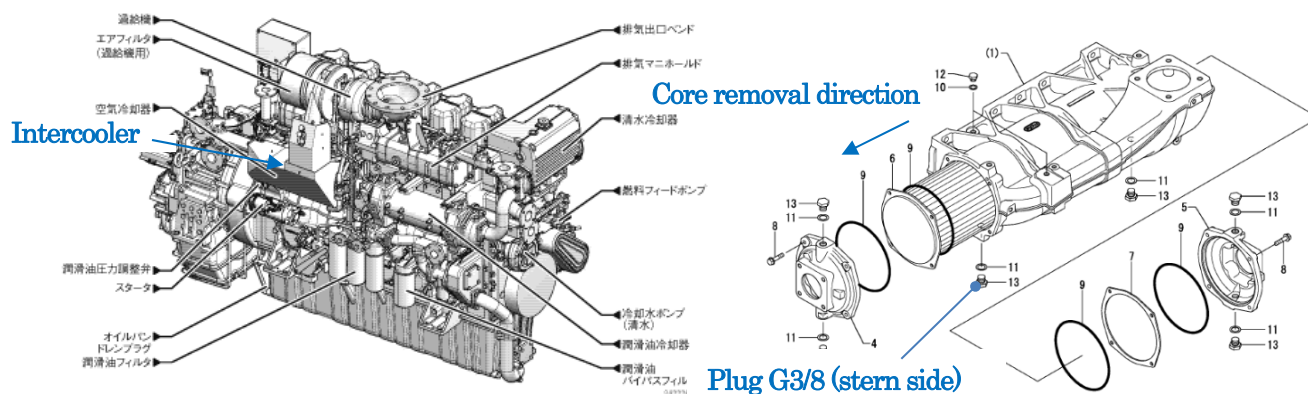


# YANMAR SERVICE NEWS

Subject	Intercooler Case Corrosion	No. : 18-2-G-12-010-N Issued: 2018.02	
Engine Model	6EY17W	Use	Marine Main Engine
		Engine Nos.	_____

In some of the 6EY17W engines, while servicing the intercooler, the removal of the core was sometimes very hard. Upon inspection of the faulty product, as shown in the photo below, the intercooler case inner face was found corroded and aluminum oxide precipitated deposited on the area between core and case. This hindered the removal of the core. Corrosion is attributable to the chlorine component contained in condensed water of the seawater atmosphere in the charging air. This trouble in the worst case, can lead to the cracking of the case due to the accumulation of aluminum oxide.

In order to prevent this trouble, we would like to advise you of the content of improvement, and the corrective measure of the engines already shipped as follows;



Stern side      Corroded      Aluminum oxide accumulated      Corroded      Bow side

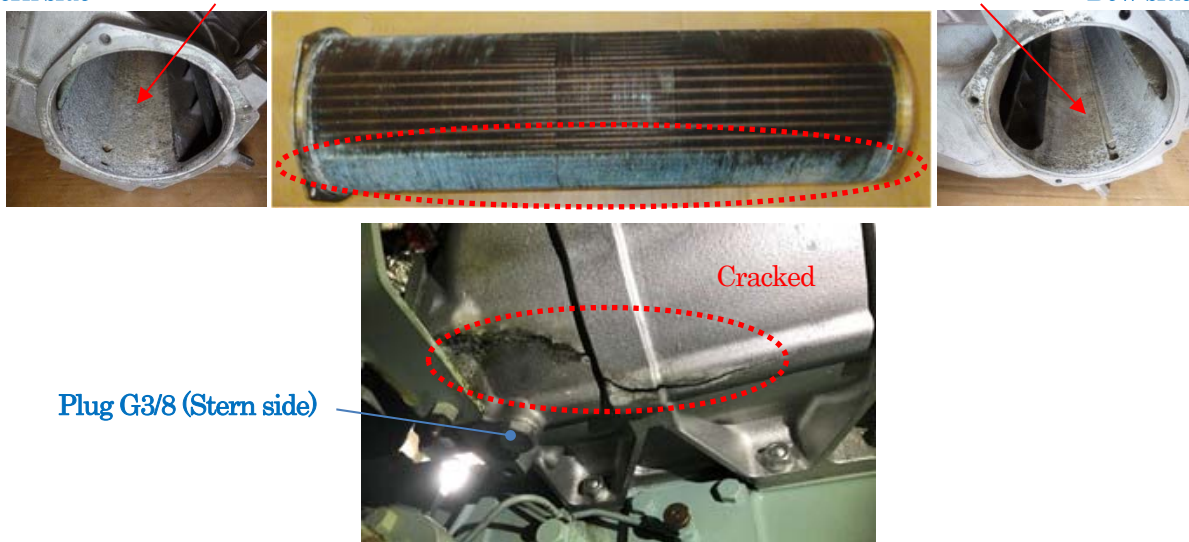


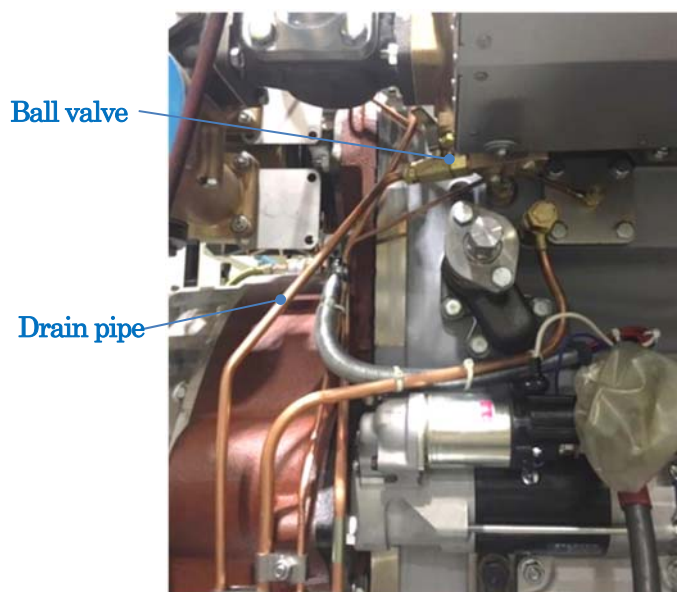
Photo 1. Damage of Intercooler

<b>ヤンマー株式会社</b> エンジン事業本部 特機エンジン統括部 カスタマーサービス部	<b>YANMAR CO.,LTD.</b> Customer Service Division Large Power Products Management Division Power Solution Business	Approved	Checked	Prepared

## 【Content of Improvement, and Corrective Measure of the Engines Already Shipped】

### (1) Addition of drain pipe (Applicable Engine Nos.:1099～)

- For the purpose of positively discharge condensed water of charging air, as shown in the left photo below, the intercooler stern-side plug was discontinued and the drain pipe was added.
- Concerning the engines already shipped, as shown in the right photo below, it is requested that the intercooler stern-side plug be removed and ball valve be installed for discharging the drain by a hose.



#### Ball valve

- To be fully closed during engine run
- To be fully opened during engine stop



Photo 2. Addition of Intercooler Drain Pipe

### (2) Addition of Corrosion-proof Surface Treatment (Applicable Engine Nos.:1193～)

- The intercooler design was changed with the addition of the hard ALUMITE surface treatment of the overall surfaces of the case for raising corrosion resistance.

Table 1. Part No. of Intercooler Assembly

	Before Change	After Change
Part No.	740695-18300	740695-18301
Remarks	-	Hard ALUMITE Surface Treatment

- Concerning the engines already shipped, whenever the core was removed for maintenance and cleaning, we recommend to paint the corrosion-proof paint, having equivalent effectiveness to that of the surface treatment above, to the whole area of the case's charging air line.

Table 2. Painting Points in Intercooler Case

Recommended Paint	PYROSIN, Oshima Kogyo Co. <a href="http://www.ohshima.co.jp/">http://www.ohshima.co.jp/</a>
Method	The heat-proof paint contains heavy pigment components and can become deposited inside the can. Stir paint well with hand mixer, etc. and check that no deposits were left on the bottom before implementing painting. Paint with brush for the 1st layer and use by airless spray gun for the 2nd and 3rd layers.
Thickness of Painting	80μm