Metal One

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Field Inspection and Repairing Procedure of MO-4TP

Rev. 0: Released

1. PREPARATION FOR INSPECTION

Pipes should be placed on the inspection table with sufficient clearance to allow full rotation for cleaning and inspection.

2. CLEANING OF CONNECTIONS

Pin and Box protectors shall be removed, and each end shall be thoroughly cleaned to remove storage compound and dirt.

2.1 Remove the thread protectors. If a pipe wrench is used, ensure that the wrench jaws do not come into contact with the threads.

2.2 Blow out the pipe I.D. from the box end to the pin end to completely remove dirt and rust.

2.3 Clean connections using one of the following methods:

a) A non-metallic brush and cleaning solvent

b) A steam cleaner with water and cleaning solvent

c) A rotary non-metallic bristle brush used with water jet and cleaning solvent

2.4 Dry the connections and remove all cleaning solvent and water from the thread roots by wiping or blowing out.

2.5 Clean the thread protectors and replace any damaged protectors.

3. THREAD INSPECTION AND REPAIR

3.1 Full-crest threads area on the pin shall be free from burrs, tears, cuts, dents, galling, or any other damage that may impair the continuity of the thread profile. Burrs on the pin starting thread may be removed using a fine file or emery cloth.

Minor scratches, discoloration, shallow corrosion pits, and minor steps are acceptable if they do not protrude beyond the original contour of the thread crest or flanks. Threads exhibiting such minor imperfections or discoloration may be manually repaired using a fine file or emery cloth.

3.2 Imperfections on imperfect pin threads are acceptable if they do not protrude beyond the thread flanks. Minor protrusions on the thread crest are acceptable.

3.3 Defects on box threads are not acceptable because hand repair is generally impractical. The coupling should be replaced if such defects are found.

3.4 Mash damage on either the pin or box connection is not acceptable.

3.5 Used Casing - Galling or Wear

a) Check thread distortion using a thread profile gauge with a new-thread insert.

b) Minor galling may be repaired by hand using a fine file or emery cloth.

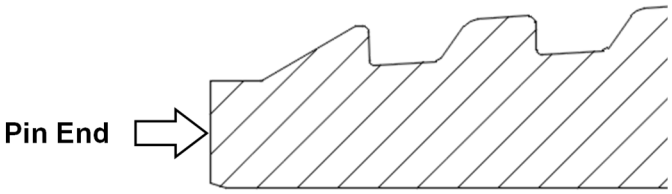
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4. VISUAL INSPECTION OF PIN END

4.1 The pin end shall be visually inspected. The pin end functions not only as a torque shoulder but also as a metal-to-metal seal.

4.2 The pin end shall be free from any damage or imperfection that protrudes beyond the original surface contour.

4.3 The entire circumference of the pin end shall be free from burrs.



5. THREAD PROTECTION AND RE-DOPING

Before reinstalling the thread protectors following visual inspection, remove all dirt and foreign material from the protectors. All damaged protectors shall be replaced.

Threads shall be re-doped with a suitable thread compound. Ensure that all thread surfaces are completely covered with thread compound.

6. UNSERVICEABLE CONNECTIONS

Any connection found to be unserviceable shall be clearly identified.

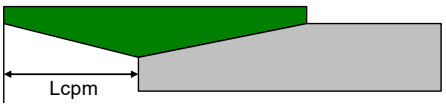
If the coupling is damaged beyond repair, it shall be removed and replaced with a new coupling.

7. LCPM INSPECTION

When Lcpm inspection is required, the field acceptance range shown below shall be applied.

Table-1 Field Acceptance range of Lcpm

Size	Lcpm (inch)		
	Aiming	Min.	Max.
5-1/2”	3.788	3.734	3.843
6-5/8”	3.936	3.884	3.988
7”	4.464	4.413	4.515
7-5/8”	4.463	4.413	4.513
8-5/8”	4.462	4.413	4.511
9-5/8”	4.461	4.413	4.509
10-3/4”	4.460	4.413	4.507
11-3/4”	4.459	4.413	4.506
13-3/8”	4.458	4.413	4.504



* The following is recommended when performing Lcpm inspection:

(1) The assembled coupling at the field end and the pin end face at the mill end shall be thoroughly cleaned before measurement to obtain reliable Lcpm readings.

(2) Residual thread compound or storage compound may affect measurement accuracy and result in incorrect Lcpm readings.

(3) A depth gauge equipped with an extension arm shall be used across the coupling end face. (see photo below)

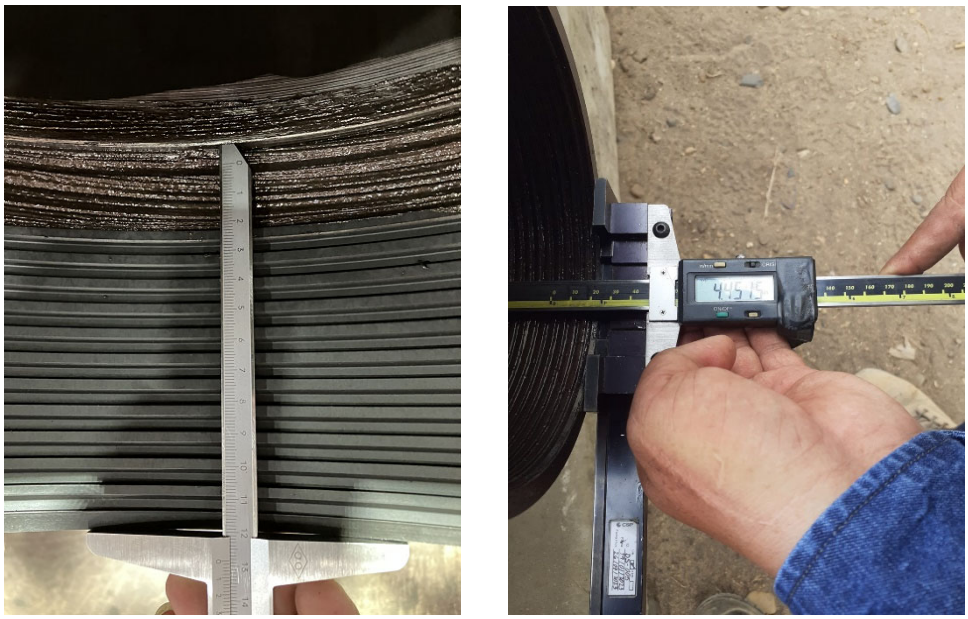


Photo-1 Measuring Lcpm Using a Depth Gauge with an Extension Arm