techbench

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LUGGING THE ISSUE

eader's Question: Early this spring, I had a set of reproduction N89 bolt-on aluminum wheels installed on my '67, replacing the original steel rally wheels. The wheels look great, but I had to change a flat tire on the highway last week, and I found out the hard way that the hex socket on the stock lug wrench on the jack handle is too small for the lug nuts. Did Corvettes with N89 wheels come with two different size lug wrenches?

RESPONSE: No, they didn't. The original (and now *very* expensive) production N89 aluminum "bolt-on" wheels used the same ordinary 3/4" hex lug nuts as the standard steel rally wheels, and the lug holes in those aluminum wheels were chamfered to accommodate them. The reproduction wheels, however, aren't chamfered; they use a special 7/8" hex lug nut with a long barrel section that's a close fit in a large straight-through drilled hole in the wheel, with a special flat washer under the head of the nut. This larger hex on the nut also requires that the lug nuts closest to the spring-clip locations for the "starburst" center caps be oriented with a flat on the hex facing outboard so the side of the clip on the center cap will clear the nut. If the point of the hex faces outboard at that location, the clip will break when you install the cap.

THE FIX: You have two choices – you can carry a separate 7/8" hex wrench for the special lug nuts, or you can make an adapter socket for the stock lug wrench. Get a thin-wall 1/2"-drive 7/8" six-point socket, and weld a stock 3/4" lug nut to it, with the flat side up. When you need it, just insert the stock lug nut end of the adapter tool in the lug wrench socket, and you'll have the correct 7/8" socket for removing the special lug nuts. This is a no-cost project if you have a well stocked toolbox, or about five bucks if you have to buy a socket.

NOTE: I'd also recommend removing your lug nuts one at a time and applying a film of anti-seize to the threads and to the outside of the chrome barrel portion of the nut. The threads in the enclosed barrel tend to get rusty over time, and the chrome on the outside of the barrel tends to gall against the aluminum. You probably also found out that a screwdriver (as originally supplied) is a lousy tool for removing the "starburst" center caps. I prefer using the "beak" of a seal puller tool, with the point behind the end of one of the fins and the other end against the rim, cushioned with a rag, pops the cap right off, and doesn't damage the wheel paint. Also, don't use any lubricant on the center cap's spring clips; the die-cast caps are heavy, and the clips need all the friction grip they can get on the edges of the circular retainer ring. GM replacement caps are getting very scarce, and if you can find them, are bringing \$150-\$200 each. I rap mine occasionally with a plastic-coated deadblow hammer to make sure they're fully seated.



1 The optional N89 "bolt-on" aluminum wheel. Make sure the "starburst" center caps are firmly seated — they're rare and expensive!

- 2 The unique reproduction 7/8" lug nuts in place. The one at 11 o'clock is adjacent to a center cap clip location, so its "flat" must face the retainer ring for the center cap to provide clearance for the spring clip.
- 3 This view of the reproduction wheel shows the large holes drilled through the wheel for the barrel-type lug nuts. The original N89 wheels were drilled for the stock 7/16" diameter lug studs, and the holes were chamfered to accept standard 3/4" hex lug nuts.
- 4 This seal puller is a much better tool for removing the "starburst" center cap than a screwdriver. It pops them right off and doesn't scratch the paint.