

Locking Assembly - Model N7515/N7016.1/N7016.2



Features:

Self centering. Very high transmissible torque. Wide double self releasing taper design for enhanced bending moment capacity. Runout : 0.02/0.06mm. Fixed axial hub position during assembly.

Installation:

Locking assemblies are supplied ready for installation. However, if for some reason they have to be disassembled, make sure that in addition to lined-up slits in all three parts-outer ring, front & rear nut are not reversed. They are assembled correctly only if there are no holes or threads behind taps in front nut [2]. Likewise, there must be no threads behind taps in outer ring [3] as illustrated in fig. 1 & 2. The frictional torque capacity of these assemblies is based on a coefficient of friction $\mu=0.12$ for slightly oiled screws, taper or shaft and bore contact areas.

a) Make sure shaft and bore contact areas, screw threads, face of screw head are clean and slightly oiled. b) Loosen all screws by minimum 2 turns and transfer at least 2 screws in each-in to push off threads in front nut [2] and outer ring [3] in

order to disengage tapers for easy installation of locking assembly-fig.1. c) After insertion of locking assembly on to shaft/in hub, relocate locking screws used for separation of nuts. d) Hand tighten assembly & assure that nut [2] is parallel with face of part to be attached to shaft. e) Use torque wrench and set it to specified tightening torque. Tighten screws either in a clock wise or anti clockwise diametrically opposite sequence, using only 1/4 turn for several passes, until No screw turn more. The screws adjacent to slit should be tighten fully last to avoid deformation in outer ring & front/rear nut. f) Still applied approx. 5% higher torque than specified tightening torque for 1 to 2 passes-required to compensate for a system related relaxation of locking screws since tightening of a screw, will always relax adjacent screw(s). g) Reset torque wrench to specified torque & check all locking screws. No screw should turn at this point, otherwise repeat step "f" for one or more time.

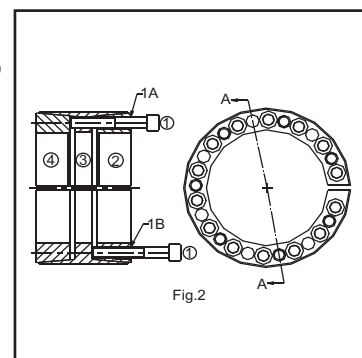
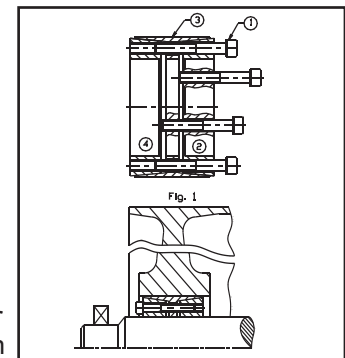
Note: 1) Since the transmission torque & axial force are in fact, directly proportional to the sum of the pull of the tightening screws and as a consequence, the tightening torque of screw. 2) For installation subjected to corrosion, the slit in nuts & outer ring should be sealed with a suitable caulking compound or otherwise.

Note: The tightening torque values indicated is valid only in case of slight oil lubricated assembly installation. Do not use any oil with molybdenum bisulphide or high pressure additives and grease.

Removal:

IMPORTANT:- Make sure end of removal screws are ground flat & chamfered to eliminate damage to screw & removal threads, during push-off.

Assure that necessary space for axial movement of front & rear thrust nut is available. Loosen all screws in diametrically opposite squence. Remove & transfer some screws into threads(1B) in front thrust nut(2) & some screws into threads (1A), in middle of outer ring(3). Release front(2) & rear nut(4) by progressively tightening screws alternate (1A) & (1B), in diametrically opposite sequence. On several round of tightening screws, complete removal will be achieved. Remove locking assembly from hub & shaft. Remove all screws from removal threads & reassemble as was. Oil & store assembly.



Tolerances, surface finish:

A good surface finish by machine tool is sufficient. Maximum allowable surface finish : $Ra \leq 3.2\mu m$
Maximum permissible tolerances for hub H8 & for shaft h8.