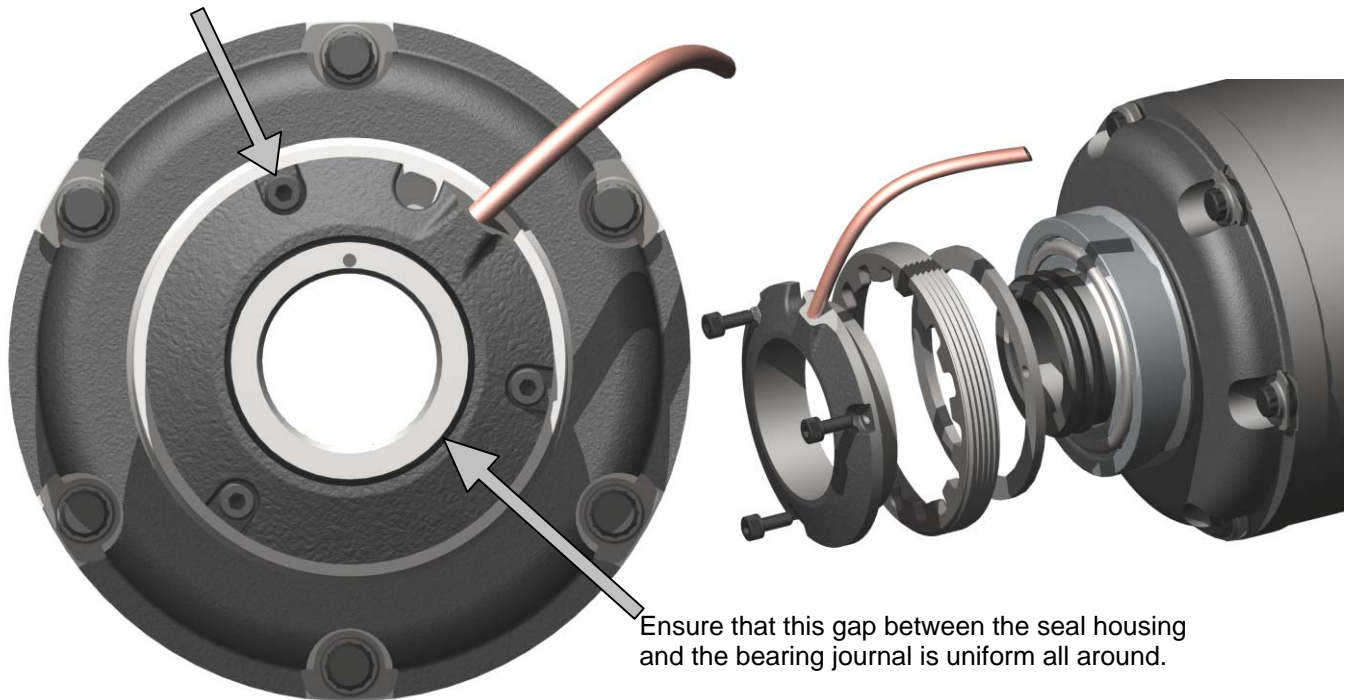


5.1 SCREW SECURED SEAL HOUSING SET-UP

On Air Locker models in which the carrier bearings are pre-loaded with adjuster nuts, two types of seal housing may be fitted. The first type, the screw secured type, must be adjusted for concentricity and is discussed below. The second type is secured by a spring clip and doesn't require adjustment (refer to section 5.2).

When installing the screw secured type extra care must be taken to ensure that the seal housing is concentric with the Air Locker bearing journal. Failure to observe this can cause an oil pumping effect due to the eccentric offset, and, in extreme cases, if metal to metal contact does occur the resultant damage and wear can cause air leaks.

Once seal housing has been centralized, apply thread locking compound to screw threads, and tighten to a torque of 4.75Nm [3.5 ft-lb].



The following installation procedure is recommended to ensure that the seal housing is concentric to the bearing journal and that the seals are airtight:

1. Clean the sealing surfaces of the seal housing and bearing journal with a penetrating oil (e.g. WD40) and ensure that these surfaces and the airways are clean and free of contaminants (e.g. dirt, water, metal filings etc.).
2. Inspect the O-rings for damage or contamination due to dirt.
3. Generously lubricate the sealing surfaces and O-rings with oil (differential oil is preferred).
4. Insert the O-rings into the grooves of the seal housing or bearing journal making sure that they are not twisted.
5. Gently push the seal housing onto the Air Locker with a twisting motion. This will seat the O-rings without twisting them or causing damage.
6. Apply 620kPa [90 psi] shop air to the end of the seal housing tube, and rotate the Air Locker a few turns to seat the O-rings.
7. Bend the tubing into position, and install the bulkhead fitting (refer to the Air Locker Installation Guide).
8. Rotate the seal housing until the cutout lines up with the closest adjuster nut slot to the locking tab position at the center of the bearing cap, and then assemble the locking tab.
9. With the shop air still applied, insert the seal housing screws and lightly finger tighten them.
10. Using a feeler gauge in the gap between the bearing journal and seal housing, check for an even gap all the way around. Be careful not to damage the O-ring with the feeler gauge. If the gap is uneven with the air applied there may be too much tension on the seal housing tube. Bend the tube to closer fit the seal housing position.
11. With the shop air still applied to the bulkhead fitting, rotate the drive pinion at an even speed and slowly tighten the seal housing screws to a torque of 4.75Nm [3.5 ft-lb].
12. As the pinion is still being rotated, check once again with the feeler gauge that the seal housing is concentric.