
HUDSONOTES

Column of Mechanical Miscellany
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Tire-some Tips

TIRES HAVE A very important share in automotive safety, or the lack of it. But since the suggestions in this series of *WTN* columns are based simply upon one person's practical point of view—rather than following the pattern of pompous non-information which seems to accompany most products these days, and which is intended not mainly to help buyers but merely to guard against possible lawsuits from incompetent users—a few words of disclaimer may be in order, thus: Follow the suggestions herein at your own risk. Or, do not follow the suggestions herein—this also at your own risk. In any case, please do not sue this writer (who is chronically broke), nor the *WTN* (which also is short on cash at present).

PLAIN AIR PRESSURE is one of the most essential factors affecting tire life, handling, and safety—and it is certainly the cheapest one. . . but it also offers scope for controversy. Hudson service and owner manuals over the years appear to have been among the better ones, and were surely not noted for giving bad advice—but one egregious example (shared by Brand X's) was the specifying of only 24 p.s.i. tire pressure for cars of the Hudson stepdown years (front and rear, 6 and 8 cylinder, all body styles, and standard or optional tire sizes).

This low pressure sacrifices nearly all of the superior handling qualities for which these Hudsons were famous. It also promotes outrageous tire squeal

and very uneven wear, with tread edges failing long before the center. At high speeds, too, the tires will soon overheat because of excessive flexing, and both top speed and fuel mileage will suffer because the soft tires do not roll freely. They do not steer very precisely either (strange on a Hudson!); and without power-assist the steering is also unpleasantly hard, especially when parking. Moreover, all-out panic stops from high speeds, even if not quite as dangerous as with some Brand X's, are certainly unpredictable. In fact, about the only good thing to be said about underinflated tires is that they may help to soften the ride at slowpoke city speeds, even on the unkempt Pothole Boulevards and Washboard Avenues of today. . . and they may also make the car slightly more drivable (slowly) on some soft dirt surfaces.

We may note that the worst of these excessively-low factory pressure recommendations date mostly from the inner-tube era. This is important because, as the late Tom McCahill and others have demonstrated, any vigorous Marshall Teague-style cornering at these low pressures can all too easily pull one or both front tires partly off their rims—and with tubeless tires this will mean the instant dumping of all air pressure from the tire, usually with disastrous results. (A tube-type tire may perhaps escape with merely some extra scuffs and a pinched inner tube.)

A FORMER HUDSON dealer once told me (and doubtless most of the rest of them would agree about this) that he normally maintained 30 p.s.i. tire pressure—on all fours—for these Hudsons. No doubt this represents a common-sense compromise which most of his customers found satisfactory,

and which would be practicable today, except perhaps for cars with extra weight (such as convertible Eights, or any model if very heavily loaded). Your columnist suggests 30 lb. as a bare minimum, with 32 probably better for all-around general driving. These of course are “cold” pressures—any added pounds caused by heating on road must not be bled away, although there will be much less rise due to heat if the initial cold pressure is sufficient. It is well to recheck any questioned tire again later (perhaps using another gauge) when fully cooled.

I believe that the rated “official” maximum pressure for most passenger-car tires for years has been about 30 or 32 lb. (sometimes marked on the sidewall), though I have not found this always to be realistic. Another measure of the best practical inflation pressure for maximum tire life on a given vehicle (modern or collector) may be found by observing the tread wear pattern at each wheel after a few thousand miles of normal driving. Ideally (provided the camber alignment of wheel is correct), the wear should be nearly uniform from outer edge of tread, to center of tread, to inner edge. Worn-down edges with a nearly unworn center usually indicate long-term underinflation. A bit of extra wear at outer edges only, especially in front, can of course also be caused by much high-speed cornering (a constant temptation with Hudsons, we admit).

On the other hand, visible wear at center of tread, with both edges still nearly pristine, probably indicates chronic overinflation (and/or a much lighter-than-normal load for that tire). But in fact, judging by my own work in several tire shops, this wear pattern is relatively uncommon, with probably no more than one old tire in six or seven showing center tread

On the other hand, any tire which is marginal (or worse) in size and strength for its job cannot offer much of adaptability—or of safety or long life. Yet its ride quality may be acceptable... in fact slightly overloaded tires have been claimed to offer about the best ride. For this reason (plus lower cost), some Brand X carmakers for many years tended to equip their vehicles with the least tire possible, except for those few buyers who specified otherwise.

Hudson apparently did a better-than-average job of “tiring” its cars (if a reader knows of exceptions for some years and models, please correct me). The first Hudsons, 1909-10, used different tire sizes front and rear (not uncommon at the time), but optional rims with one larger tire size all around were available. Probably Hudson was not first to introduce the new “balloon” tires in the ‘20’s, but it did pioneer them in the low-priced field in 1924. Although these would not look much like balloons to us today, they did look plumper than the standard narrow tires of the time, and required less air pressure.

What is the ideal tire size for your Hudson or other collector car? We can be sure that no tire smaller than the factory’s original “standard equipment” size should be used except in an emergency. Besides the problems of load capacity and road grip, undersize tires tend to give the car an ill-proportioned or “roller-skate” appearance. As the best conservative choice, your columnist suggests tires just one size larger than the original “standard” ones, hence usually the factory’s “optional” tire size. This also assumes that the new tires will be as similar as possible to the originals in “aspect ratio” (width *vs.* height), tread rubber compound and pattern—and cord angle.

Moreover, they should be cir-

cular in shape (hardly a joke, considering the many complaints of out-of-roundness or eccentricity in years past), and able to run straight with no lateral wobble. In this latter connection it is also prudent to check for any slightly-bent wheel rims, which for some reason (such as Hudson’s outstanding cornering ability) seem to occur a bit oftener on these cars than on most Brand X’s.

THE AUTHOR OF a British book about old-car restoration has cautioned against “the temptation to fit tyres of larger-than-original cross section”—but the caveat is puzzling since he gives no reason for it. On Hudsons and most other U.S. models the limiting factor is usually the possible interference of oversize tires with other parts of the car. For Hudson stepdowns, anything larger than about two sizes over standard equipment (in either width or height) is likely to encounter rubbing at front wheels, on bumpy hard-right or hard-left turns, against the front stabilizer bar and/or the rolled fender edge. (If bar rubs at one end only, check it for proper centering in its blocks.) At rear, check for binding against fender while installing, and also for adequate winter chain clearance at side (whether tire chains are ever used or not).

Any other disadvantages of slightly larger tires are unlikely except perhaps for a trifle extra unsprung weight and a bit stiffer steering (those optional 18-inch Hudson steering wheels are not for display only; and fortunately there is plenty of elbow room to use them). At the same time the larger tires will make the car more sure-footed, offer longer mileage, and improve ground clearance and load capacity (and usually appearance as well). On rear wheels they also lower speedometer readings slightly—a boon since nearly all speed-

ometers, even on Hudsons, are originally a trifle (or more) fast.

WE’RE ALWAYS happy to hear from HET Club members who have comments about the material published in Hudsonotes, whether for or against what is said here—and we are hoping to receive more letters in the future. Coming in Part 3 of this column series: a reader letter about the highly controversial question of bias-*vs.*-radial tires for Hudson; and also more about inner tubes, rims, wheel alignment and balance, tread designs, patches and repairs, and other similarly “tiring” topics.

LIKE THE LARGE MAJORITY of other HET members, I shall not be seeing any of you at the club’s National Meet this year. For most of us this is a simple matter of non-affordability, although there may also be other factors such as health, schedule conflicts, or a sheer dislike of elaborate restaurants and hotels (or bus tours). This has been true in many past years too; but I am advised that this time the sponsoring Home Chapter has faced especial difficulties because their area is not greatly tourist or meet-oriented (except possibly for business travelers), and hence accommodation choices are limited. Better luck for us another time...perhaps.

Perhaps, too, the attitude of myself and my ‘50 C.8 toward travel will improve after the car has had its long-postponed engine rebuilding job. Possibly both of us will even sail across Lake Michigan some day in the *Badger*, the rejuvenated 1952 car-ferry steamship which now carries passengers and autos regularly across the lake each summer. But for now we shall stay home and conserve our pennies and dimes for the engine work and new lacquer job.

wear instead of the usual edge wear. Readers may wish to make their own observations, in shops and also on their own favorite vehicles; but the evidence seems to indicate that most tires are run too soft for their own good (or for their best performance).

My own experience is that a few additional pounds of tire pressure will improve handling and steering (and braking), and will also help to equalize the wear on most used or older tires—besides reducing tire noise, especially squeal. Fortunately cupping of tread has not been a problem on any Hudson I've ever seen; but on Brand X models so afflicted, a few extra pounds of pressure (along with correct wheel balance, alignment, and bearing adjustment) seem to help control the problem. With nylon-cord tires, too, the extra pressure much reduces thump when cold. I usually carry 37½ p.s.i. (or neatly centered between 35 and 40 on gauge) in each tire, and although this cannot be recommended to everyone, it has worked O.K. for me. Then too, extra air pressure tends to reduce the extreme handling differences between bias and radial-ply tires, by making each tire into a somewhat more rigid structure.

WHAT ABOUT RIDE quality? Higher inflation pressures can cause a firmer, or sometimes even harsher, ride; but on vehicles with full-length wheelbases of 124 inches or

more (plus top-quality upholstery cushions), such as most Hudson stepdowns, one rarely notices the difference except at very low speeds. On slightly shorter models, such as the 119-inch wheelbase Pacemakers, a difference may be noticeable but is not unpleasant, provided shock absorbers and other suspension parts are O.K. The effect upon the already-mediocre ride and handling of today's motorized shopping carts may be more problematical, it is true.

Even on genuine sports cars, the ride may become somewhat bumpier; but since the bumps in this instance are of a perceptibly higher-class and sportier variety, probably no one will object. (Please note this when cruising in your Italia.)

Ultimate bursting strength of the tires is not likely to be a critical factor, unless they are in very poor condition or savagely overloaded (or the car falls off a hoist). Some years ago an ad reported the bursting point of a top-grade bias-ply passenger tire, new, to be about 300 p.s.i., though of course an old or cheaper-grade tire could not match this. Has any reader seen a bursting-point figure for radial tires?

EXTRA-HEAVY-DUTY tires, with six bias cord plies instead of four, similar to truck tires, were an option on Hudsons for many years. They were recommended for long mileage carrying heavy loads (on taxicabs and pickups, for example), and they can still be found today to fit most Hudson wheels, some even including an optional whitewall ring. The chief problem with these tires (other than cost) is that when just lightly or moderately loaded, they give a harsh ride, due to their thicker structure (and extra unsprung weight). Worse still, when the inflation pressure is lowered enough to compensate for this,

their life is usually very short, since they cannot withstand the additional flexing.

Other special tires with extra-thick treads may share this problem. Mud-and-snow tires (especially recaps), even if ordinary 4-ply, need to be run at their rated inflation pressure or slightly above. At low pressures they may offer slightly better traction, but also may tend to come un-vulcanized.

However, when tires are inflated extra-firm, it is well to avoid any unusually-rough surfaces or impediments, especially at speed, not only to preserve vehicle and passengers, but also to spare the tires an increased risk of external injuries. Occasionally it may be necessary to over-inflate tires temporarily in order to carry an overweight load for a limited distance, and this is certainly better than allowing them to roll apparently half-flattened by the excess weight—but bear in mind that stone, metal, or other objects having only a moderately sharp edge, which would cause no trouble ordinarily, may cut like a knife blade, or perhaps break several tire cords, under these harsher conditions.

Storage is another matter. The usual suggestion when a car is not to be driven for an extended time, but will stand with its weight on the tires, is that they should be inflated perhaps an extra 10-15 p.s.i. (during storage period only). But not all old-car owners may agree, and reader comments about this will be welcomed.

DESPITE CRITICISMS of the 2-ply bias tires a few years ago, they had one or two advantages (if top-quality, and large enough for their task). They were probably more tolerant than most tires of being run at various pressures, depending upon load and on the balance desired between road-ability and easy ride.