

LOCKING ASSEMBLY MAV 7107

Installation and Removal Instructions



MAV 7107 Locking Assemblies are supplied ready for installation. The torque capacity of these devices 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: $Ra \leq 3.2 \mu\text{m}$

- Application type A – axially free hub (fig. 1). The hub must be provided with shoulder, and hub's seat for the locking assembly must be as wide as length of outer ring item [2]. Transmissible torque and contact pressures = 1,58 x values on catalog.
- Application type B – axially fixed hub (fig. 2). The hub must be located in contact with flange of inner ring item [1]. Rear flange item [4] is not supplied along with locking assembly. Application type B requires longer screws than those supplied with locking assembly. Transmissible torque and contact pressures = 1 x values on catalog.

INSTALLATION

1. Make sure that locking screws, rings, shaft and hub contact surfaces are clean and lightly oiled.
2. For easy installation of locking assembly, make sure that tapers are not engaged. In case, disengage tapers manually.
3. Install the locking assembly, and position the screws into corresponding holes in the hub. Hand tighten locking screws in a crosswise pattern, until the connection is locked.
4. Use torque wrench and set it approximately 5% higher than specified tightening torque (M_a). 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 (M_a) 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 collars items [1] and [2] should be sealed with a suitable caulking compound or equivalent. Likewise, push-off threads should also be protected with set screws or plastic plugs.

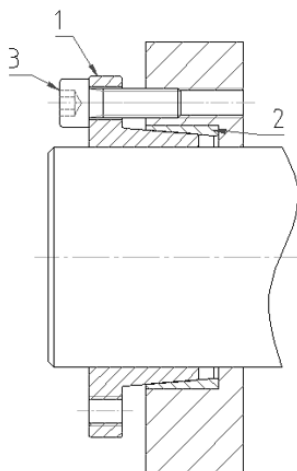


Fig. 1

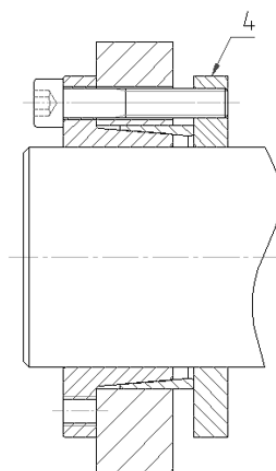


Fig. 2

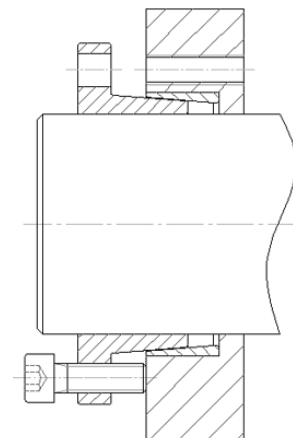


Fig. 3

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REMOVAL - FIG 3

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, collar threads and hub's face 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 collars – necessary for release of connection – is not restricted. Likewise, ensure that push-off threads are in good conditions.
2. Remove the four locking screws and transfer two into the push-off threads of inner ring item [1].
3. Release the connection by tightening the push-off screws, not exceeding 1/4 turns for several passes.

