HUDSON Service Merchandiser

Dedicated to the interest of field service, parts and accessory merchandising.

VOL. 4 NO. 2 FEBRUARY, 1952

FACTORY PERMANENT SCHOOL

February 4th marks the opening of the 1952 Factory Permanent School, again making available to all Hudson Dealers the most splendid opportunity for the training of their Service Managers and top mechanics.

Well trained men make for satisfied customers and increased Service Volume; these in turn are a strong support of the Car Sales program.

Every Dealer will benefit from this training in the degree that his men participate in the training offered by the Factory Permanent School. Get your reservations in as early as possible.

1952 FACTORY PERMANENT SCHOOL

STARTS	ENDS
February 4th	February 15th
February 18th	February 29th
March 3rd	March 14th
Week of March 17th—No class held	
March 24th	April 4th
April 7th	April 18th
April 21st	May 2nd
Week of May 5th—No class held	
May 12th	May 23rd
Week of May 26th—No class Held National Holiday	
June 2nd	June 13th
June 16th	June 27th
Week of June 30th—No class held National Holiday	
July 7th	July 18th
Weeks of July 21st thru August 1st Vacations for Instructors	
August 4th	August 15th
August 18th	August 29th
Week of September 1st—No class held National Holiday	
September 8th	September 19th
September 22nd	October 3rd
October 6th	October 17th
Week of October 20th—No class held	
October 27th	November 7th
November 10th	November 21st
Week of November 24th—No class held National Holiday	
December 1st	December 12th
No further classes scheduled in 1952	

IMPORTANT INFORMATION FOR EVERY MECHANIC

LOWER GRAVITY BATTERIES

In conformance with a recent trend, the storage batteries now used in production on Hudson cars are of the so-called "low gravity" type in which the specific gravity of a fully charged battery will register 1.270 on a hydrometer instead of 1.280 to 1.300 as heretofore.

LONGER LIVED—BETTER PERFORMANCE

The advantages of the change in specific gravity resulting from lowering the sulphuric acid concentration are less deterioration of the plate separators and reduced positive grid corrosion and shedding of active material. Another advantage of the low gravity battery is its superior cranking ability during the mid-period of its life. The rate of self discharge of the 1.270 gravity battery also is lower than that of the higher gravity types. All of these factors contribute to longer battery life, a most important consideration at this time in view of the need for conserving critical materials.

FREEZING PRECAUTIONS NECESSARY

When servicing the batteries of Hudson cars, the service man should check to determine the battery type. The low gravity battery can be distinguished from the earlier type by the figures *1.270* which are molded in the lead cell connectors. For general servicing and care, the same procedures should be used with the 1.270 batteries as heretofore. Low gravity batteries, however, are more susceptible to freezing and it is most important that they be kept fully charged at all times and additional precautions taken to guard against freezing in extra cold weather.

DO NOT OVERCHARGE

When recharging low gravity batteries, be careful not to overcharge by attempting to bring up the gravity higher than 1.270. Also, never add sulphuric acid to the electrolyte in an attempt to increase the gravity reading beyond 1.270.

SERVICE REQUIREMENTS

With the above exceptions, the service requirements of the new low gravity battery are identical to those of the earlier unit and since the service delivered by any battery is dependent upon the care it gets, we feel that the following suggestions will bear repetition:

1. Make sure that the battery of every new car delivered to an owner is fully charged and shows a hydrometer reading of 1.270.
2. Keep water level filled to the "square" with distilled water. Low water level causes the plates to dry out resulting in premature battery failure.
3. *Keep terminal connections tight and free from corrosion.* Connections should be coated with grease to retard corrosion and top of battery should be clean and dry. Check battery mounting and see that retainer bolt nuts are tightened sufficiently to prevent movement (2 to 3 ft. pounds torque).
4. Winter driving conditions create a heavier demand on the battery. Check the battery, cables and electrical system on owner cars more frequently during this period and especially when preparing cars for winter operation. Make sure the current regulator setting permits a generator charging rate sufficient to keep the battery up under these increased demands.

No mechanics are better qualified to efficiently maintain Hudson cars than Hudson trained mechanics. The complete facilities of every Hudson dealership are maintained for the exclusive benefit of Hudson owners. Sell Hudson owners on your organization! It is one of the most effective Service Promotional factors.

CHECKING OR SETTING SPARK

The function of the Vacuum Spark Control is to advance or retard the spark proportionately with Manifold Vacuum, which, in turn, is influenced by position of the Carburetor Throttle and Engine Speed. The variation in Manifold Vacuum advances or retards the spark to meet engine requirements.

When checking or setting the spark with a timing light while engine is in operation, unless the Vacuum Control line is disconnected, the results will be an incorrect spark setting.

This is caused by the close relationship of the Vacuum port to the throttle valve. Therefore, to obtain an accurate spark setting, the tube leading from the manifold to vacuum chamber at Distributor should be disconnected and plugged while the ignition timing is being checked and set to prevent disturbing engine performance.

Dirty Weather Ahead!

Now is the time for service and new car salesmen to sail in and sell Windshield Washer Kits. A push of the button, a swipe of the blade—a clean windshield. No more eye strain. See that every car has a Windshield Washer. Order your supply now.

***Remember*—"if he has had one before he will want one again."**

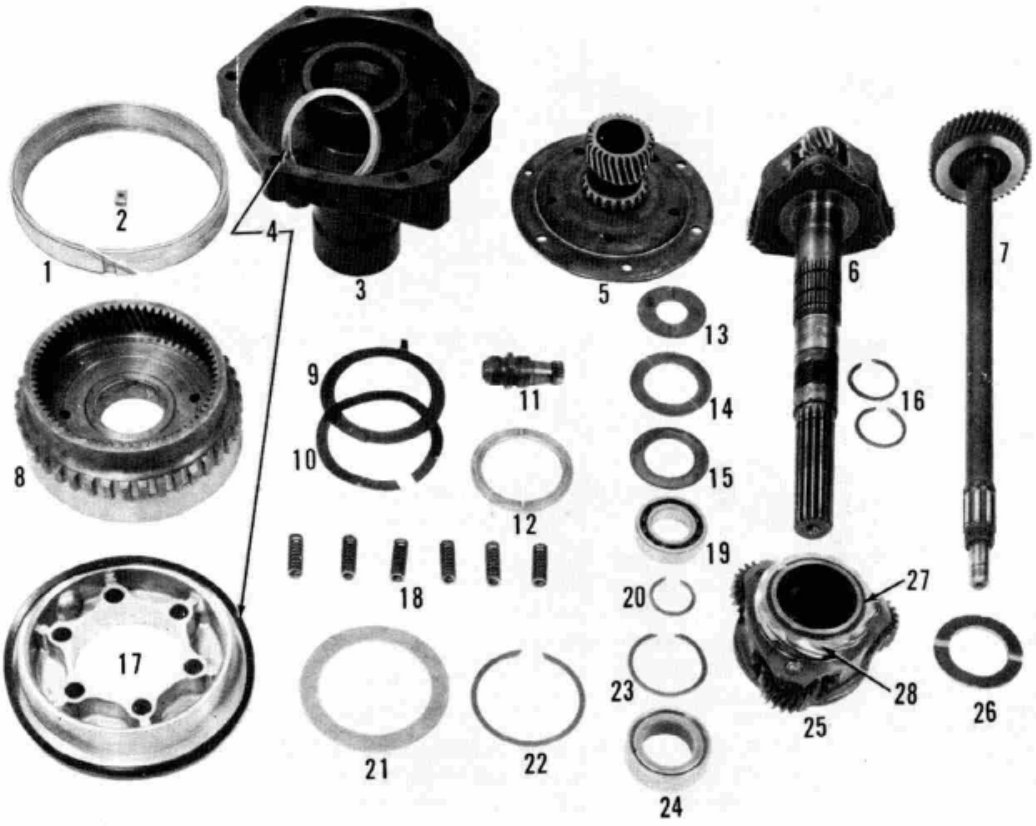
HA 225947—Windshield Washer Kit
All 1951-52 Models
HS 209976—Windshield Washer Solvent
All Season Mixture—6 oz.

A HUDSON *Approved* ACCESSORY

REAR BEARING RETAINER AND REVERSE ASSEMBLY

A slight change in design of a part, as is not infrequently the case, means that a different part number may be assigned and it is for this reason that key numbers only are generally shown on the illustrations of parts.

The part numbers as shown in the Parts Catalogue, also the usage, have been arranged with key numbers and definition to assist you in placing orders for these parts.



KEY	DEFINITION	PART NUMBER	USAGE
1.	Cone—Reverse Clutch	BT 305953	H51, J51
2.	Key—Reverse Clutch Cone	BT 305952	H51, J51
3.	Retainer—Rear Bearing	BT 305054	H50
	" " "	BT 305941	H51, J51
4.	Seals Kit—Reverse Piston	BT 305975	H51, J51
5.	Gear and Flange Assy.—Reverse	BT 304942	H50, H51, J51
6.	Shaft Assy.—Trans. Output	BT 305016	H50
	" " " "	BT 305937	H51, J51
7.	Shaft and Gear Assy.	BT 305015	H50, H51, J51
8.	Gear—Reverse Internal	BT 304936	H50
	" " "	BT 305931	H51, J51
9.	Retainer—Rev. Piston Release Spr.	BT 305962	H51, J51
10.	Spring—Rev. Piston Release	BT 305958	H51, J51
11.	Speedometer Pinion	BT 304650	H50
	" "	BT 305766	H51, J51
12.	Thrust Washer—Inter. Rev. Gear	BT 305968	H51, J51
13.	Selective Thrust Washer—.055—.059	BT 304960	H50, H51, J51
	" " " —.063—.067	BT 304961	" " "
	" " " —.071—.075	BT 304962	" " "
	" " " —.079—.083	BT 304963	" " "

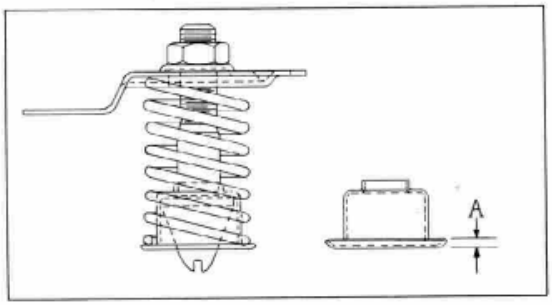
KEY	DEFINITION	PART NUMBER	USAGE
	Selective Thrust Washer—.087—.091	BT 304964	H50, H51, J51
	" " " —.095—.099	BT 304965	" " "
	" " " —.103—.107	BT 304966	" " "
	" " " —.111—.115	BT 304967	" " "
14	Thrust Washer—Rev. Center Gear—Bronze	BT 304941	H50, H51, J51
15.	Thrust Washer—Rev. Center Gear—Steel	BT 304945	H50, H51, J51
16.	Snap Ring—Rev. Carrier to Output Shaft	BT 304927	H50, H51, J51
17.	Reverse Piston (Alum.)	BT 305951	H51, J51
	" " (Iron)	BT 306114	H51, J51
18.	Release Spring—Reverse Piston (Coil)	BT 305954	H51, J51
19.	Bearing—Output Shaft	BT 304921	H50
	" " "	BT 305881	H51, J51
20.	Snap Ring—Brg. to Shaft	BT 305926	H51, J51
21.	Retainer—Release Spring	BT 305959	H51, J51
22.	Snap Ring—Piston to Hsg.	BT 305960	H51, J51
23.	Snap Ring—Brg. to Retainer	BT 305966	H51, J51
24.	Seal—Rear Brg. Retainer	BT 304924	H50
	" " " "	BT 305925	H51, J51
25.	Carrier Assy.—Reverse Planet	BT 304932	H50
	" " " "	BT 305927	H51, J51
26.	Thrust Washer—Rear Clutch Hub	BT 304993	H50, H51, J51
27.	Snap Ring—Rev. Unit Oil Pump	BT 304969	H50, H51
28.	Gear—Rear Oil Pump Drive	BT 304971	H50, H51, J51

HOOD LOCK RELEASE

Some reports have been received from the field of inability to raise the hood at times, due to failure of the hood locking mechanism to release.

Investigation has shown that the condition was caused by the flange at the lower edge of the spring retainer against which the lift spring seats, catching in the lower lock assembly and preventing the hood from raising. To remedy this, the hood lock lift spring retainer (Part No. 210374) has been redesigned by increasing the roll at the flange from $\frac{1}{32}$" to $\frac{3}{32}$" as shown at "A" in the accompanying sketch.

When correcting cases of hood lock release failure and the above condition is found to exist, the hood lock spring retainer should be replaced with one of the later type having the higher flange.



CHECK YOUR POSTER

Please do not fail to insert figures in those posters that have a place for the price. Place a strip of paper over the third row from the bottom on the January Poster as this was in error.

USE A TORQUE WRENCH AND FOLLOW TORQUE SPECIFICATIONS

Every part of the Automobile Engine and chassis is being stressed higher each year. This is why a specified torque range is placed on every bolt or nut of importance.

Today the use of a torque wrench is positively necessary if the mechanic wishes to be sure that the work he is doing is correct and up to specification. An example of the necessity of using a torque wrench is when tightening the spark plugs to the required torque of 25 to 30 ft. lbs.

Should the spark plugs be tightened below 25 ft. lbs. there is possibility of break down due to being too loose to dissipate their heat freely: If tightened up too tight there is a possibility of damaging the plug or stripping the threads—especially if the cylinder head is of aluminum.

So that every mechanic may have available the latest torque recommendations, a complete torque chart will be shown in the next issue. The use of a torque wrench and torque chart are of first importance to every mechanic.

1952 "B" SERIES TUNE-UP DATA

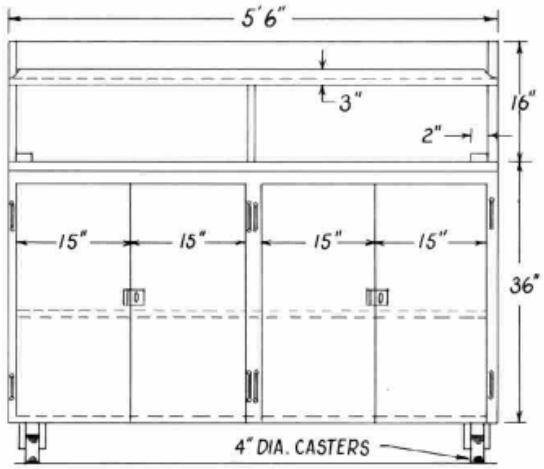
You are to continue to use all "A" Series (1951) Procedure Manuals, Flat Rate Manuals, Tune-Up Specifications, etc., for servicing all "B" Series (1952) cars which are now being shipped.

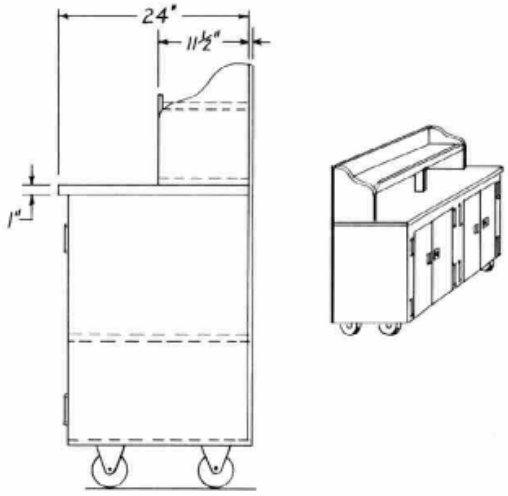
Following are the answers to questions contained in the January Service Merchandiser.

1. False. Overdrive Circuit is protected by a 30 Ampere fuse located on the Overdrive Relay.
2. True. Disengaging from Overdrive to Conventional may be attributed to a condition within the Governor or the wiring leading to the Governor.
3. False. See Condition 7, Overdrive does not engage—see Page 10-23, 1951 Mechanical Procedure Manual.
4. A burned-out Relay can usually be traced to a shorted Solenoid or a ground in wiring between Solenoid and Relay.
5. Two reasons why Overdrive will not shift below 16 to 20 M.P.H. are (1) A grounded Governor or Governor Circuit; (2) Defective Solenoid.
6. Two reasons why Overdrive will not shift above cut-in speed, are (1) Bad Governor points causing interrupted circuit; (2) Improperly adjusted control cable.
7. False. Two Governor switches are used; one for cars with Drive-Master or Super-Matic Drive and the other for Vacumotive Drive or Overdrive.
8. When in Overdrive, the engine R.P.M. is 30% slower than in Conventional at the same car speed.
9. False. The throttle switch is used in conjunction with the clutch control unit, preventing engine racing when shifting into High. The accelerator or kick-down switch operates in conjunction with Overdrive.
10. Under heading of Unit Checks, beginning on Page 10-19, 1951 Mechanical Procedure Manual.

Answers to the following questions will be given in the March issue of the Service Merchandiser.

1. The front suspension system used on Hudson cars is the parallelogram system of independent front wheel suspension? True or false. _____
2. The first step in front wheel alignment is?
   (a) Adjusting the length of the pitman arm? _____
   (b) Splitting the front wheel toe-in? _____
   (c) Locating the steering high point? _____
3. Name three ways of locating the steering high point:
   (a) _____ (b) _____ (c) _____
4. When the steering has been set on the high point, how should the front wheels be toed-in? _____
5. With steering on high point and the toe properly split, how should correction be made when the steering spoke is not in a horizontal position. _____
6. Name the two adjustments provided to adjust the steering worm and sector properly.
   (a) _____ (b) _____
7. Before front wheel alignment can be checked:
   (a) Drag link must be loosened? _____
   (b) Tire pressures must be equalized? _____
   (c) Rear wheel bearings must be checked? _____
8. Defective rear springs or shock absorbers can affect front wheel alignment. True or false? _____
9. What is the riding height of the front suspension? _____
10. A tracking gauge is used to:
    (a) To check "run-out" of front wheels? _____
    (b) To check riding height at the rear of the car?
    (c) To detect misalignment of front suspension or rear axle? _____
    (d) To check front wheel camber? _____





Sketched above is a portable bench which has proven to be very efficient for keeping in one place, all items necessary for interior and exterior used car re-conditioning, appearance conditioning, etc.

Mounted on four-inch casters, this bench is easily and quickly moved to position by the car to be worked on. Having adequate space for water pails, sponges, spray guns, flock guns, buffers, Liquid Glaze and all used car re-conditioning materials. There is no hunting the various equipment—but having it consolidated on a movable bench facilitates the job and saves time.

No doubt there is someone in nearly every Dealer's Organization that is sufficiently handy with a saw and hammer to make up one of these very useful portable benches.

COLONIAL RADIO WARRANTY

A recent General Service Policies and Information Bulletin, No. 1, by the Owner Relations Department outlines in detail the warranty on Colonial Radios, with which Hudsons are equipped, and the method of handling in the field. So important is this information to the cause of good owner relations, that we are reproducing the full contents of this bulletin.

"Hudson automobile Radios are manufactured by Colonial Radio and Television, Sylvania Electric Products, Inc., Buffalo, New York. The Serial Number of the Colonial-built Hudson Radios start at CH-1001 and will run consecutively on from that point.

"Hudson Radios are sold under the Manufacturer's Warranty of 90 days which dates from the date of Retail Delivery to the ultimate user. The warranty is applicable to Radios installed as Factory Options, also those installed in the Field as Accessories.

"Do not return Radios to the Hudson Motor Car Company for repair or replacement. Colonial maintains a nationwide network of Distributors, Dealers and Service Stations; therefore, we recommend that Hudson Zones, Distributors and Dealers make arrangements with local Colonial Service Stations to handle all Warranty service.

"The Hudson Auto Radio Warranty Registration Tag is placed in the glove box of each car in which the Factory installs a Radio in production. At the time of Retail Delivery of a new car, Factory equipped with a Radio, the dealer must fill in this Tag properly with ink and attach to the Radio in the car. This Tag must be attached to the Radio in order to obtain free warranty service if required during the initial 90 days Warranty Period. It must likewise be filled in and attached to any Radio installed in the Field as an Accessory. In this case the Tag will be found in the Radio Shipping Container. THE ATTACHMENT OF THE RADIO WARRANTY REGISTRATION TAG IS MOST IMPORTANT.

"During the Warranty Period of 90 days after Retail Delivery any Colonial Radio Service Station will replace any defective part or parts free of charge. The cost of labor required for minor and major operations should not exceed the following and is chargeable to the Hudson Motor Car Company when warranty replacement transactions are involved.

Minor Operation $2.00 Maximum — Covers such jobs as the replacement of Tubes and Vibrators. Radio out of car.

Major Operation $3.50 Maximum—Covers jobs requiring the use of Tools and Equipment. Radio out of car.

"Do not send Hudson Owners' Cars to Colonial Service Stations for Radio Warranty service. When an Owner encounters difficulty with the Radio in his car, the Hudson Dealer will make a preliminary inspection to determine whether or not the service trouble is caused by Antenna, Installation or Fuse and, if so, will correct this trouble in his own Service Department. If more serious trouble is experienced the Hudson Dealer must remove the Radio from the car and send it to his Authorized Auto Radio Warranty Service Station for repair.

"The labor for removing and re-installing Radios in cars for warranty service will be paid for by the Hudson Motor Car Company on the basis of one hour at 50% of Zones', Other Distributors' and Dealers' Retail Labor Rates.

"Submit Requests For Credit in the usual way covering Radio Labor Warranty transactions. Show the Owner's name and address, the car serial number, mileage, the Radio serial number, date of Retail Delivery of Radio, if not a Factory installation, and attach Colonial Service Station's paid invoice.

"We will appreciate your cooperation in this matter."

KNOW YOUR PRODUCT

Associated with success, particularly in the field of service, has always been this common characteristic—knowing the product—the standard of its performance and being sold on its quality.

Much is to be learned from the literature that is prepared for the training of those who service any commodity—and even more, by attending a training school conducted by the manufacturer of that product.

There is, however, no substitute for the knowledge of a product that is acquired through handling it. It is this important knowledge that enables one to know whether or not the product is up to standard in performance, sound or economy. This does take time, experience and a keen sense of observation.

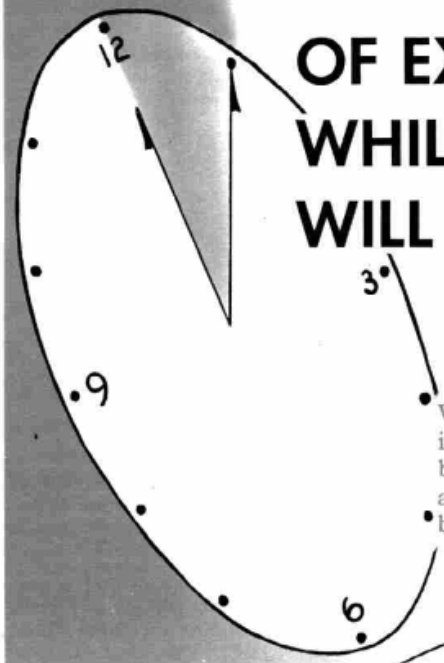
Every manufacturer adheres to certain predetermined standards in the assembling and testing of the finished product. The Service Man in the field who comprehends these standards and works up to them in adjusting and testing is bound to attain standard performance. He knows when and where to begin, also when that product is up to standard.

Many deferred promises and far the greater number of dissatisfied or skeptical owners are brought about by the fact that a service contact man or salesman has given the owner assurance of correcting an imaginary condition, or often going far beyond the standard to eliminate a condition that actually is standard to begin with. When the job is right and within standard, do not hesitate to assure the owner of this fact; it not only closes the situation, but often serves to restore owner confidence in both the product and yourself.

Once an owner has gained the impression that there is a condition about his car that is wrong—that must be corrected, it not only may become extremely difficult but expensive as well to restore that person to a happy and satisfied owner. There is no substitute for knowing your product. Nearly everyone has a profound respect for the fellow who is sure of himself, especially when that confidence is born of experience.

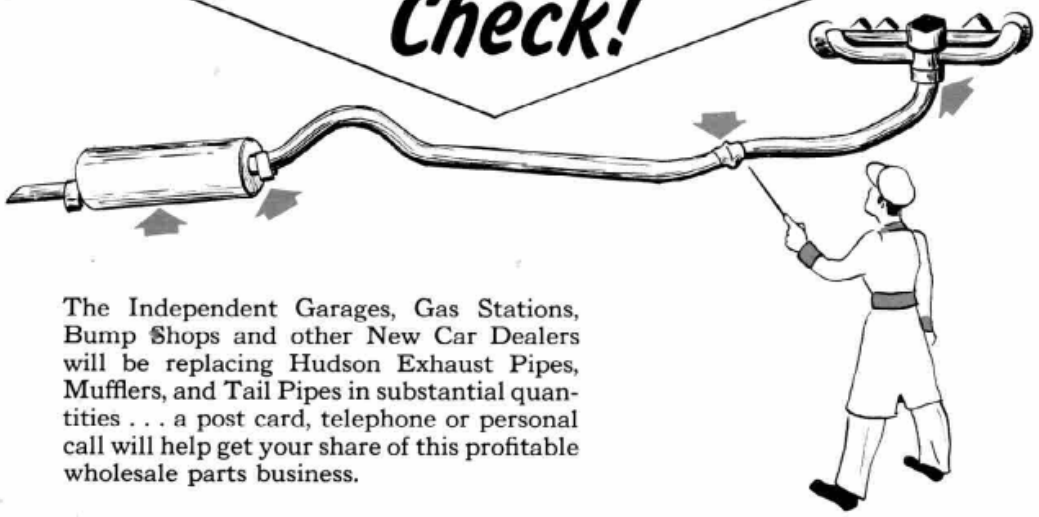
A FIVE MINUTE CHECK...

OF EXHAUST SYSTEMS, WHILE ON THE LUBE RACK, WILL BRING EXTRA PROFITS.



Winter is hard on Exhaust Systems . . . and not one customer in a hundred knows when his muffler, exhaust pipe, tail pipe, brackets or gaskets need replacing. Always carefully CHECK and call to the customer's attention the parts which should be replaced.

VITAL POINTS TO *Check!*



The Independent Garages, Gas Stations, Bump Shops and other New Car Dealers will be replacing Hudson Exhaust Pipes, Mufflers, and Tail Pipes in substantial quantities . . . a post card, telephone or personal call will help get your share of this profitable wholesale parts business.