

# SKF Taconite Seal installation

**Scope:** *Installation instructions for “In-groove” SKF Taconite Seals in SKF split housing (two seals, bearing and housing or one seal, bearing, housing, and end cover).*

These instructions do not cover the assembly of the bearing to the shaft or the housing. See the *SKF bearing maintenance handbook* (PUB 10001 EN) for bearing and housing installation instructions.

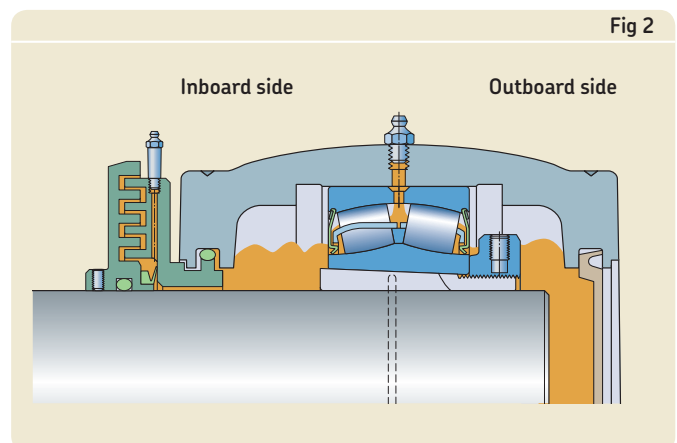
## Steps

- 1 Ensure all components, including the shaft, are clean prior to assembly. Remove any sharp edges or burrs, paying particular attention to any that might interfere with or damage any parts of the SKF Taconite Seal.
- 2 Starting on the inboard side (→ **fig. 3**), lubricate O-ring (**item 5**) and fit to groove in the bore of the inboard rotating labyrinth ring (**item 2**). Fit V-ring seal (**item 4**) to the landing on the inboard rotating labyrinth ring (**item 2**). Lightly lubricate the lip of the V-ring seal (**item 4**).
- 3 Lubricate the shaft end and slide the inboard rotating labyrinth ring (**item 2**) over the shaft end in the correct orientation to approximately the correct axial position, taking care not to damage the O-ring (**item 5**) in its bore.
- 4 Fit the O-ring (**item 3**) to the inboard stationary labyrinth ring (**item 1**) and lightly grease its outside diameter.
- 5 Slide the inboard stationary labyrinth ring (**item 1**) over the shaft end in the correct orientation (→ **fig. 3**) and with the threaded hole for the grease fitting (**item 7**) in the top position (12 o'clock). Mate the stationary labyrinth ring (**item 1**) with the rotating labyrinth ring (**item 2**).
- 6 Assemble the bearing to the shaft.
- 7 In case of an outboard shaft end cover, fit the end cover to the housing base outboard side seal groove (→ **fig. 2**).
- 8 In case of an outboard SKF Taconite Seal, the second seal can be mounted repeating **steps 2 to 5** but mounting the outboard stationary labyrinth ring (**item 1**) first.



*“In-groove” SKF Taconite Seal assembled to both inboard and outboard sides of a housing*

*“In-groove” SKF Taconite Seal and end cover fitted to the inboard and outboard sides of a housing*



9 Lay the shaft with SKF Taconite Seal(s) and bearings into the split housings bases, carefully engaging the bearing and SKF Taconite Seals in their respective locations. Be sure that the O-rings (item 3) are not stretched or pinched in the housing base seal grooves.

10 Assemble the correct cap(s) to the housing base(s) in the correct orientation. Be sure the O-rings (item 3) or end-cover are not stretched or pinched in the housing cap seal grooves.

11 Carefully align the inboard rotating labyrinth ring (item 2) in the axial direction with the circumferential groove in the outside diameter of the inboard stationary labyrinth ring (item 1) (→ fig. 4). Then fix it square to the shaft (with as little radial and axial run-out as possible) using a dial indicator or an angle gauge, and adjust with the three grub/set screws (item 6), finally tightening them to the following torque:

M5 = 4,5 Nm

M6 = 8 Nm

Then, adjust the alignment of the housing until the circumferential groove in the outside diameter of the inboard stationary labyrinth ring (item 1) is aligned with the edge of the inboard rotating labyrinth ring (item 2) within  $\pm 0.5^\circ$ . Shims under the housing bases to adjust horizontal alignment may be required.

Some additional adjustment may be possible by careful leverage between the inboard stationary labyrinth ring (item 1) and the housing.

12 Tighten the holding down bolts to secure the housing and check that the labyrinth rings (items 1 and 2) are still aligned.

13 In the case of an outboard seal, the outboard rotating labyrinth ring (item 2) can then be aligned following the same method and precautions as described for the inboard rotating labyrinth ring (→ steps 11 to 12).

14 Check that the threaded hole for the grease fitting in the stationary labyrinth ring(s) (item 1) is clean and assemble the grease fitting (item 7). Connect the grease hose from a SKF SYSTEM 24 or SKF Automated Lubrication System to the stationary labyrinth ring threaded hole.

**NOTE:** All rotating machinery requires adequate fixed safety guards, including the exposed rotating labyrinth ring of SKF Taconite Seals. If manual purging of the labyrinths is used, provision must be made for the safe purge/re-greasing of the labyrinths by extending the grease supply fittings to the outside of the safety guards.

1 Fill the space in between both the stationary labyrinth ring(s) (item 1) and respective split housing with Loctite 573, Loctite 510 or equal.

2 While slowly rotating (manually if possible) the shaft, fill the SKF Taconite Seal with the recommended grease via the fitting(s)

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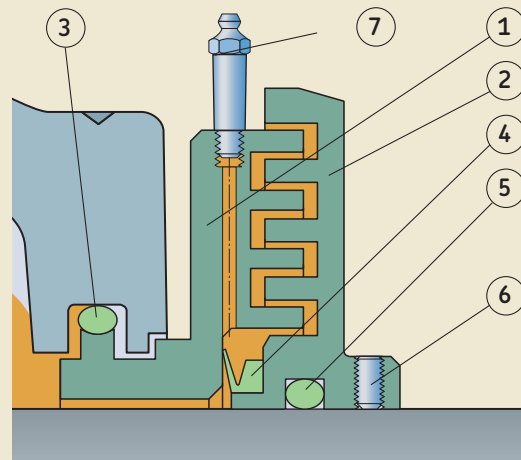
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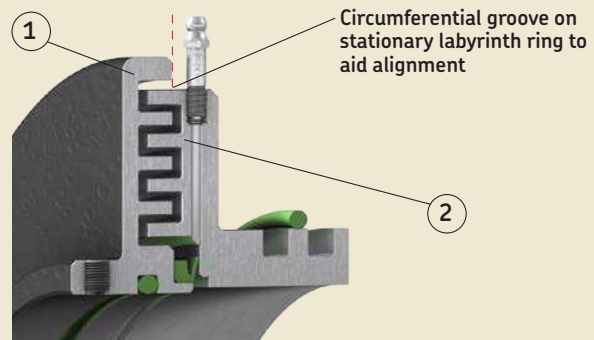
Fig 3



"In-groove" SKF Taconite Seal assembly

"In-groove" SKF Taconite Seal showing axial alignment of rotating labyrinth ring with circumferential groove in stationary labyrinth ring

Fig 4



(item 7) until grease exudes from the labyrinth rings of the SKF Taconite Seal(s).

3 If an SKF SYSTEM 24 or SKF Automated Lubrication System is to be used to grease the SKF Taconite Seal in service, ensure they are pre-filled manually and that the lubrication rate is set correctly for the application. Refer to *SKF Taconite Seals* brochure (PUB 15116 EN) for general guidance on lubrication rates.

**SKF**