

YANMAR SERVICE NEWS

Subject	LO Priming Pump Motor Internal Bearings Changed	Issue No.: 19-2-G-09-001-O Date: 2019.09
Engine Model	6EY18(A)L, 6EY22(A)L	Use Marine Aux. Engines
		Engine Nos. _____

Concerning some of LO priming pump motors, installed to the generator engine common bed, it was reported to us that the motor bearings would not rotate smoothly (or were damaged.) in less than one year after delivery of the ship.

Upon inspecting the collected parts, we found that motor upper bearings (at anti-load side) were damaged. This priming pump, since being stopped during engine operation, is prone to be affected by engine vibrations. We found that the upper motor bearings, in particular, where increasing vibrations would be applied, tended to be damaged.

To prevent the problem, we have decided to employ the creep-free bearings (for both upper and lower bearings) in place of the conventional bearings, (pls. refer to Fig.1.)

The creep-free bearing has O-rings installed in the circumference, which is instrumental in preventing the bearing from direct metallic contact with the housing. Combined with the effect of vibration insulation rubber, we have verified that the service life of the bearing can be extended.

In this relation, we recommend that the existing bearings for both the upper & lower bearings be replaced with the creep-free bearings whenever the bearings are serviced for maintenance. The bearing cases, which remain not changed, can be re-used as they are. However, when the case was damaged heavily, change both the bearing and the case to creep-free bearing and bearing case as a set. Before installing the creep-free bearing, apply grease to the circumference of the bearing. The grease, besides preventing the O-rings from being damaged, sealed inside two O-rings turns to oil film to work as a buffer media.

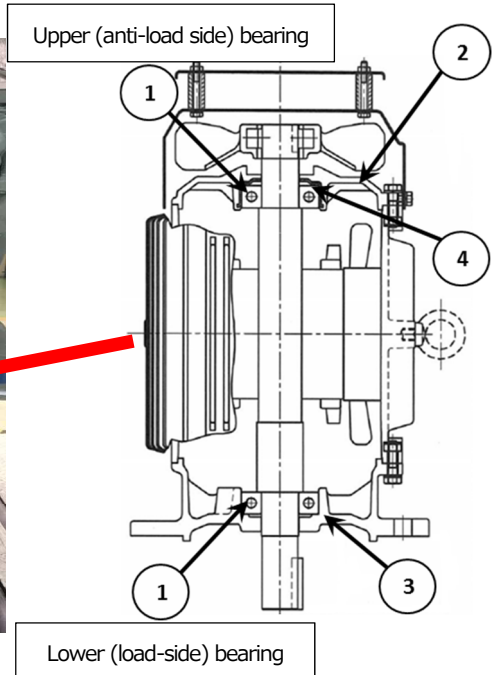
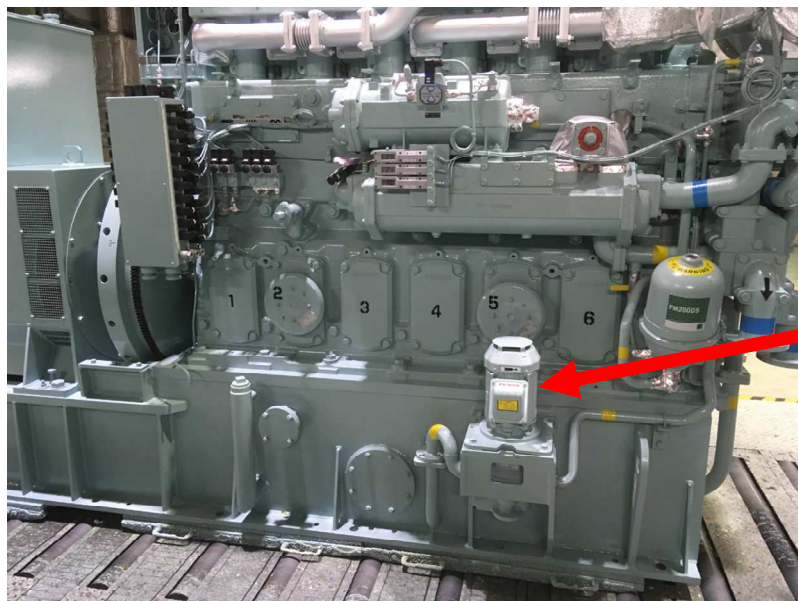
Although our operation manual does not specify the replacement interval for the bearing, in the case of the application for the present pump, we recommend that the bearing be replaced every 8000~12000 hours, (bearing manufacturer recommendation). As to the LO priming pump, which is exposed to engine vibration constantly even not being used, we recommend the LO priming pump bearings be replaced every 1~1.5 years.

The creep-free bearings are introduced to production engines shipped from September 2019 and thereafter. (The priming pump of 6EY18(A)L engines destined to the Japanese shipyards, because of differences of parts (made by MANSEI INC.), are outside the scope of this Service News.)



Fig.1 Creep-free Bearing

<p>YANMAR CO.,LTD. Customer Service Division Large Power Products Management Division Power Solution Business</p>	Approved	Checked	Prepared



LO Priming Motor

Fig.2 LO Priming Pump (Photo) and Motor Section

Table 1. Old & New Part Numbers

Engine Model	6EY18(A)L		6EY22(A)L	
Pump Delivery Volume	4m ³ /h		5m ³ /h	
Pump Manufacturer	TAIKO KIKAI INDUSTRIES CO., LTD			
	Old	New	Old	New
Pump Assembly Code	46130-061711	46130-061712	46130-061720	46130-061721
Motor Bare Unit Code	46130-063600	46130-063601	46130-063600	46130-063601
① Bearing (Bearing Type)	Not established (6205ZZ)	40000-025540 (AC6205ZZ CM/5K)	Not established (6205ZZ)	40000-025540 (AC6205ZZ CM/5K)
② Motor Housing (anti-load side)	40000-025560	Same as at the left	40000-025560	Same as at the left
③ Motor Housing (load-side)	40000-025570	Same as at the left	40000-025570	Same as at the left
④ Spring Washer	40000-025580	Same as at the left	40000-025580	Same as at the left