

Hudsonotes

Column of Mechanical Miscellany
by George Schmidt
Mishicot, Wisc.

More Body, Door, & Window Repairs

FEW OWNERS attempt to do all needed body restoration work on a cherished collector car themselves. Unless the owner is unusually skilled (and knowledgeable), the lasting and non-visible repair of most dents and rust-outs is probably best left to a trusted professional, and often this is also true of final surface preparation and repainting.

At the same time there is much of the work that a typical mechanically-inclined owner can do, both for his own satisfaction and to keep costs within bounds—and sometimes to help ensure a more carefully detailed job as well. Some work of this type has been discussed in the June Hudsonotes, and a few more suggestions are given here.

A CHART OF body points needing occasional lubrication was included as a fold-out inside the front cover of Hudson owner manuals for years (with electrical wiring diagram on reverse side). Most of these points—on Hudson and on most Brand X's down to the present—tend to be neglected, and the usual result is unnecessarily hard and noisy operation of car doors, trunk lids, hoods, etc., along with excessive wear of parts such as latches and strikes, hinges, door check arms, and handles. Almost any kind of oil or grease at these points is better than none, but specific recommendations are shown in the manual. Remember also to wipe up any excess promptly, and again a day or two later. When parts are old, and ordinary engine oil seems too light, try #50 grade (as used in oil-type aircleaners), or #90 transmission oil, or oil which has $\frac{1}{4}$ or so of STP or a similar thickener added. Along with door parts, the trunk and hood latches and prop arms should be lubricated at least annually, and adjustments checked; not forgetting also the small fuel-filler and cowl vent doors on most models (reach under dash if necessary). A small pump-type oil can is convenient. Wheel-bearing grease (the older heavy type) may be used on latch strikes, fuel door springs, etc. If hood-lock cable sticks, hold it bent into a curve (a few inches at a time), and apply penetrating oil with spray or brush, checking also for kinks. Use same treatment for heater-control and over-drive cables.

The heavy "clocksprings" which help hold hood and trunk lid open on many models usually require only a small amount of grease or heavy oil, placed between the

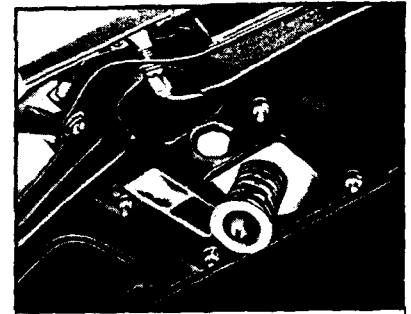
coils; but occasionally springs of this type refuse to operate quietly even when well lubricated. In such cases, the only method which this writer has found effective for getting rid of assorted creaks and grunts is to wash oil or grease from springs, and then to "lubricate" them with automotive rubbing compound (the kind used for buffing out paint). Work compound in well between coils but not onto pivot or hinge parts, adding more in a few days if needed. (Springs can be re-oiled lightly after several months of use.)

For effortless and snug "new-car" closing of doors, it may also be necessary to lubricate a portion of the rubber weatherstrip with Door-Ease or a similar wax; and sometimes, when the rubber is old, the door catches may need to be adjusted slightly looser in very cold weather. Today silicone in spray or rub-on form is often used in place of the wax, and this works very well except that if car is to be repainted, every trace of silicone must be removed from metal surfaces, using a special kerosene-like solvent. Even the tiniest amount of silicone will cause thin spots in the new paint film, giving a "fish-eye" effect.

To avoid needless masking work and obtain a better repaint job at lower cost, the owner should remove (and later replace) exterior chrome trim such as bumpers, handles, all lights, door locks; all hood, fender, and trunk ornaments (and probably most moldings, if it can be done without injury to them). Most owners can also do their own detail painting of parts such as the wheels (especially if enameled in contrasting color), trim on chrome insignia and hub-caps, the low-luster black used on portions of many radiator grilles, perhaps the Vel-chrome (silver) color found on most step-down rocker panels, and similar bits.

WINDOW GLASS replacement and adjustment can usually also be done by owners at home, along with other repairs inside doors and rear quarters (see June WTN). While car door is apart, be sure to lubricate the door latch and its linkage, and the regulators for main door glass (including coil spring which acts as a counterbalance), and for the front windwing glass. Another part to be checked on most models is the thin post or bar between front windwing and main door glass. Made of stainless steel, this bar is rustproof but may occasionally crack or split, particularly at its bottom end where a metal ear is riveted on to hold mounting bolt. The problem is more often found on 2-door cars due to the extra weight and size of door glass; and one result is added rumble and vibration inside door, especially on rough roads.

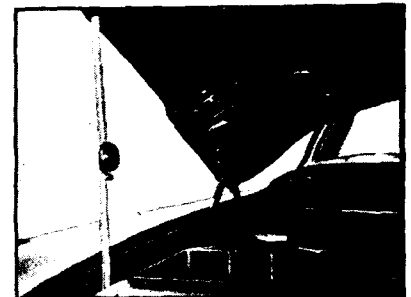
Bar is the same on 2- and 4-door Hudson stepdowns (closed models). As with most such interchangeable parts—latches, handles, front check arms, etc.—good replacements are much easier to find on a 4-door parts car, owing to greater production and less strain on parts. On early stepdowns, the



HOOD LOCK—UPPER

WATER RESISTANT GREASE ON DOVE-TAIL AND LIFT SPRING.

1 POINT.



HOOD PROP

WATER RESISTANT GREASE ON SPRING. ENGINE OIL ON PROP ARM ATTACHING BOLTS.

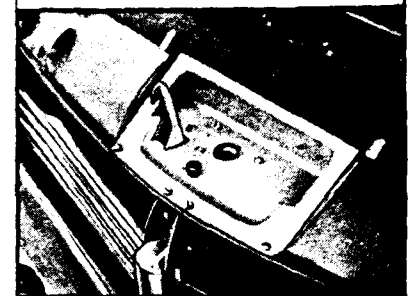
3 POINTS EACH SIDE.



HOOD LOCK—LOWER

WATER RESISTANT GREASE ON LOCK CATCH AND CONTROL WIRE. ENGINE OIL ON SAFETY HOOK HINGE PIN.

3 POINTS.

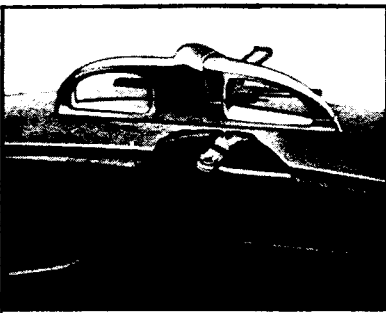


HOOD HINGE

ENGINE OIL ON HINGE LINK PIVOT PINS.

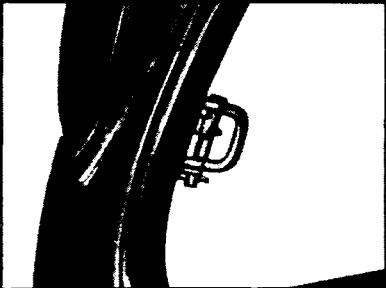
4 POINTS EACH SIDE.





REAR COMPARTMENT DOOR LATCH OPERATING LEVER

ENGINE OIL ON EACH END OF LATCH ROD.
2 POINTS.

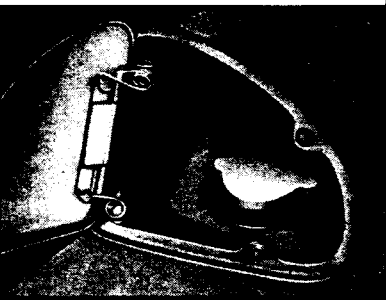


REAR COMPARTMENT DOOR STRIKER

ENGINE OIL ON STRIKER HINGE PIN AND SPRING.
2 POINTS EACH SIDE.

FUEL TANK FILLER DOOR

LIGHT ENGINE OIL ON HINGE PIN.
2 POINTS.



DOOR STRIKER

WATER RESISTANT GREASE ON TOP SURFACE AND IN LOCK BOLT GROOVE.
1 POINT EACH DOOR.



bar (with channel and weatherstrip) is a separate piece, but cars mid-1949 and up have bar riveted to the outer triangular frame which holds windwing rubber. This second-type assembly may be slightly stronger, but it is also harder to install and adjust. Bar can be changed to first (separate) type by drilling out three rivets.

Often the damaged lower end of original bar (either type) can be repaired instead. If owner has access to welding facilities for stainless steel, this is one possibility. A simpler method may be to make a patch from light "angle iron" stock, about 1/2 x 1/2 inch, and 2 or 3 inches long. Drill holes and attach this using either sheet-metal screws or 6-32 machine screws, nuts (2 per screw), and lockwashers. Screws should be flathead type, with metal countersunk slightly so that heads fit nearly flush. These screws and nuts can also be used as replacements for rivets in bar assembly, if matching rivets (and proper riveting tool) are not available. When reinstalling bar in door, position it so that neither windwing nor main glass will bind or be too loose. If necessary, enlarge the two mounting holes in inner door metal slightly to permit more adjustment, and add flat washers as needed (sometimes a small one also on sheet-metal screw at top of first-type bar). Check door metal near mounting holes (and the small bracket for bottom screw) for any broken welds or even the start of a small crack; repair as necessary.

WHETHER WINDOW GLASS needs to be replaced or not, check condition of the channels in which it slides. The channel attached to stainless-steel bar is of a thin rigid type, about 25 inches long. If upper external edge of this channel is a bit weathered, reinstall it in an upside-down position on bar. Channel around rest of window is of the usual bendable type, made of cloth and metal, felt-lined and with stainless-steel beading at both edges. Unlike the rubber around windwing, and other parts molded specially for certain Hudson models, these two channels were fairly standard components shared with some Brand X's of the time, so that replacement channel material can usually still be found, sometimes from local parts suppliers or by mail order. Check description and measurements of new channels carefully before ordering.

New channel must be cut to length (without crushing it), and flexible channel must also be bent to match original. The original flex channels on Hudson stepdowns also had a set of crimped-on retainer clips along part of their length—one type of clip fitting car doors, and another fitting rear quarters of most 2-door models. Since these clips are nearly impossible to salvage and re-use, it may be necessary to hold the top (horizontal) portion of new channel in place using spots of trim or weatherstrip cement instead. Bottom of flexible channel

is held by an adjustable metal trough or channel inside door or rear quarter.

One special type of weatherstrip, made of black velour but with a matching stainless-steel bead, is used along bottom edge of window opening, both inside and outside glass. If this strip is damaged or worn out, it can cause vertical scratches on glass as window is raised and lowered. Although a new replacement for this strip can perhaps be found as well, it is difficult to install, since the original is held to outer chrome reveal molding (and to inner garnish molding) by wire staples driven through the metal by a heavy-duty stapler at factory. It is possible that a few body shops have similar equipment, but this writer has not seen any locally. Perhaps a reader can help with suggestions.

Staples of this type are also used on Hudson stepdown models to hold rubber mud flaps at each front wheel, the similar short rubber skirt under trunk at rear, the canvas skirts on inner front fender dust shields, etc.; but on these it is usually possible to substitute ordinary "pop" rivets (or even small sheet-metal screws and washers) if necessary.

NEW REPLACEMENT GLASS for side windows and windwings on Hudsons is usually no problem since it is standard flat glass, and can be cut to fit (and the cut edges buffed smooth) at most glass shops. Purists may object to the use of modern "safety" (sandwich-type) glass on cars before the mid-1930's or so, where it is not original and will be visible whenever window is opened to expose edge of glass. Also, while the plastic layer in safety glass helps to keep broken splinters from flying, it does not add strength, and plain plate glass (not the modern so-called "tempered" variety, however) is probably less breakable.

Often early safety glass (prewar) must be replaced even when not broken, because of milkiness, yellowing, bubbles, etc. in the center layer. To help preserve older safety glass which is still in good condition, a coat of transparent lacquer such as clear nail polish may be applied to edge of glass.

Out of sight, at the lower edge of each sliding window glass, is a "rest channel" assembly, which is rubber-lined and is a very snug press fit on the glass. Although door and quarter window glass is interchangeable between right and left sides of car, the attached rest channels are not. It is usually not wise to attempt removal and installation of these channels at home. Glass shops have special equipment to do the job safely, and can also provide new lining rubber (though not always with the outer weatherseal lip found on some originals). Before re-using an old rest channel, or windwing frame, check for rust damage—an occasional one will break in two when removed from old glass. On many modern Brand X's the windows do not have rest channels, but instead have regulator mechanism attached through holes at bottom edge of glass.

The Hudson Body Service Manual (1948-54 edition, which has been reprinted) gives directions for installing the window glass and channel assembly in doors and quarters on all stepdown models. Windows on convertibles and Hollywood hardtops, which have glass edges surrounded by a chromed metal frame, require a somewhat different installation and adjustment procedure (also in the manual).

THE SMALL REAR QUARTER windows on stepdown 4-door sedans, while not regarded by all as a beauty feature, are a highly practical feature which can provide excellent flow-through ventilation with a minimum of draft. These windows were enlarged slightly for 1951, and were blanked out entirely on the Derham custom limousine built for use of Hudson president A.E. Barit. When the Pacemaker sedans were introduced for 1950 (or 1949¾), they had these windows made non-opening, as an economy feature. Although this is entirely in line with present-day practice (which offers us even "luxury" vehicles with non-opening rear quarter glass), it sacrifices useful ventilation; and today's owner of a Pacemaker sedan may wish to convert these windows to the pivoted opening type more usual on Hudsons, using components from a parts car.

Glass in these pivoted rear quarter windows, and also in the front door windwings, can often be replaced without removing metal frame from car as directed in manual. Use extreme care when removing old glass, however, to avoid bending or damage to the frame, or its pivots, or their supports on door or body. Next clean all dirt and rust from inside frame (the black liner strip is sometimes reusable). When inserting new glass, use an older-type windshield or glass sealing compound (black color preferred), which is not extremely adhesive, but will in fact act as a lubricant while glass is being pushed all the way into place, and will only harden slowly afterward. Apply both inside and outside liner strip. Clean up excess at once (and again a few days later, using solvent).

Occasionally, despite best adjustment efforts, the exposed edge of front wing glass may bind or scrape against divider bar, and too often this soon causes damage to wing gears or latch handle—or chipping of glass. If it is necessary to "plane down" the edge of this glass slightly for a better fit, an ordinary hand whetstone (flat, and of medium grit) can sometimes be used. Rub stone lengthwise along glass edge (not across it).

Rear quarter windows on business (single-seat) coupes are also fixed in place; these too may be converted to opening type (using club-coupe parts), although rear window cranks may not be very accessible. The rear quarter glass on stepdown convertibles opens by pivoting down into body on a hinge; this is the same on hand-crank and power-window models.

THE TWO-DOOR VERSIONS of a car, as already noted, are most often sought in later years as collector vehicles, and most often need to be checked with especial care at several body points (whether there is a rust problem or not), due mainly to the sheer extra size and weight of doors and other parts. This is true even of Hudson stepdowns, despite their substantial construction. For example, the outer edge of car door on coupes and 2-door sedans, at "beltline" level (near bottom edge of window, or a few inches above door latch) should be examined, since a small crack may possibly form here after long use. It can be repaired by welding (remove interior garnish molding, trim panel, and flex window channel). Be sure to retain original curvature of door for a good fit around weatherstrip near top. Check also the corresponding point on B-pillar of body (a few inches above door latch strike plate, and near inner windlace). Occasionally a few broken spot-welds or even a tiny stress crack can be found here; these too should be re-welded (remove interior pillar trim).

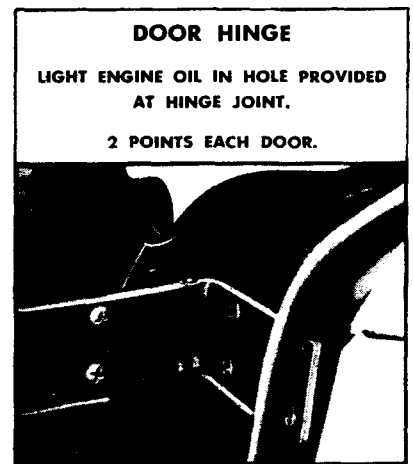
The lower portion of A-pillar on body holds front door hinges, check arm, etc., and is the same on all stepdown models. It is welded at inner edge to kick-panel metal, forming a solid box section to support car door whether open or closed. In a few cases the heavy door on a convertible, coupe, etc., may eventually pull some of the welds loose. These must be repaired or the break will gradually become worse, allowing door to hang out of alignment and also to be damaged by opening too far. For access, remove cardboard kick panel and the rubber windhose assembly and screws (perhaps also the aluminum scuff plate, bottom trim panel, and courtesy-light switch).

Front door check arms are the same on 2-door and 4-door stepdown models, but are much more stressed by the larger doors. Rear door arms are also the same except for length, so that usable spare parts such as the steel washer and rubber bushing (both with oblong center holes) for end of arm can often be found, even though these were not sold separately. If door check arm must be removed for any reason, its outer rivet can be replaced with a short ¼" size bolt and self-locking nut if preferred. If arm permits front door to swing open too far, with possible damage to door from edge of fender, the arm can be shortened slightly by using two steel washers at end instead of one (along with a rubber bushing in good condition). To shorten arm further, remove clips and small rivet from inner end of arm, and drill a new hole about ⅜ inch farther from end. In place of this rivet, use a small bolt with several nuts, to hold the clips, steel washer(s), and rubber bushing solidly in the new position.

Inspect the check-arm guide plate, which is riveted into a pocket in each door. This plate has a loop of heavy flat wire which is used with the two clips on arm as a detent to hold door in wide-open position. If wire is

partly broken detent will be too weak. Plate is the same on 2-door and 4-door models (and front and rear). A replacement plate can be installed easily with small bolts, nuts, and lockwashers in place of the rivets. For a slightly stiffer detent, install two oblong-hole washers on end of arm along with clips as already noted.

Occasionally the bracket for check arm, on door pillar, may be found damaged. A good replacement can be salvaged by cutting about a 2½ x 4½ inch piece, including bracket, from the pillar on a parts car; but installation requires separating the resulting "sandwich," and a careful welding job (it may be necessary to cut into A-pillar from behind) on car.



FRONT DOOR HINGES on stepdown Hudsons were generally interchangeable except for strength, with a heavier version required for convertibles and a lighter one used on sedans. Front hinge pin size on closed models was changed c. '49 from 5/16 inch (same as rear) to the 11/32 inch used on convertibles. The door hinge bolts have Phillips-type oval screw heads, and the most practical tool for tightening and loosening these is an impact-type screwdriver.

Detailed instructions for door alignment and adjustment are given in the Body Service Manual. However, often a slight upward correction for door sag is all that is needed. Sometimes this can be managed simply by placing door in nearly-closed position, grasping outer bottom corner of door, and lifting it energetically once or twice. Sometimes it is better to bend lower hinge slightly by pinching a suitable block of wood in hinge and nearly closing door against this a few times. Check alignment at the beltline of door and of car body (near door handle). For an accurate check, this should be done with car parked on a level floor.

Next time: More about body and interior trim repair. Also coming soon: Books to help Hudson restorers.