



Wing Nut Lugs Repair

MSI Technical Bulletin 045

Subject: Minimum allowance for use and repair of lugs on wing nuts.

This bulletin provides MSI's recommendations concerning the reuse and repair of wing nut lugs regardless of size. During the life of a wing nut it is a common and expected occurrence for the corners of the lugs on the wing nuts to become mushroomed and deformed inwards due to repeated hammer strikes. The following is a recommended best practice for assessing the extent of damage to verify the wing nut lug is fit for repair and reuse.

The first step in assessing the damage is visual. If material on any of the lugs has deformed to the point of extending over and rounding off the top of the lugs such that there is no longer enough undamaged material to strike the lug normal to the lug face, then the wing nut is beyond repair and should be scrapped. This applies even if the deformed material is only on one side of the lug. Refer to figure 1. Also, if extensive corrosion, erosion, or wear can be seen and such defects are to the extent that the function of the lug may be impeded, then the wing nut should be scrapped.

If all the lugs pass visual inspection MSI recommends that NDE such as MPI (magnetic particle inspection) be performed. If the lugs (or any other area of the wing nut) fail MPI as defined by API 6A section 7.4.2.2.8, then it should be scrapped regardless of what condition the lug appears to be in. To repair the lugs, any deformed corners should be ground down to remove any sharp or raised edges. After grinding, the lug should be a relatively symmetrical cube-like shape. Refer to Figure 2.



Figure 1



Figure 2

You may contact an MSI representative at sales@diwmsi.com or engineering@diwmsi.com if you have any further questions or concerns.

MSI is a division of Dixie Iron Works, Ltd
300 W. Main St.
Alice, Texas 78332, USA
Phone: 800-242-0059
Fax: 361-664-4840
www.diwmsi.com