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(1/1)

Subject : How to check air spring tightness for exhaust valve drive	Application	UEC Diesel Engine
	Type	UEC engine with air spring system
	No.	USI-14318E
At early opportunity		

Recently, low pressure alarm of air spring pressure and/or malfunction of exhaust valve actuation have been reported.

These were caused by air leakage from the air spring system due to lowered air tightness of cap seal by foreign matters.

To cope with this issue, it is recommended to check the air tightness of the air spring system regularly including before/after the maintenance work as attached.

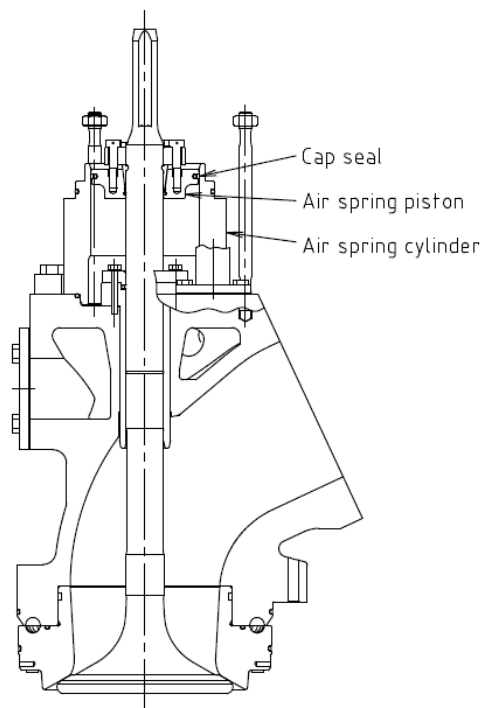
As a guidance of function criteria, the down time of exhaust valve is around 60 seconds or more. The down time can vary according to test conditions and aging of cap seal.

Thus, the above time is the guidance and past records shall also be referred to evaluate the air-tightness status.

If poor air-tightness is found, it is recommended to overhaul the concerned unit at early opportunity to replace the cap seal for exhaust valve air spring.

Attached:

How to measure spring air tightness condition



UEC50LSH-Eco-C2

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Plan record	Newly issued 29th Jan. 2021	Approved	<i>K. Yoshida</i>	SERVICE ENGINEERING DEPARTMENT
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		Designed	<i>D. Yasuda</i>	DATE OF ISSUE : 29th Jan. 2021

How to measure spring air tightness condition

(USI-14318 attached)

排気弁スプリングエア 気密性確認要領

M/V " _____ "

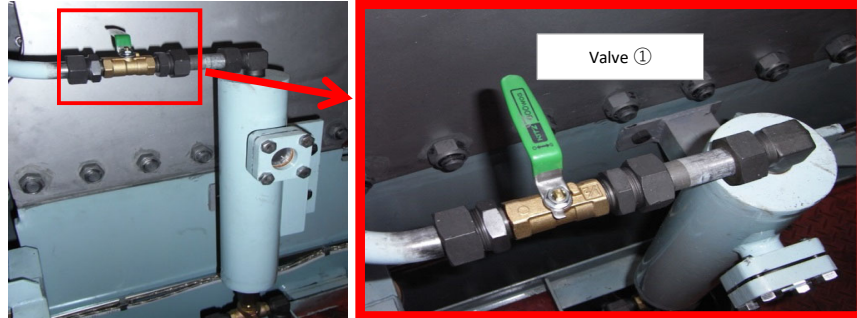
M/E _____ UEC

Cyl. No. Date	1cyl.	2cyl.	3cyl.	4cyl.	5cyl.	6cyl.	7cyl.	8cyl.	Remarks
(Sample) **-***-2020	**sec	**sec	**sec	**sec	**sec	**sec	**sec	**sec	Air Press: ____MPa LO Press: ____MPa LO Temp.: ____°C
									Air Press: ____MPa LO Press: ____MPa LO Temp.: ____°C
									Air Press: ____MPa LO Press: ____MPa LO Temp.: ____°C
									Air Press: ____MPa LO Press: ____MPa LO Temp.: ____°C
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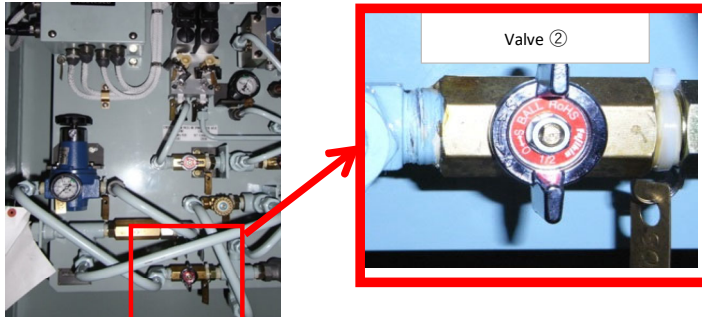
Test Procedure/テスト要領

- 0 Run LO pump
LOポンプを運転状態とします。
- 1 Close the drain valve ①
ミストキャッチャー手前のバルブ①を閉める
- 2 Close the spring air supply line valve ② on the valve panel.
バルブパネルのスプリングエア供給バルブ②を閉める
- 3 Measure the lift down time through the sight glass on the upper driving gear.
サイトグラスから排気弁が降下するまでの時間を計測

Step.1



Step.2



Step.3

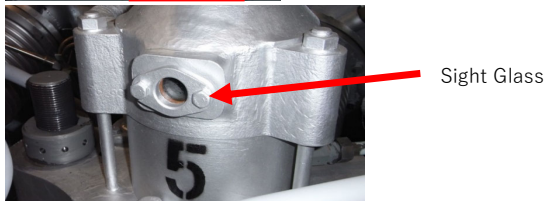


Photo: Example of UEC50LSH-Eco-C2

- 4 Restore the valve ① and valve ② positions to the original after finishing the test.
計測終了後、バルブ①及びバルブ②を元の位置に確実に戻すこと