Simplex
Multisafe BR – aft seal

General description

- 4-ring sterntube seal system for additional protection of the sterntube against water ingress
- 3 sealing rings facing sea water
- Certified by all major classification societies
- Known to the market since 2005

Advantages

Design
Market approved seals → reliable equipment covering the whole range of shaft diameters
Pressure controlled lubrication → greater operational reliability at higher drafts
Customised and tailor-made → meets new building and retrofit demands

Installation
Delivered fully assembled and tested → immediate and easy installation by the shipyard

Operation
Double security against water ingress into sterntube due to the additional spare ring #2R → cost savings through increased lifetime of sterntube bearings

Constant pressure setting by the aft seal tank → reliable operating system
Easy handling → reduced risk of operating failure

Services
Designed for in-situ overhaul as per certified and approved Simplex repair standards
Worldwide service network and availability of spares
Function

- A stationary housing guides the Simplex sealing rings (3 facing water/1 facing stern tube oil). The rotating liner is fixed to the propeller.

- Oil chamber (I) is initially filled with lube oil ensuring optimal lubrication and protection from dirt.

- Oil chambers (II + III) are filled with lube oil and pressure controlled through the respective aft seal tank (B). This independent oil supply ensures best lubrication.

- Oil chambers (II + III) are connected to the aft seal tank (B) for equal pressure setting. Thus spare sealing ring (#2R) runs without load under normal operating conditions. If the sealing ring (#2) becomes damaged spare ring (#2R) can be activated by closing the shut off valve in the oil supply and vent line.

- Condition monitoring of aft seal via oil level indication of the aft seal tank (B).

- Two additional pipes for venting and lube oil refreshment.

Configuration

<table>
<thead>
<tr>
<th>Split design</th>
<th>Material housing</th>
<th>Liner coating</th>
<th>Upgrades</th>
<th>Distance ring</th>
<th>Bio oil durable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liner</td>
<td>Housing</td>
<td>Cast Iron</td>
<td>Bronze</td>
<td>Ceramic</td>
<td>Tungsten carbide</td>
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<td>Chamber 1</td>
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Available/required ○ Available on request

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Customised solutions:
- Dredgers
- High drafts
- Ice-going-vessels