Hudsonotes

Column of Mechanical Miscellany
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From the Accessory File

(11th in a series)

Auto Accessories

(12th in a series)

BATTERY TERMINAL CLAMPS occasionally break or come loose from cables, and replacement-type ones which bolt onto end of cable have been a stock item for many years. Though most can expand or shrink enough to fit either a positive (large) or negative (smaller) battery post, they vary somewhat in the size of cable which they are designed to hold most effectively. For 6-volt use, they should be able to accomodate heavy #0-guage cable without needing longer-than-normal attaching bolts. When installing new clamp, be sure all copper cable strands are clean and shiny for a length of about ½ inch, and preferably are also lightly greased before tightening in clamp.

Although these bolt-on terminal clamps will not look entirely original, they may be preferable on a collector car to replacing the entire battery cable with one which does not have original-type braided insulation — or is of lighter gauge. For the flat braided copper strap used in place of a ground cable at battery on many older cars, however, it usually is still possible to find a matched replacement (check truck and tractor-parts sources if necessary). When checking and cleaning battery terminal connections, make certian in that the opposite ends of cables (at starter motor, frame, engine support, etc.) are also clean and tight.

Sometimes an old original cable clamp needs only careful cleaning (reshape slightly with file if needed), along with perhaps a new bolt and nut to hold it solidly on battery post. Use only a bolt with ½-inch square (never hex) head for this purpose, and a hex nut with perhaps a narrow flat washer added. Bolt should be well greased, and battery post (and inside of clamp) must be clean and shiny. Be sure square head of bolt cannot turn (file new notch for it in lead if necessary).

If an old clamp seems a bit oversize and will not grip post firmly, remove bolt, and file or saw between open ends of clamp to permit additional tightening. An alternative repair is to use accessory "battery post shims," made of sheet lead, and long available from Whitaker and others. Place clean shim over battery post; then install clamp.

One interesting type of replacement clamp available during the 6-volt era looked exactly like an original clamp, and was soldered to about a 5-inch piece of new original-type cable. A lead coupling clamp, with several setscrews and a braided protective covering sleeve, was provided to splice this to the end of cable on car. This type of replacement was especially useful if original cable was a bit short.

TO CLEAN battery area, a solution of baking or washing soda in water will dissolve any sulphate deposits, and then all parts should be carefully rinsed and dried. After the battery posts and clamps are cleaned, it may also be wise to apply a thin coat of grease to them. A grease such as vaseline which contains no metallic soaps is suggested; or one of the modern spray-on battery terminal protector compounds can be used. Another anticorrosive accessory, seen especially in the years when seals at bases of battery terminal posts were often less reliable than at present, was a pair of felt washers, to be soaked with clean oil or vaseline, and installed below cable clamps. These helped to prevent any minor acid seepage from working its way up to the battery connections.

Water level in a conventional storage battery (with filler caps) needs to be checked every few weeks during normal use, and every few months when idle, particularly if no automatic-filler accessory (March/April '87 *WTN*, p. 34) is used. The most rapid loss of water normally occurs during fast charging, due to both electrolysis and evaporation. To minimize water loss and stress on battery, it is essential that the battery be of adequate size and ampere capacity. All full-size Hudson stepdown models, 1948-54, for example, require a Group 2 (not Group 1) size battery with at least a 100 ampere-hour rating. This is sometimes confusing at present since many battery manufacturers today advertise only the "cold cranking amps" figure (a measure of quick-discharge capability) and try to avoid stating the actual ampere-hour rating.

A pair of battery jumper cables with large spring clips was usual shop equipment during much of the 6-volt era. Today it has become a common accessory for home garage or trunk, partly because most late-model cars with automatic transmissions cannot be push-started. For effective use with 6-volt systems, however, the cables need to be somewhat heavier than many of those sold today. Copper wire of #0 or #1 gauge is suggested for this purpose. Jaws of clips must also be free of corrosion. Clean them on a wire-brush wheel if necessary.

STOP-LEAK products for the cooling system have been with us since the early days of the automobile (with some highly improbable substances being tried), but they should not be necessary if radiator, engine, connections, etc. are all in good condition. However, these products have improved somewhat over the years, and are undeniably valuable at times, especially for temporary or emergency use. They cannot repair large leaks, but will usually control troublesome minor seepage. Used according to directions, they will not clog water passages unless these are already nearly blocked, though some may reduce cooling efficiency slightly by depositing a thin insultating coat inside radiator and heater cores.

Since many Hudson and other car owners could probably tell us about good (or poor) results experienced with one or another brand of cooling system sealer, we would like to hear from them about the use of this and also other cooling system aids (July/August *WTN*.

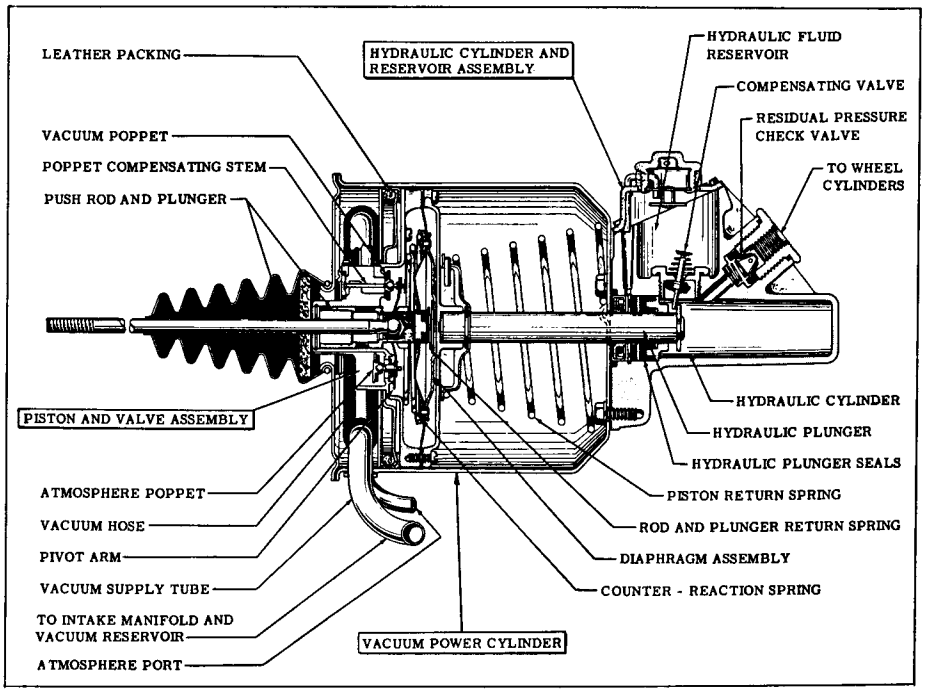
p. 37). Although stop-leak products consisting mainly of tiny metallic particles have been widely used for many years, this writer to date has had best results with the dark-colored adhesive type of product (sometimes including slow-dissolving pellets as well) which has been described by at least one mechanic as "fig-newton" material because of its general appearance. The best-known brand of this type is probably "Bar's Leaks," which received much publicity a few years ago when large quantities of it were used for emergency repair of the hot-water circuitry in the first U.S. atomic-powered submarine, *Nautlis*. It appears to be especially effective against minor head-gasket leaks, seeping into trouble spots and than baking solidly in place, ending fluid loss and sometimes also making eventual head removal rather difficult.

For best results, most stop-leak products should be added when engine is warm and top expansion tank of radiator is just under half full; and engine should then be run for at least another 15 or 20 minutes (with radiator cap in place) before stopping.

The most practical method of checking the system for leaks is to use a small hand pressure pump and gauge (found at most repair shops, and also used for testing pressure-type radiator caps). Although pump can be forced to nearly 20 p.s.i., 10 to 12 should be sufficient for Hudsons and most other older cars. In doubtful cases, the system can be tested both warm and cold, and kept under pressure for 15 minutes or more.

AN INTERESTING letter from David Shatto, Oregon, comes in answer to the request for reader comments about Hudson power brakes and steering (July/August *WTN*). He has both of these power accessories on his 1954 Hornet, and his opinion of them is generally favorable, though he points out that even in this final stepdown year, Hudson's famous safety braking system (with mechanical reserve at pedal) was not available on models with power brakes.

He states that he has had to make one panic stop with these Hudson power brakes, and that they performed well, and are not excessively touchy in normal use (and are superior to those on a Cadillac and a GMC pickup which he owns). He does not suggest changing a Hudson either to add or to remove



power brakes. Although Hudsons in any case are noted for excessive nosedive or weight transfer to the front when braking, he says that the 1936 models (the first Hudsons with hydraulic brakes) were best in this respect because of the design of their front-axle radial support arms.

Concerning power steering on a Hudson, Dave observes: "... it is excellent. I have never driven an auto with power steering that performed as well. At first I did not like it, so I started work on the front end. This car had been sitting for some time, and had 132,000 miles (that I know of). I put in new kings pins, center steering control arm bearing, and tie rod ends; also grommets on the front stabilizer bar. This all helped, but I still was not satisfied. I drove it to work, and it improved right along. I think it must have been the power steering control cylinder [or valve] that was sticking and needed polishing from not being used. It was doing fine now except when coming out of a corner. Then I discovered the grommets in the rear stabilizer bar were worn out. I fixed that problem, and now it drives perfectly. One fellow, who has a '54 Hudson Hornet without power steering, drove mine, and likes it so well that he is all excited about installing the power-steering unit that he had purchased some time ago."

Although not mentioning handling characteristics at high speeds or on slippery surfaces, Dave concludes: "I would encourage anyone to install the Hudson power-steering unit on one of these cars, as it improves the handling so much at slow speeds and when parking."

POWER STEERING equipment on Hudsons during 1954 and 1955 was not all of the same make, though it was all of "linkage type" design and so was used in combination with — not in place of — the usual Gemmer manual steering gear on car. The power steering unit, including cylinder, control valve, etc., was fitted in place of the standard drag link (or between drag link and center steering arm). The 1954 Hornet, with full-length wheelbase, used a Saginaw linkage-type unit. The 1954 and 1955 Wasp and Super Wasp, however, used a Monroe unit (similar to Nash Statesman, Kaiser, and others); and the 1955 Hornet used a Bendix unit (similar to Nash Ambassador and Packard). Although various hydraulic pumps were available for use with these units, Hudson equipped all of them with a Vickers vane-type pump, belt-driven by engine in the usual manner.

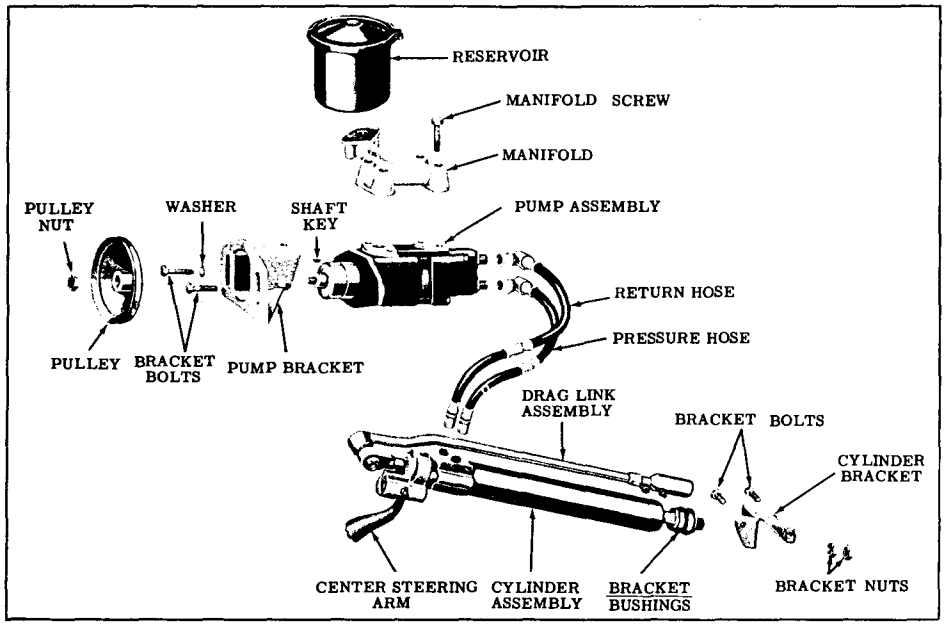
Rebuilding and adjustment instructions for these power units and pumps were included in factory and other manuals. If power steering fluid was drained for any reason, a careful refilling and bleeding procedure was recommended to eliminate air bubbles and noise in the system. On most models, air could be removed by placing steering near the center position, and not moving it while the engine and pump were run at idle speed for about 10 minutes. Any remaining traces of air would then be forced out during a few days of normal driving. Bendix units could usually be bled by

running engine and pump while steering to extreme right and extreme left once or twice.

Generally it is wise to replace the power steering fluid if it is much discolored or has a rancid odor, or if dirt has entered the system. Automatic-transmission fluid, Type A, was originally recommended for Hudson power steering, and this can still be used. Special power-steering fluids (usually uncolored) are also available today, but this writer does not know whether they offer advantages to justify the higher cost. Reader comments are invited.

Vacuum power brake units on 1954 and 1955 Hudsons (as on Nash, Packard, Lincoln, and others) were Bendix-built.

Many H-E-T members each year display their cars at various "all-make" car shows which are near (or sometimes not so near) their home areas. This added exposure is a valuable contribution to the old-car hobby, giving the general public (including the youthful set) a close-up view of many interesting vehicles. In your columnist's home area (Manitowoc County, Wisconsin), the local Kiwanis Club sponsors a summer car show, now in its fifth year, at the county fair grounds. Much of the organizational work for the show is done by Fred Bartz, Kiwanis and H-E-T member and former Studebaker dealer at Manitowoc. This year, as part of a special effort to attract independent-make cars, he sent out mail invitations to owners of Hudsons, Nash/AMC's, Kaiser/Frazers, et al.



The effort was quite successful, and there were about seven Hudsons at the show on August 9th, along with a good showing of Kaisers and AMC's, and — as in past years — Studebakers. Hudsons on display included Ed and Phyllis Davies' green 1928 landau, former Mayville Hudson dealer Bob Kuehl's black 1934 sedan, George Nell's silver 1940, and a number of stepdown models, among them the Zunker Museum's 1951 convertible from Manitowoc (and this writer's 1954 coupe). This was in marked contrast to the 1983 show, when the only Hudson present was my very unrestored 1951 coupe in the parking lot. Unlike many other car show sponsors, the Kiwanis Club charges admission fee for spectators, but none for exhibitors. Plans for the 1988 show are already being made.

Readers who have never shown their H-E-T vehicle at a local show (or entered it in a parade) may wish to do so during the coming year. Find out all you can about the event in advance (show conditions, costs, etc.); or perhaps choose a show which you have attended in the past as a spectator. *WTN* in the past has published reports from many members who have shown their cars at local events, and hopes to print some future ones also. Let us know.

Once again it is time to wish all of our readers a happy holiday season — a good Thanksgiving, a Merry Christmas, and best of luck in the coming new year. See you in 1988!