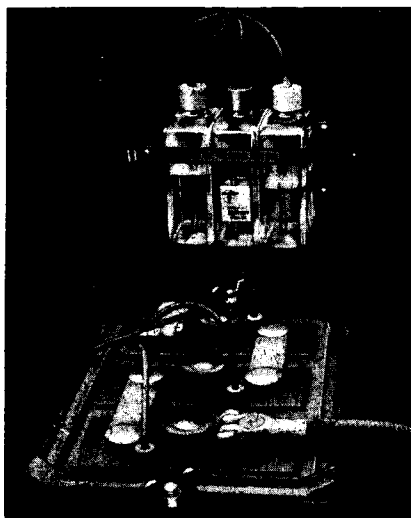


Hudsonotes

Column of Mechanical Miscellany
by George Schmidt
Mishicot, Wisc.

Add-Ons and Extras

AN AUTOMATIC FILLER for the battery was a factory-authorized accessory on stepdown-model Hudsons and no doubt on other cars of the 1948-54 period. In these years near the end of the 6-volt era, today's so-called "maintenance-free" batteries were still in the future, and water level in the cells needed to be checked at least every few weeks or 1000 miles. The automatic battery filler was designed to provide comparable maintenance-free performance with batteries of the time, even those without large reserve fluid space above the plates. General condition of battery and terminals still needed to be checked occasionally, as it does today, and care was also necessary to avoid damaging the filler and its tubes.



Hudson folders supplied with the device (1948) do not specify its actual origin or manufacturer, but they include a clear description and instructions. Orville Voeks, Wisconsin, has given me original copies of these, including one page for the installer and one for the car owner. The unit is described as follows:

"Three 8-ounce acid-proof, visible-type glass containers — one for each battery cell — are firmly held in rattle-proof bracket mounted on engine side of dash [or on Hudson stepdown models, usually under hood next to firewall, at

the top of left fender side dust shield]. Feeder tubes of heat and acid-proof rubber extend from automatic battery filler, through each cell cover to $\frac{1}{8}$ " above battery plates. Positive action through thermo-expansion — not siphon or gravity feed — is caused by heated air around the engine. . . . As your Hudson Battery Filler operates on the principle of air expansion, there is only one simple precaution to assure perfect operation: Each plastic container cap must be firmly and securely tightened to create an air-tight seal. . . ."

Installation required drilling a $\frac{1}{4}$ " (or $\frac{15}{64}$ " hole in the flat top cover of each battery cell, near vent cap. A rubber plug containing a feeder tube was then fitted tightly in each hole. These plugs, and the corresponding jar caps, were colored bright red, green, and yellow to distinguish them. Finally, the jars were filled (to level of crossbar on bracket) with plain distilled water, and the three caps securely tightened. It was not necessary to draw off acid solution from the battery cells and add this to water in jars unless the installation was done in freezing weather. Acid and water would mix automatically after a few days of normal use.

"Your Hudson Automatic Battery Filler is a trouble detector for you," the folder concludes. "Under normal driving conditions in moderate weather, one filling of the containers should last approximately six months. In cool weather, this time will be extended. . . . As your battery grows older, it will consume water more rapidly . . . It is normal for one cell of a battery to consume more water than the others . . . if one container empties more rapidly than the others, there is no cause for alarm.

"Danger Signal — If your battery suddenly begins to consume water rapidly, it is an indication that an abnormal strain is being placed on the battery by overcharging. Overcharging can be caused by a defective regulator or by faulty generator. When your battery filler gives you the danger signal, you can save trouble and money by having a service man check the electrical system. . . ."

TRICO PRODUCTS Corporation, of Buffalo, New York, was long known not only for its vacuum windshield wipers (standard equipment on Hudson and many other cars), but also for an assortment of related accessories. Several were mentioned in the January/February

column (pp. 40-41), and one more unusual example has been described to me in a letter from Jon Battle of Virginia.

This is an add-on Trico vacuum booster pump for cars of the late 1930's. Jon reports that he bought it, complete with instruction sheet, for \$5 at a swap meet about 14 years ago, and has used it on his Terraplane ever since. Like the familiar AC vacuum boosters which are built as part of the camshaft-operated fuel pump — and which also first appeared in the 1930's — this Trico unit operated to supplement engine vacuum when needed, so that wipers would maintain a nearly steady speed regardless of throttle opening. But unlike the AC boosters, Trico's unit was separate from the fuel pump, and was driven by a small pulley pressed against the outer surface of fan belt. An adjustable steel band and bracket were provided to hold pump in position on top of generator. Fan belt needed to be properly tensioned and in good condition.

This pump too was of the diaphragm type, and had its own small cam and rocker arm. A single check valve, placed at the branch of the T-fitting connected to the intake manifold, was arranged so that the diaphragm and its spring would function only when engine vacuum was low. As with most boosters, this pump was designed only for use with wipers (and Trico's then-new windshield washer system). Accessories requiring more air volume, such as vacuum clutch, Electric Hand, vacuum horns, etc., were connected directly to the intake manifold.

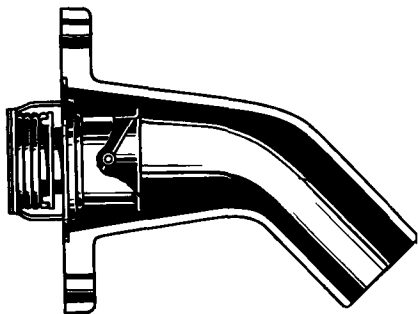
This booster pump was an interesting alternative both to the usual fuel-pump type boosters and to larger (and costlier) electrically driven accessory vacuum boosters. Being separate, the unit could not cause added load or wear on the fuel pump cam (said to be a problem with some engines when fuel/vacuum combination pump is used). Jon writes that his belt-driven pump is still doing its job very well. It has one grease fitting for the shaft bearing and a felt oil wick for the rocker arm, and these need to be lubricated about every 1000 miles (or with each regular grease job on car) to avoid possible seizing or noise.

A THERMOSTAT in the cooling system to help regulate engine temperature has been standard equipment on most cars since the mid-1930's, but it was often an accessory or add-on before that. In response to one of the columns

about 1916 Hudson servicing (see March/April 1986 WTN), Dave Kostansek, New Jersey, has sent us added information from an early Super Six parts catalogue (published 1922):

"The thermostat arrangement is listed only for models 5-M through 9-O (May 1917 - November 1919), so it wasn't used on the first Super Sixes. The thermostat is contained in a special housing which replaces the regular inlet bolted to the top tank of the radiator. It's longer than the standard inlet, so a shorter upper hose is required. The housing is in two parts so that the thermostat inside — a bellows-type much like later ones — can be removed When thermostat is closed, coolant will flow through a side outlet in housing and down a tube to a special tee inlet at bottom of radiator. As in later bypass systems. . . removing the thermostat without plugging the bypass will seriously impair cooling efficiency.

"This arrangement may possibly have been discontinued because it was troublesome, since the catalogue has a separate section listing parts necessary if the thermostat is to be removed. It is not certain that thermostats were used even on all cars of the models mentioned above. . . a non-thermostat radiator is also listed for those models."



Dave also enclosed xeroxes picturing early Super Six radiators both with and without the thermostat. Possibly installation depended partly upon the climatic area in which a car was to be used.

Some Brand X models achieved thermostatic control of the cooling system by automatic operation of the radiator shutters, rather than by restricting the flow of cooling liquid. Columbia claimed this arrangement as a first in 1924, and it was also used by Packard and others.

When hot-water type heaters for car interiors came into use, it was soon found that they were not very efficient unless coolant temperature was thermostatically controlled. Add-on thermostats

were available to fit most cars not so equipped at factory (see January/February '87 WTN).

FOG AND SPOT LIGHTS were discussed in earlier WTN columns (see July/August 1980 and September/October 1982 issues). Most of them on Hudsons are by Unity, Chicago, since this was the factory-authorized make sold by dealers during the postwar years, and was available with "Hudson" (or other car name) on cap. Unity also had small "Model B" backup lights available to match, in addition to its more familiar beehive-shaped ones.



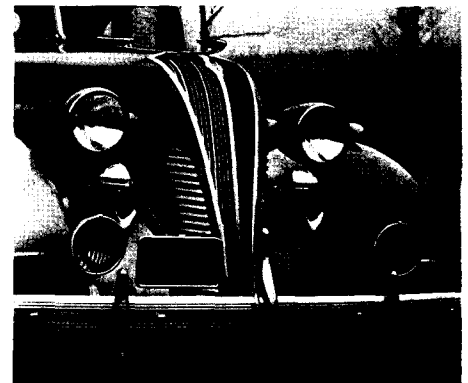
However, several other brands of accessory lights suitable for most Hudsons could also be found, from mail-order and other sources, and even from GM's Guide division, which offered spotlights that would fit many non-GM models. Alternative brands of backup lights included Auto Lamp's beehive-shaped version (#491); and there was also one miniature-foglamp shaped style which, according to a letter and photo from W. Jay Wanczyk, New Jersey, was originally the "US Pioneer No. 400" model from the U.S. Metal Products Co., Brooklyn, N.Y., in the late 1940's. It appears that this latter style (see picture, September/October 1980 WTN, p. 33) may still be



available, identical except perhaps for a 12-volt bulb and no brand marking, from J.C. Whitney, Chicago, and some accessory stores.

One brand of fog lights seen for years (and perhaps still) in accessory stores is from the Do-Ray Lamp Co., Chicago. The Do-Ray 500 (with 5" chromed shell, for 4" round sealed-beam unit) still appears quite at home on most Hudson and Brand X models with standard round sealed-beam headlights, though there may be the problem of changing to 6-volt bulbs.

It seems that the clear and amber 6-volt sealed-beam "Fog" bulbs (#4015 and #4015A in the 4" size) are gradually becoming harder to find and more costly. At one swapmeet this past summer, your columnist found one substitute which is usable if not ideal — a pair of #4014A (orange) 6-volt "Signal" bulbs in the same size. These too have a wide flat horizontal beam, and though not as sharply focused as a standard foglight beam (there is no internal metal cap), they can be helpful in adverse weather or at twilight.



Some information about Hudson factory-authorized foglights during the pre-war (and pre-sealed-beam) years has been supplied by Wayne Graefen, California. He recently found a pair of glass lenses with "HUDSON FOG LAMP" lettered on them in relief, for Appleton accessory lights which used a separate bulb and reflector. The Hudson part number on these, #129261, Wayne points out, apparently places them c. 1938 (see July/August 1980 WTN, p. 33, or painting, January/February 1987, p. 48); and this would suggest that Hudson changed from Lorraine, its supplier of lights since 1936, to Appleton for 1938 and probably 1939. Does anyone have more detailed information about these early accessory

lights? It will be noted that most of them had shells which were more "streamlined" (pointed at rear) than later types, since cars of the late 1930's usually had sufficient clearance between bumper and grille for these, and often had headlamps with shells of similar design.

Standard 6-volt replacement sealed-beam bulbs for headlights 1941 and up (#6006) still present no availability problem, but this writer realized when shopping for a pair of them this past summer that current production ones are made with the same modern narrower fluting or ribs in the glass as are 12-volt sealed-beams at present. This is visible from several yards away, and is not very appropriate on a collector vehicle. Fortunately the local Chevrolet dealer had several NOS #6006 bulbs with the older-style wide flutes in the lens still on the shelf.

Many of us have a few good used sealed-beam bulbs (head, fog, spot) stored away against the time of need. These should be kept away from excessive moisture or changes in temperature if possible, and should be handled with especial care at the terminal prongs or clips and glass nipple at rear of bulb (particularly when disconnecting an old unit for salvage). Any shocks or rough treatment here can easily cause a miniscule air leak which will ruin the bulb. If necessary, use a few drops of penetrating oil on the headlamp connector plug.

A ROPE-PULL STARTER for Hudsons is certainly an unlikely accessory, although such gadgets were not entirely unknown as add-ons for early Model T Fords and the like without electric starters, as an alternative to the standard hand crank. Around 1954 this question reportedly became the subject of several wagers among Hudson merchandising people: did Hudson ever offer such an item? Research among the factory's engineering drawings turned up information which was recently sent to me in xerox form by Jack Miller, who had received it from Boxley Cole of Colorado.

The drawings and specifications indicate that there was indeed such a device, although the number actually made is not known. Surprisingly, it was designed not for the earliest Hudsons but apparently for the new small Terraplane in 1932. This car of course had conventional electric starting, but no doubt the rope-pull system could be used in emergencies.

It consisted of a spool-shaped cast metal "starting tool" which fitted onto the starter pinion gear, plus a rope (ordinary sash cord) knotted at each end, with a maple handle. No recoil mechanism was included, so the rope had to be rewound on spool by hand before each pull. Since the car in 1932 still featured a side-opening hood, the tool was much

easier to use at the time than it would be with modern envelope bodies. Has anyone in the Club ever seen one of these starting tools?

THANK YOU To Orville, Jon, Dave, Jay, and Wayne; also to Jack and to "Box" (as some friends addressed him), for their help with this column. Next time: a few more Hudson accessories.

HUDSON MOTOR CAR COMPANY

DETROIT 14, MICH., U.S.A.

February 19, 1954

CABLE ADDRESS
HUDSONCAR

Mr. Boxley Cole,

Dear Box:

Subject: STARTING TOOL

After a great deal of investigation and research on my part, I find that we did release a starting tool kit, which included a sash cord with a handle on the end of it. This starting tool was placed on the starter gear pinion, the rope was wound around it (such as a string on a top) and then pulled to turn the engine over.

This release was made in 1932, so probably was used on the first small Terraplane, and not earlier as we had in mind.

I am attaching copies of the Engineering Releases covering the starting tool which is, of course, proof of its availability in 1932.

If, due to this considerable effort on my part, you are able to collect any money on your wagers, I expect half of it.

Yours very truly,



Director of Service

W.S. Milton:L

Copy to - Messrs. N. K. VanDerzee

R. D. Chapin