

YANMAR AMERICA SERVICE ADVISORY

Advisory Number: YASA2015 – 004 - M

THIS ADVISORY APPLIES TO: Construction Industrial Marine Tractor Energy Systems

DATE: 02-09-2015

TO: All Dealers and Distributors

SUBJECT: Introducing SKF Speedi-Sleeve for SD40/SD50

MODEL(S): SD40 and SD50

REFERENCE: YMTQTB15-002

Yanmar wishes to inform to the distributors/dealers that Yanmar has received reports from the market that the pinion shaft oil seal of the SD40/SD50 models can leak lubrication oil.

Yanmar has analyzed this phenomenon and found that in some cases a worn groove in the pinion shaft, caused by the oil seal, can result in a leak. Yanmar accepts to use a thin-walled sleeve [0,28mm (0.011 in.)] to be pushed in position over the worn groove, providing a counter face surface that is optimized for the Yanmar standard oil seal to overcome the wear groove.

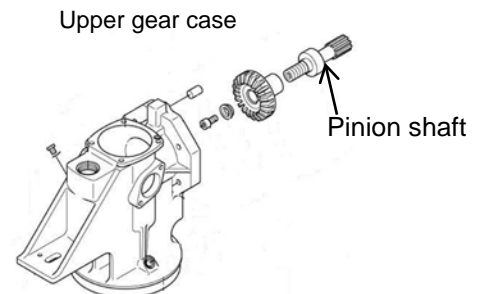
There is no shaft disassembly or machining involved and costly downtime is minimized.

The Yanmar shaft seal can be used with the same part numbers:

*Model: SD40 and SD50

*Parts code: 24413-456209 or 196450-02260

No special equipment is required since the installation tool is supplied with the sleeve. A mallet and a pair of pliers are needed for the installation.



The sleeve has a removable flange to simplify installation. The flange needs to be cut from the outside diameter into the radius in one location prior to installation. The flange can then be twisted and raised up after installation and grasped with a pair of long-nosed pliers and twisted into a coil.

Shaft sleeve information

*Brand: SKF

*Model: Speedi Sleeve

*SKF Part code: CR99177

YANMAR AMERICA CORPORATION

101 International Pkwy. Adairsville, GA 30103 U.S.A.

Telephone 770-877-9894 FAX 770-877-9009

<http://www.us.yanmar.com>

Installing SKF Speedi-Sleeve

Although installation is simple, it should be done carefully. As the thin walled sleeve has an interference fit, any disturbance on the shaft surface may create a similar pattern on the sleeve surface and cause the seal to leak. Therefore, the seal counter face surface of the shaft should be carefully cleaned and any burrs or rough spots filed down prior to installation. Deep wear grooves, scratches or very rough surfaces should be treated with suitable powdered metal epoxy-type filler. The sleeve must be positioned on the shaft before the filler has hardened.

Installation procedure Sleeve on SD input shaft

1. Clean the seal counter face surface on the shaft. File down any burrs or rough spots.
2. Determine where the sleeve must be positioned to cover the worn groove. Measure to the exact 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.
3. Shallow wear grooves do not require filling. Optionally, a light layer of a non-hardening sealant can be applied to the inside diameter surface of the sleeve. Clean away sealant that migrates to the shaft or sleeve outside diameter surface.
4. If the shaft is deeply scored, fill the groove with powdered metal epoxy-type filler. Install the sleeve before the filler hardens, enabling the sleeve to wipe off any excess filler. Clean away any remaining filler from the sleeve outside diameter surface.

5. Heat should never be used to install the SKF Speedi-Sleeve.

6. The installation flange must be removed after installation.

Cut the flange from the outside diameter into the radius in one location. The flange end of the sleeve goes on the shaft first. Next, place the installation tool over the sleeve, **see fig 1**.

7. Gently tap the center of the installation tool until the sleeve covers the worn shaft surface, **see fig 2**.

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's outside diameter

8. SKF Speedi-Sleeve should always be installed so that the outside edge of the sleeve is seated on the full shaft diameter. It must not rest in or outside the chamfer area since the sharp edge will likely cut the oil sealing lip during oil seal installation.

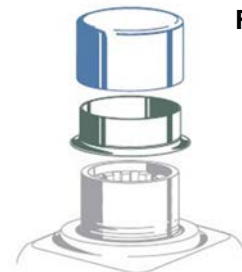


Fig.1



Fig.2

9. If the flange was cut for removal, use a pair of long-nosed pliers to grasp the flange away from the sleeve 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 outside diameter of the sleeve.
10. After the sleeve is installed, check again for burrs that could damage the seal.
11. Lubricate the sleeve with the sail drive lube oil.
12. Proceed with seal and sail drive to engine installation.
13. Check engine and drive operation for any leak and abnormal noise.
14. When no leak or abnormal noise, clean the bilge.

End of installation / repair.

Shigeo Nakamura
Manager, Group 2
Global Business Promotion Division
Large Power Products Operations Business
Yanmar Co., Ltd

If you have any questions please contact Yanmar Customer Support at 855-416-7091.