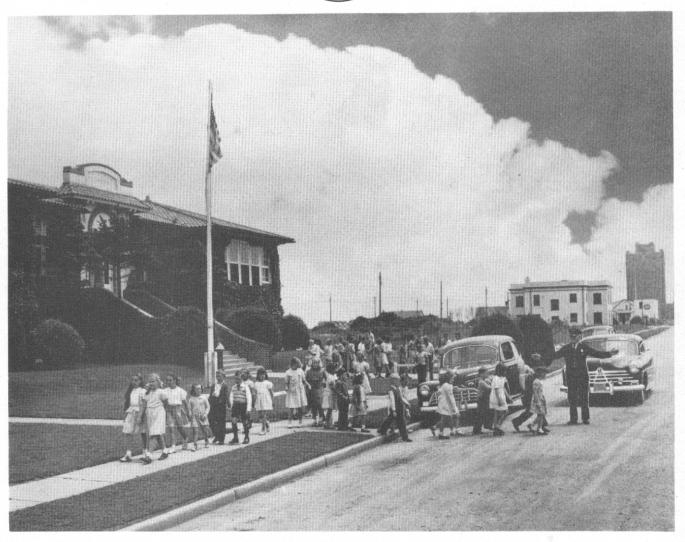
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VOLUME 2, NO. 9

SEPTEMBER 1950



SAVE A LIFE - IT MAY BE YOURS

September—back to school for millions of children crossing streets of every city and village throughout the nation.

In cooperation with the National Safety Council—clubs, organizations, Police Departments and through the medium of posters, an all out effort is being made to instill the thought of SAFETY in the minds of all.

We in the automotive field can contribute to National safety by urging our car owners to have a safety check-up—as brakes, steering, lights, etc.

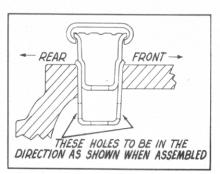
LET'S ALL DRIVE CAREFULLY AND SAFELY

HUDSON MOTOR CAR COMPANY. DETROIT 14, MICHIGAN

TRANSMISSION CASE BREATHER

Sealed units as the transmission and rear axle must have an open atmospheric vent so as to relieve any pressure within the unit, due to expansion, resulting from car operation summer or winter.

In any case where there is evidence of loss of lubricant from the transmission the first and least expensive check is to see that the transmission breather is properly installed and that the top is free to rotate.



The breather should be installed so that the holes in the body are fore and aft—or one of the holes directly toward the rear—and driven into the transmission sufficiently far so that these holes completely clear

the wall or thickness of the case as shown in the illustration. The top being free to rotate prevents the breather from becoming obstructed.

OIL FILLER TUBES AND CAPS

The Oil Filler Tube and Cap play an important part in cleaning the air that enters the crankcase for ventilation.

The 480 and 490 six cylinder engines are fitted with a tube and cap as shown in the illustration at left below. A notch in the Cap and a groove in the tube are for the purpose assuring proper position of the Cap air inlet (to the rear) when installed.





Recently released and in production on 503 and 504 engines is an Oil Filler Tube and Cap illustrated at right, Part Numbers 303984 and 303982 respectively replacing the oil filler cap part 301256. This oil filler tube and cap may be installed on eight cylinder engines of the 480 and 490 Series thus improving crankcase ventilation.

The breather cap should be washed in kerosene, blown dry with compressed air and saturated with oil every 2000 miles. When operating in extremely dusty areas the breather cap should be cleaned as frequently as may be necessary to avoid becoming obstructed.

20 QUESTIONS FOR THE PAINT SHOP

The following questions and answers on Lacquer Thinners should be of interest to every Hudson Paint Shop (Taken from Paint Reporter by Ditzler).

- 1. What are the principal components of a lacquer thinner?
- A. Solvents, latent solvents and diluents (pronounced as though spelled with two L's).
 - 2. What is a solvent?
- A. A solvent is a liquid capable of dissolving something; that is, causing it to pass into a solution. For instance, water is a solvent for sugar but gasoline is not.
- 3. What is a latent solvent?
- A. A latent solvent is a material that when used alone is not a good solvent but when added to a good solvent makes the good solvent better.
- 4. What is a diluent?
- A. A diluent is a liquid that makes more liquid of the materials to which it is added. In other words, it thins or dilutes. Diluents in lacquer thinners also serve as resin solvents.
- 5. How many materials are available for making lacquer thinners?
- A. There are a hundred or more but only about forty are in common use.
- 6. Why isn't a lacquer thinner all solvent and no diluent or non-solvent?
- A. Strange as it may seem it is possible to make better and more economical lacquer thinners from blends of all three types of materials than from a single solvent. Also too much solvent would cause abnormal swelling of sand scratches. Diluents are needed for blending resins.
- 7. What type of lacquer thinner formulation is apt to cause poor adhesion?
- A. One that evaporates very fast or one which has very poor solvency.
 - 8. What makes a lacquer blush?
- A. Rapid cooling due to fast evaporation causes moisture to condense in the film in the form of minute droplets of water.
- 9. How can this be avoided?
- A. By adding a retarder, or slower evaporating solvent to the thinner.

- 10. Can thinners cause a color to go off-shade?
- A. A very fast thinner can cause a polychromatic lacquer to appear light and a very slow thinner can cause it to appear dark.
- 11. When undercoats or color coats check and crack what is most likely the cause?
- A. When cracking or checking occurs immediately after spraying it can be attributed to either improper surface preparation or the use of a thinner that is extremely poor in solvency.
- 12. What in a lacquer thinner contributes to orange peel?
- A. Fast evaporating materials are the most common contributors to orange peel.
- 13. What effect does a lacquer thinner have on lustre?
- A. Lacquer thinner can have a very pronounced effect on lustre. A well-balanced lacquer thinner will permit the lacquer to flow out to a smooth surface. A poorly formulated thinner can have the opposite effect.
- 14. What is die-back?
- A. Die-back is caused most generally by the evaporation of very slow materials in the film after it has been sanded and polished. The shrinkage caused by this slow evaporation after polishing brings about a dull appearance to the film. Dieback can also result from polishing too soon after spraying.
- 15. Is there any quick way of telling a good lacquer thinner from a poor one?
- A. Reduce a good lacquer according to directions and flow it out on a glass window pane (in vertical position). Ridges in the film will denote poor flow. If the day is humid, blushing will show if a poor thinner is used.
- 16. How much thinner should be used in a lacquer?
- A. Use the amount of thinner specified on the label and measure both lacquer and thinner.
- 17. Why is a cheap thinner often less economical to use than a higher priced one?
- A. The cost of materials is usually about 25% of the cost of the job-75% is for labor. To reduce the over-all cost the most effective way is to reduce the labor. Poorly formulated thinners resulting in poor flow-out raise the labor charges by requiring more hand work. Properly formulated thinners will reduce the labor charges by considerably more than their extra cost.

- 18. Should left-over thinned material be poured back into the original can of color?
- A. No, for two reasons; first, because it will promote settling in the can. Secondly, because it changes the amount of reduction required for good spraying. Better put it in another can and marked it "thinned" or "reduced."
- 19. Will one type of thinner serve every purpose in a shop?
- A. No.
- 20. How many kinds of lacquer thinner should a shop have on hand?
- A. At least four as follows:
 - (a) a medium speed thinner for undercoats, touch-up and polychromatic jobs.
 - (b) a high gloss type thinner for over-all jobs and spotting on enamels.
 - (c) a non-penetrating type for use over "touchy" old finishes.
 - (d) a retarder or reflow type for adjusting thinner (a) to very hot humid weather.

SECOND AND HIGH SHIFT RAIL AND LOCK BALL SPRING

In order to assure a more positive seating of the lock ball in the high gear position a slight change was made in the depth and location of the Shift Rail detent. At the same time the Lock Ball Spring tension was increased slightly.

This Shift Rail part number 303832 and Lock Ball Spring 303847 have superceded parts 301356 and 41151 respectively. The new parts should be used preferably when overhauling a transmission that may have shown some inclination of disengaging gears while in operation.

This change began in production at Car Number 500-26338—All Models less Overdrive, Drive Master or Super Matic Drive.

FROM THE FIELD

Reports indicate that the Minneapolis-Milwaukee area have put plenty of punch and emphasis on their Parts and Service Managers Club meetings.

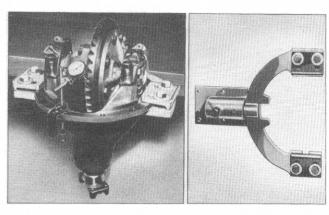
Copies of their plans for future meetings that have reached our office, point clearly to carefully prearranged programs for meetings—with props and all. These club meetings can not help but hold the interest of all those engaged in Hudson service and parts activities.

We take this opportunity of again congratulating one and all of you men out there who lead and carry on this splendid work.

THIS ONE SHOULD BE IN EVERY HUDSON REPAIR SHOP

Each and every working day, Special Tools are saving thousands of hours of labor in the automotive maintenance field. There is perhaps no better exemplification of the slogan "A better service tool for a better job," than is to be found in J945—Differential Carrier Holding and Assembling Fixture, illustrated below.

Everyone with mechanical experience who has tried to overhaul a Differential Carrier will agree it is most elusive of any unit or assembly—like trying to hold a wild cat. Not at all unusual to hear a mechanic call out—"Bill come over and hold this differential for me will you." Some mechanics do place the flange of the carrier in a vise in an effort to hold it. This is not only liable to spring or break the flange but is also extremely dangerous.



This otherwise two-man job is simplified for one mechanic with the use of Differential Carrier Holding and Assembling Fixture—J945. Bolted to a workbench it provides a sturdy yet simple and quick method of holding the Differential carrier in a convenient position for making adjustment or repairs.

The yoke section of the fixture can be turned and locked securely in any desired position that may facilitate the mechanical work. This fixture is adaptable to all Differential Carriers of Hudson cars 1942 to 1950 inclusive. It is an investment that pays for itself over and over in the time saved by its use.

INSTRUCTIONS FOR INSTALLING REAR WINDOW REVEAL MOULDINGS ON MODELS 502 AND 504 COMMODORE SEDANS AND BROUGHAMS

Material Required

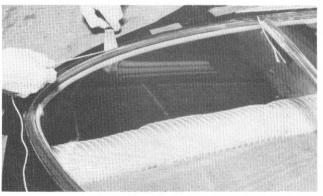
1-Part No. C-220266 Moulding RH

1-Part No. C-220267 Moulding LH

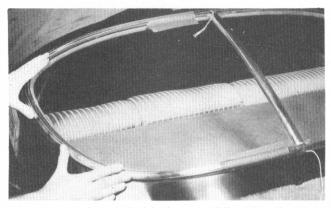
2-Part No. BO-148622 Joint Covers

In preparation for installing the mouldings, procure a stout piece of cord (Mason's line) about 12 inches longer than necessary to encircle one half of the window. Lubricate the cord thoroughly with paraffin, beeswax or Hudson Ruglyde Rubber Lubricant Part No. H.S. 166605.

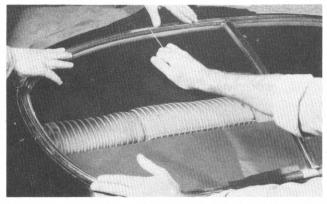
Pry up outer lip of rubber weatherstrip using a tool similar to a screwdriver blade made of fibre (to prevent damage to paint) Start at top of center bar and continue on around one-half of window to bottom of center bar, leaving sufficient cord at each end to provide a good hold for pulling release cord. See Figure 1.



Before installing the moulding, place a joint cover on each end, fit the moulding as close as possible to the contour of window weatherstrip and place a piece of masking tape on the moulding to glass at either end to retain moulding in its approximate position. See Fig. 2.



Have an assistant hold the moulding in place on the side of window and press the moulding down and in toward glass while pulling cord slowly at right angles to the moulding, to release rubber lip of weatherstrip and allow lip to settle into moulding recess. See Fig. 3.



Before the cord is pulled from the weatherstrip, it is advisable to keep a firm pressure on the moulding with the fingers, following approximately two inches behind the point where the cord is releasing the lip.



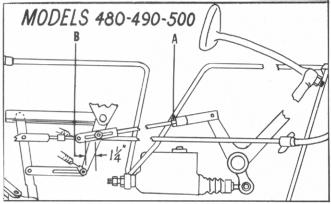
Only Genuine Hudson Engineered Parts Assure Complete Customer Satisfaction

HUDSON DOUBLE SAFE HYDRAULIC BRAKES

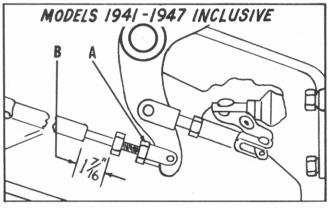
One of the exclusive Hudson safety factors for many years has been a brake design that brings the mechanical brake into operation when the brake pedal has been depressed beyond the point where the hydraulic brakes become effective.

In order that this mechanical follow up become effective properly when the brake pedal has reached a pre-determined point, it is necessary that the mechanic who makes the final brake adjustment know definitely where to check and what the proper adjustment should be.

When the brakes are relined or taken up (at which time the hand brake should always be reset) the mechanical safety follow up clearance should be carefully checked and the necessary correction made very accurately.



It will be noted that the adjustment for mechanical brake engagement shown in the sketch above and below differ somewhat due mainly to the change in design of various models. Adjust at A to obtain clearance at B.



When the clearance at the point of "take up" as shown in above sketches is accurately made and should the hydraulic brakes for any reason become inoperative the mechanical brakes will function in a normal manner as the brake pedal movement and pressure are continued downward.

All mechanics who have to do with brake work should understand how to make this adjustment properly. Complete instructions will be found in the Hudson Procedure Manuals.

INTERESTING GASOLINE COMBUSTION FACTS

(From a Bulletin issued by National Automotive Service Department A.A.A.)

"The leanest mixture of gasoline and air which will fire is twenty-two parts air and one part gasoline by weight. The richest mixture of gasoline and air which will fire is seven parts air and one part gasoline by weight. The chemically correct mixture is fifteen parts air and one part gasoline by weight."

"A gallon weighs six pounds and a cubic foot of air weighs .075 pounds. Using the chemically correct mixture, one pound of gasoline will fire two hundred cubic feet of air and one gallon of gasoline will fire twelve hundred cubic feet of air which is the equivalent of nine thousand gallons of air."

Based upon the above facts one can work their imagination as to the volume of air consumed by the engine in the use of 20 gallons of gasoline or approximately all that is contained in a room 50x50-10 feet in height.

The interesting fact in connection with the above is that the correct mixture is the most economical and produces top engine performance. Mixtures too lean or too rich are both wasteful and injurious to an engine. How can we determine the proper mixture—the answer is—by the use of the combustion analizer and electrical tachometer.

FLAT RATE CHANGES AND ADDITIONS

Please make the following notations in your flat rate manual so that it may be brought up to date until the revised edition is ready for distribution.

Cooling Section:

Radiator Sealing Kit (Outlined in June Merchandiser)—Time .7.

Electrical Section:

Delete item 13-28 and use only 13-29 Spark Plug installation.

Clutch Section:

Item 5-5 should read: Clutch assembly-overh	aul.
All Models, Std. trans	5.6
Without Drivemaster	6.2
With Drivemaster and Overdrive	6.4

Accessories Section:

ENGINE REPAINT

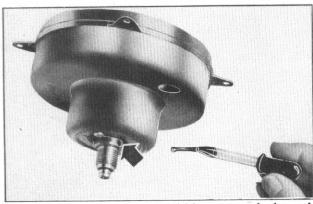
The standard Flat Rate time allowed for an engine repaint as mounted in car is—

- 1 hour-for engine without Drivemaster.
- 1½ hours-for engine with Drivemaster.

SPEEDOMETER LUBRICATION

Perhaps the most neglected point about the car from a standpoint of lubrication, is the speedometer. This may be accounted for by the fact that the point of applying lubricant cannot be easily seen and is not as accessable as most other points about the car.

There is an oil hole and wick provided on the 480-490 and 500 series speedometer, just behind the head, for lubricating the pinion shaft to which the drive cable connects. This should be lubricated every 10 thousand miles with a few drops of fine oil equivalent to a S.A.E. 10.



The Speedometer Cable should be removed, cleaned free of all old grease and given a coating of light graphite grease. The cable may be checked for kinks or bends by laying out straight on a clean flat surface.

It is not unusual that after a season or two of operation the speedometer registering hand becomes unsteady or perhaps cable noise develops—both of which may be corrected by lubrication.

The 1942-46 and 47 speedometers may be lubricated only after removal from the instrument board taking out the oil hole plug. This is just another extra service that the Dealer is in a position to assist his owners with that which is not generally known or done outside.

SERVICE AND PARTS MENS CLUB

Now in its fourth year of operation the Service & Parts Men Club with few exceptions is attracting greater interest each month. Frequent letters received at the factory indicate the sincerity and seriousness with which Club Meetings are conducted.

There is no more effective method of establishing uniform field Service policy and practice than is to be had through the Club Meetings. The open discussion of problems—the presentation of new ideas aid in developing service business and opens the way for the men new in the automotive field to readily acquire a thorough knowledge of the various phases of shop and parts operation.

To improve good owner relations, to increase the sale of parts and accessories—are subjects that hold the interest of every Service and Parts Manager. Many plans and methods along this line have been tried and invariably when the subject is discussed someone will come up with a method he has found to prove effective and practical.

Gone forever are those days for Hudson field service and parts men when they operated on their own initiative—hit or miss. Through Hudson Parts and Service Club the council and suggestions based upon practical experience are his—methods that have failed to produce expected results are replaced by those whose test in actual practice have proven successful.

The Service and Parts Mens Club holds out a tried and proven method of acquiring the best in field service operation, of the proper handling of all forms and of avoiding delays. Here is an opportunity that is open to all field Service Men to prepare and equip themselves to do their part in making the service on Hudson cars as good as the car itself.

QUESTIONS AND ANSWERS

Following are the answers to questions that were in the August issue of Service Merchandiser:

- 1. The water passageway openings of the aluminum cylinder head gasket have cadmium plated steel instead of copper ferrules as is standard on gaskets used with the cast iron cylinder head. This to prevent corrosion.
- 2. The recommended tire pressure for 500 Series is 26 lbs. front—24 lbs. rear—cold.
- 3. There is a gradual rise in tire air pressure in proportion to the tire temperature this may be as high as 20%—tires should not be bled or air released to correct pressure when they are hot as this would most surely leave them soft when they cooled to atmospheric temperature.
- 4. The use of new gaskets is always in order when installing spark plugs—new or old so as to obtain gasket compression and a good seal. Tightened too tightly may damage spark plugs—too loose will not permit proper heat transfer.

- 5. All changes in parts affecting their interchangeability and giving car number or engine number where the change occurred. This information imperative to ordering correct parts.
- 6. Uncovered rear springs have rubber liners fitted between the leaves and the application of mineral lubricant would decompose this rubber. They should not be lubricated.
- 7. Pressure type radiator cap should be removed slowly in order to release any pressure and avoid the loss of coolant that might follow sudden opening.

 8. The latest type connecting rod may be disconnected to the connection of the connection of

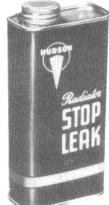
8. The latest type connecting rod may be distinguished from the previous type by the forging number on the "I" beam section of the rod.

- 9. It is a distinct selling advantage for dealers to be in a position to assure Hudson owners that the Anti-freeze which he has to offer them has the approval of the factory engineering department.
- 10. Every year many Service Stations are left at the post or just don't have anti-freeze when owners drive in and call for it—simply because they did not order in time. Only those sell it who have it.

FOR THE NEXT THREE MONTHS . . . IT'S

HOODS UP... for

COOLING SYSTEM CONDITIONING



RADIATOR STOP LEAK HS-165896

Repairs Leaking Radiators Quickly. Mixes with all types of Anti-Freeze and hard or soft water. Simply pour into radiator while engine is running and leaks are stopped instantly.



- ★ SELL Hudson Cooling System Supplies OVER-THE-COUNTER
- ★ SUGGEST A CHECK of Cooling Systems on all cars coming in for SERVICE.
- ★ THEN, TIE IN with Hudson Anti-Freeze, Thermostats, Radiator Hose, Fan Belts and other Cooling System Parts for Volume Profits.



RADIATOR FLUSH HS-166548

Cleans Engine Cooling System the easy and economical way. Loosens rust and scale, dissolves grease and sludge. Prevents troublesome overheating and makes engines run more efficiently.

RUST RESISTOR HS-165923

Protects Cooling System Interior and keps it clean. Provides protective interior coating, retards formation of rust and scale. Be sure to include in the Fall and Winter treatment of every car, bus, tractor and truck.



COOLING SYSTEM CLEANER AND NEUTRALIZER—HS-165922

A Special Shop Item that loosens stubborn accumulated rust and scale and quickly dissolves sludge from engine cooling systems. The Neutralizer insures the system against harmful effects and is especially compounded for use with the Cooling System Cleaner. Gives quick action and best results.

MR. PARTS MANAGER: PLAN YOUR PROGRAM NOW! YOUR ZONE OR DISTRIBUTOR IS READY TO SUPPLY YOU WITH THESE FINE HUDSON APPROVED CHEMICALS. CHECK YOUR STOCK AND "ORDER TODAY FOR TOMORROW"!