

New Mounting Torque Specs for 10-Bolt Series P.T.O.s (Allison Transmissions)

Chelsea engineering has changed the bolt torque required to mount all 10-bolt series power take-offs on Allison World transmissions.

Capscrew torque value was 30 - 35 Lbs-ft [41-47 Nm] now it is **40 - 50 Lbs-ft [54-68 Nm]**. A change has been made to the owner's manual (HY25-1380-M1/US) dated January 2007 or later, reflects this change.

This increase in capscrew torque is due to the ever increasing vibrations in today's high torque - low RPM diesel engines and the need to assure that the capscrews hold the specified torque. As always proper installation and maintenance of the pump and P.T.O. is important.

Power Take-Off Maintenance: Due to the normal and sometime severe torsional vibrations that Power Take-Off units experience, operators should follow a set maintenance schedule for inspections. Failure to service loose bolts or Power Take-Off leaks could result in potential auxiliary Power Take-Off or transmission damage. Periodic P.T.O. MAINTENANCE is required by the owner/operator to ensure proper, safe and trouble free operation.

Daily: Check all air, hydraulic and working mechanisms before operating P.T.O. Perform maintenance as required.

Monthly: Inspect for possible leaks and tighten all air, hydraulic and mounting hardware, if necessary. Torque all bolts, nuts, etc. to Chelsea specifications. Insure that splines are properly lubricated, if applicable. Perform maintenance as required.

With regards to the direct mounted pump splines, the P.T.O. requires the application of a specially formulated anti-fretting, high pressure, high temperature grease. The addition of the grease has been proven to reduce the effects of the torsional vibrations, which result in fretting corrosion on the P.T.O. internal splines as well as the pump external splines. Fretting corrosion appears as a "rusting and wearing" of the pump shaft splines. Severe duty applications, which require long P.T.O. running times and high torque may require more frequent regreasing. Applications such as Utility Trucks that run continuously and are lightly loaded also require frequent regreasing due to the sheer hours of running time. It is important to note that service intervals will vary for each and every application and is the responsibility of the end user of the product. Chelsea also recommends that you consult your pump owners manuals and technical services for their maintenance guidelines. Fretting corrosion is caused by many factor sand without proper maintenance; the anti-fretting grease can only reduce its effects on components. Chelsea offers the grease to our customers in two packages. The first is a 5/8 fluid ounce tube (379688), which is included with every applicable P.T.O., and the second is a 14-ounce grease cartridge (379831). Chelsea also offers greaseable shafts for most all output designators.

If you have questions about this bulletin or other technical questions, contact us at:

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