

# MARINE ENGINE PARTS Reconditioning

Tech Excellence

Reliable Quality

**Swift Response** 

#### 萨捷船舶工程(浙江)有限公司 SAJEE MARINE ENGINEERING CO.,LTD

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·Workshop approval by





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## RECONDITIONING ITEMS 翻新业务

<b>01.</b> 缸盖 / Cylinder Cover	
O2. 活塞杆 / Piston Rod	
<b>03</b> . 活塞头 / Piston Crown	
<b>04.</b> 汽缸套 / Liner	
<b>05</b> . 活塞裙 / Piston Skirt	
<b>06</b> . 油缸 / Hydraulic Jack	
<b>07.</b> 阀壳 / Exhaust Housing	
<b>08</b> . 涡轮增压器 / Turbo charger	

**09**. 排气阀杆阀座 / Exhaust Valve Spindle & Seat

10. 连杆 / Connecting Rod

12. 其它备件 / Other Parts

11。曲轴 / Crankshaft







Warehouse



Chromium plating workshop

### **COMPANY INTRODUCTION**



#### 公司简介

萨捷船舶工程(浙江)有限公司,是一家专业从事船舶柴油机零部件翻新和修复业务企业,公司专注 于修理业务,涵盖柴油机缸盖、活塞头、活塞杆、排气阀杆、阀座、连杆、缸套、油缸等,同时涉及特种焊 接及机械零部件镀铬。此外、公司致力于船舶服务配备了大量的库存、为客户提供专业放心、便捷的交换 服务、服务品牌包括MAN B&W,SULZER,WARTSILA,YANMAR,DAIHATSU等。自2010年成立至今、公司 已为近千余艘中外船舶和陆地电厂提供了优质服务,在国内外航运界赢得了良好声誉。

公司管理规范、技术力量雄厚,加工设备先进。公司内部建立质量管理体系,拥有英国劳氏(LR和 DNV) 船级社颁发的工艺认可证书和ISO90001质量管理体系, 为产品提供信誉保证。公司技术人员和操 作工人均经过专业培训,并严格按照制造商原始要求进行翻新,为客户提供高质量产品。公司拥有多台进 口气体保护焊机和埋弧焊机等特种焊接设备,大型数控立式、卧式车床和镗(铣)床等加工设备,大型井 式高温回火炉和箱式排气阀加热炉等热处理设备,为产品提供品质保证。

公司地处浙江省嘉兴市海盐县西塘桥工业区,相邻杭州湾跨海大桥,与洋山港、外高桥港区、长三角 及舟山岛修船企业均有交通干线相连,地理位置优越,交通便捷。

SAJEE MARINE ENGINEERING CO., LTD is specialized in reconditioning and repairing services for marine diesel engine parts, SAJEE has been the exclusive window outward for reconditioning, including cylinder cover, piston crown, piston rod, exhaust valve spindle & seat, a/e connecting rod, cylinder liner, hydraulic jack, moreover, we offer special welding service and chromium plating service etc. We also have been focused on the supply of reconditioned spare parts for MAN B&W, SULZER, WARTSILA, YANMAR, Daihatsu etc. Since in 2010, SAJEE has served more than one thousand China and foreign ships and electricity factories, earned a good reputation in the shipping industry at home and abroad.

SAJEE integrates with standard management, strong technical force and advanced equipment. We establish DNV QMS to standardize management and control product process and we have certificates approved by British Lloyd's and DNV Classification Society. The company technicians and workers have accepted professional training, moreover, We also strictly conduct refurbishment in full compliance with the original requirements of the manufacturers, delivering high-quality products to customers. Our company is equipped with multiple sets of imported specialized welding equipment such as MIG welding machine and SAW welding machine, large-scale machining equipment including CNC vertical lathes, horizontal lathes, and boring (milling) machines, as well as heat treatment equipment like large well-type high-temperature tempering furnaces and box-type exhaust valve heating furnaces—all of which provide a solid guarantee for product quality.SAJEE is located in Xitangqiao Industrial Zone, Haiyan County, Jiaxing City, Zhejiang Province. Adjacent to the Hangzhou Bay Cross sea Bridge, it is connected by transportation trunk lines to ship repair enterprises in Yangshan Port, Waigaoqiao Port Area, the Yangzi River Delta and Zhoushan Island, enjoying a superior geographical location and convenient transportation

### **WORKSHOP**

工厂面貌





### **CYLINDER COVER**

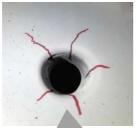


#### 汽缸盖翻新

主机缸盖因长时间在高温高压工作环境下,产生的材料疲劳开裂,严格按照制造商的标准翻新修理后,使其恢复原始的使用性能。

Main engine cylinder heads, subjected to prolonged operation under high-temperature and high-pressure conditions, may develop material fatigue cracks. By applying the manufacturer's standard procedures for reconditioning and repair techniques, their original service performance can be fully restored.

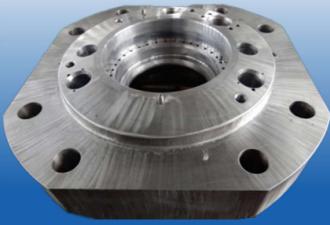






Cracks are very often found in the fuel pockets after long hours of operation





RT-flex84T 缸盖翻新后

RT-FLEX84T AFTER RECONDITION

### **PISTON ROD**

#### SAJEE MARINE

#### 活塞杆翻新

主机活塞杆因长时间往复运动导致运行面磨损超限,经我们采用进口ESAB特殊材料结合我们精湛特殊的表面堆焊翻新修理工艺,使其恢复原始的使用性能。

The main engine piston rod, subjected to prolonged reciprocating motion, develops excessive wear on its running surface. By applying imported ESAB special materials in conjunction with our proprietary welding reconditioning technology, it can be fully restored to its original condition.





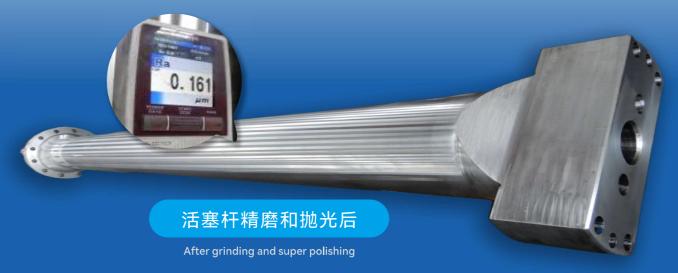
The running surface worn down and scratched.

#### 15 years of experience, specialize in professional piston rod reconditioning by SAW welding









### **EXHAUST VALVE SPINDLE / SEAT**



#### 排气阀杆/阀座

柴油机的排气阀杆在运行过程中,由于长时间的冲击和高温,导致阀面磨损和吹蚀,目前市场阀 杆的材料种类较多,有Nimonic、普通不锈钢以及合金材料等,我们对不同的阀杆材料都将按制 造商的工艺标准翻新,通过翻新后能确保让阀杆达到最佳效果。

During the operation of diesel engines, the seating area of the exhaust valve spindle becomes burned and worn due to prolonged impact and high temperature, which leads to wear and erosion of the valve faces. Several different materials are used for exhaust valve spindles, such as Nimonic and stainless steel, and properly selected welding materials are used in conjunction. By applying the manufacturer's standard procedures and after reconditioning, we can ensure that the valve spindle achieves optimal performance.







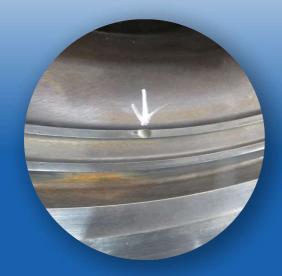
新前/Before

recondition

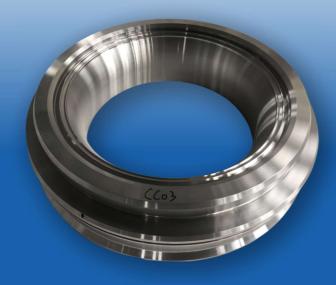












翻新后/After recondition

### **PISTON CROWN**

#### 活塞头翻新

主机活塞头因长时间在高温高压环境下运行,会产生的材料疲劳,从而导致表面热裂纹以及环槽 和外圆的磨损、需要全面的检查、并给出相应的报告和修理工程建议。我们将采用制造商的标准 翻新修理工艺, 使其恢复原始的使用性能。

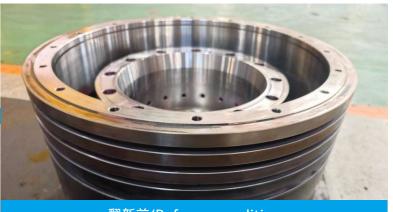
The piston crown, due to prolonged operation under high-temperature and high-pressure conditions, has developed surface thermal cracks caused by material fatigue, as well as wear in the ring grooves and outer diameter. Therefore, a full inspection is required, and the repair proposal will be based on the inspection report. If reconditioning is needed, we will apply the maker's standard procedures and reconditioning and repair techniques to restore its original condition.



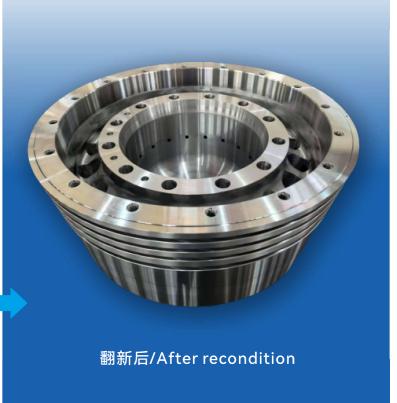








翻新前/Before recondition



### **CYLINDER LINER**

#### 汽缸套



### ☎ 翻新工程

Reconditioning Projects

#### ▶ 加工修复缸盖连接面

Skimming cylinder head landing face as required



#### ▶ 珩磨汽缸套内表面

Honing cylinder liner running surface





### **PISTON SKIRT**

#### 活塞群





Piston skirt before recondition



Piston skirt after recondition

### **EXH.VALVE HOUSING**



#### 排气阀壳

主机排气阀壳在使用过程当中,通常会因发动机运行状况、燃烧状况、燃料油品质、冷却水的温度控制等因素导致气道的腐蚀或密封圈位置腐蚀等,需要对其进行修复,修复工艺通常采用激光熔覆或特殊的焊材进行对腐蚀部位堆焊。

During the operation of the main engine exhaust valve housing, factors such as the engine operating conditions, combustion conditions, quality of fuel oil, and temperature control of the cooling water usually lead to corrosion of the air passage or corrosion at the position of the sealing ring. It is necessary to repair it. by laser cladding or special welding materials to perform surfacing welding on the corroded parts.







### **FUEL PUMP HOUSING**

#### 高压油泵壳体







### **4-STROKE COMPONENT**



#### 四冲程发动机汽缸盖

#### ≈ 翻新工程

**Reconditioning Projects** 

▶ 清洁、检查、压力检测 Cleaning inspection ,pressure testng

▶ 阀座、导套等部件换新 Renew the exh/inlet valve seats and guide bush



▶ 激光熔覆修理

Laser cladding repair

▶ 阀座、缸套密封面精加工 Final machining the landing face and bore for valve seat





#### 四冲程发动机连杆 翻新工程

Four Stroke Engine Connecting Rod Reconditioning Projects

- ▶ 连杆大端盖连接锯齿磁力探伤检查 MT check the big end serration
- ▶ 精磨连接锯齿到原始设计要求 Grinding serration to original profile
- ▶固定螺栓纠正更新



Check the serration surface by blue oil

▶ 大端盖内径检测与矫正







### **HYDRAULIC CYLINDER** 液压油缸



### ≈ 修复后的压力测试

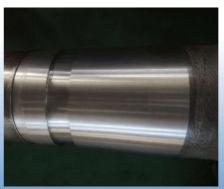
Pressure test after reconditioning





## **RUDDER STOCK**

舵杆





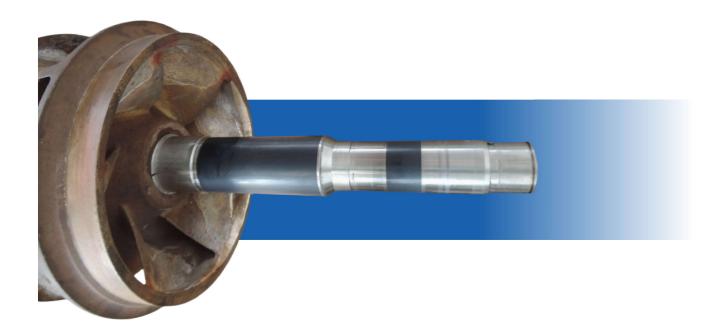




### **BWP SHAFT CERAMIC COATING**

SAJEE MARINE





### STERN SHAFT SLEEVE SEALING SURFACE **GRINDING AND POLISHING**

尾轴白钢套表面加工处理



### **FUEL INJOCTOR**

油头喷油器翻新







### **PV VALVE**

透气阀检修







### **RUDDER**

#### 舵叶

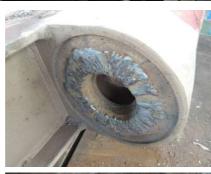






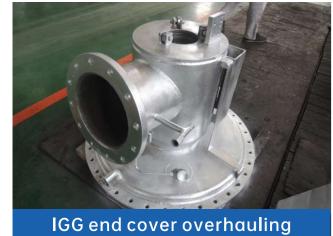








### OTHFRS 其他





### **EXCHANGE SERVICE**

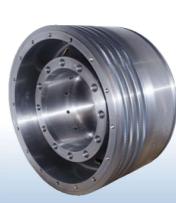
#### SAJEE SAJEE

#### 船舶配件交换服务

萨捷船舶工程(浙江)有限公司始终致力于为客户提供全方位便捷服务。为响应客户需求,公司现已拓展船舶主要零部件交换业务。我们拥有充足的零配件储备,可精准匹配客户需求,提供专业高效的交换服务。所有库存部件均严格依照制造商标准完成翻新修复,性能完全达到原厂初始标准,确保为客户提供安心可靠的交换服务。目前船用备件涵盖 MAN B&W、SULZER、WARTSILA、YANMAR、ALFA LAVAL等主流品牌,核心产品包括缸盖、活塞、排气阀、阀座、活塞杆、连杆等。

Sajee Marine Engineering Co., Ltd. has always been committed to providing customers with comprehensive and convenient services. In response to customer needs, the company has now expanded its business of exchanging major marine components. We have sufficient spare parts reserves, which can accurately meet customer needs and provide professional and efficient exchange services. All stocked components are reconditioned and repaired in strict accordance with the manufacturer's standards, and their performance fully meets the original factory's initial standards, ensuring that customers receive safe and reliable exchange services. At present, marine spare parts cover mainstream brands such as MAN B&W, SULZER, WARTSILA, YANMAR, and ALFA LAVAL, with core products including cylinder heads, pistons, exhaust valves, valve seats, piston rods, and connecting rods.













## TECHNOLOGY AND QUALITY

### 技术和质量

公司拥有英国劳氏船级社颁发的工艺认证证书,产品修理工艺和质量满足英国劳氏船级社要求。

SAJEE has certificates awarded by British Lloyd's Register, all reconditioning procedures and products quality are satisfied LR and DNV requirements.













高质量

### **LOGISTIC SUPPORT**



#### 物流

我们可以提供运输、转发、备件转运等物流服务。基于多年船舶服务的经验,我们积累了大量可靠的运输渠道,可为客户提供有竞争力的物流服务。

We can supply spares transit, forwarding and warehousing service. With our reliable source and worldwide connections, We are able to offer value added logistics service to our clients at competitive price.



































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