Rev. 0/2010

INSTALLATION AND REMOVAL INSTRUCTIONS FOR MAV LOCKING ASSEMBLY SERIES 4005

MAV 4005 Locking Assembly is supplied ready for installation. The torque capacity of this device is based on a coefficient of friction of μ=0.12 for lightly oiled screws, tapers, shaft and hub contact areas. Therefore, it is important NOT to use Molybdenum Disulfide (e.g., Molykote, Never -Seeze or similar lubricants) in any Locking Assembly installation.
Recommended shaft / hub bore tolerances: h8 / H8
Recommended shaft / hub bore surface roughness: Ra ≤ 3.2 μm
The hub must be provided with a centering face to allow good concentricity connection, as the Locking Assembly is not self-centering (fig. 1).

INSTALLATION

1. Make sure that locking screws, rings, shaft and hub contact surfaces are clean and lightly oiled.

2. After positioning Locking Assembly between shaft & hub, successively hand tighten the screws in a crosswise pattern, so that most of the clearance is taken up but still leaving Locking Assembly free to move.

3. After confirming correct hub position, successively hand tighten the screws following a crosswise pattern, until the assembly is locked.

4. Use torque wrench and set it approximately 5% higher than specified tightening torque (Ma). Torque screws in a crosswise pattern, using only 1/4 turns for several passes until 1/4 turns can no longer be achieved.

5. Still apply overtorque for 1-2 more passes. This is required to compensate for a system-related relaxation of locking screws since tightening of a given screw will always relax adjacent screws. Without overtorquing an infinite number of passes would be needed to reach specified tightening torque.

6. Reset torque wrench to specified torque (Ma) and check all locking screws. No screw should turn at this point, otherwise repeat step 5 for 1 or 2 more passes. It is not necessary to re-check tightening torque after equipment has been in operation.

NOTE: for installation subjected to extreme corrosion, the slits in inner and outer rings should be sealed with a suitable caulking compound or equivalent.

REMOVAL

Prior to initiating the following removal procedure, check to ensure that no torque or thrust loads are acting on the Locking Assembly, shaft or any mounted components.

1. Loosen all locking screws in several stages, but not remove them completely. MAV 4005 series feature self-releasing tapers, meaning thrust rings should release automatically. If the rings will not disengage, light tapping on screws head will help releasing operation (fig.2a).

2. Hub and Locking Assembly are normally removed together. Removal of Locking Assembly only from deep counterbores is accomplished by inserting pull-off screws or threaded bars (one size larger than locking screws, not provided) into threads located under zinc plated locking screws. These threads are NOT to be used for high pulling forces.

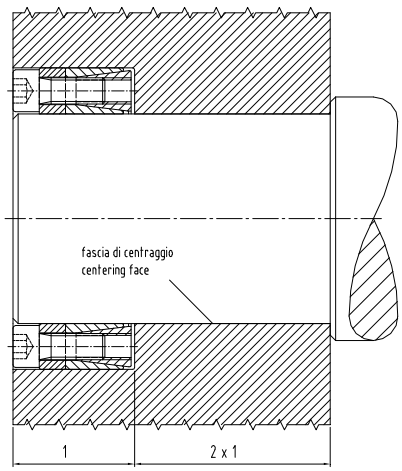

Fig. 1

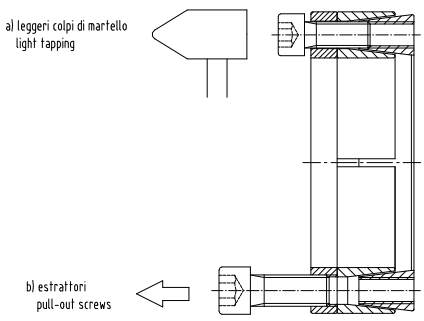

Fig. 2