
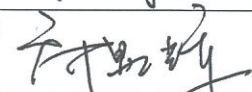
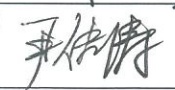
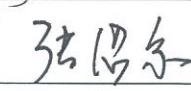
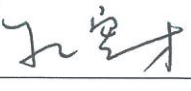



# 单一来源采购谈判记录表

项目名称：“科学”轮柴油机故障维修及升级改造

记录人：陶传波 

谈判地点：科考船指挥调度大厅

供应商名称	瓦锡兰维修服务（上海）有限公司			
产品名称	瓦锡兰柴油机修理	数量	3台	
规格型号	W8L26	目标价格	311800元	
质量等级	品牌柴油机中国地区专业维修公司			
技术要求	V型密封更换、油头中心套升级改造、系统查漏			
供应商提供的采购标的成本、同类项目合同价格以及相关专利、专有技术等情况说明	瓦锡兰服务队携带瓦锡兰修理专用工具需在船完成以下主要工作： 1. 按照瓦锡兰关于W26机中心套升级的技术通函（文件号：T-W26.0018.GB）对两台柴油机中心套进行升级； 2. 更换1#主发电柴油机曲轴输出端V-型密封； 3. 缸头试压，查找3#柴油机淡水系统冷却水渗漏故障原因			
合同主要条款及价格商定情况	预估人工：V型密封更换：每台机3人X4天 中心套升级：每台机4人X4天，两台 总修理报价：311800元			
谈判争议点	修理时间：约在3月择机进行，质保范围：固定件三个月，运动件六个月			
谈判结果	2019年3月份登轮完成维修保养			
谈判小组人员	姓名	单位	职称	签字
	王立松	自然资源部第一海洋研究所	高级工程师	签字 
	乔显辉	青岛海洋地质研究所	船舶中心副主任	签字 
	尹传涛	中船重工712研究所	高级工程师	签字 
	张绍京	中科院海洋研究所	高级工程师	签字 
	孔宪才	中科院海洋研究所	高级轮机长	签字 
谈判小组组长	签字： 		时间： 2019.2.27	



## 船舶修理申请单

修改日期 Revise Date  
2018-11-21

船名	科学	部门	轮机部	日期	2018.12.26
序号	项目说明（修理名称、规格、数量、材料、损坏情况和修理要求）				
一	<p>设备名称：1#发电柴油机 生产厂家：瓦锡兰</p> <p>设备型号、序列号：W8L26, PAAE202161</p> <p>修理名称：1#主发电柴油机输出端V型密封更换</p> <p>修理内容说明：1#主发电柴油机曲轴飞轮端V型密封圈存在老化现象，密封效果下降。需拆除联轴节、飞轮及输出端端盖，V型密封换新；回装联轴节、飞轮及输出端端盖，按说明书要求上紧螺；拆检前后需测量拐档差、曲轴轴向间隙及联轴节对中。（V型密封备件号：110005，船供）</p>				
二	<p>设备名称：主发电柴油机 生产厂家：瓦锡兰</p> <p>设备型号、序列号：W8L26, PAAE202161/ PAAE202163</p> <p>修理名称：1#/3#主发电柴油机所有缸头中心套升级</p> <p>修理内容说明：按照瓦锡兰技术通函，文件号：T-W26.0018.GB，1#和3#主发电柴油机所有缸头中心套需升级。对1#和3#主发电柴油机所有缸头进行试压，检查渗漏情况，如有渗漏予以修理（中心套备件号：1201006，排气阀座备件号：1201004，船供）。</p>				

注：保存在部门长处和船舶运维部机务部，保存2年。

船长：

机务审核：

部门长：

船舶运维部：

船章：



客户名称  
Institute of Oceanology  
7 Nan-hai Road  
Qingdao 266071

客户联络人 Liu  
询价日期 31-Jan-2019  
贵司参考号码 SOR-14167  
付款条件 30 days net  
报价有效期限 02-Mar-2019

## 现场服务报价

非常感谢您的询问

### 报价特定条款

船名或设备名称	产品型号	产品编号
KE XUE	W8L26	PAAE202163
KE XUE	W8L26	PAAE202161

项目	数量	单价	合计
<b>1号主机输出端V型密封(备件号: 11100005)更换</b>		CNY 76,000.00	CNY 76,000.00

拆除联轴节, 飞轮及输出端端盖  
V型密封换新  
回装联轴节, 飞轮及输出端端盖, 按照说明书要求上紧螺丝  
拆检前后测量拐挡差, 曲轴轴向间隙, 及联轴节对中

<b>1, 3号主机所有缸头中心套升级</b>	2	CNY 117,900.00	CNY 235,800.00
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按照瓦锡兰技术通函, 文件号: T-W26.0018.GB  
1,3号缸头试压, 检查渗漏情况(如果需要修理, 将另外报价)

预估人工:  
V型密封更换: 每台机3人X4天(不含差旅时间)  
中心套升级: 每台机4人X4天(不含差旅时间)

## 报价明细

### 交货时间及地点

施工地点 : 青岛

预计施工日期 : 2019年3月

### 人工费

## 报价条件

### 报价特定项目

提供的报价包括交通时间, 交通和住宿等费用, 且包含16%的增值税。

费用明细 + 10 %

### 追加工作项目

任何额外的工作和等待时间, 包括分包, 将根据现行的Wärtsilä服务费价格表开具发票

### 需求/工作内容变更

需求/供货范围的任何变更将重新检视, 并可能影响已提供的价格。对于在接受订单后要求的规格的任何变更, 敝司保留修改相应价格和交付日期的权利。

### 报价条件

本报价适用于所附条款和条件。明确排除任何其他条款和条件的适用性。

所有备件由船方提供。

如有必要, 船方需协助瓦锡兰服务人员办理登轮证或者船厂证件。

如有任何港口费用或者船厂管理费等, 将由船方安排。如需瓦锡兰安排, 将按照实际费用+10%管理费开票。

### 附录

W26 new injector sleeve servise letter.pdf

EN-EN General Terms and Conditions - Service Work 2018

希望敝司的报价符合您的期望, 期待收到您的订单。

顺颂商祺,

Wärtsilä China Ltd.  
Ming Zhao Liu  
Account Manager  
mingzhao.liu@wartsila.com

Wärtsilä China Ltd.  
Ming Zhao Liu  
Account Manager  
mingzhao.liu@wartsila.com

Subject	Engine type	Ref.	Date	Document No.	DLC	Issue	Page
New Injector Sleeve	<b>W26</b>	WIT-S	12.12.12	T-W26.0018.GB	161	01	1/4

# New Injector Sleeve

## 1 Background

Some cases have been reported where the sealing between the lower part of the injector sleeve and the cylinder head has been lost, causing water leakages from the leak fuel oil line of the cylinder head. In order to improve the sealing, Wärtsilä has introduced a new design of the cylinder head injector sleeve.

## 2 Application

Since a number of unfavourable conditions must be present at the same time for the loss of sealing to occur, cylinder heads are affected randomly. Modification is recommended whenever a leak is observed. In case, remove the affected cylinder head at the earliest opportunity and perform this modification. Improved injector sleeve becomes the new standard on all W26 engines.

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**Warning:** Cooling water leak can be observed by monitoring the level of the water expansion tank. It is strongly recommend to monitor the expansion tank especially during commissioning of the engine, when the engine is tested at 100% of load.

---

## 3 Description

The new solution consists in a modification of the shrink fit on the lower diameter of the injector sleeve and the introduction of an o-ring for assuring the seal between water and fuel oil circuit.



Figure 1: detail of the new solution for the injector sleeve

Subject	Engine type	Ref.	Date	Document No.	DLC	Issue	Page
New Injector Sleeve	<b>W26</b>	WIT-S	12.12.12	T-W26.0018.GB	161	01	2/4

## 4 Parts Needed Per Cylinder Head

Table 1: parts needed

Spare Part Number	EPN	Description	Quantity
1201006	0004	Injector sleeve with o-ring groove	1
1201016	0001	o-ring	1

## 5 Instructions

- 1) Dismount leaking cylinder heads from the engine following the instruction manual, Ch. 2.7.1, make sure to prevent dirt from entering the engine by covering all the parts of the engine that remain open.
- 2) Dismantle cylinder head valves using tool 9612ZT919 in combination with jack 9612ZT913, following instructions on the instruction manual, Ch. 2.7.3.
- 3) Remove injector sleeve using tool 9612ZT932, following instructions on the instruction manual, Ch.2.7.5.
- 4) Machine the chamfer on the injector sleeve pocket according to drawing below, see Figure 2.
- 5) Clean the lower sealing surface of the injector sleeve pocket from rust deposits by means of 320 emery cloth.
- 6) Clean cylinder head by means of a washing machine.
- 7) Heat uniformly cylinder head to  $100 \pm 10$  °C.
- 8) Cool the new injector sleeve uniformly to  $-30 \pm 5$  °C.
- 9) Apply Loctite 638/648 on the upper sealing surface of the injector sleeve pocket, see Figure 3.
- 10) Apply silicone grease on the injector sleeve o-ring and place it on the injector sleeve seat.
- 11) Place sleeve on tool 9612ZT946 and insert sleeve immediately into cylinder head.
- 12) Tighten nut (item 1, Figure 4) and keep sleeve compressed in cylinder head for 5 min at least.
- 13) After mounting of the injector sleeve and cooling down of cylinder head, perform a water pressure test with water at 7.5 bar for 1 hour and make sure that no leakage is present.
- 14) Mark the top surface of the cylinder head with the letters NS in order to trace the modification.
- 15) Assemble valves back on the engine according to instruction manual, Ch. 2.7.3.
- 16) Mount cylinder heads on engine according to instruction manual, Ch. 2.7.1.
- 17) Adjust valve clearance according to instruction manual, Ch. 2.7.2.
- 18) Add the enclosure to the instruction manual.

Subject	Engine type	Ref.	Date	Document No.	DLC	Issue	Page
New Injector Sleeve	<b>W26</b>	WIT-S	12.12.12	T-W26.0018.GB	161	01	3/4

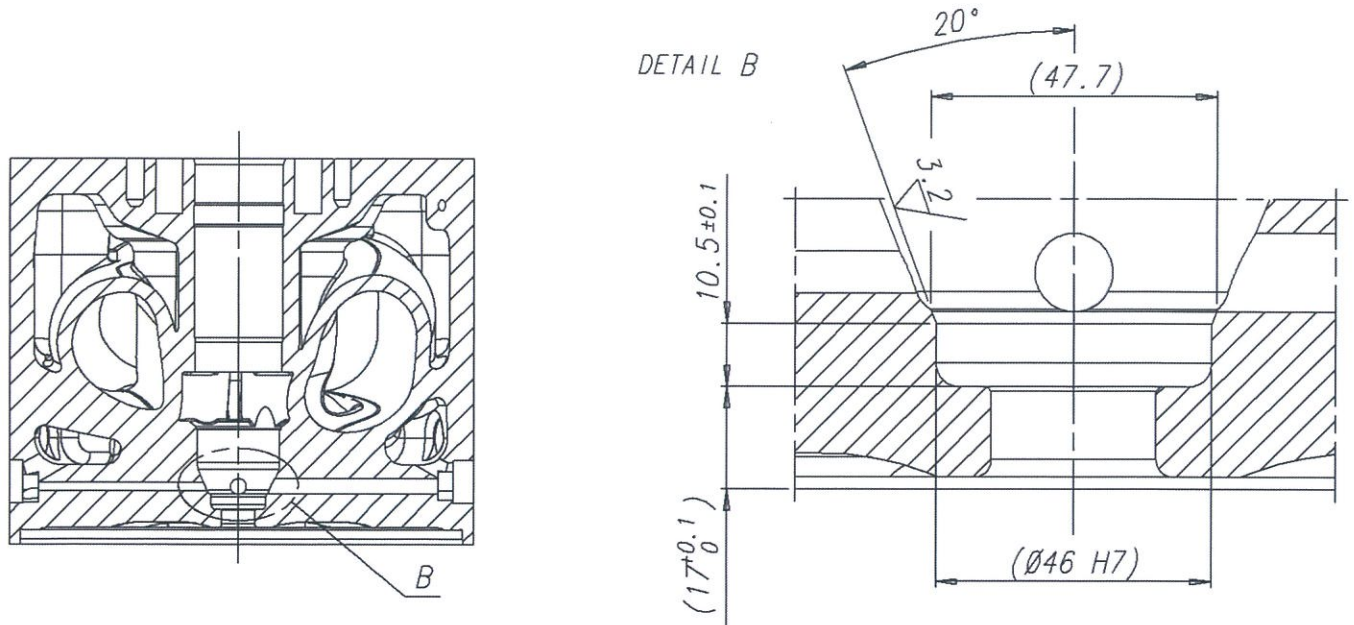


Figure 2: chamfer drawing

**A** Use O-Ring Grease  
(MOLYCOTE N°111)

**B** Loctite N° 638/648

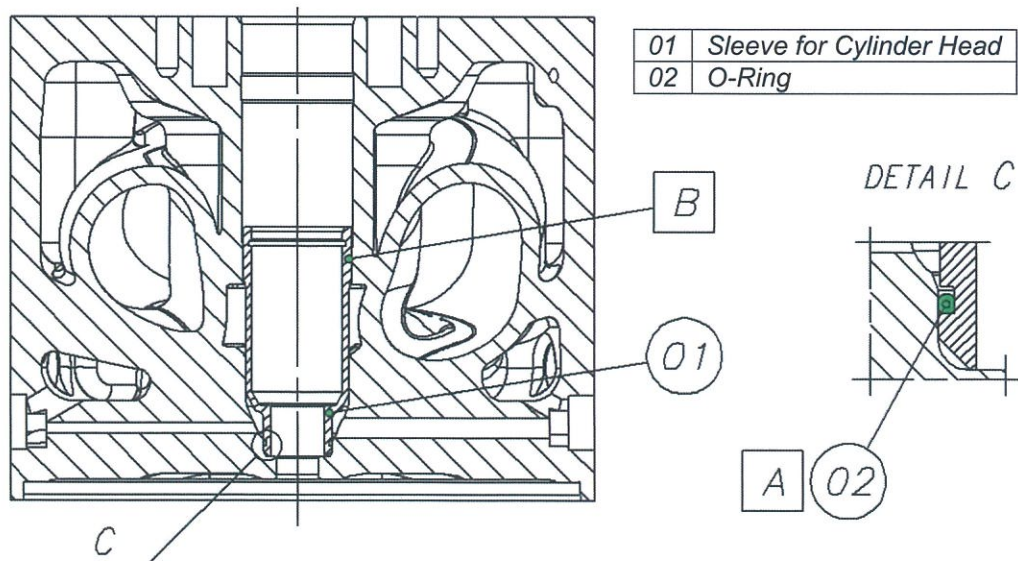


Figure 3: chamfer drawing

Subject	Engine type	Ref.	Date	Document No.	DLC	Issue	Page
New Injector Sleeve	<b>W26</b>	WIT-S	12.12.12	T-W26.0018.GB	161	01	4/4

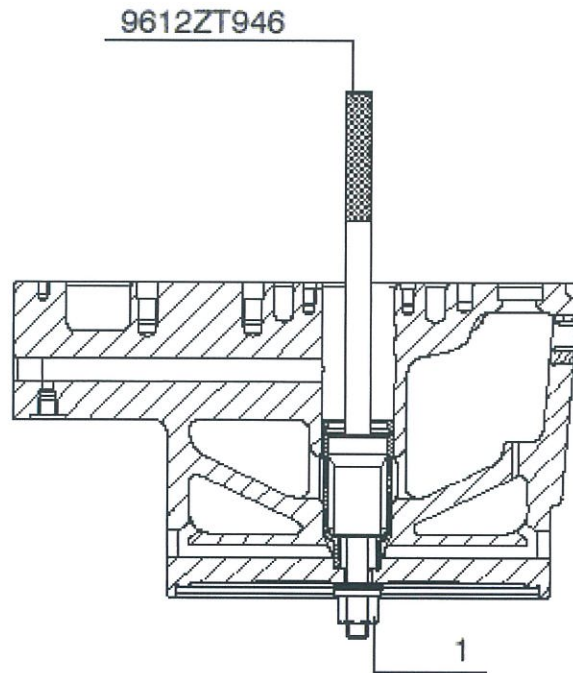


Figure 4: step 12 of the instructions

## 6 Documentation

In order to update your engine specific parts catalogue, the improved components have to be reported to your Wärtsilä Network Company.

## 7 Distribution

Wärtsilä Services Network

Owners of engines concerned

## 8 Liability

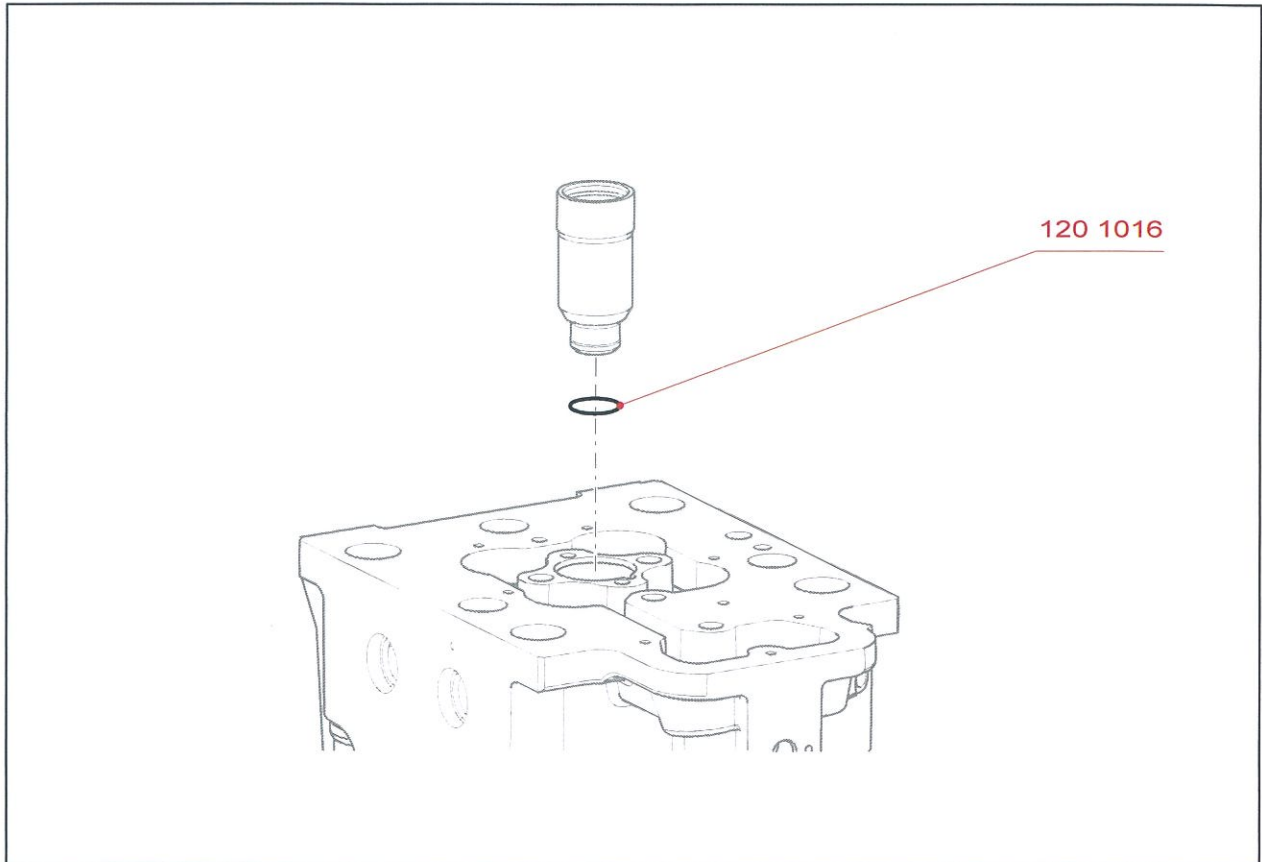
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## 9 Validity

This general instruction is valid until further notice.



## Cylinder head assembly



Part No.	Description	Qty [Pcs]	Wt. [Kg]	Part No.	Description	Qty [Pcs]	Wt. [Kg]
120 1016	O-ring	1	-				