Product technical information

SKF SPEEDI-SLEEVE

Subject
Installing an SKF SPEEDI-SLEEVE

Products designations
SKF SPEEDI-SLEEVE the shaft repair kit

Car Manufacturers - Brands
All

SKF SPEEDI-SLEEVE selection tool link:
https://skfbearingselect.com/guidedflow/index.html#/speedi-sleeve

To use in association with Engine kit – seal kit – transmission kit – wheel end kit

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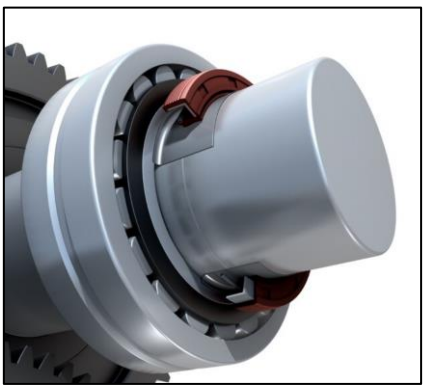
Any place there is a radial shaft seal, there could be an SKF SPEEDI-SLEEVE !

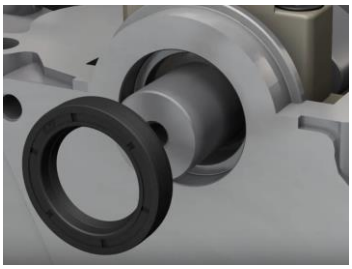
The SKF SPEEDI-SLEEVE is a fast and effective way to refinish worn shaft. The SKF SPEEDI-SLEEVE comes with its disposable installation tool. It is slipped over the worn area quickly and easily. The same size radial seal (as the one being replaced) fits on to the SKF SPEEDI-SLEEVE. No expensive machining or preparation is required before mounting. It's quicker than remetalizing or regrinding and provides an improved sealing system Downtime is reduced since installation only takes a few minutes.



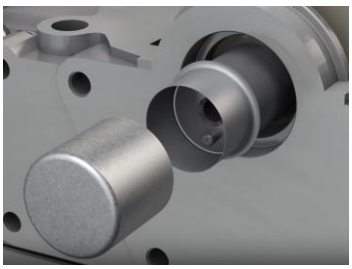
The standard range of SKF SPEEDI-SLEEVE sizes covers shaft diameters from 0.472″ to 8″ *(12 to 200 mm)*. The SKF SPEEDI-SLEEVE is thin-walled, 0.011″ *(0.28 mm)*, and made of high-quality stainless steel. The contact surface is wear- resistant with a finish of Ra 10 to 20 µm *(0.25 to 0.5 µm)*.

How to install an SKF SPEEDI-SLEEVE

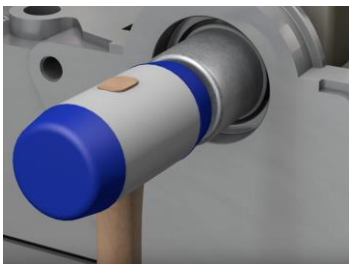
1. Clean the seal counter surface on the shaft. File down any burrs or rough spots.
2. Measure the diameter where the sleeve will be positioned on an unworn portion of the shaft. Measure in three positions and average the readings (to make sure the shaft is within recommended specifications). If the mean diameter is within the range for given sleeve size, there is sufficient press fit built into the sleeve to revent it from sliding or spinning without using an adhesive.
3. Determine where the sleeve must be positioned to cover the seal wear track. Measure to the extract point, or mark directly on the surface. The sleeve must be placed over the worn area, not just bottomed or left flush with the end of the shaft.
4. Shallow wear grooves do not required filling. Optionally, a light layer of a non-hardening sealant, e.g. Loctite 209, can be applied to the inside diameter surface of the sleeve. Clean away sealant that migrates to the shaft or sleeve outside diameter surface.
5. If the shaft is deeply scored (see note above) fill the groove with a powdered metal epoxy type filler*. Install the sleeve before the filler hardens, allowing the sleeve to wipe off any excess filler. Clean away any remaining filler from the sleeve outside diameter surface.
6. The flange end of the sleeve goes on the shaft first. Then place the installation tool over the sleeve.
7. Gently tap the center of the installation tool until the sleeve covers the seal worn surface. If the installation tool is too short, a length of pipe or tubing with a squared-off, burr-free end can be used. Be sure that the inside diameter of the pipe is the same as that of the installation tool. Use care not to scratch the precision ground sleeve outside diameter.
8. Leave the flange intact unless clearance is required. If the flange is to be removed, cut the flange perpendicular to the tear-off groove with a metal shear. Cut only into the tear- off groove, not onto the finished sleeve surface. After positioning the sleeve, use standard pliers to bend the flange back and forth around its circumference and along the shaft axis. The flange will break loose along the tear-off groove. Alternately, grasp the flange away from the seal surface and twist it into a coil being careful not to lift the end of the sleeve off the shaft or it will leave a jagged edge. Flange removal must be done with care to avoid damage to the sleeve outside diameter.
9. After the sleeve is installed, check again for burrs which could damage the seal.
10. Lubricate the sleeve before installing the seal.
11. Proceed with the seal installation.



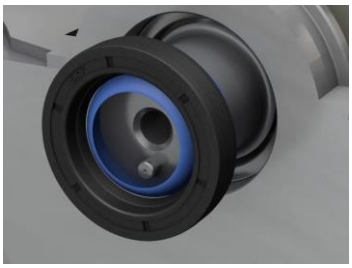
Remove the defective shaft seal



Drive the SKF SPEEDI-SLEEVE



Onto the worn area of the shaft



Install new oil seal

*Loctite « Quickmetal » (#66010) or similar works well for fillin a deep groove and can be used as an adhesive or sealant it desired. Use of an adhesive can, however, make the removal of the sleeve slightly more difficult.

Removing an SKF SPEEDI-SLEEVE

An SKF SPEEDI-SLEEVE can be removed by applying heat to the sleeve with an electric heat blower, which will expand it enough to let it slide off the shaft without causing damage.

Alternatively, the sleeve can be removed in any of the following ways, always using care not to damage the shaft surface:

- By relieving the press fit tension using a small hammer to peen across the full width of the sleeve
- By using a cold chisel to cut through the sleeve
- By using a pair of wire cutters starting at or near the flange and applying a twisting motion.

Please note that a dismounted SKF SPEEDI-SLEEVE cannot be reused.

More information and videos, please follow those links:
SKF Speedi Sleeve - Simple and fast repair of a worn shaft (youtube.com)
https://www.youtube.com/watch?v=09LiVbqL6ss&t=43s
https://www.youtube.com/watch?v=6MxtJW1xS5s

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