

INSTALLATION AND REMOVAL INSTRUCTIONS FOR MAV LOCKING ASSEMBLY SERIES 1800-4071

MAV 1800 and 4071 Locking Assemblies are supplied ready for installation. If the unit should be dismantled, make sure that in addition to lined-up slits in all collars, near and far-side clamp collars are not reversed. They are assembled correctly if there are no holes or threads behind taps in clamp collar item [2] and no threads behind taps in center collar item [1]. Moreover, the rings are marked. Be sure that these marks are aligned.

The torque capacity of this device is based on a coefficient of friction of $\mu=0.12$ 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: $Ra \leq 3.2 \mu\text{m}$

INSTALLATION

1. Make sure that locking screws, rings, shaft and hub contact surfaces are clean and lightly oiled and that all collar slits and marks are aligned.
2. Loosen all screws by minimum 2 turns and transfer at least 2 screws into push-off threads in clamp collar item [2] and center collar item [1] in order to disengage tapers for easy installation of locking assembly.
3. After installation of locking assembly, relocate locking screws used for separation of collars.
4. Hand tighten the connection and assure that collars item [2] and [3] are parallel.
5. 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.
6. 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.
7. Reset torque wrench to specified torque (Ma) and check all locking screws. No screw should turn at this point, otherwise repeat step 6 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 should be sealed with a suitable caulking compound or equivalent. Likewise, push-off threads should also be protected from corrosion.

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.

IMPORTANT! The final user must ensure that ends of locking screws used for removal are ground flat and slightly chamfered to prevent damage to screws and collar threads during push-off. Screws with ground flat and chamfered end are not supplied by MAV. The final user has to take charge of machining of end of screws.

1. Check to ensure that axial movement of clamp collars – necessary for release of connection – is not restricted. Likewise, ensure that push-off threads are in good conditions.
2. Loosen all locking screws and transfer some into all push-off threads in clamp collar item [2] (see fig. 2).
3. Release collar item [2] by tightening all push-off screws in a crosswise pattern, not exceeding 1/4 turns for several passes.
4. Transfer locking screws used for dismounting of clamp collar item [2] into all push-off threads in center collar item [1] (see fig. 3). Release clamp collar item [3] by repeating procedure outlined in step 3.

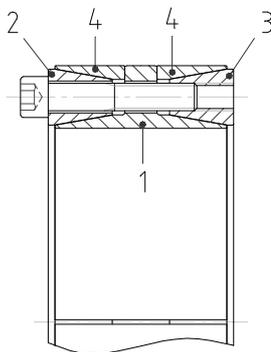


Fig. 1

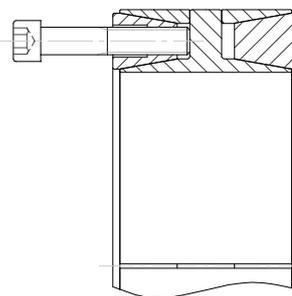


Fig. 2

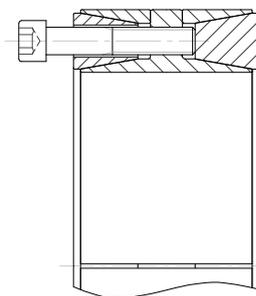


Fig. 3