
Hudsonotes

Column of Mechanical Miscellany
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Suggestions for Winter

MANY OWNERS of a prized collector car would probably say that there is only one practical suggestion for winter: "Don't drive the car. Put it away until spring." But for those of us who need, or would like, to drive a Hudson year round with a minimum of problems, the following comments may be of help:

METHOXY PROPANOL is an organic chemical not very familiar, but with excellent antifreeze properties. Its characteristics are somewhat between those of ordinary methyl alcohol and ethylene glycol — although it costs more than either of them. Along with being water-soluble and harmless to engine cooling systems, it is nearly as permanent as glycol antifreeze, since its boiling point is

only a few degrees lower. However, like the alcohols — but unlike glycol — it does not form thick destructive sludge when accidentally mixed with hot motor oil. That is the chemical's big safety feature. In any engine where there is the possibility of a small leak developing between cooling system and oil supply — a leak which may not be detected until too late — this product eliminates the risk of damage either from glycol contamination in the oil, or from alcohol antifreeze simply boiling away.

Since its introduction circa 1970 by one chemical company under the trade name "Dowtherm," methoxy propanol antifreeze has been marketed principally to owners of large trucks, tractors, and other heavy equipment; but it is also worth considering for any Hudson or other valuable older engine which receives some cold-weather use. The product has been sold mainly by farm and heavy-equipment suppliers (and not all of those at present), so several inquiries may be necessary to find it. It has been packaged usually in gallon cans, with mixing proportions listed on container. Price will be high, although hardly worse than the \$7.50 per gallon asked for ethylene glycol ("Prestone") when it first came out in 1928; and still well below the cost of an unnecessary engine rebuild.

FALL IS also the time for a check of all radiator and heater hoses and their clamps. Good connections are especially important since glycol antifreeze has a surfactant quality which causes it to seep through tiny apertures where plain water or alcohol would not go. New hoses, both straight and curved, to match any stepdown and most other

Hudson models are still readily available. There are also pleated "flexible" type replacement hoses (at higher cost), which work well, but do not look original. Occasionally a hose of this kind is used for the lower radiator connection on a stepdown (in place of the original two straight pieces with metal elbow) for extra flexibility between water pump and radiator.

The most efficient hose clamps are undoubtedly the type with a stainless-steel band and a tangentially-placed "worm drive" screw for tightening. These clamps, in the familiar "Breeze" or "Jet" brands, first became popular as a quality replacement item during the early 1950's, so that they do not look much out of place on any stepdown or other postwar Hudson. Today such clamps are made in numerous brands, and since the mid-'60's there have also been miniature versions available, quite useful for small-size hoses in hard-to-reach places (fuel tank vent, Drive-Master power unit, etc). Clamps of this type are favored because they can be re-used many times, can be opened up completely to slip over a hose already in place, and can be drawn very tight with little risk of cutting the rubber.

However — as purists will point out — they are not original equipment. Some of the original clamps on Hudsons were of the style commonly used on garden and miscellaneous hose (and still found in hardware stores), with tangential machine screw and square nut at one side. Most of the others were similar to the type used by the factories until lately on most Brand X's, due to the lower cost: a band of plain galvanized steel, with the tightening screw placed radially. These "radial" type clamps are rarely stocked

by automotive suppliers any more, but it may be possible to buy or order them from some dealers, or to find good ones discarded after only a single use. Although this style clamp is seldom re-used, it usually can be, if the screw and yoke are well oiled, the screw backed fully out, and then the band carefully forced back to its original size and shape, using pliers. Check band for any sharp edges before retightening. It is very important to use only the correct size clamps, since the adjustment range here is much less than with the "worm-drive" stainless type.

Metal surfaces on which hoses fit must be clean and in good condition, without serious casting blemishes, dents, etc. Although cement is ordinarily not needed, a coat of rubber gasket/weather-strip cement (or even Permatex) may be useful if old hoses are being re-used, or the fit seems somewhat loose. Also, in the latter case, if there is space for them, two clamps may be installed side by side — as for example, at the side water jacket cover connection on Eights and older Sixes. If some of the pipe-threaded nipples provided by Hudson for heater hoses seem a bit short for a secure connection, it is usually possible to "borrow" a longer nipple of the same size, straight or slightly angled, from a Brand X (mine are from Ford). Heater hoses must be long enough to avoid stress or kinking, especially at the Ranco control valve on cowl.

Every year a few heater cores, valves, etc. are damaged by car owners who attempt to remove old hoses by means of sheer muscle, or careless use of tools. It

is far safer, at heater, to cut old hoses as close to the metal as possible, using a sharp knife, and then carefully remove.

BYPASS-TYPE water thermostats were introduced by Hudson for the Commodore Eights in 1941, and in 1948 were made standard for all Eights, and all Sixes as well. The new six-cylinder design included a concealed oblong bypass passage built into head, water outlet elbow, pump, etc.; but the Eight retained its external bypass hose — a plain 90-degree bend of 1" inside diameter (still available from Gates and others). Purpose of the radiator bypass was to help ensure a quick, but very even, warmup of the engine. Unlike the bypasses on many Brand X's, which had to be kept small because they remained open at all times, Hudson's could be made large and quite efficient since it was designed to be shut off by the thermostat as soon as engine warmed up and the main passage to radiator was opened. Apparently these special thermostats as original equipment were mostly by Robertshaw-Fulton, although other brands could also be found. All were of the usual 2½" diameter, and of bellows-operated poppet-valve design; but with an extra hole and brass tube or "chimney" mounted in center of valve head, built to fit the bypass chamber and seat inside cast elbow.

Standard Hudson thermostats commonly opened at 155 deg. F., but a 165-deg. option was available. This writer has also had good results with a special 177-deg. Fulton unit (on a '49 Eight with iron head, plain radiator cap, and glycol antifreeze), which, though a step or two milder than the 180 or 192-deg. units often used today with modern pressurized systems, provided

plenty of winter heat inside the car.

In addition, during the stepdown era one could buy extra-low range thermostats, both plain and bypass type, which opened at about 144 deg., and were quite effective in reducing the loss of alcohol antifreeze, although at nearly the complete sacrifice of heater efficiency in cold weather. Hudson's Under-seat Heater, offered as a supplement for the cowl-mounted unit, is an option rarely seen today, but its added core and fan area were undoubtedly useful when only water at 150 degrees or less was available to heat car interior.

If engine must be run temporarily without a thermostat in warm weather, the bypass opening should be blocked off or much restricted, to avoid a loss of cooling efficiency. Occasionally a plain thermostat is used in these cars when correct bypass type is not available. The plain type, in standard 2½" size and proper temperature range, may not be adequate for critical applications (Eight with aluminum head used year round, for instance), but it is better than nothing, and for best results should have bypass partially restricted, but not entirely closed.

Nearly every repair shop once had its thermostat tester (which resembled an electrically heated beer stein), and some still do. Lacking this, however, a candy thermometer, saucepan, and hot plate will serve as well; and if an old thermostat is difficult to remove from elbow without damage, the entire assembly can be "cooked" for testing.

ELECTRIC ENGINE HEATERS for easier winter starting were first used mainly on trucks and heavy equipment, but during the past twenty years have become a

fixture on passenger cars as well, in most cold-weather areas. The heaters not only save time, tempers, and fuel, but also greatly reduce winter stresses on engines, starters, and other parts. Interestingly, most of these heaters have been manufactured outside the snow belt (in southern U.S.); and the great majority have been sold as aftermarket equipment . . . perhaps automakers for years disliked admitting that their products might need any such "artificial" assistance to start properly in winter.

Yet this accessory is very effective on older engines, including Hudson. There are several types, nearly all of which work by applying heat primarily to the coolant liquid, which then distributes it by normal convection. This writer has had best results with the type which heats only the coolant (via connections to heater hoses and to bottom of radiator at drain cock). If not quite the fastest, it is undoubtedly the safest, and requires little modification to a collector vehicle, with none at all to the engine itself.

Although the electric heater also provides quicker warmup inside car when starting, the heated water should not be allowed to circulate through car heater core before engine is started, or much of the heat will be wasted. Check to be sure the Ranco valve remains snugly closed when turned off, even at low temperatures (this can be tested in home freezer). If necessary, file a steeper slope on "closed" (low) end of valve cam, or even reduce spring pressure against thermostat bellows slightly, using threaded adjustment inside valve case. There should also be a "flapper" check valve inside this type of electric heater to prevent back circulation of water while engine is

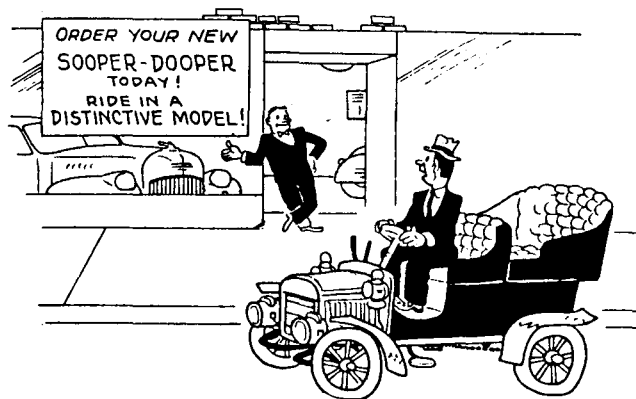
running; or heat will again be lost. If backflow becomes a problem, an old-style manual heater shutoff valve can be added to hose line at electric heater, but this must be open while engine is being preheated before starting.

While much larger units are available, the 850-watt size will be found entirely adequate for Hudson engines, if it can be left on for several hours or overnight (and car is shielded from subzero winds). During several hours the heat will spread slowly not only to engine head but to lower block, crankcase, and even transmission assembly.

One extra advantage of using an electric heater is that there is seldom need to change to much thinner oil in winter. Unfortunately an oil light enough to give acceptable unheated starts at 0 deg. or so, such as SAE #10, can give an old engine little of the protection needed for

any hard use when fully warmed up; and even multigrade oils such as #10W-30 tend to lose much of their high-temperature "viscosity index improvement" factor after a few hundred miles. Your columnist (not the Club's most conservative driver) has discovered that old engines usually remain far healthier if given high-quality straight-grade oil, about #30 (plus can of STP or similar thickener if necessary, sometimes added between changes) the year around; and this is quite practicable even in cold climates if an electric engine heater, and a place to plug it in, is available.

HAD PLANNED also to say a few things about winter tires, body rustproofing, etc.; but a quick look at the calendar indicated that this column was already past deadline, and needed to be sent in without any more delay. See all of you next time.



"But I've GOT a distinctive model!"

Graham Hunter in **MoToR**, April, 1946.