HYUNDAI
GLOBAL SERVICE
Centum Science Park, 79, Centum jungang-ro, Haeundae-gu, Busan 48058, Korea
Tel : +82 52 204 7765 / FAX: +82 52 204 7801 / Web : http://www.hyundai-gs.com/ E-MAIL : service@hyundai-gs.com

Service Letter

Date : 26 November 2019
Ref. No.: HGS-HSP-SL-19-001

Subject: The causes of oil leakage on Engine block surface

Type : H21/32

To whom it may concern,

Recently, we have been reported that oil leaking to the exhaust side of the Engine block. The issue is that the oil leaks in cylinders 4, 5, 6, 7, 8 of Yaguaramas Site #5 Engine. On this issue, Yaguaramas Plant considers the occurrence of steps due to Fretting between the Engine block and the Water jacket as the main reason as shown Fig.1

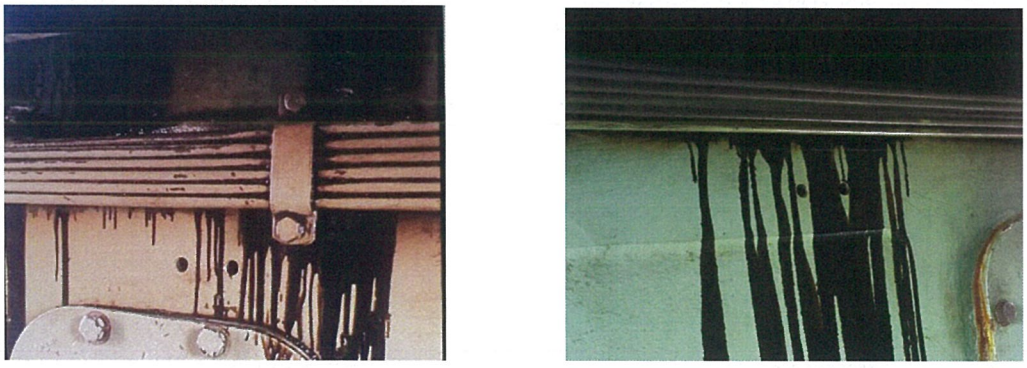

Fig. 1

In general, if leakage occurs on the block surface, it can be assumed that LO or FO is leaked.

In the first case, assuming that the LO is leaked, we can estimate the case where two O-rings are damaged as shown in Fig 2. However, the bolt is properly tightened and the two O-rings in the picture below are normal, there is no possibility of LO leakage between the engine block and the jacket contact surface. If LO leakage occurred, it is estimated that

there was obviously an O-ring damage, which is not related to Fretting.

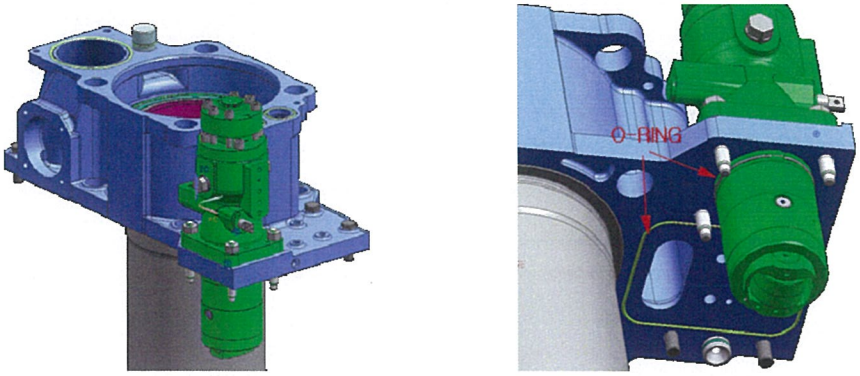

Fig. 2

In the second case, assuming that the FO is leaking, when the HP block is assembled in the cylinder head, the O-ring is caused by damage or poor assembly as shown Fig. 3.

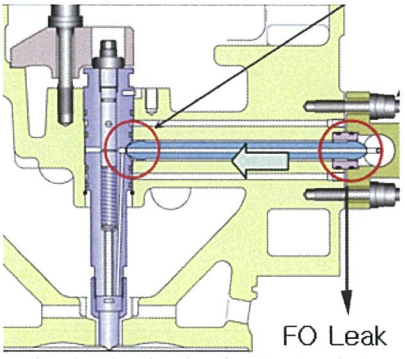

Fig. 3

Judging from the results of the design review and field inspections, the oil component of the leaked oil is identified as FO. In order to prevent leakage of the Block surface, it is required to pay attention to the HP block assembly work.

We hope this information would be helpful to you.

Faithfully yours,

Sung chul Jung

S. C. Jung, General Manager

Power Plant Sales Dep't

Power Plant Division