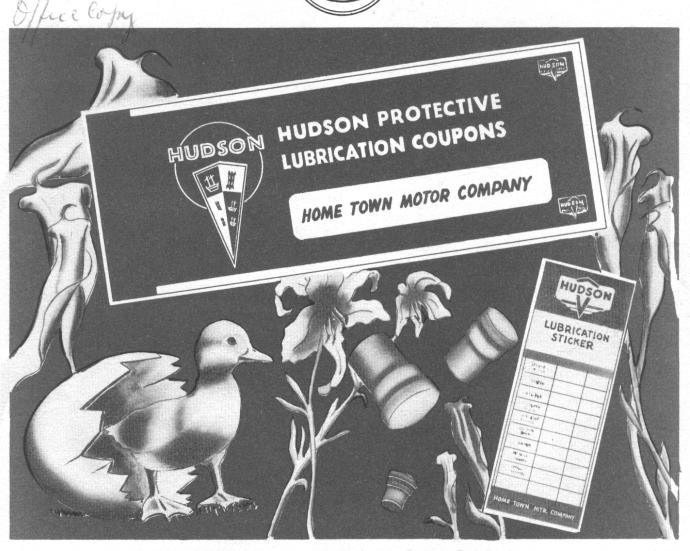
# Commente Manualista

Vol. 2 No. 4

2 ded 4/12/10

**APRIL, 1950** 



#### SPRING PROMOTION

It's Spring again—and with Spring a fresh start! The urge to do something is in all of us. Hudson Dealers will be glad to know that we have a new customer retention plan which is designed around the sale of Lubrication Books.

Dealers are urged to offer 12 lubrications to their customers for the price of 10 and then, as an added attraction, offer with the Lubrication Booklet a complete set of Lubri-Caps for the customer's car.

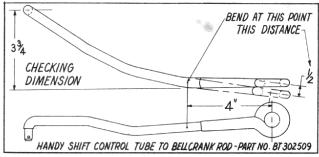
Lubri-Caps are a protective little rubber cap that fits over the zerk grease fittings. They prevent grit and dust from lodging on grease fittings and entering the bushings, also protecting the fittings from abrasion by rocks and stones.

Dealers who offer to replace all missing Lubri-Caps on their customers' cars are bound to receive more loyal participation of owners to their grease rack. WATCH FOR SERVICE PROMOTION BULLETIN CONTAINING COMPLETE DETAILS ON THIS PLAN.

HUDSON MOTOR CAR COMPANY.. DETROIT 14, MICHIGAN

# MODIFICATION OF SHIFT CONTROL BELLCRANK ROD 480-490-501-2-3 and 4

In such cases where there is evidence of the shift control tube to bellcrank rod Part No. 302509 contacting the steering gear housing when shifting into second gear or a "spring back" tendency caused by compression of the rubber grommet in the eye of the rod when shifting into high, the condition may be corrected by a slight modification of the control tube as shown below.

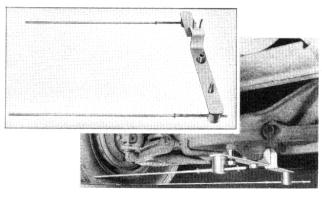


Place the rod in a vise and increase the bend  $\frac{1}{2}$ " at the point indicated in the sketch, 4" from the center of the eye on the rod.

The correct amount of bend may be checked by laying the eye portion of the rod on a level surface and taking a measurement from the surface to the center of the rod on the pin end. The bend is correct when this dimension checks  $3\frac{3}{4}$ ", as indicated by the checking dimension in the sketch.

## STEERING ARM CENTERING AND TOE-IN GAUGE

Special tool J-2953 shown below is designed to enable the mechanic to accurately equalize the steering and setting toe-in of front wheels to proper specifications. There is no substitute for the use of this tool. It is applicable on all 480-490 and 500 Series cars.



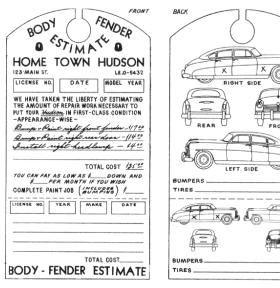
During Winter driving with the attendant skidding and severe stress imposed upon steering connections, it is not unusual that wheel alignment as well as central steering position may have been disturbed. Correcting these conditions is right in line with spring check up work and this tool will more than pay for its original cost in the accuracy and time saved by its use.

Every Hudson repair shop should have one of these tools as it is designed specifically for Hudson cars and to do a job that is not done as accurately or quickly without the tool. Order this tool today and be prepared to efficiently handle your spring service work on steering and toe-in jobs. For complete details applying to using this tool refer to your Procedure Manual.

# A BUSINESS GETTER FOR YOUR BODY SHOP

Here is a proven plan for getting extra business into your Body Shop. This method has been used on numerous occasions by a large shop in Michigan, and they have on each occasion, when the plan was put into operation, actually stimulated business beyond their shop capacity and it became necessary for them to call a temporary halt to the activity.

The plan is to give owners a bonafide estimate on body ding work and refinishing that he may not yet have had an opportunity to get a quotation on or that may perhaps be more attractive than he had anticipated. With tags made up (printed on both sides as shown below) a capable estimator of his organization is assigned the job seeking out cars parked on city thoroughfares that are in need of body repair work and proceed to make careful estimates of body or fender work. The card is then attached to the door handle or on the windshield wiper informing the owner just what it would cost him to put the body of his car in a first class condition—Appearance Wise.



Please note that the bottom of the card is perforated so that the Service Manager has a record in his file as to what quotation was on each car. To those dealers who have a Body and Paint Shop, this promotion is a sure fire! It is considered that only 1 out of every 10 cars today do not need some kind of body or fender repair work. This is particularly true after Winter operation.

Champion H-8 spark plugs are now standard on both 6 and 8 cylinder engines with either cast iron or aluminum cylinder head. The gap setting is .032.

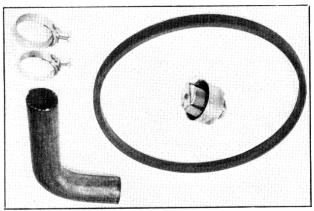
# REPLACEMENT OF WINTER-WEARY PARTS = DOMARS FOR DEALERS

These are only a few of the many Genuine Hudson Approved Items that Dealers can merchandise for greater profits during the Spring and Summer months:



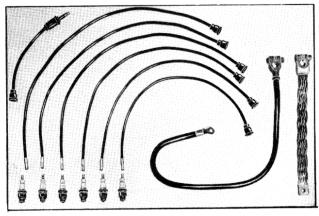
#### **HUDSON APPROVED**

Stop Leak Radiator Flush Rust Resistor Radiator Cleaner



HUDSON ENGINEERED

Thermostats Fan Belts Radiator Hose Hose Clamps



#### **HUDSON ENGINEERED**

Ignition Wires Battery Cables Battery Ground Strap Spark Plugs



**HUDSON APPROVED** 

Hurricane Auto Shampoo Pre-Wax Cleaner Cleaner and Wax Polishing Cloth

#### **PARTS MANAGERS:**

The independent garage, gas station, bump shop and other wholesale outlets in your neighborhood will be replacing winter-weary parts on their customers' cars.

You can realize a considerable amount of this Spring and Summer wholesale parts business with the independent garages, gas stations, etc., through a minimum amount of merchandising effort.

USE ONLY HUDSON ENGINEERED PARTS FOR COMPLETE
CUSTOMER SATISFACTION

#### QUESTIONS AND ANSWERS

Following are the answers to questions that appeared in the March issue. They are taken from a part of questionaire given to students attending the Factory Mechanical school.

- 1. 480 and 490 and 500 Hudson engines should idle at 580 to 600 R.P.M. with D. M. 540-560 without D. M.
- 2. Vacuum gauge at idle speed should read Steady, at 19 to 21 inches of vacuum.
- 3. In making a cylinder balance test the following items can be checked.

A. Valves B. Rings

C. Bad Head Gasket, Cracked Head or Block.

D. Motor noises.

- 4. Variation in vacuum gauge reading between banks of cylinders while making cylinder balance test may be 1".
- 5. When making a compression test of a cylinder, engine should be given 4 revolutions.
- 6. A variation of not over 10 lbs. between cylinders is permissible in a compression test.
- 7. There should be a compression reading of 75 lbs. on first revolution of engine. This gives a check for possible sticky valves.

8. The three tests on a battery are:

2. Specific Gravity 1. Visual Inspection

3. Capacity or Discharge Rate

9. The three tests on the Starter Circuit are:

2. Starter Switch 1. Cable Voltage and Amperage Draw

10. Normal loss in battery cable is 2 volts maximum.

Answers to the following questions will appear in the May issue of the Merchandiser. They are taken from a questionaire given students at the factory mechanics school.

What is the normal cranking voltage?

- 4 Volts\_\_\_\_\_, 4.5 Volts\_\_\_\_ or 5 Volts\_
- 2. It is not necessary to check the coil through the ignition switch. \_\_\_\_true \_\_\_\_false.
- 3. Check two of the following tests in checking a

Milliampere  $\mathbf{B}$ Capacity Resistance D\_ Voltage

- 4. Which tester is needed in checking the Distributor resistance?
  - \_Ammeter B\_\_ Voltmeter

Dwell tester

- 5. It is not necessary to remove the Distributor Primary wire when making the condenser test. True or \_\_\_\_ False.
- Name the three tests of a condenser.

B

- 7. What does the Dwell meter tell about a Distributor?
- 8. List three various things that the Dwell meter will indicate.

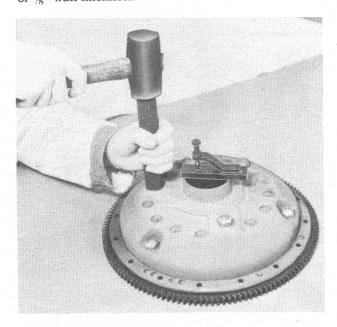
9. What speed should the engine run while setting the timing?

500\_\_\_\_R.P.M. 600\_\_\_\_R.P.M 650\_\_\_\_R.P.M. 10. Where should we set the timing of the Hudson engine?

5° before top dead center. Top dead center  $-5^{\circ}$  after top dead center.

#### TOOL FOR ADJUSTING CLUTCH FINGER HEIGHT

Pictured below is the method recommended by our Engineering Department for adjusting clutch release finger height, thus lowering the cover surrounding the finger retainer instead of striking the retainer nut which is apt to loosen it. The tool may be made of tubular steel having  $1\frac{1}{8}$ " inner diameter and of  $\frac{3}{32}$ " or 1/8" wall thickness.



At any time when a clutch is removed from the car it will be found more convenient to bolt to a flywheel on the bench-with gasket installed and adjust release finger height to within limits. The work done in this manner is easier and should check out accurately when installed on the car.

#### BOSTON ZONE SERVICE ACTIVITY

The Boston Zone has had three all day Service Managers' meetings under the direction of the Service Manager, F. H. Butterworth, assisted by S. L. Taylor, Service Traveler. The instructor for the meetings was Mr. Russell Bischof, Factory Representative for Carter Carburetor Co., Inc., who covered in detail the carburetor and fuel pump installation on the 1950 Hudson Six and Eight Cylinder Engines.

For disassembly and assembly work, each man who attended the meetings was supplied with a carburetor and fuel pump of the type that are used on the Pacemaker. There was a keen spirit of enthusiasm among the men over these meetings, which started at 9 A.M. and ended at 5:15 P.M. each day.

The Boston meeting had 17 men in attendance; the Providence meeting 8 men; and the Springfield meeting had 17 present.

Mr. Butterworth reports that plans are under way to hold more of these meetings in the near future in order that key Service Men may obtain the last word in up-to-date mechanical information.

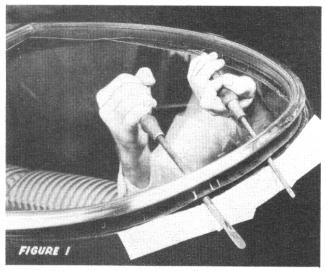
# REPLACING BROKEN REAR WINDOWS IN 500 SERIES CARS

**TIME REQUIRED:** 4.8 hours for one side 5.0 hours for both sides

Should either half of the rear window become broken it is necessary to remove the complete window (both halves) and rebuild the assembly on the bench.

#### GLASS REMOVAL

Preparatory to removing the assembly apply several thicknesses of masking tape over the area at each side of the window (as shown in Figure 1) to prevent damage to the body finish.



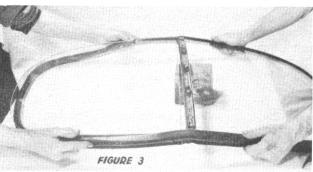
First remove rear seat cushion and cover the seat back with a protecting cloth. From inside the car, pry weatherstrip flange loose, starting at one side of window and then force removing tools through opening as shown in Figure 1, which will enable one on the outside to pull the assembly loose. Follow the same procedure on the opposite side and the complete assembly is removed and placed on a bench. Figure 2.



Remove broken glass fragments and all of the old sealer from the rear window recess in the car body also from the window retainer weatherstrip recess. Remove window glass reveal mouldings from weatherstrip also the center bar reveal moulding by prying it loose from center bar. Loosen the five retaining screws in the center bar moulding and window glass retainer to allow for removal and installation of the new glass.

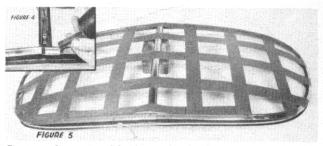
#### GLASS INSTALLATION

Apply a liquid soap or brake fluid to the window glass retaining recess (do not use a mineral lub.) of the weatherstrip to assist the installation of a new glass as shown in Figure 3. Place a block of wood approximately 6" long under the window center bar then holding the assembly on the block at one end (see Figure 3) insert the new glass and work lip of weatherstrip up over edge of glass until glass is completely encased.

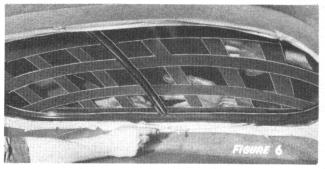


Slide the reveal moldings onto the weatherstrip, attaching lips and when moldings are properly secured, with a light hammer and driver, drift the moulding joint covers over the junction of the two mouldings, note insert Figure 5. Tighten the center bar moulding retainer screws and install the center bar moulding by tapping with a rubber hammer.

Use a good heavy cloth masking tape and apply as shown in Figure 5, to retain reveal mouldings and center bar in position while installing the assembly. Tie a stout cord around the window weatherstrip between the inside body flange and lip of recess with the release end of cord at bottom of window assembly, as shown in Figure 5. Leave sufficient cord to provide a good hand hold for pulling cord from assembly.



Lower the assembly into the body recess from the outside and from the inside — pull the release cord as the assembly is forced down into body recess, as the release cord is pulled from the weatherstrip flange (Figure 6), it is raised sufficiently to allow the window assembly to properly seat in the body recess. Clean all excess sealer from window and weatherstrip.



#### CONTEST PRIZE WINNERS

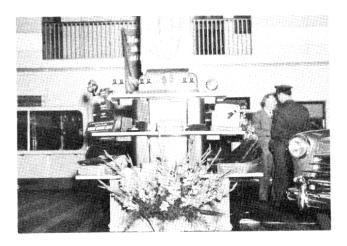
First prize in the suggestion contest is awarded to Mechanic Sam Mastnardo with the Tijeski Motor Company—Hudson Dealer in Cleveland, Ohio on the following:

When removing the front wheel bearings for cleaning and repacking, time can be saved in removing the inner bearing by simply placing the wheel bearing nut back on the spindle after removing the outer bearing and then pull the wheel and the inner bearing and grease retainer will be removed and left on the spindle.

For second prize the judges have given the nod to Mr. Paul C. Lynch, Parts Manager for C. E. Wright & Co., Inc., Hudson Dealer in Norfolk, Va. on submitting what has proven to be an effective method of accessory merchandising drives with a photograph of the setting. We'll let Paul tell you how he does it.

"Here we have struck upon an idea which so far has proven very successful in *Merchandising Accessories*. We have inaugurated "Week End Specials." On Friday mornings we clean, wax and prepare our showroom with cuts and baskets of flowers to distribute to the ladies and balloons for the kiddies. Then our accessory racks are arranged and I inform the salesmen what special we will feature for the week.'

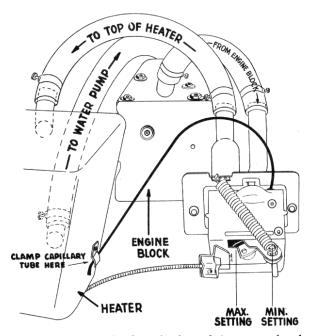
"The week ending February 4, 1950 we featured Magna Lites and by offering the salesmen an incentive this item was sold beyond our expectation. The following week-end (February 11th) we gave demonstrations all morning of Liquid Glazing cars, so again at closing time the response was so gratifying that all concerned were well satisfied. The following week we are featuring the Hudson Automatic Battery filler. Each week we pick an accessory which is not moving as well as we think it should. If the past two weeks are any indications, we hope to not only have our accessory inventory way down, but also be in a position to order more."



Third prize to Mr. W. C. Hindoff, Parts Manager (5 years) with Johnston-Moody Company, Hudson Dealer, Peoria, Illinois. His is based upon a thorough knowledge of parts and accessories and diplomacy in pleasing a customer – here's how. "Recently an owner drove in much put-out account of having had the front bumper guards of his new Hudson damaged by skidding into another car. He was reluctant to purchase the new bumper guards but when shown the Grille Guard Kit which afforded increased protection plus added beauty and at less cost, he was delighted and made the purchase. Needless to say the customer left happy, knowing that a real service had been rendered."

#### WEATHER CONTROL VALVE

The heat control valve capillary tube is highly sensitive to cold air and even though the body interior may be at desired temperature the control valve will not restrict the flow of hot water if the capillary tube is against the dash or should there be the slightest draft of cold air contacting the capillary tube. It should be clamped against the bottom of the weather control assembly as shown in sketch.



If in doubt as to the functioning of the control valve a very simple test is to have the car brought to a warm garage and note results. A definite check may be made by disconnecting the Boden wire from the control valve lever, then move the lever to the coolest position. If lever springs back toward center and will not hold at "cool position" the thermostat has lost its charge and control valve is not functioning.

Also shown in the sketch above are the maximum and minimum setting positions; however, when the engine cooling solution is cold the valve in control is wide open until the body temperature comes up to the dash setting when, through the action of the thermostat bellows, water valve cuts down the flow to maintain the desired temperature.

It is vitally important that the hose be properly connected as shown above, otherwise the water flow will be restricted.

#### PACEMAKER SPECIFICATIONS

The following are additional specifications not included with those contained in the December issue of Service Merchandiser.

#### BRAKES

Type 4 Wheel Bendix Hydraulic
Drum Diameter11"
MaterialCentrifuse
Lining Type Moulded
Width, Front
Width, Rear
Wheel Cylinder Size
Front
Rear
Adjustments Anchor Pin Radially
Front and Rear Shoe Adjusting Screw
Clearance
Both Ends of Shoe010"
Mechanical Follow-Up 1 1/4"
Pedal Free-Play

#### CLUTCH

	9" Clutch	10" Clutch		
Tyrno				
Type	in Oil	Single Plate		
Fluid used		in Oil		
Fidia used		Hudsonite		
Amount of Divid	Compound	Compound		
Amount of Fluid		½ Pint		
Filler plugs	. Front of flywheel			
Plate facing	Cork inserts	Cork inserts		
Number of				
Corks	. 90	108		
Pilot				
bearing	. Ball	<b>B</b> all		
Throwout	*			
bearing	. Ball	Ball		
Engaging				
fingers	. 3	3		
Throwout				
bearing —				
Lubricant	Chassis lube	Chassis lube		
Lube fitting	Right side of	Right side of		
J	clutch housing	clutch housing		
Clutch pedal free				
(measured from un				
floorboard to face	of clutch			
pedal lever)		$1\frac{1}{4}$ " to $1\frac{3}{4}$ "		
Engaging springs		- / 4 (0 - 1 / 4		
Inner	6	3		
Outer		12		
Engaging spring tension (Compressed to $1\frac{5}{8}$ "):				
Inner				
	130-140 lbs.			
outer	100-140 103.	130-140 108.		

#### TIGHTENING TORQUE (BOTH CLUTCHES)

Throwout finger retainer nuts40	-45 ft. pounds
Cover cap screws20	-25 ft. pounds
Cover driving lug nuts40	-45 ft. pounds
Clutch housing cap screws40	-45 ft. pounds
Flywheel bolt nuts20	-25 ft. pounds

#### STEERING GEAR

Type	Worm and 3 tooth roller
Ratio501-2-3-4	20.4 to 1
500	
Steering wheel, 500 18"	Hard rubber steering wheel
	with horn button
502-504	.Custom 18" plastic steering
	wheel with horn ring

Gear shaft bearings	Needle
Worm shaft bearings	Tapered roller
High PointNotch	on steering column tube
	straight down
Lubrication	S. A. E. 90 E. P.
Wheel Nut Torque	20 to 30 foot pounds
Gear Shaft Nut Torque	. 125 to 140 foot pounds
Gear to Frame bolts	50 to 60 foot pounds

#### WHEELS AND TIRES

#### WHEELS

	Wheel Size	
Model	Standard	Optional
500		15 x 5.50
All Convertible Broughams	. 15 x 5.50	

#### TIRES

	Tire Size		
Model	Standard*	Optional**	
500	7.10 x 15	7.60 x 15	
All Convertible Broughams	7.60 x 15		

- \* 4-ply, black sidewall is standard; 6-ply tires are optional in both sizes.
- \*\* White sidewall, 4-ply tires are optional in both sizes.

#### **FACTORY SERVICE SCHOOL COMMENT**

Accompanied by one of his key service men both of whom attended the Factory Service School during the week beginning March 6th was Mr. Charles Henneman whose Dealership, Charles Henneman Co. has been selling and servicing Hudson cars since 1934. Asked, what in his opinion was the outstanding merit of the school, he pointed out that first; the efficiency and capability of the instructor, whose faculty to make clear the most difficult mechanical features and to come up with answers to any and all questions asked. Only second to these was the completeness of the school repair shop equipment.

Paul Alford, son of the owner and manager of the Pioneer Motors, Fort Worth, Texas Hudson Dealer has completed his second course in attending the factory service school. Active in service supervision during the past 3 years, he stressed the importance of specialized technical training and expressed the opinion that Hudson Factory Service School Training was worth many times its cost to a Hudson dealer.

# CLEANING NYLON AUTOMOTIVE FABRICS

presents no special problem according to the supplier of nylon fabrics used in Hudson upholstery. It is suggested for general cleaning a two step process be followed.

- 1. Sponging with carbon-tetrachloride and allowing it to dry.
- Washing with semi-dry suds made from ivory soap. Cleaning of beer, coffee, hair oil and butter was done by this method with results that the spots were completely removed.

### Smart Spring Merchandising of Parts and Accessories . . .



CALLS FOR ... CLEAN-UP ... DECORATE ... AND DISPLAY

You are now entering your best selling season. Develop the "buying mood" with attractive displays — Dime store materials can do this for you at extremely low cost.

Display Parts and Accessories that sell particularly well in the Spring. The following list shows only a few of the items that you can "plug" extraordinarily well in the next few months:

- Karvisors
- Thermaster Jugs
- Thermaster Refrigerators
- Spark Plugs
- Batteries
- Seat Covers
- Touch-Up Paint
- Floor Mats
- Polishes, Waxes, Cleaners

Yes, smart merchandisers trim-up to make their Parts and Accessories Department as inviting as possible.

SELL

By DISPLAY

By DEMONSTRATION

SELL

By MAIL

SELL

By TELEPHONE

