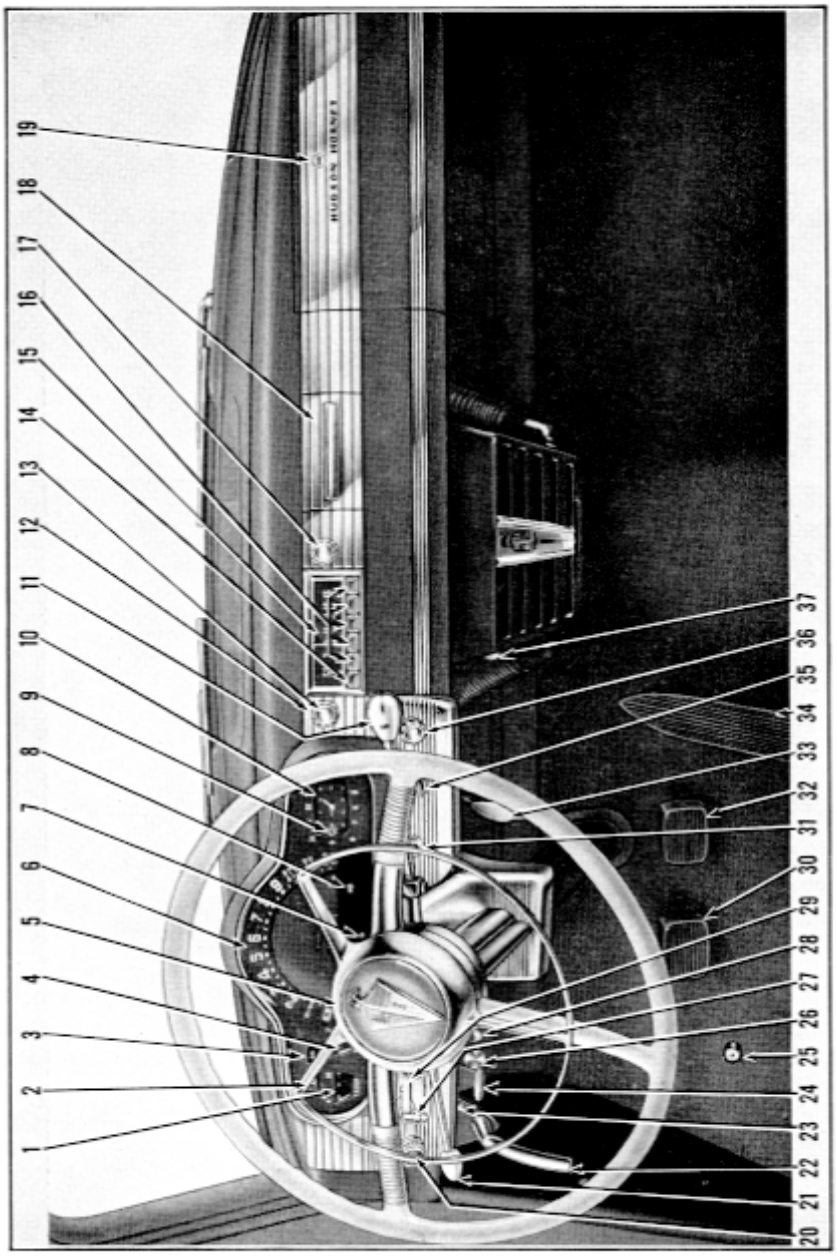

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Figure 5

SEAT ADJUSTMENT — Raise the seat adjusting lever located on the left side of the front seat and exert slight body pressure either forward or backward to position the seat on the adjustable seat track for the desired driving position. Releasing the adjusting lever will lock the seat in position and prevent movement.

Figure 6

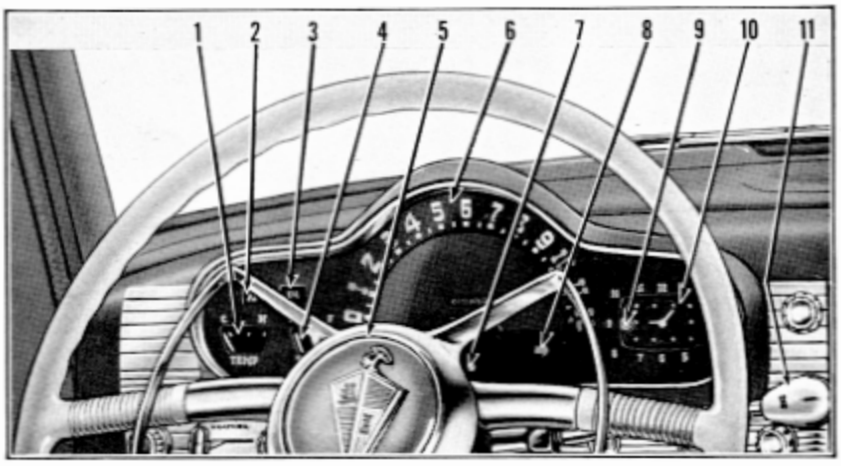

Figure 7

(1) TEMPERATURE GAUGE — Marked "TEMP" indicates the temperature of the coolant when ignition switch is turned either to the left or the running position (right). Under normal driving and temperature conditions, the pointer will show near the center mark on the dial, between the "C" and "H" position, if the gauge shows a rapid rise to the "H" position, stop, check water level and investigate. Caution! Use care in removing radiator cap — see page 24.

(2) GENERATOR CHARGE INDICATOR — Dial marked "AMP" shows red when ignition is turned on and when engine is running at idle speed. Light should go out as engine speed is increased.

(3) OIL PRESSURE INDICATOR — Red light appears when ignition is turned on and engine is not running. If light remains lighted when engine is running, turn off ignition immediately and determine cause. Check engine oil level.

(4) FUEL GAUGE — With the ignition turned either to the left or the running position, the indicator hand will show the amount of fuel in the gas tank. When needle reaches "E" empty mark, approximately 1½ gallons of fuel remain in reserve.

(5) HORN OPERATING RING — Press down from any position to operate horns.

(6) SPEEDOMETER — The speedometer registers miles per hour and accumulated mileage.

(7) HEADLIGHT BEAM INDICATOR — A small red light will show on the speedometer below the mileage indicator when the headlights are on the high beam.

(8) DIRECTION INDICATOR LIGHTS — Arrows indicate right or left turn. Light flashes green when turn indicator signals are turned on.

(9) CLOCK — WIND AND RESET KNOB — On both mechanical and electrical types, set clock hands by pulling out stem and turning knob.

(10) CLOCK — Mechanical — Requires winding every day. Turn knob clockwise to wind. Electrical — Electrically wound.

(11) GEAR SHIFT LEVER — Controls gear shifting. Always place lever in neutral position before starting engine. See page 16 for gear shift lever positions.

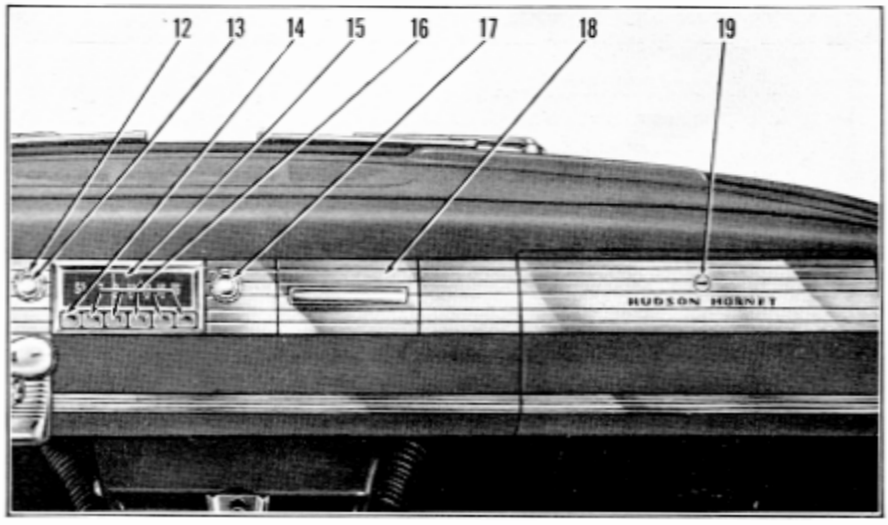

Figure 8

(12) RADIO TONE CONTROL RING — Turning to right brings out the high notes and to left emphasizes the bass notes. See Radio Owner's Manual.

(13) RADIO VOLUME CONTROL KNOB — Turn knob clockwise or counter-clockwise to regulate volume.

(14) RADIO "OFF BUTTON" — Pressing button in turns off radio.

(15) RADIO STATION DIAL — Indicates station frequency.

(16) RADIO AUTOMATIC TUNING BUTTONS — Press in button for station desired to turn on radio and for automatic tuning.

(17) RADIO MANUAL TUNING KNOB — Turn knob to tune in stations manually.

(18) ASH RECEIVER — Sliding drawer type — pulls out.

(19) GLOVE BOX AND LOCK — Press in on lock to open door. Locks by turning key one-quarter turn to left.

(20) WINDSHIELD WIPER CONTROL KNOB — Turning the knob to the right (clockwise) turns on and regulates the speed of wiper blades. Turning the knob to the left is "OFF". When car is equipped with a windshield washer, pressing the button in the center of the knob supplies solution for washing the windshield.

(21) DIRECTION INDICATOR LEVER — Pushing lever upward operates right turn signals, flashing signal lights in right tail light and right parking light and right green arrow in speedometer dial. Pushing lever down flashes left turn signals. The lever automatically returns to the "OFF" (center) position when turn is completed.

(22) PARKING BRAKE LEVER — Depress brake pedal while pulling the parking brake lever backward. Release by turning handle to right and pushing it down as far as it will go. Parking brake should be fully released before driving car.

(23) INSTRUMENT LIGHT RHEOSTAT — Turning the rheostat switch knob to the right increases the brilliance of the instrument lights and to the left decreases amount of light. Turning knob to the extreme left turns out the instrument lights entirely.

(24) HOOD UNLOCKING HANDLE — Hornet Models — Pull handle to release hood lock. Hood will raise slightly to the safety catch position. Release catch by reaching under the front grille louvre, pull the lever forward and raise the hood. To lock, lower hood and press down firmly on front end. Wasp Models — Hood can be raised after reaching under front grille louvre and pulling lever forward. The hood is held up by a prop which must be raised and engaged in a hole in the under side of the hood when it is lifted.

(25) HEADLIGHT DIMMER SWITCH — Controls country (upper) and traffic (lower) beams. When meeting oncoming traffic and beam indicator shows red, depress foot switch once and release for passing beam. Pressing and releasing switch the second time restores light beams to upper or country driving position.

(26) CONVERTIBLE TOP CONTROL KNOB — Pull out to lower top, push in to raise top. See Page 34.

(27) WEATHER-CONTROL HEAT REGULATOR LEVER — Move the lever to the right for higher temperature, to the left for lower temperature and to the extreme left, heat is entirely shut off. See "Hudson Weather-Control, Page 35.

(28) OVERDRIVE CONTROL KNOB — Push knob all the way in for operation of Overdrive. Also see "Overdrive Operation", Page 18.

(29) WEATHER-CONTROL SWITCH — This switch controls the operation of the weather-control fans for defrosting the windshield and circulates air in the car when car is not moving. Turning the knob to the right to the first position provides high speed and the second position low speed operation of the defrosting fans. Extreme left position shuts off fans. See "Hudson Weather-Control", Page 35.

(30) CLUTCH PEDAL — MANUAL SHIFT TRANSMISSION — Depress clutch pedal fully to the floorboard before starting the engine or shifting gears. Do not drive with the left foot resting on the clutch pedal (riding the pedal.)

(31) IGNITION LOCK AND STARTER SWITCH — Insert key and turn right (against slight spring pressure) to engage starter. When engine starts, release key which will then return to the running position. Turn key to center position to turn off ignition or remove key. Turn key to left position for accessories and gauges.

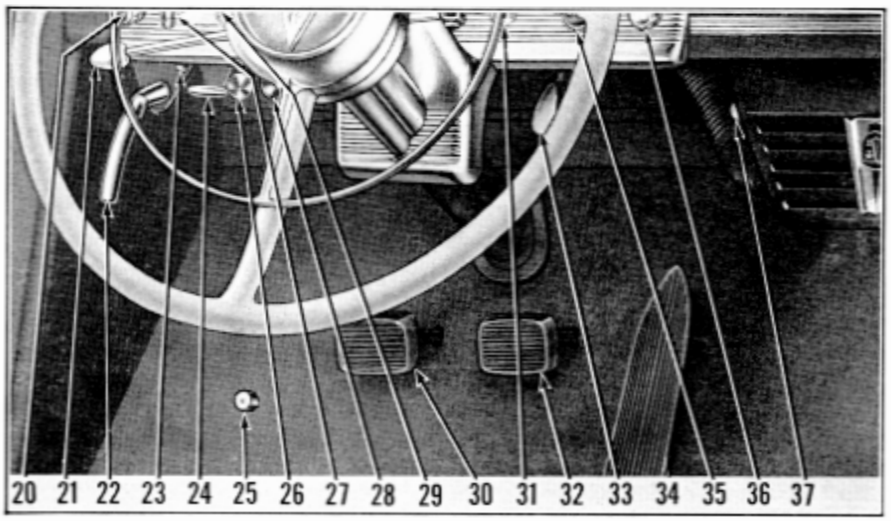

Figure 9

(32) BRAKE PEDAL — The brake pedal controls the operation of the brakes on all wheels. It also operates the reserve mechanical system on the rear wheels in the event of disablement of the hydraulic system.

(33) COWL VENTILATOR HANDLE — Push forward to open cowl ventilator and pull back to close it. The cowl ventilator can be opened in any weather. See "Weather-Control Operation", Pages 35 and 36.

(34) ACCELERATOR PEDAL — Car speed is controlled by the accelerator pedal which also controls Overdrive operation. See ("Starting The Engine", Page 15.)

(35) LIGHTING CONTROL SWITCH — Rotating the control switch knob clockwise to the first position turns on the parking lights, grille ornament light, license lights, tail lights, instrument lights and illuminates the ignition switch. Moving the knob to the second position clockwise turns on the headlights, grille ornament light, license light, tail lights and instrument lights. Turning the knob to the extreme left turns off all lights.

(36) CIGAR LIGHTER — Press in to operate. Automatically pushes out when filament is hot. Do not hold in manually.

(37) WEATHER-CONTROL KNOB — Moving knob up or down controls the amount of air directed on the driver's feet.

(38) DOME LIGHT — Sliding switch operates front dome light. Rear compartment dome lights operated by sliding switch on right door pillar.

(39) REAR VIEW MIRROR — Inside rear view mirror can be adjusted by tilting.

(40) RADIO ANTENNA OPERATING KNOB — To raise antenna, press in knob slightly and turn to right or left one-half turn. To extend antenna, turn knob one-quarter turn, pull out inner or telescopic section of antenna and turn knob until antenna is in upright position.

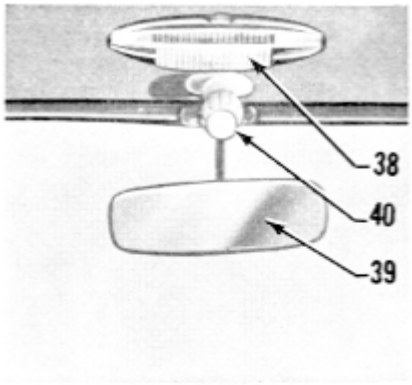

Figure 10

DRIVING THE CAR

BREAKING IN YOUR NEW CAR

When starting with a cold engine, always keep the speed near 30 miles per hour until the engine reaches normal operating temperature. This is good practice at any time but especially necessary when the engine is new and the moving parts not worn in. For the first 250 miles keep the speed under 40 and drive as little as possible, under 25. Between 250 miles and 500 miles the top limit may be increased to 50 and between 500 and 1000 miles, to 60 miles per hour.

At least a third of the mileage of each period should be driven at or near the maximum speed recommended. Do not drive at constant speed for any length of time but vary the speed within the recommended limits. At no time during the first 1000 miles should the throttle be opened fully for quick acceleration or hill climbing.

The first 1000 miles are very important to your new engine and a little care during this time will pay off in added economy throughout a longer life.

After the first 500 miles of driving, return your car to your Dealer to have the oil changed as it is good practice to have fresh clean oil in the engine before starting to drive at the increased speed permissible during the second 500 miles of the break-in period.

CARBON MONOXIDE GAS

WARNING: Never run the engine in a closed garage. Carbon monoxide, a deadly, colorless, odorless gas is always present in the exhaust of the internal combustion engine. Garage doors should always be open when starting or running the engine.

STARTING THE ENGINE

1. Depress brake pedal and set the hand brake.
2. Place gear shift lever in neutral position.

   NOTE: On cars equipped with Hudson Automatic Drive, the engine will not start unless the selector lever is in the neutral "N" or park "P" positions.
3. Depress clutch pedal fully.
4. If engine is cold, depress the accelerator pedal at least one-half way and release pedal fully.
5. Turn ignition key to the extreme right (cranking position) to engage the starter. When engine starts, release key which will return automatically to the running position.

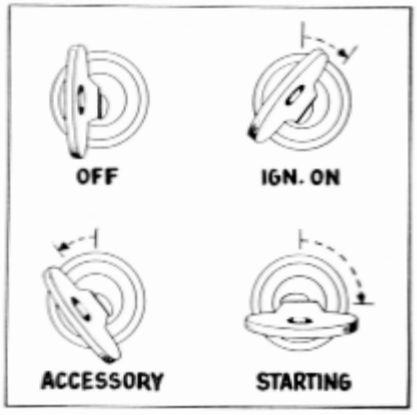

Figure 11

NOTE: When starting a hot engine, or an engine which has been flooded due to pumping the accelerator pedal, depress the accelerator pedal fully and hold down while cranking, until the engine starts.

6. After the engine has started, it will run at high idle speed for warm up. When the engine is warm, a slight depression and release of the accelerator pedal will permit the throttle to return to the normal idle.

7. ***Allow the engine some warm-up time before driving the car. DO NOT race the engine.***

EMERGENCY STARTING — To start the engine by towing or pushing, on cars equipped with manual shift transmission, place gear shift lever in high position. For cars equipped with Overdrive, pull Overdrive Control Knob all the way out and place gear shift lever in high position. For Automatic Transmission equipped cars see instructions on page 18.

TO START CAR

After the engine has been started, depress the clutch pedal fully, raise the gear shift lever and move it forward for reverse gear or rearward for low gear. After car is moving in forward speed, depress clutch pedal, move gear shift lever to neutral, then depress and slide the lever forward for second gear and rearward for high gear.

When climbing a hill it is better to shift back to second or first speed depending on the grade. In this way you will not force the engine to labor.

When descending a steep grade, the engine should be used to assist the brakes by shifting to second or low gears.

If the car is equipped with Overdrive or Automatic Drive follow Special Operating Instructions on Pages 16 through 18.

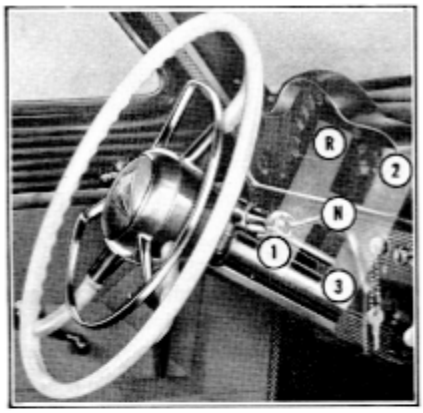

Figure 12

HUDSON AUTOMATIC TRANSMISSION OPERATION

The operation of the Hudson Automatic Transmission is controlled by the selector lever which is used to select the forward and reverse drive ranges, as well as the park and neutral positions. These positions are shown on the indicator dial at the top of the steering column. The lever must be raised to select the "P", "L", or "R" positions and when moving from the "P" to another position.

Figure 13

P—(PARK) locks rear wheels when car is stopped. Use Park when starting engine, especially on an incline. When car has been parked on a grade and shift lever in the Park position, a sharp impact of the hand on the lever will release it, allowing movement to another position on the quadrant.

N—(NEUTRAL) permits idling the engine. It may also be used when starting the engine.

D—(DRIVE) is for all normal forward driving. Set selector in "D" position. Then step on gas to go, step on brake to stop. No gear shifting — No clutch pushing.

L—(LOW) is an emergency power range for extra engine braking while descending steep hills, extra heavy pulling and for rocking out of mud, sand, or snow. Do not drive over 40 miles per hour in this range.

R—(REVERSE) provides reverse driving range.

STARTING THE ENGINE. Apply hand brake. Place selector lever in the Neutral (N) or Park (P) position. The engine cannot be started with the selector lever in any position but Neutral or Park, as a safety switch prevents the starter from operating.

ADDITIONAL POWER AND ACCELERATION in "D" range (below approximately 65 miles per hour). Depress accelerator to floor board to obtain intermediate range, which continues until relief of accelerator pressure or until approximately 72 M.P.H. Below approximately 22 M.P.H., intermediate is also obtained by exerting greater than normal accelerator pressure.

HARD PULLING as in mud or sand, is best done in "L" range.

ENGINE BRAKING is secured by releasing accelerator, bringing car speed below 40 M.P.H. and selecting "L" range.

ROCKING OUT OF MUD, SAND, OR SNOW. Depress accelerator slightly, hold steady and make quick, alternate selections of "L" (LOW) and "R" (REVERSE) ranges.

PROLONGED IDLING. Select "P" or "N" positions.

HOLDING CAR ON GRADE. By slightly depressing the accelerator pedal with the selector lever in the "D" position, it is possible to hold the car

from moving backward when stopping on slight upgrades. This practice, however, is not recommended on steep grades or for an extended length of time.

PUSH STARTING. Turn ignition on, depress and release accelerator, place selector lever in "N". Push car; between 20 and 30 M.P.H., move lever to "D" or "L". Do not tow car to start engine — **your car may overtake towing car.**

TOWING. Should be done with lever in "N" position. **Car should not be towed in excess of 30 M.P.H.** If transmission has not been operating properly, disconnect propeller shaft at rear universal joint.

TRANSMISSION OVERDRIVE

OPERATION

Push in the Overdrive control knob at any car speed. Release the accelerator pedal momentarily at any speed above 22 miles per hour and the shift to Overdrive is completed.

When slowing down the shift will be made back to high gear automatically at 18 miles per hour.

If it is desired to revert to high gear above 18 miles per hour for rapid acceleration, depress the accelerator pedal fully. When the desired car speed is reached release the accelerator pedal and Overdrive will again become engaged.

When Overdrive and free-wheeling is not desired, as in heavy traffic, on icy or slippery pavements or on steep grades, simply pull the Overdrive control knob out while the car is standing or moving at less than 18 miles per hour. If a clicking sound is heard after pulling the knob out, depress the accelerator pedal slightly to bring the engine speed up to the car speed and the shift will be completed.

When driving at speeds above 22 miles per hour it is necessary to depress the accelerator pedal fully to revert to direct drive and then pull out the control knob.

MOUNTAIN DRIVING

If steep grades are anticipated it is recommended that the Overdrive be locked out, both for better hill climbing while ascending and more braking effect from the engine while descending.

NOTE: If additional braking is needed, shift gear shift lever to second or low gear.

PUSHING OR TOWING

Before starting engine by pushing or towing on cars with Overdrive, pull Overdrive Control Knob all the way out.

FUEL ECONOMY

The engine of your Hudson car is designed to give good performance and economy with regular grades of gasoline.

Premium grades of fuel, which have a higher octane rating, permit the use of a more advanced spark timing without knock or "pinging". This will result in improved performance and economy, however, these extra advantages cannot be obtained from this type of fuel unless the spark timing is advanced. Avoid the use of fuels which tend to gum up quickly as they materially affect the operation of the engine.

There are many factors that affect gasoline mileage, such as car speed, road conditions, wind velocity, temperature changes, heavy traffic and frequent stops. All of these conditions have a direct bearing on the gasoline mileage your car can give.

Here are a few suggestions to improve your gas mileage:

1. Warm up the engine by letting it idle for a few minutes when starting. (Especially important in cold weather.)
2. Accelerate slowly and avoid racing the engine.
3. Do not drive in low or second speed gears unnecessarily.
4. By maintaining as nearly a steady speed as possible in traffic, you will do less gear shifting and apply brakes less frequently.
5. Avoid sudden and unnecessary stops. Allow engine to slow down car.
6. Keep tires inflated to the recommended pressure.
7. Do not idle the engine longer than necessary. Turn off the ignition while waiting at the curb or when delayed at railroad crossings.
8. Use engine oil of the proper viscosity.
9. Keep your car properly lubricated.
10. Have the engine of your car tuned by an Authorized Hudson Dealer each 5,000 miles. He will check its operation and make any necessary adjustments, including ignition timing, contact points, spark plugs, valve adjustment and other important details which have a direct bearing on operating economy.

CARBURETOR AIR CLEANERS

THE OIL WETTED type air cleaner is used as standard equipment on all models. In this type cleaner, the wire gauze is oil-soaked and as the air passes through it, foreign particles are removed.

THE OIL BATH type air cleaner is available as an option or may be installed by your Authorized Hudson Dealer. In this unit, dirt is washed out of the air by the oil spray created as the incoming air strikes the oil in the cleaner sump.

Both types of air cleaners should be serviced at 2,000 mile intervals or oftener under extremely dusty conditions as follows:

OIL BATH TYPE
(Single Carburetor)

Figure 14

1. Loosen long clamp screw (B) at base (Figure 14), lift up and take off cleaner.
2. Remove wing nut (A) at top of cleaner, take out upper section and wash filter element in kerosene. Do not oil.
3. Remove old oil, wash out cleaner base and refill to level indicated with one pint of S.A.E. 50 oil at temperatures above 32 degrees and S.A.E. 20 oil at temperatures below 32 degrees.

CAUTION: Do not fill above level mark.

4. Install upper section of cleaner and tighten wing nut.
5. Install cleaner, tighten screw moderately tight.

(Twin Carburetors)

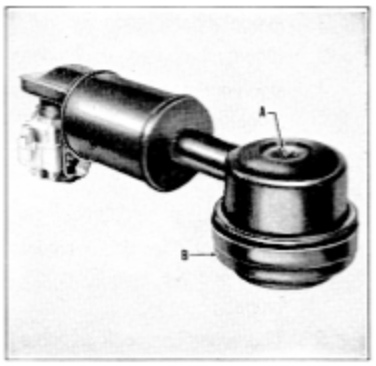

Figure 15

1. Unscrew wing bolt (A) while holding lower Section (B) (Figure 15), remove lower Section (B).
2. Lift out filter element, clean in gasoline and drain.
3. Remove old oil from lower section, wash out dirt and grease and refill to level indicated with one pint of S.A.E. 50 oil at temperatures above 32 degrees and S.A.E. 20 oil at temperatures below 32 degrees.

CAUTION: Do not fill above level mark.

4. Place filter element and container in position without oiling and install lower section of cleaner with the dirt shield facing the front of the car.
5. Install and tighten wing bolt.

OIL WETTED TYPE
(Single Carburetor)

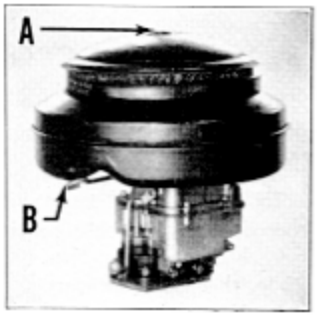

Figure 16

1. Remove wing nut (A) at top of cleaner (Figure 16) and lift off gauze unit.
2. Remove old oil and dirt by dipping the gauze unit in kerosene. Blow it dry and re-oil by dipping in engine oil, using the same grade as used in the engine.
3. Permit excess oil to drain off and reinstall unit in cleaners.

(Twin Carburetors)

1. Remove wing nut (A) and lift off cover (B) (Figure 17) and remove gauze unit (C).
2. Clean by dipping gauze unit in kerosene. Blow it dry and re-oil by dipping in engine oil, using the same grade as used in the engine.
3. Permit excess oil to drain off and reinstall unit in cleaner.

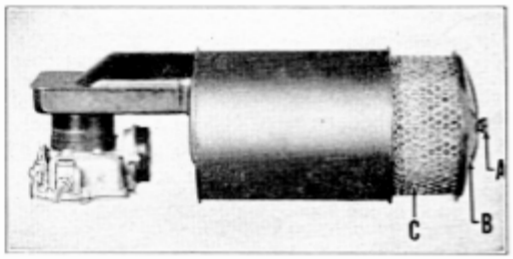

Figure 17

FUEL PUMP

The fuel pump (Figure 18) is of the mechanically operated diaphragm type. Continued use of contaminated fuels may require removal of the pump for disassembly and cleaning.

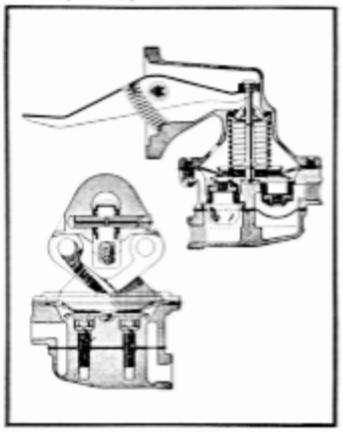

Figure 18

COMBINATION FUEL AND VACUUM PUMP

The vacuum section of the combination fuel and vacuum pump acts as a vacuum booster for the windshield wiper. The vacuum diaphragm operates only when manifold vacuum is insufficient for wiper operation.

The pump is provided with a screen which should be cleaned every 2000 miles by removing the lower cap screw (A) and bowl (B), (Figure 19). Before replacing screen (C) and bowl gasket (D), carefully examine them and renew if necessary.

The air filter screen (G) should also be cleaned at 2000 mile intervals. This is accomplished by removing top cover screw (E) and cover (F). Before replacing the screen and cover, carefully examine screen (G) and gasket (H) and renew if necessary.

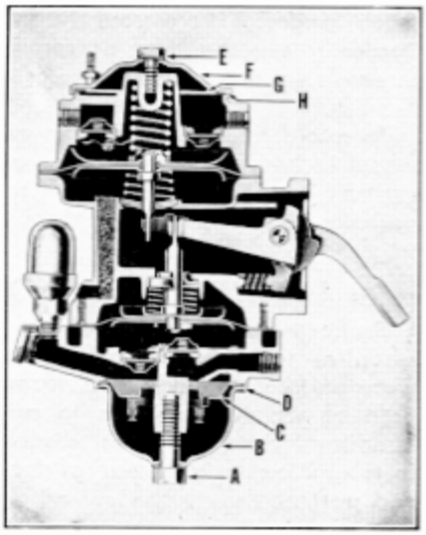

Figure 19

TIRE CARE

Maintaining proper tire pressures is the most important factor in obtaining maximum tire life, proper car handling and best riding qualities. Accurate pressure checks can be made only when the tires are cold (after car has been standing several hours).

Correct tire pressures are:

Size	Front	Rear
7.10 x 15	26 pounds cold	24 pounds cold
7.60 x 15	26 pounds cold	24 pounds cold

Too much pressure will cause tires to wear too fast in the center of the tread and makes it easier to break or bruise. Under inflation will cause rapid wear of the outer edges of the tread and increases rolling resistance of the car.

Air pressure of all tires, including the spare should be checked at least once a week. On long trips or if the car is driven extensively, they should be checked every morning before starting out. The normal increase in pressures due to high temperature will build-up to about five pounds above "cold" pressure. Never reduce (bleed) built-up pressure in a tire. The tire is designed to protect itself by building up a safe pressure of a few pounds after it is run. This avoids excessive sidewall flexing and heat — both of which are detrimental to a tire.

Avoid curb scraping, maintain correct tire inflation pressures. Avoid excessive speeds on curves, unnecessary braking and spinning of the wheels on fast starts.

The tire valve cap should be finger tight to prevent loss of air and to prevent dirt getting into the valve. Replace missing valve caps promptly.

ROTATION OF TIRES

Tires should be rotated every 3000 to 4000 miles; they will last much longer. Have your Hudson Dealer rotate the tires at regular intervals, and add many miles of tire life.

To avoid having more than one wheel jacked up at a time, always start by installing the spare wheel and tire first, then follow through as shown in Figure 20.

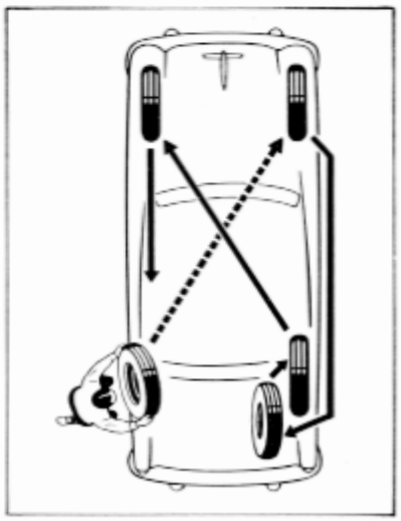

Figure 20

TIRE AND WHEEL BALANCE

Proper tire and wheel balance is essential to prevent undue tire wear and high speed wheel tramp, both of which contribute to poor handling, certain riding discomforts and excessive wear of front end parts.

Although tires and wheels are balanced when they leave the factory, subsequent tire wear causes them to go out of balance. To maintain proper balance and assist in prolonging tire life, it is recommended that the wheel and tire assemblies be checked for balance every 3000 to 4000 miles and whenever a tire is repaired or recapped. Your Authorized Hudson Dealer has the necessary equipment to perform this work.

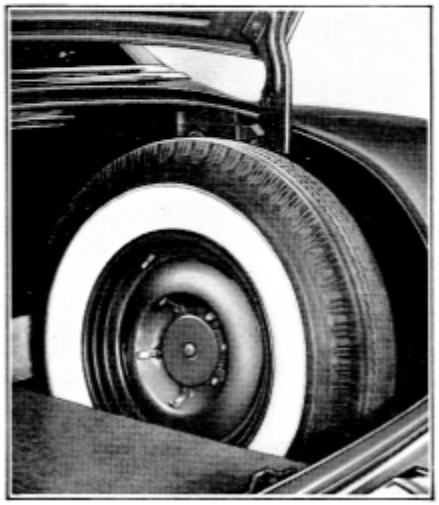

Figure 21

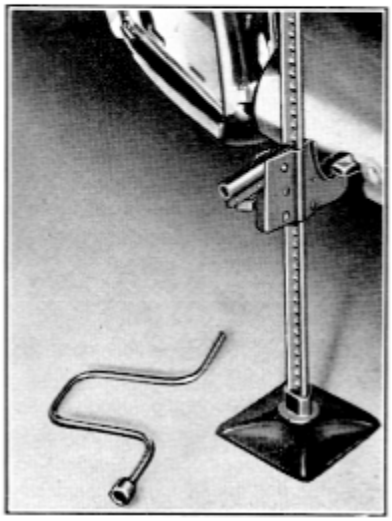

Figure 22

CHANGING THE WHEEL AND TIRE

Remove the spare tire and wheel from the rear compartment by taking out the clamp bolt and plate, using the wheel hub bolt wrench.

Set the parking brake securely and block the wheel opposite the one being changed to prevent any movement of the car. Set the jack base on a level and solid footing and engage the lifting lug of the jack in the socket of the frame pad as shown in Figures 22 and 23. The small lever located at the left side of the jack should be up when raising the car and down when lowering the car. Use the wheel bolt wrench to operate the jack.

When removing a rear wheel, take off the wheel cover, by raising up the loop at each end until it is clear of its hook as shown in Figure 24.

Before raising the car, remove the hub cap with a screw driver and loosen the hub bolts one turn using the wheel bolt wrench.

Raise the car, turn wheel until

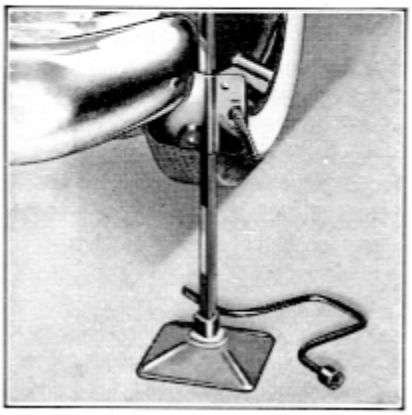

Figure 23

pilot stud is at top, remove all wheel hub bolts and wheel and tire.

Install wheel with pilot stud in the top position, then slide the wheel onto the hub using the pilot stud as a guide. Install and tighten wheel bolts finger tight then lower car so that the tire just contacts the road surface. This will keep the wheel from turning during final tightening with the wheel hub bolt wrench. After tightening the hub bolts, replace hub cap, lower car and place spare tire in rear compartment.

Figure 24

COOLING SYSTEM

RADIATOR CAP—All models are equipped with a pressure type radiator filler cap which is designed to maintain a 7 lb. pressure in the cooling system. This cap should be in place and always turned down tightly to maintain correct pressure.

CAUTION: When removing the filler cap while the engine is hot, place a piece of cloth over the cap and turn the cap ¼ turn counter-clockwise until the stop is reached. Keep the cap in this position until all pressure is released, then turn the cap fully to the left (counter-clockwise) and remove.

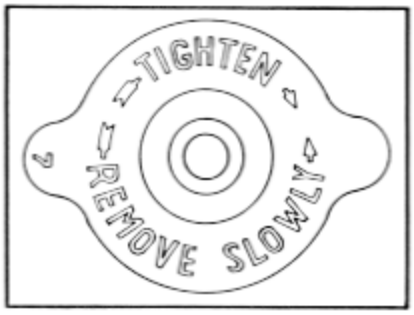

Figure 25

DRAINING — To drain the radiator, raise the hood, turn the handle of the drain cock located at the lower right rear corner of the radiator, counter-clockwise. To completely drain the cooling system, also remove the pipe plug located at the left rear corner of the cylinder block.

NOTE: If it is necessary to save the coolant when draining, place a piece of hose over the drain cock and the loose end of the hose in a container.

FILLING — Proper care of the cooling system is highly essential to maintain efficient engine operation. Rust and scale in the cylinder block is a natural product of water and iron. When filling the cooling system, use clean water and Hudson Rust and Corrosion Inhibitor. Never pour cold water or anti-freeze into the radiator when the engine

is overheated. Always allow engine to cool to normal operating temperature.

In the fall before adding anti-freeze and in the spring after draining, the use of Hudson Rust and Corrosion Inhibitor (omit if anti-freeze contains an inhibitor) will assist in a great measure to prevent corrosion and scale which tend to clog the passages. The cooling system capacity is 18½ quarts. Cars equipped with Weather-Control require one additional quart. Maintain coolant level 1½" below top of filler neck, measured when hot.

ANTI-FREEZE — Always drain and flush the cooling system to insure unrestricted circulation before installing anti-freeze. Also carefully check all hoses and gaskets for leaks or signs of deterioration.

Do not use anti-freeze solution containing calcium, salt, or other ingredients which promote electrolytic action. Glucose and honey clog the radiator; kerosene and fuel oil when hot, expel inflammable vapors. **DO NOT mix permanent and alcohol base anti-freeze solution.** Hudson Approved Anti-Freeze is available in both types.

To maintain maximum protection against corrosion, drain and discard the anti-freeze solution after one winter's use. Anti-freeze inhibitors are continually depleted by use and will eventually reach a corrosive condition.

Have the coolant solution tested frequently to avoid a freeze-up. In climates where anti-freeze solutions are not required, flush the cooling system at least twice a year and add Hudson Rust and Corrosion Inhibitor everytime the cooling system is drained and refilled.

Protection Temperature	Hudson Anti-Freeze Qts.	Methanol Qts.	Ethylene Glycol (Prestone or Equivalent) Qts.
+10	5	4	4¾
0	6¾	5¼	6¼
—10	8	6¼	7
—20	9	7¼	8
—30	11	8¼	9

FAN BELT

The fan belt is of the "V" type and drives the water pump and generator through the vibration dampener pulley.

The belt is adjustable by means of a swinging generator mounting. Moving the generator away from the engine increases the belt tension, while moving it towards the engine decreases its tension. Belt adjustment is correct when it is possible to depress the belt approximately ¾", as shown at "C" in the illustration, (Figure 27).

Adjustment is made by loosening cap screws and nuts (D), (E) and (F), Figure 26). When proper position has been obtained, be sure to tighten screws and nuts securely.

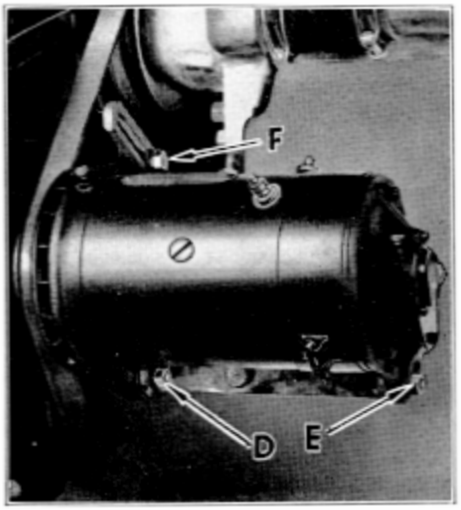

Figure 26

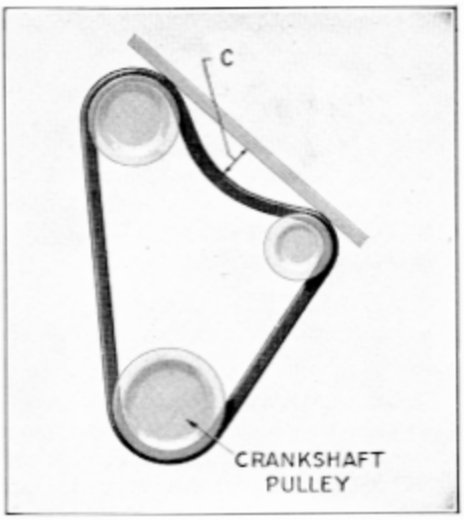

Figure 27

ELECTRICAL SYSTEM

BATTERY — The battery is located in the front left corner of the engine compartment and is held in its carrier by a metal frame and holddown bolts. It is easily accessible for servicing by raising the hood.

The service you receive from your battery depends on the care it is given. The battery should be kept clean and dry. Keep terminal connections tight and free from corrosion. Be sure the battery is properly secured in the carrier. If corrosion is present around the terminals, wash the affected parts with a baking soda solution and then rinse off with clean water.

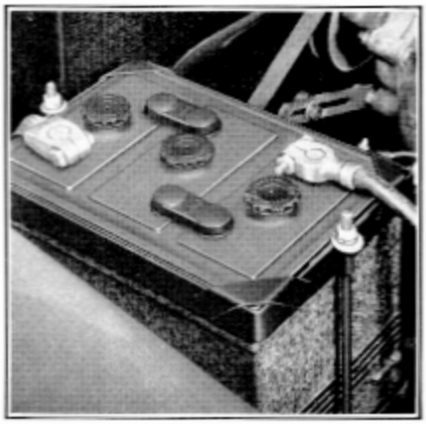

Figure 28

Low water level causes the plates to dry out resulting in premature battery failure. Keep the cells filled to the square by adding distilled water. Check level at least once a week. Have your battery checked at frequent intervals by your Hudson Dealer to insure best performance.

NOTE: Winter driving conditions create a heavier demand on the battery. When adding water in cold weather, do so immediately before driving the car or run the engine for a short time to insure that the water mixes properly with the battery solution. Unless this precaution is taken, freezing of the battery may result.

CAUTION: Storage batteries emit hydrogen gas which is highly inflammable during and after normal operation of the car. To prevent the possibility of fire or explosion, never permit an electric spark or open flame near the battery.

HEADLAMPS — Hudson cars use "Sealed Beam" headlamps. In the event the unit burns out or is accidentally damaged, the entire sealed unit can be easily removed as follows:

1. Remove the headlamp rim by taking out the attaching screw.
2. Take out three screws (B) and (D) and remove the retaining ring. DO NOT disturb the aiming screws (A) and (C).
3. Remove the "Sealed Beam" unit by removing headlamp plug.
4. Install a new unit in reverse order of removal.

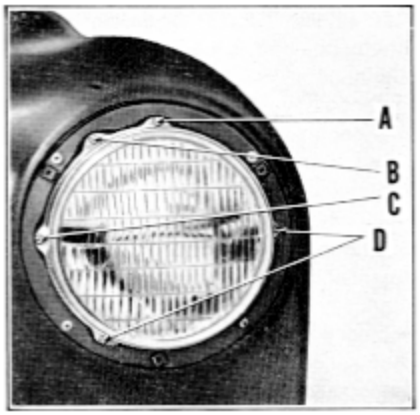

Figure 29

HEADLAMP AIMING — To obtain the maximum results in road illumination and the safety that has been built into the headlighting equipment, the headlamps must be properly aimed. Have them checked periodically by your Hudson Dealer.

LAMP BULB CHART

	Mazda No.	Candle Power	Base
Headlight (Sealed Beam Type)	4030	45/35W	3 Prong
Ornament Light	55	2	Single
Parking Light with Direction Indicator	1154	21/3	Double
Tail and Stop Light	1154	21/3	Double
License Light	63	3	Single
Dome Light—Front	87	15	Single
Rear Quarter Lights (2)	81	6	Single
Clock	55	2	Single
Speedometer	55	2	Single
Instrument Cluster	55	2	Single
Direction Indicator	55	2	Single
Radio	44	2	Single
Hydra-Matic Shift Indicator	51	1	Single
Headlight Beam Indicator	55	2	Single
Ignition Lock	55	2	Single
Courtesy Light	87	15	Single
Fog Light—Sealed Beam	4015	Sealed	3 Prong
Spot Light—Sealed Beam	4535	Sealed	3 Prong
Parking Light	63	3	Single
Generator and Oil Indicator	55	2	Single
Back-Up Light	1133	32	Single

CIRCUIT BREAKERS AND FUSES — A circuit breaker incorporated in the lighting switch and an auxiliary circuit breaker mounted on the instrument panel brace protects the lighting and other circuits against damage in the event of a short or other derangement in the electrical

system. Separate fuses are also employed for the protection of optional equipment and accessory items, as follows:

The Electric Clock — 3 ampere fuse contained in the fuse case located at the back of the clock.

Weather-Control — 14 ampere fuse located in a fuse case on the left side of the heater housing or on cross brace.

Radio — 14 ampere fuse contained in the fuse case on left side of radio.

Overdrive Circuit — 30 ampere fuse located on Overdrive relay.

Direction Indicator — 14 ampere fuse located in a fuse case incorporated in the flasher unit lead wire.

CLUTCH

The only attention required is lubrication and a periodic check of the clutch pedal clearance. Pedal clearance should be maintained at 1½".

Every 5,000 miles the clutch should be drained and refilled with Hudsonite Clutch Compound, which is produced in the Hudson Engineering Laboratories and is available through all Authorized Hudson Dealers. The exclusive use of this compound is your assurance of obtaining smooth even clutch action.

REAR AXLE

The rear axle is the semi-floating type employing hypoid gears.

Special equipment is necessary to properly service this unit; therefore, any adjustments or repairs required should be referred to your Authorized Hudson Dealer.

BRAKE SYSTEM

BRAKES — Patented Double-Safe Hydraulic Brakes employing a reserve mechanical system operating from the same brake pedal, are used.

If at any time, the hydraulic system should fail due to an accident or some other cause, continued pressure on the foot pedal picks up the mechanical reserve linkage and applies the brakes mechanically at the rear wheels. Have your Authorized Hudson Dealer check your brakes periodically.

POWER BRAKES

Power brakes are available as optional equipment at extra cost on the Hornet, Super Wasp and Wasp Models. The power braking system utilizes engine vacuum for its operation and requires only light foot pressure and short pedal travel. Vacuum supplied by a reserve vacuum tank will assist in making up to 3 brake applications should the engine stall. After the vacuum is exhausted, further stops are made by hydraulic application alone. **This, however, requires greatly increased pedal pressure.**

BRAKE FLUID — Numerous rubber parts are used in the hydraulic system which makes necessary the use of brake fluids that are entirely

free from mineral oil and other ingredients that are harmful to the rubber and may cause swelling and early deterioration.

In addition, the brake fluid must be able to withstand without boiling, the higher temperature to which it is subjected on cars with power brakes.

Wagner No. 21B brake fluid meets those requirements and should be used exclusively when adding or replacing fluid. Maintain the fluid level not lower than ¼" below the bottom of the master cylinder reservoir filler opening.

MAINTAINING PROPER FRONT END ALIGNMENT — To prolong tire life and assure easy car handling and maximum safety, it is essential that proper front end alignment be maintained.

Unintentionally striking the curb a severe blow when turning, parking, or skidding may not cause enough damage to make it visible to the eye, but will be reflected in the handling of the car at high speeds or in abnormal tire wear.

Accurate gauges and carefully calibrated equipment are necessary to check and correct alignment. Therefore, it is suggested that any service requirements be referred to your Authorized Hudson Dealer who is best qualified to do this type of work.

POWER STEERING

Power steering is available as optional equipment at extra cost on the Hornet, Super Wasp and Wasp Models. Power steering greatly reduces the effort required in parking and steering, since the hydraulic power mechanism does most of the work. Full mechanical steering control is retained in the event of power failure. The fluid reservoir mounted on the engine should be checked at regular lubrication periods and approved Type A Automatic Transmission Fluid added if necessary to maintain the correct level.

LUBRICATION

The varying load demands and operating conditions which the various parts are subjected to calls for different types of lubricants to minimize friction and reduce wear.

Your Authorized Hudson Dealer has the correct factory lubrication instructions and his trained mechanics are your assurance that your Hudson car will be properly and carefully lubricated.

Additional information regarding lubrication requirements are given in the Lubrication Chart attached to the back cover of this manual.

ENGINE OIL

Select oils from the well-known brands and of the proper viscosity to suit your seasonal and driving requirements.

The oil refiners or marketers supplying oils are responsible for the quality of their product and their reputation is the car owner's assurance of receiving high-grade lubricants.

It is most important that the oil should have the ability to flow at low temperatures to permit easy starting and at the same time, afford adequate lubrication when the engine is at normal operating temperatures. The oil selected should be based on its ability to perform these two functions at the lowest anticipated temperatures expected before the next oil change period. The following table will be helpful in making this selection.

FOR	USE
90° Average Temperature	S.A.E. 30
32° Minimum Temperature	S.A.E. 20
10° Minimum Temperature	20W
—10° Minimum Temperature	10W
Below —10° Temperature, 5W. or (10W. plus 10% Kerosene)	

Your Authorized Hudson Dealer, who has had long experience with the brands of oil available in your locality, will be glad to help you with your lubrication problems.

ENGINE OIL LEVEL — The level should be checked each time you purchase gasoline. The oil level gauge is located on the left side of the engine.

For normal operation, the oil level is satisfactory when it is within the "Oil Level Range". For high speed operation, the level should be maintained near the full mark. (Top line on the "Oil Level Range").

To make an accurate check, it is best to wait a minute or two after shutting off the engine to permit the oil to drain back into the reservoir (oil pan). Oil is added through the oil filler opening by removing the filler cap.

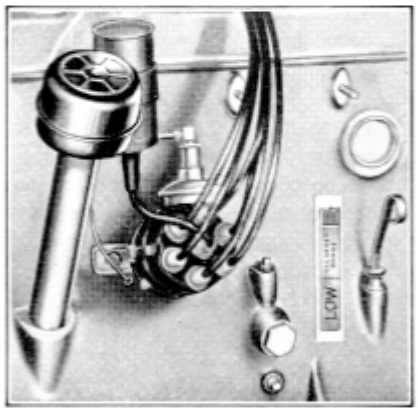

Figure 30

WHEN TO CHANGE ENGINE OIL — The oil which is placed in the engine at the factory should be drained and replaced after the first 500 miles of operation.

Thereafter, at intervals of 2,000 miles, the reservoir should be drained and refilled with new oil of good quality. If the car is operated constantly in dusty areas or for short distances at low speeds during cold weather, which permits foreign matter and sludge to accumulate, it should be changed more frequently. However, the actual change period is largely dependent on the individual driving circumstances.

NOTE: Darkening or discoloration of oil does not always mean that it is unsatisfactory. But evidence of dilution or dirt is a good indication that the oil should be changed and the filter cartridge should be replaced. The use of flushing oil or compounds is not recommended.

CAUTION: The use of flushing oil or compounds is not recommended. However, in the event they are used, it will be necessary to remove the oil reservoir and have it thoroughly cleaned out before installing new oil.

ENGINE OIL CAPACITIES — The total engine oil capacity is 7½ quarts. When the oil is drained in the conventional manner, the refilling quantity is 7 quarts.

Approximately three and one-half quarts of oil are required to bring the level from the "Low" to "Full" mark.

BREAK-IN OIL — Should the use of so called "break-in" oils or special compounds for breaking in new engines be decided upon, make sure the supplier guarantees that they contain no harmful ingredients.

LUBRICATION SCHEDULE

The lubricants placed in your car at the time of assembly are of the best quality and need not be changed until the recommended change period shown in the Lubrication Schedule has been reached.

AT 500 MILES

Drain engine oil reservoir and refill with new oil of good quality. See "Engine Oil" — Page 29.

EVERY 1,000 MILES

VISCOUS CHASSIS LUBRICANT

Drag Link	2	Center Steering Arm Pivot Bearing	1
Upper Support Arm Eccentric Bushing	2	Tie Rod End	4
Upper Support Arm Pivot Bushing	4	Steering Spindle Pivot Pins	2
Lower Support Arm Pivot Bushing	4	Clutch Pedal Bearing	1
Lower Support Arm Support Bushing	2	Clutch Throwout Bearing	1
		Universal Joint Splines	1
		Rear Spring Shackle Bushing	4

ENGINE OIL

Engine	Check Oil Level	Rear Compartment Door Lock	1
Door Handle Button	2 or 4	Hood Hinges	8
Door Hinge	4 or 8	Windshield Wiper Pulleys	4
Gasoline Tank Filler Door Hinge and Spring	3		

WATER RESISTANT LUBRICANT

Windshield Cables at Pulleys	4	Rear Compartment Door Latch and Striker	1
Door Check Arms	2 or 4	Hood Prop	2
Courtesy Light Switch	2 or 4	Hood Upper Lock	1
Door Lock Bolt and Slide	2 or 4	Hood Lower Lock	1
Door Striker	2 or 4	Hood Lower Lock and Control Wire	2
Rear Compartment Door Hinge	2		

E. P. GEAR LUBRICANT—S.A.E. 80 WINTER, S.A.E. 90 SUMMER

Transmission	Check Level	Steering Gear	Check Level
Overdrive	Check Level		

HYDRA-MATIC DRIVE FLUID

Hydra-Matic Drive Transmission ..... Check Level

MULTI-PURPOSE GEAR LUBRICANT—S.A.E. 90

Rear Axle ..... Check Level

GEAR OIL—S.A.E. 140

Universal Joint Needle Rollers ..... 3 Points

DISTILLED WATER

Check Battery Electrolyte Level and Gravity.

WATER OR ANTI-FREEZE

Check Coolant Level and Anti-Freeze Strength.

HYDRAULIC BRAKE FLUID

Check Brake Master Cylinder Fluid Level.

EVERY 2,000 MILES

Perform operations included in 1,000 mile lubrication, in addition to the following:

ENGINE OIL

Engine—Drain Oil Reservoir and refill.
See "Engine Oil," Page 29.
Generator . . . . . 2 Points
Distributor . . . . . 4 Points
Air Cleaner—Standard—Wash and re-oil.
Air Cleaner—Oil Bath—
Remove, wash and add new oil.
Oil Filler Pipe Cap—Wash and re-oil.
Throttle Operating Linkage . . . . . All Joints
Brake Operating Linkage . . . . . All Joints
Remote Control Oiler . . . . . 1 Point

EVERY 5,000 MILES

Perform operations included in 1,000 and 2,000 mile lubrications, in addition to the following:

Oil Filter . . . . . Clean and Renew Cartridge

HUDSONITE CLUTCH COMPOUND

Clutch . . . . . Drain and Refill

E. P. GEAR LUBRICANT—S.A.E. 80 WINTER, S.A.E. 90 SUMMER

Transmission . . . . . Drain and Refill
Overdrive . . . . . Drain and Refill

VISCOUS CHASSIS LUBRICANT

Brake Cables . . . . . Clean and Lubricate

EVERY 10,000 MILES

Perform operations included in 1,000 mile, 2,000 mile and 5,000 mile lubrications, in addition to the following:

MULTI PURPOSE GEAR LUBRICANT—S.A.E. 90

Rear Axle . . . . . Drain and Refill

IMPORTANT: When checking the level of the lubricant in the rear axle and transmission, make sure that the lubricant has stopped foaming. If the car has been run for a considerable length of time, it should be permitted to stand long enough to allow the oil to reach the true level before checking.

SODIUM SOAP BASE LUBRICANT

Front Wheel Bearings . . . . . Remove, Clean and Repack
Rear Wheel Bearings . . . . . Remove, Clean and Repack

EVERY 25,000 MILES

HYDRA-MATIC DRIVE FLUID

Hydra-Matic Drive Transmission . . . . . Drain and Refill

CONVERTIBLE BROUGHAM TOP

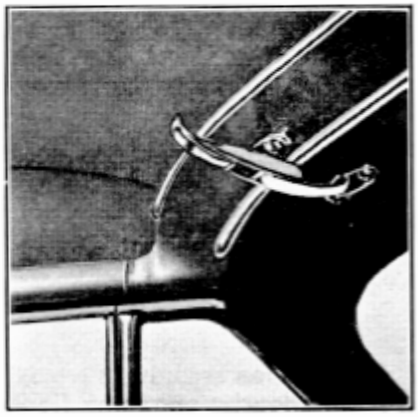

Figure 31

Power operation of the top is controlled by a knob located under the instrument panel to the left of the steering column as indicated by arrow (Figure 31).

TO LOWER TOP:

CAUTION: Never lower or raise the top while car is in motion.

1. Stop car. Turn radio antenna to the horizontal position.
2. Release clamps at windshield header, Figure 31.
3. Raise top slightly by hand to make sure release clamps are free of windshield header and pull out the top control knob at the instrument panel, until top is fully lowered. The top can be lowered with the door and quarter windows in either the up or down position. The rear window may also be in either up or down position.
4. Tuck in surplus material at sides and install top boot over top compartment.

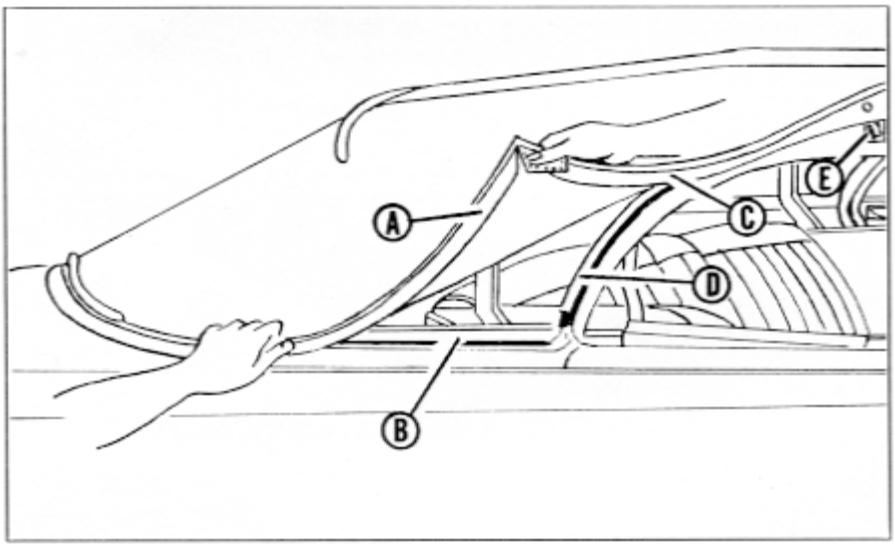

Figure 32

TO RAISE TOP:

1. Stop car. Turn radio antenna to horizontal position.
2. Remove top boot.
3. Push the top control knob in until top is fully raised.
4. Pull down top header over windshield and attach and fasten clamps at each side.
5. With top secured at windshield header, fasten the side quarters of the top by engaging flap (A) under channel (B), Figure 32, starting at the rear end. Continuing forward, enter flap (C) under

curved channel (D) and work upward until flap is in place for its full length.

6. Engage the fasteners (E) in the slides on the bow above the door windows.

CARE AND CLEANING OF TOP — To insure the top mechanism remaining in good condition, the top should be operated at least once a month.

The hydraulic pump, electrically driven, mounted behind the rear seat, should be checked twice a year and fluid added as necessary. Use only Hudson Hydraulic Brake Fluid for this purpose.

Brushing the top with an upholstery brush or a stiff whisk broom every time it is raised is a good practice.

Soiled fabric can be cleaned with lukewarm water and mild soap.

Top fabric that is frayed, faded and in a leaky condition can be renovated and waterproofed by applying Hudson Top Dye. Your Authorized Hudson Dealer is equipped to do this for you.

POWER OPERATED WINDOWS — The electrically operated hydraulic pump also furnishes power for raising and lowering the door and quarter windows. Each window is operated by a hydraulic cylinder arrangement and may be raised or lowered to any position by its own control button (Figure 33). Buttons located at each window are operated by pressing down to lower and up to raise the windows. Windows can be stopped at any desired height.

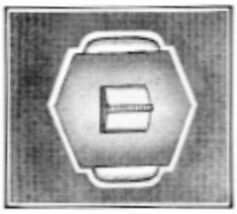

Figure 33

A group of 4 control buttons (Figure 34) is mounted on the left door which permits the driver to operate all windows from a position convenient to the left hand. Counting from the front, buttons Nos. 1 and 2 control the left and right door windows respectively, while buttons Nos. 3 and 4 operate the left and right quarter windows.

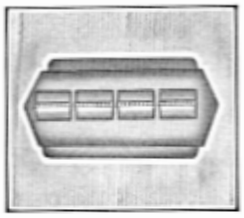

Figure 34

HUDSON WEATHER CONTROL

The Hudson Weather-Control is a combined ventilating and heating unit. Fresh air is brought through the cowl ventilator and is directed through the fins of the heater core and heater case into the driver and passenger compartment (Figure 35).

The temperature control is automatic and once set to the desired temperature, requires infrequent adjustment. A thermostat automatically opens the control valve wide until the selected temperature in the car is reached, then closes as required to maintain that temperature.

COLD WEATHER DRIVING

1. Open the cowl ventilator as soon as "TEMP" (Temperature) gauge hand begins to move to the right.

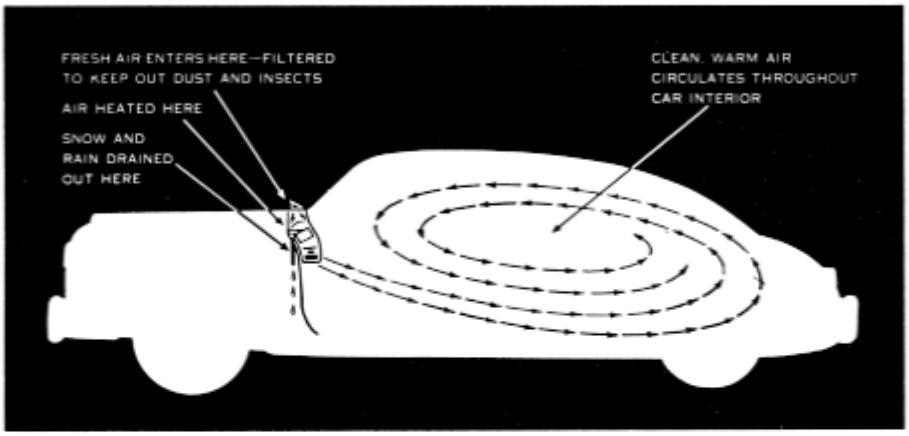

Figure 35

2. Move Temperature-Control lever, Figure 36, to the right to increase heat and to the left to decrease heat.
3. If the car is standing or being driven at slow or intermittent traffic speed, turn on the blower control switch to assist the circulation of the air through the car and to defrost the windshield.
4. If fogging or frosting of the windshield and windows occurs when passengers enter a cold car, turn the blower control switch to the first position clockwise until cleared.

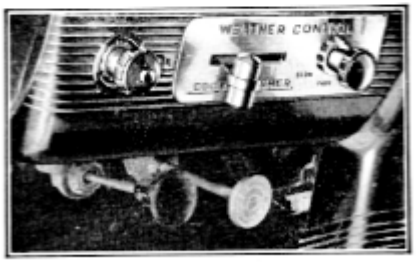

Figure 36

5. If snow or rain causes icing of the windshield, turn blower control clockwise to the first position and temperature control to the extreme right (engine at normal operating temperature). If the inside temperature becomes too high, open the front door ventilating wings or lower windows slightly.

NOTE: To obtain maximum efficiency of your Hudson Weather-Control during cold weather driving, the following rules should be observed:

A. The cowl ventilator should be kept fully open, after the engine warm-up period, except when driving at high speeds in extremely cold weather when partial closing of the ventilator will increase the temperature of the air entering the car. Water or snow entering the cowl ventilator while driving is trapped and drained off, Figure 38.

Figure 37

B. Ventilating wings and windows should be fully closed except as outlined in paragraph 5. Open windows or vent wings cause loss of heat and prevent normal circulation of air and heat in the passenger compartment.

C. A knob (1) located on the left side of the heater case, Figure 37, controls the amount of air directed on the driver's feet. The maximum is obtained when this knob is in the up position.

Figure 38

WARM WEATHER DRIVING

1. Open cowl ventilator fully and push the automatic temperature control lever to the extreme left.
2. At Low Speeds (normal driving) windows and ventilating wings can be opened as desired for additional air circulation.
3. At High Speeds, close windows and ventilating wings for minimum wind noise. Opening the rear quarter wings slightly on sedans will help maintain full air-flow throughout the passenger compartment.
4. When Driving on Dusty Roads, keep the cowl ventilator fully open and keep all windows and ventilating wings closed. This maintains a slight air pressure in the passenger compartment preventing dust from entering.

RADIO

OFF-ON AND VOLUME CONTROL — To turn the receiver on, press in any of the push buttons except the one at the extreme left. This will automatically bring in the station for which the button has been set. To regulate the volume, turn volume control knob (B Figure 39) clockwise or counter-clockwise. To turn off the receiver, press in the button (E) at the extreme left.

TONE CONTROL — The tone control ring (A) is located behind the volume control knob. Rotating this ring clockwise will emphasize the high notes while turning it to the left will bring out the bass notes.

MANUAL TUNING — After the receiver has been turned on by pressing in one of the five push buttons, it may be tuned manually to other stations by turning the manual tuning knob (D). This can be done at any time without disturbing the automatic setting.

AUTOMATIC TUNING — There are five automatic tuning positions, one for each of the five buttons (F) which may be adjusted to the stations desired. If the positions have not been adjusted previously, your Hudson Dealer can do this for you. Details will also be found in the Radio Owner Manual in the glove box.

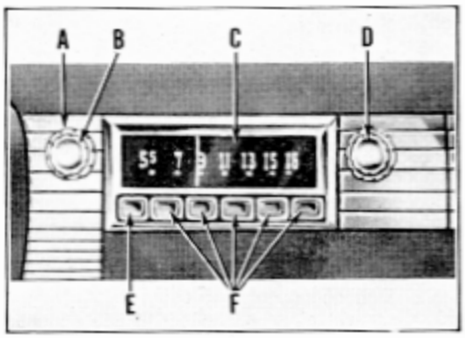

Figure 39

CARE OF THE CAR FINISH

Your car is finished with high grade hand rubbed lacquer and with a reasonable amount of care, it should be possible to maintain its original luster for a long time. Constant exposure to the elements — strong sunlight, dew, rain, snow, salt air and dust, also road grime, tar and calcium chloride will cause the finish to become dull and eventually disintegrate.

If at all possible, it is good practice to park the car in the shade to protect the car finish from direct sunrays.

Sap spots (from parking under trees) have a chemical content which is harmful to the car finish and should be washed off as soon as possible.

WASHING THE CAR — Washing the car should never be done when the car is warm from standing in the sun. Always wait until the metal has cooled off. If the car is muddy or if there are signs of grit or sand particles mixed in the dust on the car, DO NOT wipe the car with a dry or damp cloth as this will cause hair line scratches and damage the finish. Always soak the dirt off with cold water using an ordinary garden hose.

Apply Hudson Hurricane Auto Shampoo, follow instructions on label of container.

POLISHING — If surface dirt is allowed to collect on the finish from lack of regular washing, the finish may look dull even after washing. The use of Hudson Polish and Cleaner may be all that is required to bring back the original luster.

A more durable long lasting, high luster finish can be obtained by cleaning the surface with Hudson Liquid Glaze Cleaner, followed by a Hudson Liquid Glaze Sealer and Hudson Liquid Glaze Color Dress.

Hudson Liquid Glaze Sealer creates a protective coating that will retard oxidation and protect the original finish for a long time.

Hudson Liquid Glaze Color Dress applied after the Cleaner and Sealer will smooth out and harden the sealer and bring out the depth of color, giving a uniform high lustrous finish.

NOTE: The application of the Liquid Glaze treatment should be made by your Hudson Dealer who has the know how and equipment necessary for best results.

CHROMIUM PLATED PARTS — Frequent washing of the car finish and chromium parts will greatly lessen the destructive action of road salt, calcium chloride and the salt air of coastal territories which are all harmful to chromium plated surfaces, causing corrosion and pitting of the chromium finish.

REMOVAL OF RUST FROM CHROMIUM — If rust spots appear on the chrome, steps should be taken to prevent the rust from spreading by treating the spots with Hudson Rust Dissolver and applying Hudson Chromcote to the affected areas. This will retard further oxidation and eventual chromium lifting.

TAR OR ROAD OIL — Tar or road oil can usually be removed without injury to the car finish by using Hudson Tar and Road Oil Remover following instructions on the container label.

CLEANING GLASS — Always wet glass before wiping; cleaning a dirty windshield or other glass when dry will cause minute surface scratches and eventually blur the vision.

Use Hudson Glass Cleaner and a clean linen cloth for good results.

CLEANING THE UPHOLSTERY

Once a month it is good practice to brush the upholstery with a whisk broom or better still, use the portable attachments usually supplied with most household vacuum cleaners.

AVOID using hot water and soap unless specifically called for. NEVER use gasoline as most brands contain tetraethyl of lead or coloring which is harmful to cloth and it is also highly inflammable.

NOTE: When using Hudson Fabric Cleaner to remove spots, use it sparingly. Just dampen a clean cloth or a sponge with the fluid and select an area slightly larger than the soiled portion and rub from outside in toward the center in successive strokes. This will avoid forming a ring and prevent the spot from spreading.

GREASE SPOTS AND OIL — Scrape off all excess grease with a dull knife. Moisten a cloth or sponge with Hudson Fabric Cleaner and rub spot as directed on container.

CHEWING GUM AND TAR — First moisten lightly with Hudson Fabric Cleaner then scrape off with a dull knife while it is still moist.

CANDY (Except Chocolate) — Moisten a clean cloth in very hot water, rinse out and rub lightly. If an oil spot remains after drying, rub it lightly with a cloth moistened with Hudson Fabric Cleaner. (See Note).

CHOCOLATE CANDY — Sponge lightly with LUKEWARM water. After drying, rub lightly with a cloth moistened with Hudson Fabric Cleaner. (See Note).

ICE CREAM — Sponge lightly with LUKEWARM soapsuds, using a neutral soap. Rinse with cold water and allow to dry. If an oil spot remains, rub it lightly with a cloth dampened with Hudson Fabric Cleaner. (See Note).

BLOOD — Sponge lightly with COLD water. Apply a few drops of household ammonia, then sponge again with COLD water.

CAUTION: Never use warm water or soap and water as it will set the stain and make it practically impossible to remove.

FRUIT AND WINE — Rub lightly with a cloth moistened with warm water. Allow it to dry, then rub lightly with a cloth moistened with Hudson Fabric Cleaner. (See Note).

CAUTION: Soap or heat applied to a fruit or wine stain will cause it to set.

COSMETICS — Lipstick and creams may be removed by applying a few drops of Hudson Fabric Cleaner to the stain and absorbing it quickly with a blotter. Repeat as necessary until the spot is removed.

SHOE POLISH — Black and tan polish can be removed by rubbing it with a cloth moistened with Hudson Fabric Cleaner.

White polish can usually be removed by brushing with a whisk broom. If this does not remove it, moisten the spot with cold water, let it dry, then brush it again.

URINE — Sponge the spot lightly with a cloth dipped in lukewarm soapsuds (Neutral Soap) and then rinse well with a clean cloth rinsed in cold water. Next rub the spot with a clean cloth moistened in a solution of one part of household ammonia and five parts of water. After a minute, rinse it off with a clean moist cloth.

DOG AND CAT HAIR — Gather the hair together by rubbing the upholstery with a stiff sponge dampened with water. The hair can then be easily picked off.

RUST SPOTS — Clean these spots by sponging with a cloth moistened with lukewarm soapsuds. (Neutral Soap).

LEATHER AND VINYL PLASTICS — Clean with lukewarm water and any mild soap, such as Castile. Work up a thin suds on a piece of cheese-cloth and rub over surface. Wipe off the surface the second time, using a piece of cheese-cloth dampened with water. Finish by wiping with a dry cloth.

CAUTION: DO NOT use furniture polish or volatile cleaner on leather.

SPECIFICATIONS

HUDSON WASP SERIES — 4D

Model	Starting Serial Number	No. of Cyls.	Bore	Stroke	A.M.A. H.P. Rating	Wheel-base	Weight Pounds
Club Sedan (two-door)	269060	6	3 9/16"	3 7/8"	30.4	119"	3375
Four-Door Sedan	and	6	3 9/16"	3 7/8"	30.4	119"	3440
Club Coupe	up	6	3 9/16"	3 7/8"	30.4	119"	3360

HUDSON SUPER WASP SERIES — 5D

Club Sedan (two-door)	269060	6	3 9/16"	4 3/8"	30.4	119"	3490
Four-Door Sedan	and	6	3 9/16"	4 3/8"	30.4	119"	3525
Club Coupe	up	6	3 9/16"	4 3/8"	30.4	119"	3475
Hollywood (Hardtop)		6	3 9/16"	4 3/8"	30.4	119"	3570

HUDSON HORNET SERIES — 7D

Four-Door Sedan	269060	6	3 13/16"	4 1/2"	34.88	124"	3620
Club Coupe	and	6	3 13/16"	4 1/2"	34.88	124"	3570
Hollywood (Hardtop)	up	6	3 13/16"	4 1/2"	34.88	124"	3655
Convertible Brougham		6	3 13/16"	4 1/2"	34.88	124"	3800

The car model designation and the car serial number which is the same as the engine number, are stamped on a metal plate attached to the right front door hinge pillar post. Cars are numbered in consecutive order regardless of model.

Code numbers indicating color of the paint and the color and kind of trim are also stamped on the metal plate attached to the right front door body hinge post.

SPECIFICATIONS—(Continued)

The engine number is stamped vertically on the right side of the cylinder block at the upper front end.

Overall Length Including Bumpers	Model 4D	201½"
	Model 5D	203"
	Model 7D	208"
Overall Width	Model 4D	77½"
	Models 5D & 7D	77⅝"
Overall Height	All Models	60⅞"
Road Clearance	All Models	8⅛"

Turning Radius	Right	Left
Models 4D, 5D	20' - 9"	20' - 3"
Model 7D	21' - 11"	20' - 3½"

Tires	Wheels
Size 7.10 x 15, 4 Ply.	Size 5.00 x 15
7.60 x 15, 4 Ply.	5.50 x 15

Battery Make	All Models	National — 6 Volt
Plates and Capacity	All Models	51 — 100 Amps.
Distributor Contact Point Gap	All Models	.020"
Timing	All Models	T.D.C.
Firing Order	All Models	1-5-3-6-2-4
Spark Plugs	Wasp and Super Wasp	Champion — H-10
	Hornet Models	Champion — H-11
Gap	All Models	.032"

CAPACITIES

	U. S.	Imperial	Metric
Cooling System	18½ Quarts*	15¼ Quarts	17¾ Liters
Gasoline Tank	20 Gallons	16-2/3 Gallons	75¾ Liters
Engine Oil — Dry All Models	7½ Quarts	6½ Quarts	7 Liters
Engine Oil — Refill All Models	7 Quarts	6 Quarts	6½ Liters
Clutch	1/3 Pint	¼ Pint	160 C.C.
Transmission — Standard	2¼ Pints	2 Pints	1.02 Kgs.
Transmission and Overdrive	3½ Pints	3 Pints	1.6 Kgs.
Transmission — Automatic	11 Quarts	8-4/5 Quarts	10-2/5 Liters
Rear Axle	3 Pints	2-2/5 Pints	1.36 Kgs.

*With Heater — 19½ Quarts.

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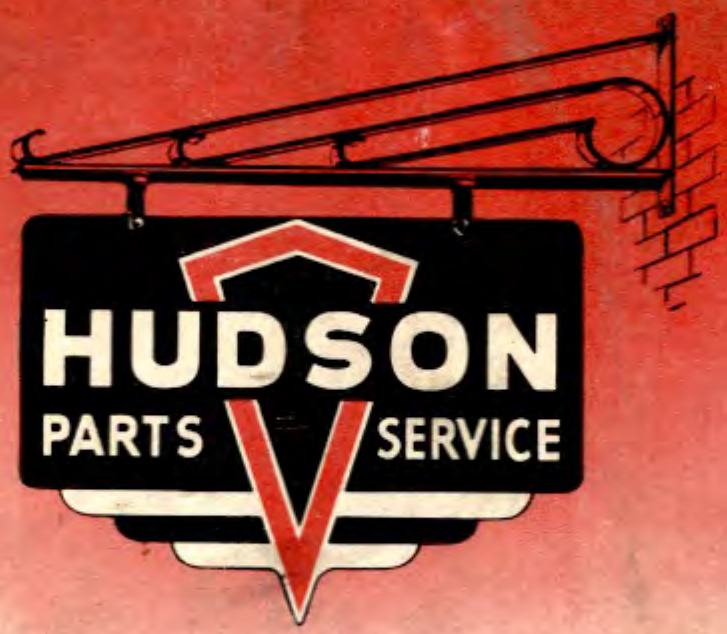

HUDSON PROTECTIVE SERVICE FOR COMPLETE MOTORING SATISFACTION

Whenever you need operating and maintenance information, or your car requires mechanical attention, always go to your Hudson dealer or distributor.

There, and only there, your car will be given exclusive *Hudson Protective Service*—factory-engineered service that will keep it young in looks and youthful in operation.

For complete motoring satisfaction, stop at the familiar Hudson TRIANGLE—the sign of a specialized organization staffed, stocked and equipped to take care of your entire motoring needs in a most prompt, efficient and economical manner.

HUDSON MOTOR CAR COMPANY
Detroit 15, Mich., U.S.A.