HUDSON Service Merchandiser

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

VOL. 4 NO. 3 MARCH, 1952

SAN DIEGO HARP MEETING

Wednesday, January 23, the HARP meeting in San Diego, California, was attended by a representative of every Dealer in that area.

Presiding at the meeting was Mr. James E. Foster, Division Parts and Service Manager, assisted by Mr. Joe Wm. Reeve, Zone Parts and Service Manager. The chart details were presented by District Manager Tom Newell.

HUDSON MOTOR CAR COMPANY.. DETROIT 14, MICHIGAN

TORQUE SPECIFICATIONS

Location of Bolt or Stud	Dia. & Thread of Bolt or Stud	Recommended Torque (Ft. Pounds)
Battery Hold-Down Bolt Nut	5/16–24	2–3
Brake Anchor Pin Nut	5/8–18	80–90
Brake Control Tube Nut	3/8–24	8–9
Breather Tube & Valve Chamber Cover Bolt (8 Cyl.)	5/16–18	2¾–3¼
Camshaft Gear Bolt	3/8–16	20–30
*Clutch Throwout Finger Retainer	7/16–20	40–45
Clutch Cover Bolts	5/16–24	20–25
Clutch Cover Driving Lug	7/16–20	40–45
Clutch Housing Cap Screw	7/16–14	40–45
Clutch Housing to Cylinder Plate Bolt	3/8–24	30–35
Clutch Housing to Cylinder Bolt	3/8–16	20–30
Connecting Rod Bolt	3/8–24	40–45
Cylinder Head Cap Screws (6 Cyl.)	7/16–14	60–65
Cylinder Head Studs (8 Cyl.)	7/16–14	45–50
Cylinder Water Jacket Cover Bolt (8 Cyl.)	5/16–18	12–15
Cylinder Support Plate Bolt	3/8–16	20–30
Cylinder Head Water Outlet Bolt	3/8–16	20–30
Diff. Carrier to Housing Bolt	3/8–24	35–40
Engine Rear Mtg. to Cl. Hsg. Bolt	7/16–14	40–45
Engine Front Mounting Bolt	7/16–20	40–45
Engine Rear Mounting to Frame Bolt	5/16–18	12–15
Exhaust Manifold Stud	3/8–16	20–30
Flywheel Bolts	3/8–24	40–45
Front Frame Anchor Bracket Bolt	1/2–20	20–25
Gas. Tank Strap Bolt (Rear) Nut	5/16–18	4–6
Intake Manifold Stud	5/16–18	12–15
Oil Pan Bolt	5/16–18	15–20
Overdrive to Trans. Case Bolt	3/8–16	20–30
Pedal Rod Nut	7/16–20	25–30
Prop. Shaft Companion Flange Nut (Rear End of Frt. Shaft)	3/4–16	90–100
Prop. Shaft "U" Bolts	5/16–24	14–17
Prop. Shaft Center Brg. Supt. Bolt (To No. 6 c/m)	5/16–24	20–25
Prop. Shaft Center Brg. Supt. C/M Bolt (To No. 5 C/M)	3/8–24	25–30
Prop. Shaft Center Bearing Housing Support Bolt	7/16–14	40–45
Rear Axle Differential Case Cap Screw	7/16–14	40–45
Rear Axle Wheel Bearing Adjusting Cap Bolt Nut	3/8–24	30–35
Rear Axle Drive Gear Bolt	7/16–20	50–60
Rear Axle Differential Carrier Bearing Cap Screw	1/2–13	55–65
Rear Axle Drive Shaft Nuts	3/4–20	125–200
Rear Spring Clip Nuts	1/2–20	70–80**
Rear Shock Absorber Stud (Lower) to Clip Plate Locking Nut)	1/2–20	40–50
Rear Shock Absorber Bracket (Upper) Bolt Nut	1/2–20	45–55
Strg. Arm (Outer) Nut	3/4–16	110–120
Strg. Spindle to Backing Plate Bolt Nut	3/8–24	25–30
Strg. Spindle Nut (To Attach Wheel Hub)	11/16–18	75*
Strg. Spindle Support Clamp Bolt	3/8–24	40–45
Strg. Arm (Center) Pivot Locknut (Self Locking)	5/8–18	50–60
Strg. Spindle Supt. Arm (Lower) Pivot to Frame Bolt	7/16–20	60–70
Strg. Spindle Supt. Arm (Upper) Pivot to Frame Bolt	1/2–20	60–70
Strg. Spindle Supt. Arm to Support Bolt Nut	13/16–11	100–120

(*Back Off 2 to 3 Castellations and Insert Cotter Pin)

**Minimum 40 Ft-Lbs. on recheck after assembly.

Location of Bolt or Stud	Dia. & Thread of Bolt or Stud	Recommended Torque (Ft. Pounds)
Steering Arm (Center) Pivot Support Bracket Bolt	7/16–20	45–50
Spark Plugs	14 M.M.	25–30
Speedometer Housing Screw	5/16–18	15–20
Strg. Gear to Frame Bolt	7/16–20	50–60
Steering Gear Shaft Nut	7/8–14	125–140
Steering Wheel Nut	5/8–18	20–30
Tie Rod End Stud Nut	1/2–20	60–70
Timing Gear Cover Bolt	5/16–18	15–20
Trans. Comp. Flange Locking Nut (To Mainshaft)	3/4–16	90–100
Vibration Dampener Cap Screw	3/4–16	100–120
Water Pump to Cylinder Bolt	3/8–16	20–30
Water Pump Fan Blade Bolt	5/16–18	12–15
Wheel Hub Bolts	1/2–20	60–65

STARTING 1952 A WINNER

The Hudson Hornet has started the 1952 stock car racing season in spectacular fashion, when on January 19, it took first place at Palm Beach, Florida, in a 100-mile race on a half mile track. Twenty-six cars were entered.

The winning Hornet was driven by Tim Flock who, as you know, drove another make in 1951. When Hornets consistently beat him, he switched to a Hornet himself. Neither Marshall Teague nor Herb Thomas drove in this race, as they are busy preparing their cars for the Daytona Beach classic which will be run on February 10th.

Another Hornet in the race became involved in a multi-car smashup. The car turned end for end three times but the driver walked away unharmed.

February 10th—Daytona Beach Stock Car race. Covering the 150 miles of this hazardous course in 1:46:19, for an average of 84.65 miles per hour, Marshall Teague won the National Stock Car Championhsip for the second year.

Starting in sixth place, his 1952 Hudson Hornet jumped to first place at the end of 4½ mile beach road course. Herb Thomas of Oliva, North Carolina, was second in another Hudson Hornet, following winner at three-quarters of a lap.

SUGGESTION CONTEST OPEN TO ALL HUDSON SERVICE PERSONNEL

Three prizes are offered each month by the Service Merchandiser for suggestions from mechanics—parts men—and service men.

All that is necessary to get into this contest is to submit your suggestion pertaining to service—short cut—special tool—a new and easier way to do something—parts or accessory display—anything that makes for better service. Include a photograph or sketch with your suggestion. The names of the winners and their suggestions will be published in the Service Merchandiser.

There is no doubt but that there are probably thousands of these suggestions in the field among Hudson Service Personnel that would win prizes. Please bear in mind the Merchandiser is your paper and by sending in your suggestion, you may not only win a prize but would also assist many other service men in the Field.

Checks will be mailed to those whose suggestions may win first, second and third prize each month just as soon as the judges have made their decision. Do not hesitate or delay; your suggestion may be a winner.

FOR 1952

Available through your Zone Parts and Service Manager.

News of your Parts and Service Manager's Club activities is of interest to all Field Service Personnel. Please let us have the details of your meetings and a photograph of your Club Membership Group for publication in the Service Merchandiser.

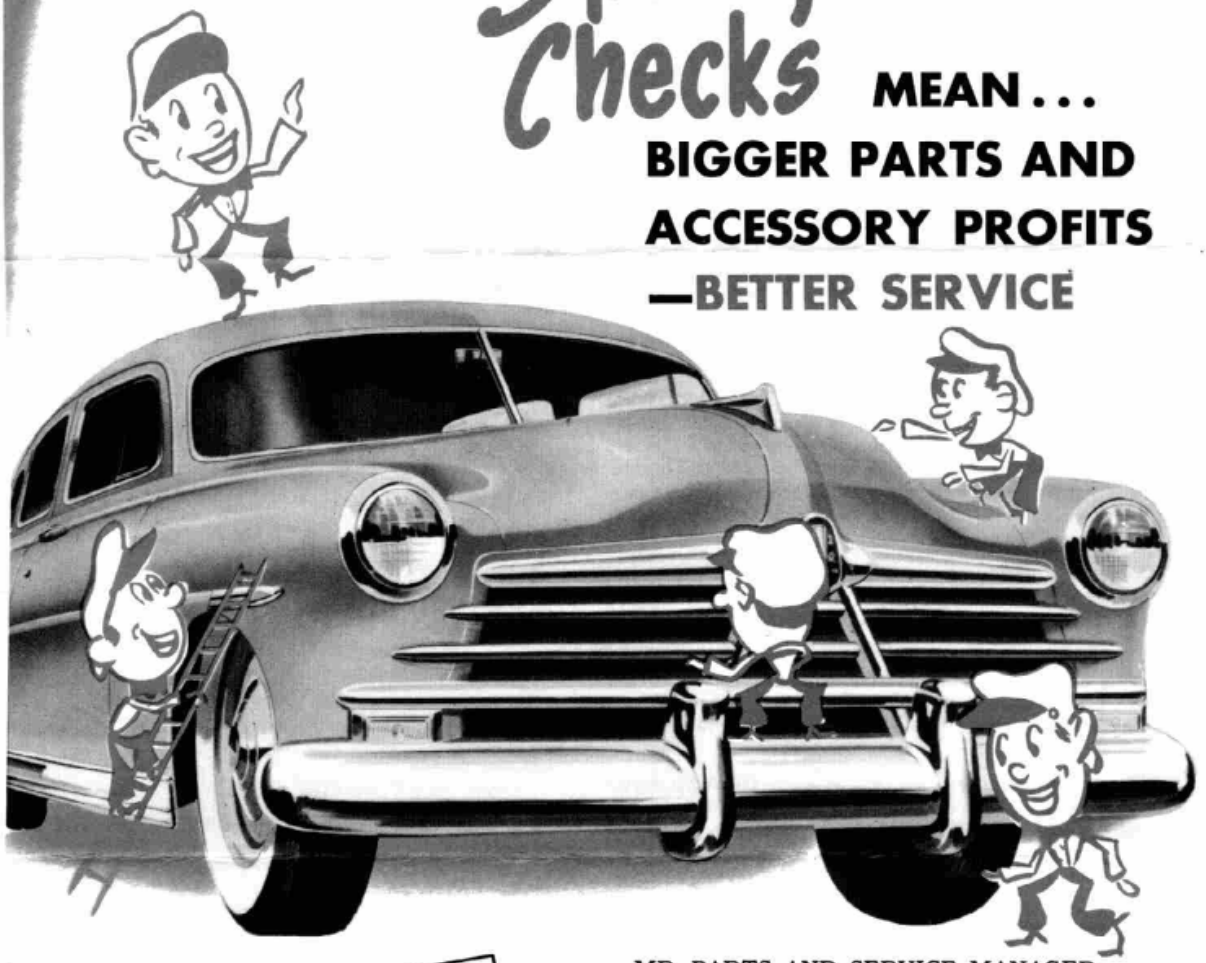
OWNER MANUALS FOR 1952

Complete shipment has been made to all Zones and Distributors of 1952 Owner Manuals for all cars that were shipped without them.

Here is an opportunity to contact those Owners for the Manual delivery. Should an Owner's car be equipped with a Radio, see that the warranty tag is attached. If you have not already done so, do not fail to make a record of the ignition and door keys, also the paint color code number.

Regardless of whether the Manual is delivered in person or mailed to the Owner, be very sure to properly fill out both the Service Certificate and Owner Identification Card.

THOROUGH Springtime Checks MEAN... BIGGER PARTS AND ACCESSORY PROFITS —BETTER SERVICE



CHECK FOR:

- Dirty Oil Filters
- Worn Fan Belt and Radiator Hoses
- Engine Repairs
- Car Appearance—Liquid Glaze
- Bad Brakes
- Weak Shock Absorbers
- Poor Steering
- Leaky Tail Pipes and Mufflers
- Replacing Spark Plugs

MR. PARTS AND SERVICE MANAGER:

The next five months are the best for selling PARTS AND ACCESSORIES.

DON'T MISS THIS OPPORTUNITY TO CASH IN!

Parts Manager . . . should **CHECK** with each retail customer for related items—develop attractive displays of parts and accessories that have spring and summer demand—remember the wholesale trade is also a big customer for Hudson parts—ask them to buy from you.

Service Manager . . . have a **SERVICE CHECK** program . . . carefully checking each customer's car for parts or accessories that need replacing. Don't wait for the customer to ask—better to ask the customer.

BODY LACQUERS—SERIES "B" 1952

Listed below are the Code Numbers of the various Colors and Du-Tone Combinations of the 1952 Series "B" Car Lacquer. A Code Letter or Number indicating the paint color is stamped on the upper hinge of the right front door. Shown also are the Part Numbers of the Wheel Enamel and Miscellaneous paints, also the Part Numbers of the various container sizes.

Pint	Quart	Gallon	3 Oz. Can
C 175500	C 175501	C 175502	HS 175379
C 175637	C 175638	C 175639	HS 175660
C 175972	C 175962	C 175952	HS 175982
C 175970	C 175960	C 175950	HS 175980
C 175979	C 175805	C 175813	HS 175821
C 175968	C 175958	C 175948	HS 175978
C 175971	C 175961	C 175951	HS 175981
C 175798	C 175806	C 175814	HS 175822
C 175799	C 175807	C 175815	HS 175823
C 175872	C 175873	C 175874	HS 175875
C 175967	C 175957	C 175947	HS 175977

Name	Code No.
Ebony Black	5*
Texas Tan (light opal.)	27*
Southern Blue	97 N
Jupiter Gray (opal.)	95 N
Jefferson Green (light opal.)	62*
Symphony Blue-Green	93 N
Broadway Blue	96 N
Naples Green (dark opal.)	63*
Toro Red (light)	64*
French Gray	72*
Boston Ivory	92 N

DUO-TONE COMBINATIONS

	Code
Boston Ivory - upper / Ebony Black - lower	100
French Gray - upper / Broadway Blue - lower	101
Boston Ivory - upper / Southern Blue - lower	102
Boston Ivory - upper / Jefferson Green - lower	103
Naples Green - upper / Jefferson Green - lower	104
Boston Ivory - upper / Texas Tan - lower	105
French Gray - upper / Toro Red - lower	106
Ebony Black - upper / French Gray - lower	107
Toro Red - upper / French Gray - lower	108
Southern Blue - upper / French Gray - lower	109
Jefferson Green - upper / French Gray - lower	110
Boston Ivory - upper / Symphony Blue-Green - lower	111
Symphony Blue-Green - upper / Boston Ivory - lower	112
Texas Tan - upper / Boston Ivory - lower	113
Jefferson Green - upper / Boston Ivory - lower	114

SYNTHETIC WHEEL ENAMELS

C 175693	Vincennes Red	*
C 175615	Cream	*
C 175833	Texas Tan	*
C 176002	Southern Blue	N
C 176000	Jupiter Gray	N
C 175831	Jefferson Green	*
C 175998	Symphony Blue-Green	N
C 176001	Broadway Blue	N
C 175832	Naples Green	*
C 175879	Toro Red	*
C 175876	French Gray	*
C 175997	Boston Ivory	N
C 175826	Ebony Black	*

N - New Color

* Retained from Series "A"

MISCELLANEOUS

Pint	Quart	Gallon	Name
C 175670	C 175669	C 175671	Velechrome Lacquer
C 175554	C 175555	C 175556	Chassis Enamel - Black
C 175924			Engine Enamel - Bronze
	C 175557	C 175558	Red Primer Surfacer
		C 175559	Lacquer Thinner
		C 175560	Lacquer Thinner - Five Gal. Container
		C 175561	Lacquer Thinner - 55 Gal. Container

Answers to the following questions will appear in the April Service Merchandiser:

1. The Hudson Rear Axle is a three-quarter floating type. True or false?_____
2. Drive gear and pinion used are of the spiral bevel type. True or false?_____
3. Noise attributed to rear axle differential is sometimes caused by defective rear wheel bearings. True or false?_____
4. Use of a knockout rear wheel puller and heavy hammer is not detrimental to the differential. True or false? _____
5. To adjust bearing preload on drive pinion bearing, shims are transferred from the front to the rear shim pack or vice versa. True or false?_____
6. Drive pinion bearing preload should be in a range of from: (a) 8 to 15 inch pounds_____; (b) 12 to 18 inch pounds_____; (c) 17 to 32 inch pounds_____.
7. The drive pinion bearing preload should be checked with the pinion shaft oil seal installed. True or false?_____
8. Pinion shaft end play should be: (a) .000"_____; (b) .002" to .004"_____; (c) .006" to .008"_____.
9. What is the torque specification for tightening the pinion shaft nut?_____
10. Runout of the differential case flange should not exceed .002". True or false?_____

Following are the answers to questions contained in the February Service Merchandiser:

1. True. The front suspension used on Hudson cars is the parallelogram system of independent front wheel suspension.
2. The first step preparatory to front wheel alignment is to locate steering high point.
3. 1. Notch in upper end of steering tube.
   2. Centralize by counting turns and dividing.
   3. Adjust cross shaft roller mesh in until high point can be felt.
4. Front wheel toe-in should be 0 to 1/16 equalized on both wheels.
5. Correction of steering wheel spoke position to right or left can only be made by removing the steering wheel and turn one or more serations to right or left on the serrated taper of the steering tube.
6. (a) Cross shaft for meshing depth.
   (b) Worm gear for end play.
7. Before front wheel alignment is checked or adjusted, tire air pressure must be checked and corrected.
8. True. Weak coil springs or incorrect shock absorber action can affect front wheel alignment.
9. The riding height of front suspension is $3\frac{15}{16}$ inches. See Figure 1, Page 162 of 1951 Procedure Manual.
10. A tracking gauge is used to detect misalignment of front suspension or rear axle.

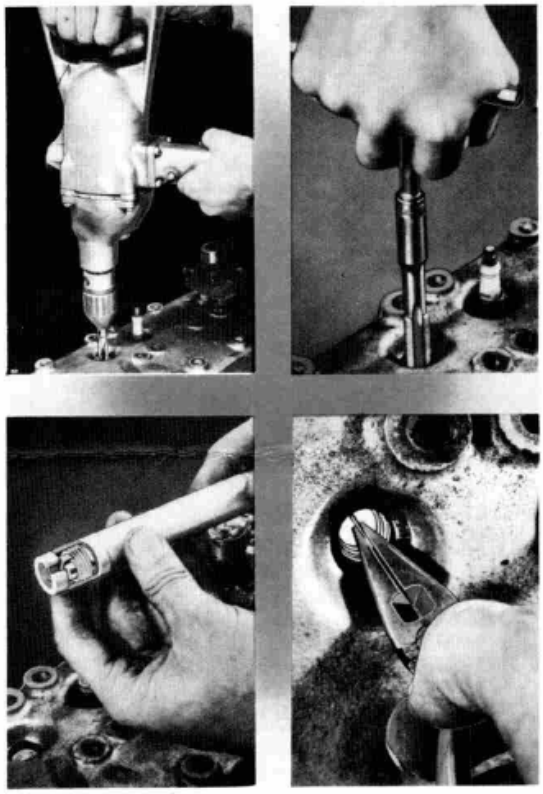
REPAIRING STRIPPED THREADS

The danger of stripping threads is reduced to a minimum where the mechanic uses a Torque Wrench and follows the recommended tightening shown in the Torque Chart reproduced in this issue.

Stripped threads do occur occasionally, however, and the important thing then is to know just what the proper method of repair should be.

For quite a number of years our Production Department have used the Heli-Coil stainless steel inserts to repair broken or stripped threads. This method offers a time-tested and approved system of repairing stripped, broken or worn threads and at a comparatively low cost.

The step by step procedure of installing the Heli-Coil is shown in the following illustrations:



No doubt many Hudson Dealers have these tools. For those who do not have them, there are approximately three hundred Heli-Coil jobbers and Dealers throughout the United States and you may find one listed in your local Telephone Directory.

FOLLOW THESE SIMPLE INSTRUCTIONS TO MAKE THE

SUN THREE MINUTE BATTERY TEST

Quickly determines whether battery is good . . . chargeable . . . or no good.

One item in this test sheet is new, as follows:

Three Minute Test Charge Cell Voltages

The procedure below will determine the condition of a charged or discharged battery because:
A **charged** battery may be tested by taking current out of it.
A **discharged** battery may be tested by passing current through it.

Test 1 — After making Visual Inspection, and adding water or noting specific gravity . . .

Test 2 — Make the Battery Capacity Test, noting the voltage under a load of 3 times the Ampere Hour Rating. (See Instruction Manual).

More Tests — If voltage is BELOW 4.8 VOLTS

Test Charge the battery as follows:

a. Connect charger as shown on side of charger.
b. Turn timer past "3 minutes," then back to "3 minutes."
c. Set charging rate to 75 amperes (or maximum rate if 75 amperes cannot be obtained). When battery is cold (below 60°F), continue High Rate Test Charge for 10 or 15 minutes to warm battery.
d. After 3 minutes of fast-charge, with charger still operating on fast-charge, test individual cell voltages of battery.

OK — If voltage is 4.8 VOLTS OR MORE

Battery has GOOD output capacity and will readily accept a normal charge. Test specific gravity if water has not been added recently.

If gravity is 1.250 or more, no service is required.

If gravity is below 1.250, test the charging system to determine cause, and correct as needed.

Slow-charge battery to full charge for city driving.

Highway driving with good charging system should return battery to full charge.

More Tests — If cell VOLTAGES ARE EVEN within .2 volt

Test total battery voltage with charger still operating on fast-charge.

Replace — If cell VOLTAGES ARE UNEVEN by more than .2 volt

Replace the battery.

Sulphated — If total voltage is OVER 7.75 VOLTS

Battery is unsatisfactory in its present condition, and is probably sulphated. Battery may be serviceable after continued slow charge, then test capacity. If above 4.8 volts, place back in service. If below 4.8 volts, replace the battery.

OK to Recharge — If total voltage is UNDER 7.75 VOLTS

Test specific gravity. Battery can be fast-charged up to the times shown at the right of the page. Always follow the fast-charge with sufficient slow-charging to bring battery to full charge.

ALWAYS TEST THE COMPLETE CHARGING SYSTEM WHEN BATTERY TROUBLE IS FOUND IN A VEHICLE.

SPECIFIC GRAVITY	FAST CHARGE UP TO
1.150 or less	1 hour
1.150 to 1.175	½ hour
1.175 to 1.200	½ hour
1.200 to 1.225	¼ hour
Above 1.225	Slow charge ONLY

Printed in U.S.A.

BATTERY, STARTER AND CHARGING SYSTEM TEST REPORT

NAME ADDRESS

MODEL LICENSE MILES DATE

Column No. 1 Shows the specification for your vehicle
Column No. 2 Shows the readings obtained at the time the vehicle was tested.
Column No. 3 An X in this column indicates an unsatisfactory condition which is further explained under "Recommendations." An X circled ⓧ indicates unsatisfactory condition corrected during test.

	1	2	3
1. BATTERY (Check if Water Added)			
Visual Inspection			
Specific Gravity (Pos. Cell, Center Cell, Neg. Cell)			
Battery Capacity Voltage @ 3xAH Rating			
Three Minute Test Charge Cell Voltages (Pos. Cell, Center Cell, Neg. Cell)			
2. STARTING SYSTEM			
Visual Inspection			
Starter Cables and Switches			
Starter Ground Circuit			
Starter Amperage Draw			
3. CHARGING SYSTEM			
Visual Inspection			
Insulated Circuit Resistance			
Ground Circuit Resistance			
Regulator Ground Resistance			
Generator Output			
Cutout Relay - Closes			
Opens			
Voltage Regulator			
Current Regulator			

RECOMMENDATIONS

Based on Tests as Indicated

	ESTIMATE PARTS	ESTIMATE LABOR

Repair Order No. Tested By

ASK ABOUT A COMPLETE SUN ENGINE DIAGNOSIS

NEW SUN PROCEDURE FOR BATTERY ANALYSIS

The new method developed by the Sun Electric Corporation for determining the actual state of a battery—whether it may be recharged or has reached a state where a replacement is in order—is outlined in a systematic step by step operation shown in the chart above.

Following the results of this test and assuming the car owner purchases a new battery, a detailed test and examination is made for all conditions that might lead to a repetition of battery difficulty. This in itself is a splendid feature. It is a very salient point.

Here is a combination of testing and selling that both the mechanic and service salesman should be familiar with, mainly because batteries have been the number one service item for 1950 and 1951. Increase your profits on battery servicing and improve the service.

OIL FILTERS

Sell a Hudson oil Filter cartridge with every Spring reconditioning. Winter driving has left its mark! Dirt, water and sludge have been building up. Ask every service customer, "How's Your Oil Filter?" Check your stock of filters and cartridges and order an additional supply *now!*

SP-161007	Oil Filter Cartridge	1937-49
SP-302496	Oil Filter Cartridge	1948-52
HA-302494	Oil Filter Kit—6 Cyl.	1949-52
HA-302495	Oil Filter Kit—8 Cyl.	1949-52

Attention: Service Manager

Display oil cartridges and filters in your service department. Always sell a new cartridge with every change of motor oil.

A HUDSON *Approved* ACCESSORY