



cotter pin holes may not line up with the slots in the nut.

When this happens, run-up the nut to the low torque limit and, without stopping, tighten a smidgen more . . . just enough to get a hole or slot lined up.



Never back off a castellated nut to insert safety wire or a cotter pin.

Never grease or oil a fastener unless your equipment's pub says so. Lubed threads roughly means you're increasing the upper torque limits since there's less run-up friction.

On dry-bolted connections tightened from the nut side, about 50 percent of the torque is used to overcome friction. The other half is responsible for the built-in tension put on the bolt. Torque tables are for "dry" applications.

Never use guesstorque if a job calls for tightening a single item of a series.

Like maybe you're replacing a spark plug. Use a torque wrench for correct reading on each plug or you're likely to get a change in the spark gap, or you could wind up with a busted plug—or worse.



## TORQUE TOOL TIPS

Like all precision tools that get a lotta use, a torque wrench needs an accuracy checkup, regular like. Scratching, etching, or denting the torque-measuring beam on direct reading type wrenches changes the calibration.

Overloading will also permanently deform the torque sensing element. Set all torque wrenches back to zero after using 'em. Check those in storage. If they are not zeroed, tag 'em for calibration.



TLC—tender lovin' care—means never dropping or carelessly tossing wrenches about. Stow 'em in a dry place and protect 'em from shock or damage. If you should accidentally drop a torque wrench, have it re-calibrated, pronto. Make sure its DA Label is on, readable and up-to-date.

A final word.

As tight as you can get it plus one turn won't hack it in MVA!

