
Hudsonotes

Column of Mechanical Miscellany
by George Schmidt
Mishicot, Wisc.

ASSORTED TECH TIPS presented this month have been collected over several years. Not all of them are original with your columnist, who would like to thank Earl Huffman for a number of the suggestions used in this column and one or two to follow.

A BRAKE-ADJUSTING spoon often makes a good tool for popping snap-on trim moldings free from their retainers. If tool is used as a pry, be sure to wrap the bent portion of it with rubber tape to avoid damaging car finish. Sometimes an old-fashioned flat tire tool can be used in about the same way. If both these tools are too thick, a discarded table knife will often serve the purpose. The rounded end of knife blade is especially effective for loosening narrow moldings. If retainers are somewhat rusted, try soaking with penetrating oil a day or so beforehand.

FRONT CROSSMEMBER under engine on a stepdown Eight is customarily lowered 6 inches on four long bolts to permit removal of the long double 8-cylinder oil pan. Actually this method, though not listed in some manuals till '50 or so, is very helpful on Sixes as well, for easy

pan removal and most bottom-end engine work. At the same time, if a front coil spring must be changed, or a spacer inserted underneath it, this too is somewhat easier while crossmember is down.

TRICO windshield wipers and related components were a familiar part of Hudsons (and most Brand X's) from the Twenties on up. A detailed list of vacuum motors and parts used on Hudson vehicles was published in the April, 1973 WTN. Motors were of the standard "half-round" shape with swinging-paddle type of piston. Edges of piston were faced with twin stripe of a treated cloth (or perhaps leather on some models), backed by thin spring brass for an effective seal.

These motors were lubricated "for life," but in the course of a long life, the grease inside, and the edge seals, become quite dry. Efficiency can often be restored by working a small amount of light oil into the motor. Cover screws are usually standard 6-32 thread, with special heads. If motor is disassembled for cleaning, extreme care must be used when reinstalling piston, to avoid damage to edge seals.

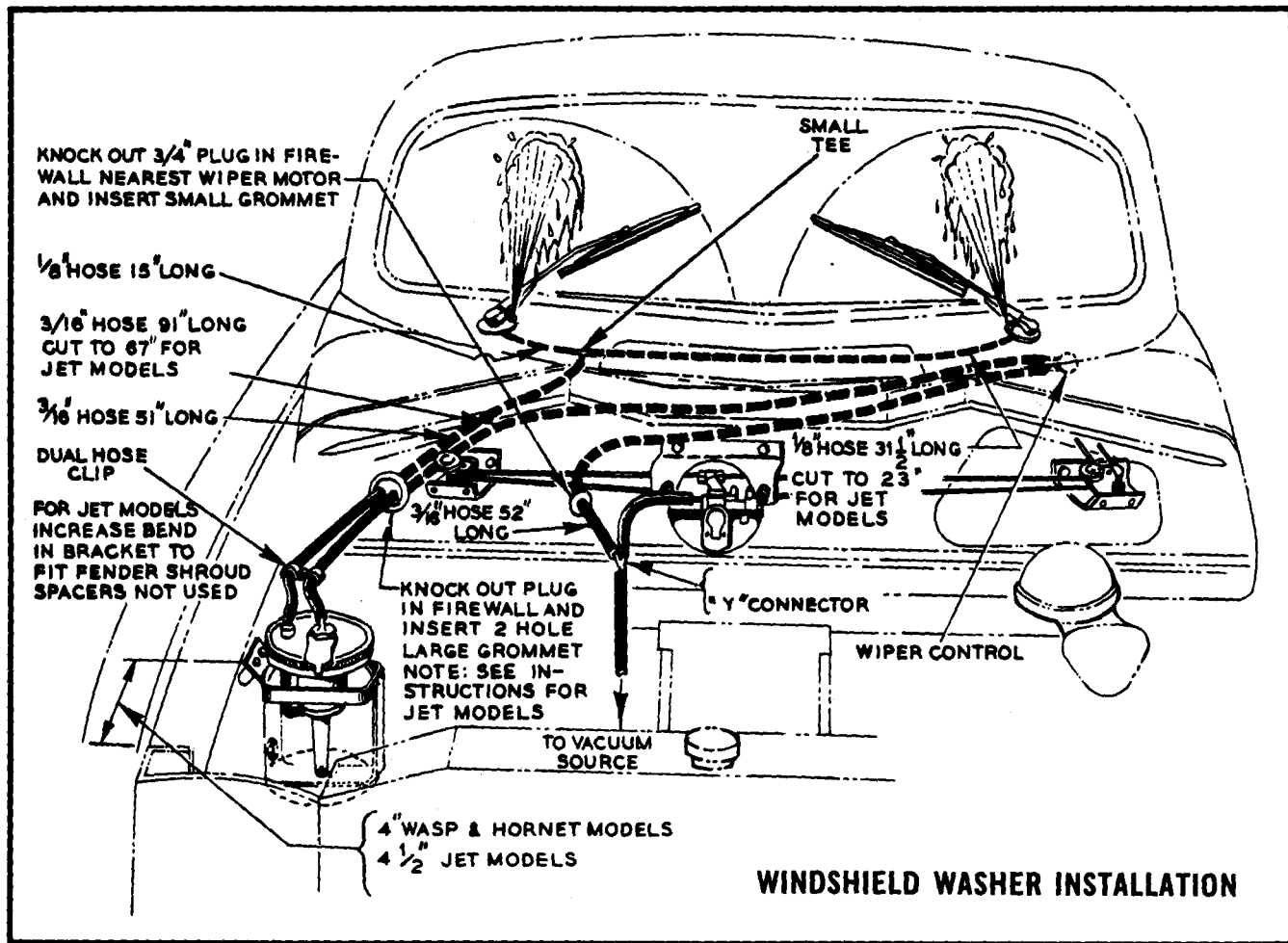
Motor valve gear is inside the small front chamber. Most models also have air intake holes at bottom of chamber, with a felt air filter that can be removed, washed, and lightly re-oiled.

A slightly larger wiper motor was available c. 1950 and up. This will also fit the earlier stepdowns if desired, since mounting bracket has extra pair of bolt holes. It may provide some added wiping muscle, especially for models with longer blades or without vacuum booster at fuel pump. But it does not have the auxiliary windshield-washer valve built in, as

the earlier motors do; and on a washer-equipped car it will thus be necessary to change to a '51-type dashboard wiper control (with washer button set into knob) at the same time — or add separate button.

Prewar magazines indicate that Trico's accessory windshield washer system (with jar, nozzles, and vacuum-powered pump) apparently came out in 1937 or 1938. Although it did not become widely popular until the 1950's or so, all Hudson stepdowns were provided with a nipple for hose connection, and a threaded hole for nozzle (with screw plug), at each wiper base on cowl, so that washer installation is still quite simple on these cars. No holes need be drilled in cowl, and spare knockouts in firewall can be used for hoses (preferably with rubber grommets). Nozzles are standard Trico side-mounting type, also used on many later vehicles. Pressure from the early-type pumps is limited, however, and with car standing still, nozzles must be aimed slightly high, or streams will be too low when car is moving. To reduce clogging, small in-line washer filters have been available, or a fine cloth can be tied over intake screen in jar. Unscrew nozzle caps for cleaning.

Most of the ready-mixed washer solutions sold today in plastic jugs are satisfactory: the antifreeze feature is especially important with a glass washer jar; and these solutions also seem to help keep check-valve ball in the older pumps from sticking. For replacement jars, check gallon or restaurant-size containers of pickles, salad dressing, etc. at grocery store — some of them come with 3-inch threaded jar necks to match the early pump assemblies. Later jars during



the 1950's fitted into the same brackets, but used extra-wide-mouth (4 3/4 inch) lids, and some also had a revised pump design.

Bracket and jar on a stepdown are usually located on left fender dust shield,

just behind battery. To avoid interference with upper suspension arm, bracket should be spaced at least 5 1/2 inches above car frame.

REAR WINDOW wipers were available on Hudson in 1939, if not earlier

(see March '74 WTN, p.2). With one-piece rear windows, the installation became a bit simpler, and this option continued available on all stepdown models except convertibles. Since a full-size vacuum motor was used for only one

blade, power was adequate despite the long hose run, though adjustment at mounting socket was critical. Usual control at dash had matching knob which was "on" when pulled out, and could be turned to adjust speed. A second hose was needed to "park" the rear wiper at bottom position when shut off. (To avoid a similar 2-hose feed to the front wipers, Hudson and some others used type of motor with valve built in, and cable-controlled, rather than with shutoff/park valve at dashboard.)

During the early 1920's, hand-operated windshield wipers were a familiar accessory, and were one of the small items an auto salesman might perhaps "throw in" to help close a deal. Some early vacuum models also had a short manual lever inside car for emergency use. In addition, to fit most early cars without wipers, Trico for many years afterward offered add-on vacuum wiper kits, with a small motor and single blade. They were usually fitted to driver's side only, but could also be paired.

Electric windshield wipers were featured on a few U.S. cars 1939 and up, and like those even today, offered at most only two operating speeds, rather than the continuously variable control available with vacuum — but the speeds were unaffected by loss of vacuum during engine acceleration. Earlier in the 1930's, the AC division of General Motors developed an alternate method of stabilizing wiper speeds without loss of speed adjustments, by adding a vacuum-booster section to the cam-operated fuel pump. Although normally held idle by engine vacuum opposing a stiff spring, this second pump diaphragm would come into action to make up the loss whenever

engine vacuum dropped. These AC double pumps were built in a number of variants, with gasoline section often identical with that on an AC single pump, and they were soon offered as an option on non-GM cars as well, including Hudson 1935-57.

The boosters corrected wiper stalling, but gained a reputation for failing before fuel section of pump was worn out. On engines requiring frequent and heavy vacuum boost, this was often true, and owners sometimes disconnected the broken booster instead of rebuilding it. On engines needing only mild occasional boost, these pumps were more reliable, and a Hudson Eight, for example, would often operate for many years without booster trouble. The pump does require occasional checking, however, since when broken it tends to draw engine oil into intake manifold. Also, if a pump in good condition is left to run open, it will produce a characteristic sound, not unlike a milking-machine or other vacuum pump, audible above engine idle. The leak at airdome or wiper connection should be promptly found and corrected, since these booster units are not designed for continuous open use. A heavy hiss also indicates vacuum leakage (though this is sometimes at choke pulloff inside carburetor).

ORIGINAL WIPER blade length on Hudson stepdowns was changed in mid-'49 from 10 to 11 inches. This also required a change in the supporting "vertebrae," but not in the main wiper arms. Both Anderson (Anco) and Trico blade assemblies are used on these cars, and it appears there would be clearance even for 12-inch ones if desired. Sometimes a change in blade length is desirable on an

older car to prevent wipers from wearing any one visible line on glass at edge of swept area. Check in sunlight.

Apparently a production change was also made in the wiper arms themselves during those years. Both types are styled alike and will interchange, but the early type is made with a heavy flat spring and roller inside to press blade against glass, while the late type contains a stiff coil tension spring instead. External accessory "helper" springs will fit over either type, but are seldom needed. In addition, arms from many later cars will fit Hudson, although of course the government-approved dead-finish "safety" type are an anachronism to be avoided.

Trico's cable-and-pulley wiper drive on 1948-54 Hudsons now looks unique, but was not: variants of it were also used on eight or more Brand X's for a time, usually with additional rubber-coupled "driver" piece at motor. The two corner pulley assemblies (early pulleys solid type; later ones spoked) have built-in-torsion springs which are used to help adjust cable tension correctly with wipers stationary, and then are locked in place for running, by tightening nut from below.

To remove a wiper arm, bend it away from windshield (to unlock), and work arm end carefully off spline on shaft. Arm can be replaced in a slightly different position on spline to correct the centering of blade sweep on windshield. If the two arms cannot be adjusted exactly alike in this way, one drive cable on each side may need to be shortened a bit. A small metal oblong with two ¼" holes (pieces of pipe strapping will do) can be strung inconspicuously on a cable to tighten it.