

# HUDSON

## *Service Merchandiser*

Dedicated to the interest of



field service, parts and accessory merchandising.

VOL. 3 NO. 2

FEBRUARY 1951



### LOS ANGELES TRAINING SCHOOL FOR HUDSON WITH HYDRA-MATIC DRIVE

Completely equipped with Hydra-Matic Drive Assemblies, Cut Away Models, Charts, Special Tools and Testing Equipment, every Zone and Distributor is fully prepared and are carrying on the work of training Dealer parts and service men in a scheduled 40-hour school course. In charge of Zone school training programme is Joe Wm. Reeves, Zone Parts and Service Manager, standing at right of chart. The very capable School Instructor, Thomas Newell, is standing at left.

HUDSON MOTOR CAR COMPANY.. DETROIT 14, MICHIGAN



### **PARTS AND SERVICE MANAGERS CLUB MEMBERS AND WIVES**

Enjoying a pre-Christmas Party on December 18th, the Cincinnati Council of the Hudson Parts and Service Managers Club and their wives with four Factory Representatives and their wives. We are glad to see this gesture of friendship and cooperation.

### **ABOUT ENGINE OIL**

What is meant by the term "additives" as applied to engine oil? Although neither the mechanic or motorist can do anything about it nevertheless it is well to fully understand the significance of these terms.

Additives have been called the magic molecules of modern motor oil manufacturing. They consist of a whole family of chemical compounds which are added to straight, refined mineral oil or base stock to give the finished motor oil greatly improved qualities of endurance and lubrication.

Some of these qualities are:

**Pour Point**—This is the lowest temperature at which any motor oil will pour. The natural pour point of the base stock is lowered by using an additive. A pour point of 20° below zero (F) is considered very good.

**Detergency—Dispersancy**—Detergency is the washing or cleansing ability of an oil. Dispersancy is the ability of the oil to hold dirt in suspension after it is washed free. Both these qualities are increased by the use of additives.

**Viscosity Index (V.I.)**—This is a measure of the rate at which an oil thins out when hot and thickens when cold. The higher the V.I. the slower the rate of change. When this rating was first adopted the finest oil was rated 100. Today an additive makes it possible to improve viscosity index to 125 and higher. High V.I. oils remain fluid at low temperatures, keep

a strong protective film when hot and have low consumption characteristics.

**Anti-Oxidation**—This is the ability of a motor oil to resist combining with oxygen. When oil molecules combine with oxygen and the products of combustion they form sludge, carbon and varnish. Chemicals added to increase this resistance are known as inhibitors or anti-oxidants.

A question frequently asked by purchasers of New Hudson Cars is "when should I change oil?" or "what type of oil should I use?" These questions are fully covered in every Owner Manual that accompanied the new Hudson during the past ten years. These are captioned **WHEN TO CHANGE OIL, THE PROPER ENGINE OIL TO USE and TYPES OF OIL.**

It is most important that engine oil should have the characteristic to flow at the lowest atmospheric temperatures that may be experienced where the car is operated. Therefore, a chart is arranged in every Hudson Owner Manual showing SAE viscosity number of oil for various temperature ranges.

The mere term summer or winter oil is not adequate, as winter in the southern latitudes would not necessarily require an oil for low temperature. Keep in mind the fact that an oil body should be selected in accordance with atmospheric temperature. Statistics have shown that a lubrication failure invariably precedes a mechanical failure.

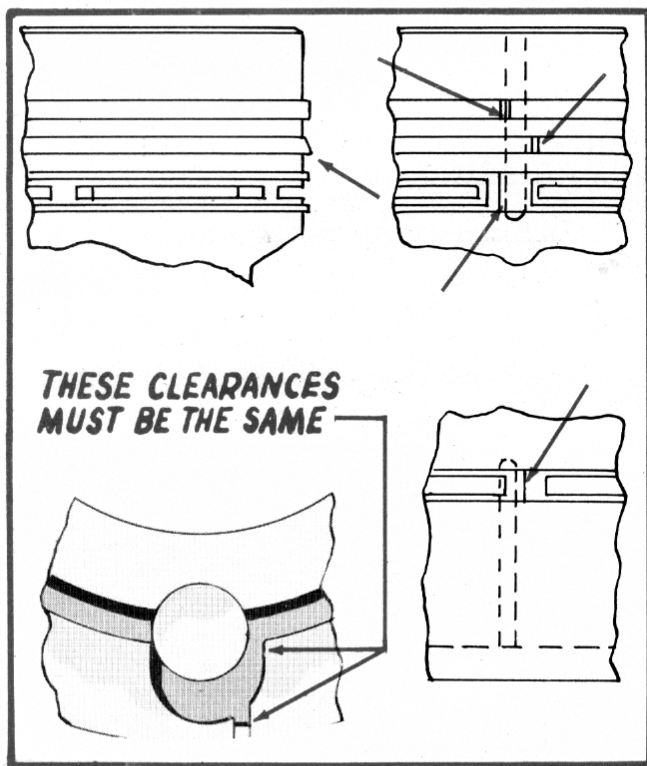
**YOU'VE GOT TO TELL 'EM—TO SELL 'EM!**

**"HOW'S YOUR OIL FILTER?"**



## FITTING PISTON RINGS

The pinned type piston rings, standard in Hudson engines over a long period of time, have proven highly efficient. The proper fitting of these rings is not difficult when it is kept in mind to simply obtain correct side and gap clearance, then assemble the rings on pistons in the proper order so that each ring gap will be on alternate opposite sides of the center line of ring pin.



The ring gap clearance for 6 cylinder engines is .006 to .014; for 8 cylinder engines is .004 to .009. The compression ring land or side clearance for 6 cylinder engines is .002 to .003 and .001 to .002 on oil rings. The 8 cylinder compression ring land or side clearance is .0012 to .0027 and the oil rings .001 to .002. When fitting gap clearance dress off at the point shown in the illustration.

The second compression ring of the 7A is taper faced; therefore, it is important that the rings be installed so that the taper face is not reversed but as shown in illustration with relation to the top of piston. This ring is marked with a "T" or "TOP" indicating position.

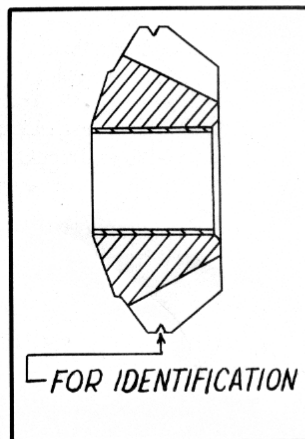
The upper compression ring of the 7A is chrome coated so as to prolong life at a point where heat and wear are most severe. The second ring in addition to being taper faced is tin plated. The upper oil ring is also tin plated and the lower ring is Granoseal treated as are all rings in other Hudson Engines. This surface treatment is for the purpose of increasing wearing qualities, improving cylinder wall lubrication and reduces tendency to scuffing.

Never try to install or remove piston rings without the use of a proper tool for this work, as they may be distorted and ruined. Piston ring removing tools KMO-297-R size  $3\frac{13}{16}$ "; KMO-297-H, size  $3\frac{9}{16}$ " and KMO-297-L, size 3", cover all Hudson Engines and may be procured through Kent-Moore organization, Detroit, Michigan.

## PRODUCTION CHANGES IN REAR AXLE

It will be noted that the drive gear and pinion set are of a black color, noticeable particularly on the polished faces of the teeth due to a phosphate coating that is being applied at this time to the gear and pinion of *all* ratios. This to improve wearing qualities.

A new differential pinion is used with the 3-7/12 to 1 ratio. This pinion gear is exactly the same as the one formerly used with this axle ratio, excepting for a material change and omission of the two oil holes.



This new pinion is identified for Production and Service by a "V" tool mark on the large outer diameter as shown in the illustration. Those Differential Case Assemblies and Carrier Assemblies in which these pinions have been installed are marked with a letter "H" on the small half of the case and a daub of yellow paint on the neck of the Carrier Assembly respectively.

Those Differential pinions of the former type that you may have in stock should be used for replacement on cars with other than the 3-7/12 to 1 ratio until they are exhausted.

THE 1951 MECHANICAL PROCEDURE MANUAL came off the press in December and copies were mailed direct to all Zones and Distributors, Parts and Service Managers, Parts Warehouse Managers and Service Station Agreement Holders.

This 1951 Procedure Manual covers the 1948-49 and 50 mechanical details. The most effective manner of obtaining authentic mechanical information and procedure on the Hudson product is to procure one of these Manuals and apply it in your work.

It is realized that today more than ever before, in order to keep abreast with modern design, it is necessary to read mechanical facts and become fully acquainted with the construction and functioning of the cars that we have to maintain.

We want every Hudson mechanic who is not regularly getting a Service Merchandiser to ASK his Service Manager for one, and if you Mr. Service Manager are not obtaining sufficient copies for ALL your men, do not hesitate to ask your Zone or Distributor for the necessary quantity.

## CLEAN, REFINISH SURFACES NOW MORE IMPORTANT THAN EVER

Perhaps with the first use of paint, varnish lacquer—coloring pigment, enamel, etc. it was known that surface condition—preparedness and cleanliness was necessary for proper adhesion. This is indicated by the fact that painted and lacquered surfaces are in existence that were finished much over one thousand years ago.

From the beginning of the industry, Automobile and Paint Manufacturers have preached the need of removing all foreign substances from surfaces preparatory to painting or repainting. Unless there is a good bond between the new paint and the metal or old paint, the life of the new film may be very short indeed; in fact, it can rapidly separate from the old paint film or metal surface, thus nullifying all the time and material that went into the job.

For instance, we see areas on the tops of fenders, hoods, window reveals or quarter decks where a portion of the new paint has peeled—possibly because someone rubbed his hand over this area to determine the smoothness after the job had the final clean-up and just before the new paint was applied. Human skin is oily, regardless of how well it has been washed. The very light film of oil that is left on a surface after a person has touched it might be enough to destroy the bond between the new paint and the old. Motto—Keep your hands off the surface to be painted after you have given it the final clean-up.

Like the oil from your hands there are many other substances that destroy adhesion between paint films. Some of them may have been there when the job was brought in for painting and others may have been put there by dirty rags or unclean shop conditions. Road scum, chemical fumes, waxes and polishes are some that are on every car. Grease, moisture, dust, shop fumes or smoke are some that the car acquires after it gets into a shop. All of them must be removed and the job of removal must be thorough and complete or some small area that lifts or fails to dry or adhere will ruin an otherwise perfect job.

Of late, more people polish and wax their cars or have this work done by others; probably due to a greater pride of ownership or a sense of economy in trying to make the finish last longer, Old waxes and polishes imbedded in the finish have always been difficult to remove and ordinary solvents, like gasoline, are not strong enough to remove them. The changes in waxes and polishes brought about by the use of the *new silicone resins* and oils has made their removal even more difficult. The very characteristics of the silicones that make the waxes and polishes different are the ones that make them hard to remove.

The widespread use of waxes and polishes containing silicone has brought about the need for more efficient cleaning of any paint surface suspected of having been treated with these substances and a solvent type material designed to effect removal of the waxes and silicone components of the siliconized polishes. The presence of silicone bearing materials is evidenced by the unusual effects obtained when paint

materials are applied over this surface. These consist of crawling of the paint or improper wetting of the surface, craters or fisheyes, poor flow and poor adhesion. If it is suspected that such a material is present on a car which is to be refinished, a thorough cleaning of the surface is in order.

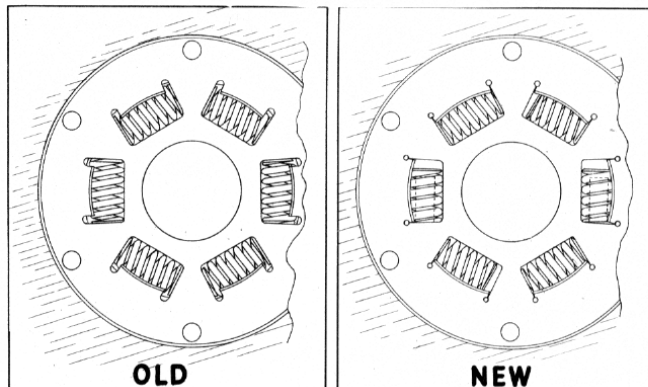
Anyone who has had experience with improperly cleaned jobs bearing a coating of silicone material, however minute, will realize the importance of following a thorough cleaning operation in order to insure a satisfactory and durable paint job. Rags which have been used in effecting the removal of silicone bearing materials should not be reused for any phase of a painting operation as this will only cause further contamination and add to the painter's difficulties.

## CHANGE IN HYDRA-MATIC DRIVE

### TORUS COVER

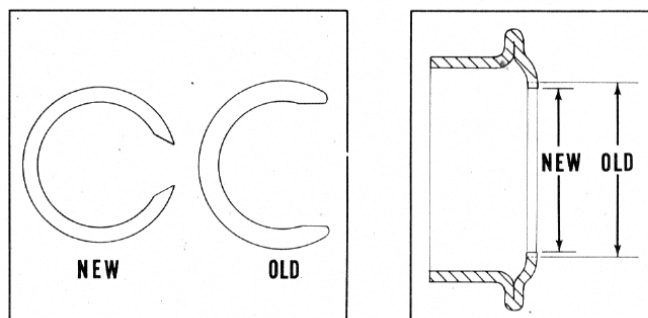
Installed in the first Torus Cover Assemblies, Part Number 304312, were 6 dampener springs, all of which were alike and fitted their enclosure under like tension.

To improve performance this cover was superseded by one Part Number 305259 in which the dampener springs are of three different lengths as shown in the illustration. These Covers are entirely interchangeable on all models having Hydra-Matic Drive.



Only the latest Torus Cover Assembly will be supplied for service as the design and construction has not otherwise been changed. The Dampener Springs are not furnished for service replacement.

**TORUS CHECK VALVE**—The Torus Check Valve, Part Number 304315, has been superseded by Check Valve 305640 to make for quieter operation. Released for use with this Check Valve is a Snap Ring, Part Number 305641, superseding Part 304968 shown in the illustration below.



Use the new Check Valve 305640 for replacement of 304315 by including 305641 Snap Ring.





**Glen S. Potter**  
*Service Manager*

In clear cut outline, Mr. Potter points to a definite Service ideology of proven merit. It is a timely signal that should give rise to action by every progressive Service man.

Servicemen who *are* far-thinking face the facts and realize that service volume will play an **INCREASINGLY IMPORTANT ROLE** in their profit picture in 1951.

These men aren't standing idly by—hoping for business. **THEY ARE GOING AFTER IT!** They have already put into action the best “business insurance” they can get—**HUDSON'S 1951 SERVICE SELLING MAIL CAMPAIGN.**

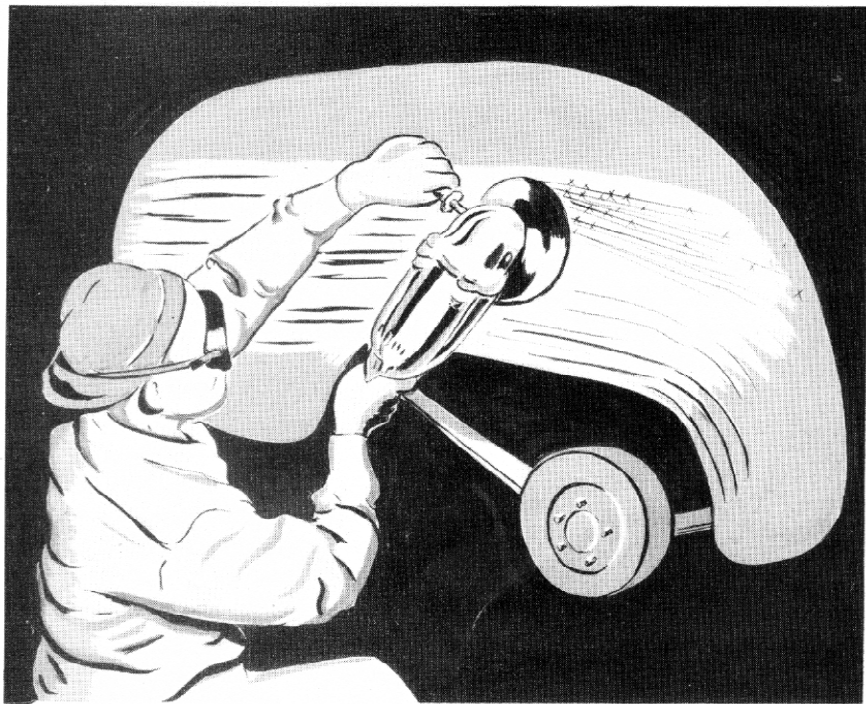
The months to come hold promise of business—lots of it. You can begin right now—**TO INCREASE LABOR AND PARTS SALES—TO BUILD UP SERVICE VOLUME—TO CREATE GOODWILL—TO PROFIT—**by contacting every customer, month after month, with Hudson's hard-hitting service-selling messages.

I have noticed that many service-minded dealers are looking conditions straight in the eye—and have assured themselves a profitable year by expanding their mailing lists to include all new customers.

On the other hand, there are those who, in spite of hard facts, continue to “**REST ON THEIR OARS**”—hoping that service will take care of itself, and that owners will unsolicitedly bring their business to them. **I'll leave it to you. WHICH WILL ESTABLISH A RECORD IN SERVICE VOLUME AND PROFIT IN 1951?**

The **ONLY WAY** to get a big share of Hudson Owner's service work is to go after it! Pull it away from service stations, repair garages and other competitors. It has been proven that Hudson's Service-Selling Mail Campaign will do this for you!

It is significant that many dealers who ordered last year's Mail Campaign—**INCREASE THEIR 1951 ORDER.** Proof that Hudson's Service-Selling Mail Campaign produces **MORE BUSINESS—MORE PROFITS!**



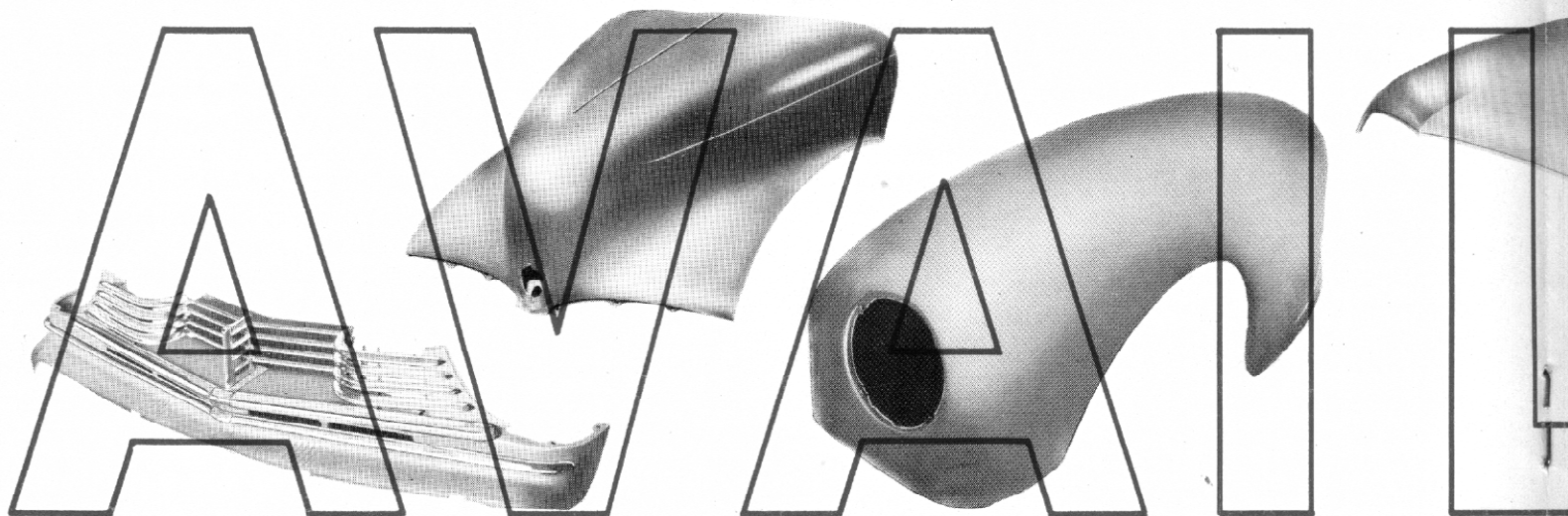
# IN M

THIS TYPE OF REPAIR  
IS LESS COSTLY THAN IF DAMAGED



NEW ASSEMBLIES  
ADDED LABOR AND  
—SUCH AS SOLID  
SANDING, ETC.

## BODY AND SHEET 1947 AND PRIOR



**PARTS MANAGERS:** Increase your parts  
**USED CAR LOTS—**and **GARAGES** in your  
**sheet metal.**



# MOST CASES!

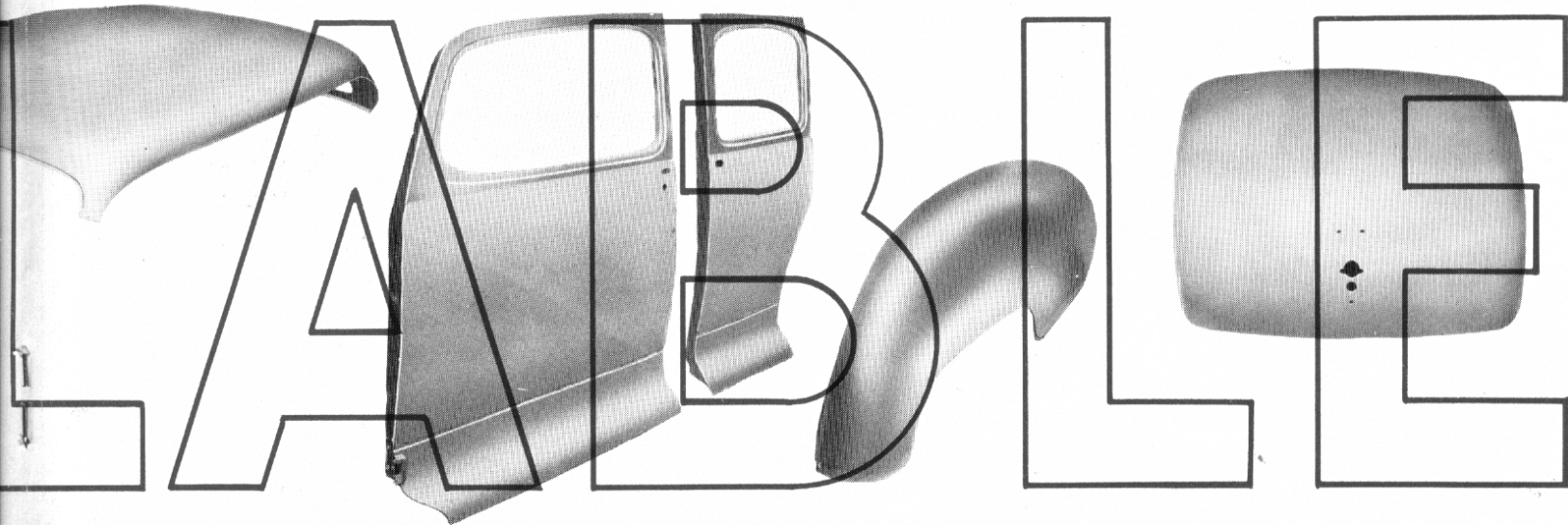
PAIR IS MORE COSTLY TO DEALERS AND OWNERS  
D PARTS WERE REPLACED WITH NEW ASSEMBLIES

IES ELIMINATE THOSE  
AND MATERIAL COSTS  
OLDERING, BUMPING,  
.



NEW ASSEMBLIES ARE PROFITABLE  
. . . AS DEALERS REALIZE PROFITS  
FROM . . . REPLACEMENT PARTS . . .  
LABOR AND CUSTOMER SATISFAC-  
TION.

## METAL PARTS FOR MODELS ARE . . .

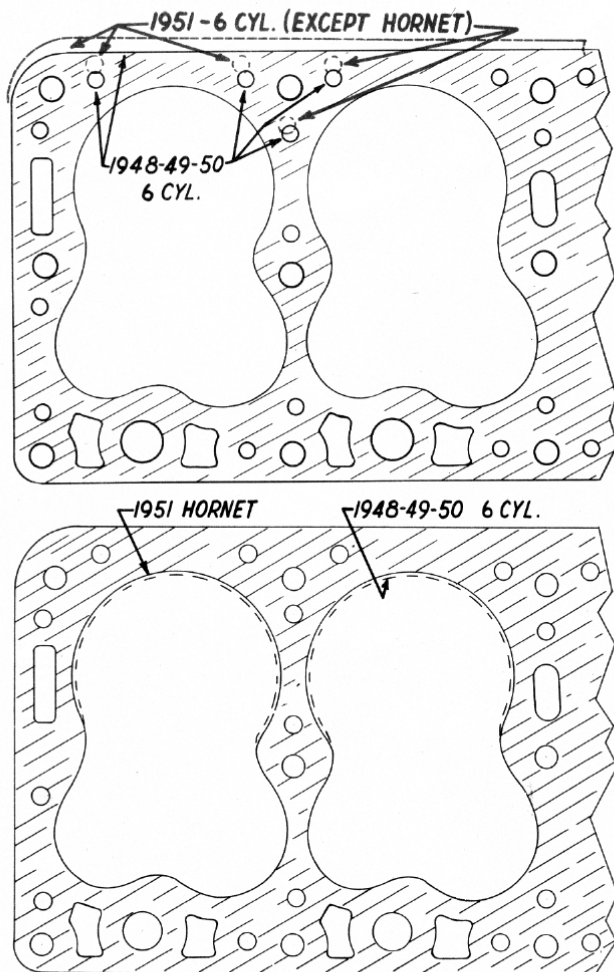


ts volume by informing: BUMP SHOPS—  
our community of the availability of this

## CYLINDER HEAD GASKETS—3-A, 4-A, 5-A, 6-A

As outlined in the January issue of Service Merchandiser, page 152, a change in the position of the drilled water circulating holes in both the cylinder head and block have been made (on left side only) due to an increase in the width of the water jacket. The cored water passageways and the cylinder head studs remain in same relation to the cylinder bores, as heretofore.

The skeleton engine and service replacement blocks for the 480-490 and 500 six cylinder engines are made up from the 4A, 5A and 6A cylinder block by simply drilling the water circulating holes in the proper position to coincide with the water circulating holes of those engines. This will also account for the 1951 casting number on the left side of the replacement block and approximately  $\frac{1}{4}$  of an inch of the cylinder block machined face showing at the left side.



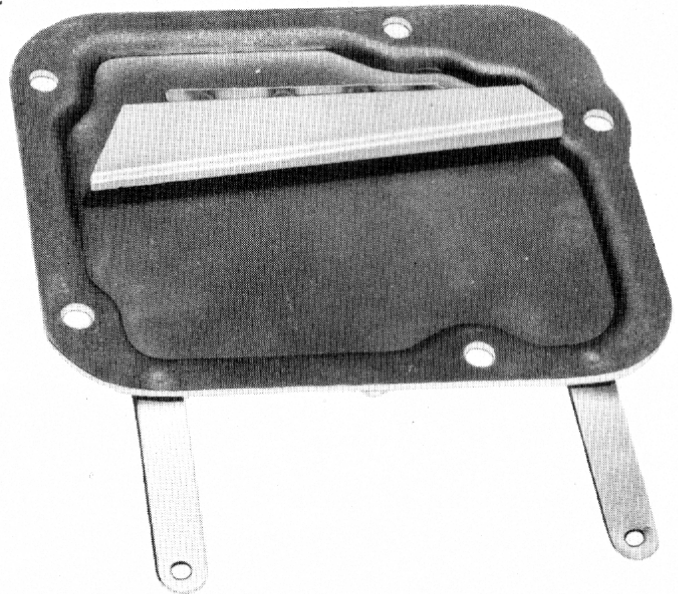
From a comparison of the three gaskets shown above, it will be seen that it is very important to use the proper gasket. Either one of the three will fit over the studs of any '48, '49, '50 or '51 Six but some of the water circulating holes would either be obstructed or the inner edge of gasket would not be flush with the top of cylinder wall, due to cylinder bore difference.

In order to avoid tendency of galvanic corrosion, the gasket used with the aluminum cylinder head must not have copper ferrules at water circulating holes.

A simple yet positive method of ascertaining the

correct gasket is to check gasket on block for all water circulating hole and cylinder bore line up.

## OIL TROUGH FOR OVERDRIVE TRANSMISSION COVER



Starting in production very recently, a new Transmission Cover, Part Number 305424, is being used only on transmissions with Overdrive. This part is entirely interchangeable with Overdrive transmission covers used on 1948-49 and 1950 cars.

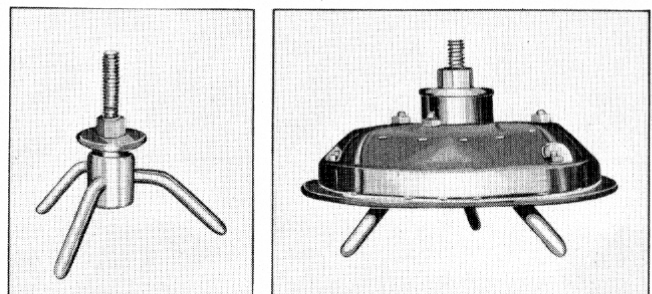
This oil trough is in a position that permits of collecting maximum spray from transmission gears and conducts the lubricant to the opening leading into the Overdrive gear case.

As this cover with oil trough improves lubrication to Overdrive, it is suggested that the new cover assembly, 305424, be used in any instance where the Overdrive may have been repaired and there is indication of insufficient lubrication.

## NEW CLUTCH TOOL

We have received numerous inquiries from the field relative to a fixture for dis-assembling and assembling the standard 9 and 10 inch Hudson clutch.

To meet this widespread demand, a lightweight, efficient but inexpensive tool has been developed and tests have shown it to be very satisfactory. Illustrated below is the tool and its application. Detail operating instructions are included with each tool.



This clutch tool is priced at \$10.30 Net F.O.B. Detroit and is subject to regular sales tax on all interstate sales only. Orders for this tool should be mailed to Service Development, Inc., 20245 Kingsville, Detroit 24, Michigan.



## 5000 MILE PREVENTIVE SERVICE

- WASH BATTERY - CLEAN TERMINALS
- CHECK RADIATOR FOR LEAKS
- TIGHTEN ALL HOSE CONNECTIONS
- CLEAN AND SPACE DISTRIBUTOR POINTS
- SET TIMING
- ADJUST FAN BELT
- ADJUST CARBURETOR
- CLEAN AND GAP SPARK PLUGS
- ADJUST BRAKES (MINOR)
- ADJUST SERVO BANDS (HYDRA-MATIC)
- CHECK TIRES FOR WEAR AND ROTATE
- CHANGE ENGINE OIL
- LUBRICATE CHASSIS

**RECOMMENDED**  
for  
**TROUBLE-FREE**  
**LOW COST**  
**DRIVING**

JAN. '51

### NEVER FORGET AN OWNER—NEVER LET AN OWNER FORGET YOU

It has been definitely shown that the car owner's acceptance of a plan or system to hold their interest to keep them coming back year after year, must of itself be equitable in that the owner shares in the benefits of working of the plan.

Those Dealers who have a carefully prepared programme for contacting his car owners—of making his service presentation and offering a Preventive Service or Lubrication Plan are very sure to realize the largest percentage volume of their owner service business.

There is in every Dealers territory a parts and service potential that in most instances, if procured, would be beyond his ability to handle. This is a business that is rightfully his by reason of having created the market through having sold the new car. Much of this is lost through lack of continuous systematic keeping the dealers facility—genuine Hudson Parts, Accessories, Lubrication Plan or Preventive Service Plan before the owner.

It is a proven fact that owners DO avail themselves of a plan that assures trouble-free operation, one that in the long run actually reduces Operating Cost—just as logical as they protect against accident by taking out automobile insurance. There are these definite facts in connection with Preventive Service, the owner does get value received in improved operation—reduced maintenance cost in the long run and assurance of uninterrupted operation.

In their desire to maintain the efficiency of their cars, most owners are readily receptive to a plan of having these adjustments, incidental to operation, properly made before reaching a stage that may possibly become expensive repair jobs or interrupt operation at some inopportune time. The Preventive Service Plan has proven its use to be successful in the past and it is being used effectively today by thousands of Automobile Dealers. Display this Preventive Service Poster in your Maintenance Department.

**YOU'VE GOT TO TELL 'EM—TO SELL 'EM!**

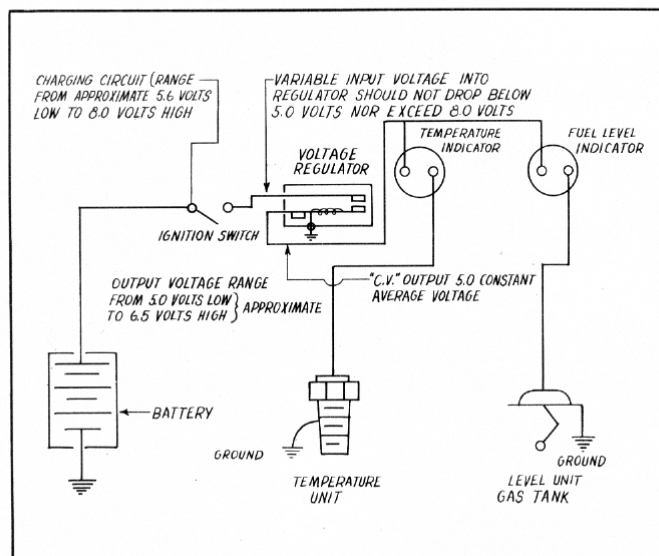
**"HOW'S YOUR OIL FILTER?"**

## PROPER CONNECTIONS FOR ELECTRICAL UNITS AND ACCESSORIES—1951 MODELS

The Standard wiring diagram as applied to all models is shown in both the Owner Manual and the Mechanical Procedure Manual. Preparatory to any electrical work, always carefully consult the wiring identification table in order to identify circuit number, size wire and *tracer marking* of the wire or wires involved.

In making accessory or electrical unit installation in the field, it is vitally important to their proper functioning that they be connected to the proper terminal and be adequately protected by fuse or circuit breaker. The cartons in which electrical units are packaged invariably contain complete instructions on installation and electrical connection.

CIRCUIT	WHERE CONNECTED	FUSE LOCATION	FUSE CAPACITY
Clock	Lighting Switch-Circuit Breaker-Battery side	In line at clock	3 Amp.
Radio	AUX-Circuit Breaker-Battery side	In line at set	14 Amp.
Heater & Defroster	IGN switch-Cold side	In line clamped to heater	14 Amp.
Directional Signal	Battery side of temp. gauge voltage reg.	In line near flasher	14 Amp.
Overdrive	B term of Gen. Volt Reg.	On Overdrive relay	30 Amp.
Drive Master	IGN switch	On crossbrace near str. column	14 Amp.
Cigar Lighter	AUX Circuit Breaker-Battery side	None	
Light Sw. Circuit Bkr.	To Lighting switch	20 ampere capacity	
Aux. Circuit Breaker	Between tail, instrument & Dome Lamps and B terminal of Gen. Volt. Reg.	20 ampere capacity	



### CONSTANT VOLTAGE ON TEMPERATURE AND GAS GAUGES

New on the 1951 cars is a voltage regulator mounted on the back of fuel and temperature gauge panel, see page 4-32-1951 Mechanical Procedure Manual. The function of this unit is to maintain a constant and uniform 5 volt current to the gauges to improve accuracy and prolong their life.

This regulator is furnished as a separate unit, Part Number 226574; the entire gauge panel assy. Part Number 225851; the temperature and fuel gauges are identical and are furnished as replaceable units.

### CONTEST PRIZE WINNER

First prize of five dollars (\$5.00) in the suggestion contest is awarded to Mr. John T. Potter, Mechanic with Hudson Passaic Sales & Service, Inc., Passaic, New Jersey, on improvising an efficient tool that any mechanic should have no difficulty in making up for himself. This is how it is done according to Mr. Potter:

"Anyone who has installed a Kar-Visor knows how tedious it is to tighten the holding screws with the allen wrench supplied with the visor kit. First apply sufficient heat to the bend of the wrench and

straighten it."

"Following this, the end of the wrench is welded to the shank of a short (worn out) screw driver. With a set screw wrench made up in this form, the work of tightening set screws is simplified and time saved in making installation."

**YOU'VE GOT TO TELL 'EM—TO SELL 'EM!**

**"HOW'S YOUR OIL FILTER?"**





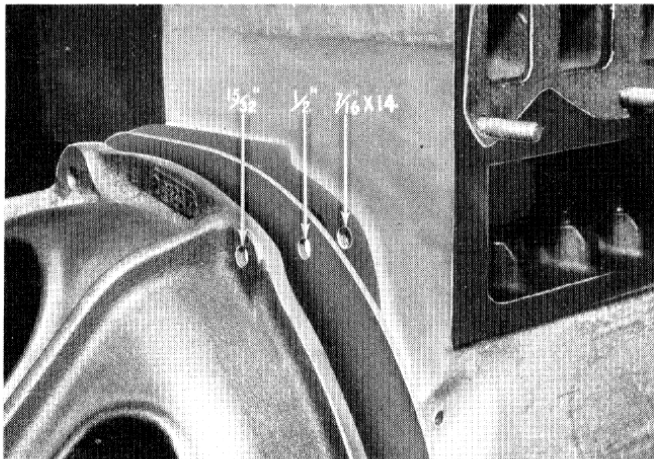
### BERKELEY ZONE

#### Parts and Service Managers Club Meeting

The interest here too is marked by splendid attendance characteristic of Hudson Parts and Service Clubs throughout the country. Standing in center, is Mr. Frank Hart, Zone Parts and Service Manager, and at his left is Mr. Ray Olsen, Parts and Service Traveler.

### 480-490 AND 500 SIX CYLINDER SKELETON ENGINES BUILT FROM 1951 CYLINDER BLOCKS

The 1951 six cylinder block design is different from the 480-490 and 500 series in that there are large extension bosses on the left side for throttle linkage bell crank and the threaded bolt hole at the right rear for attaching clutch housing (as shown in the illustration) has been changed from  $\frac{3}{8}$ -16 to a  $\frac{7}{16}$ -14 thread.



The 1951 six cylinder block is to be used exclusively for building the skeleton engines for all 480-490 and 500 series, when the throttle linkage bell crank bosses will be ground off so as not to interfere with Vacuumotive power cylinder and water circulating holes will be drilled suitable for the 480-490 and 500 series cylinder heads.

Before making installation of the clutch housing, it will be necessary to enlarge the engine rear support plate bolt hole (corresponding with the enlarged bolt hole in the block) to  $\frac{1}{2}$  inch and the bolt hole in the clutch housing to  $\frac{15}{32}$  of an inch, using cap screw part number 71160 instead part number 607 at this point, and tighten to 40-45 foot pounds.

### WHEN INSTALLING OIL FILTER ON HORNET ENGINE

You will find it much more convenient to attach the flexible connection in the engine oil pressure line before the filter is bolted in position.

Although there is an "L" adapter included with the Filter Kit for installing in the engine oil pressure, it cannot be used on the Hornet Engine due to insufficient clearance at a boss that projects from the water jacket at this point.

Attach the  $\frac{1}{8}$ th inch pipe thread end of the flexible oil lead direct in the threaded opening of the engine oil pressure line and tighten securely. Use the "L" filter inlet for connecting the inverted coupling end of flexible connection.

### A WEATHER CONTROL ADJUSTMENT...

that may be overlooked if the instructions contained in the Owner Manual are not read, is the adjustment that controls the amount of air directed on the driver's feet.

This adjusting knob is located at the left side of heater—which when raised increases the air flow and when lowered diminishes it. Complete detail instructions and illustrations are shown on pages 68 to 71 of the Owners Manual. This should be directed to owners' attention, particularly if insufficient heating is reported.

---

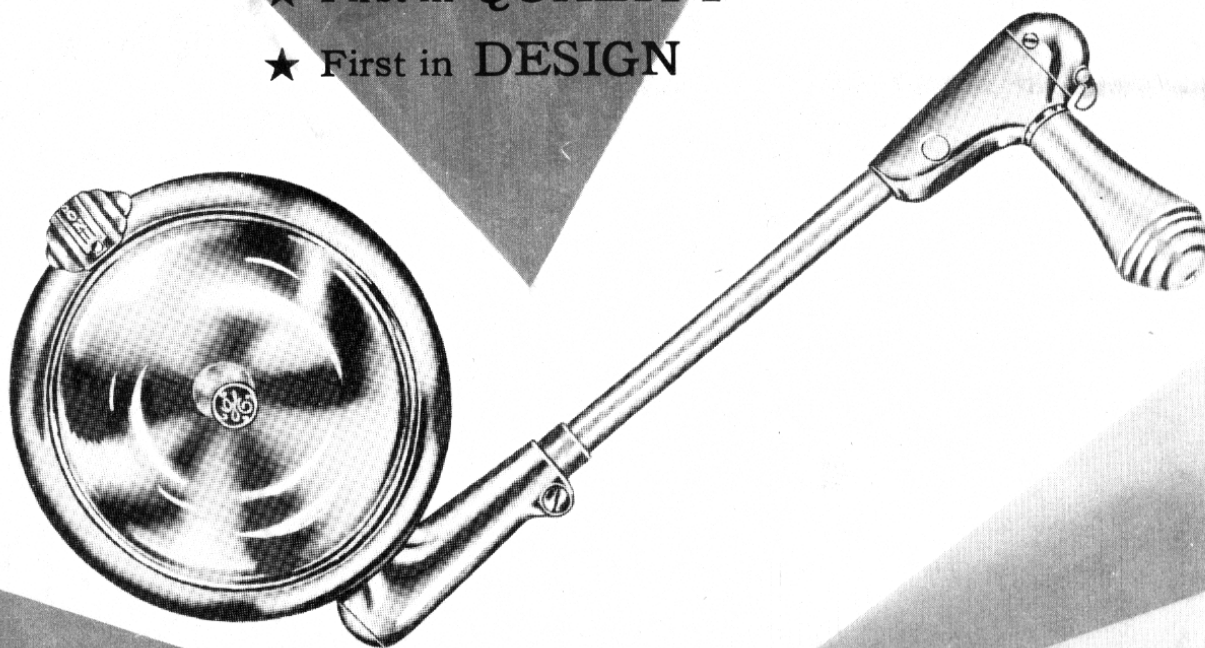
YOU'VE GOT TO TELL 'EM—TO SELL 'EM!

"HOW'S YOUR OIL FILTER?"

# ON THE SPOT WHEN YOU NEED IT...

That's the **HUDSON**  
**SPOT-LITE**

- ★ First in SAFETY
- ★ First in QUALITY
- ★ First in DESIGN



A Spotlight on a car makes it a "SPECIAL CAR" because it offers extra convenience and safety for night driving. The Hudson Spotlight is absolutely the last word for:

- \*Locating House Numbers
- \*Reading Road Signs and Lighting Hazards
- \*Long Trips, Short Trips, Vacation Trips, Camping Trips, and ALL TRIPS

Sell "SPECIAL CARS" by selling a Hudson Spotlight with every Hudson.

Zones and Distributors are well stocked with Spotlights, so

Check your stock and sales condition now and "Let's Get Started." Order your fair share of HA-211233 Spotlight (LH) and HA-211234 Spotlight (RH) TODAY!