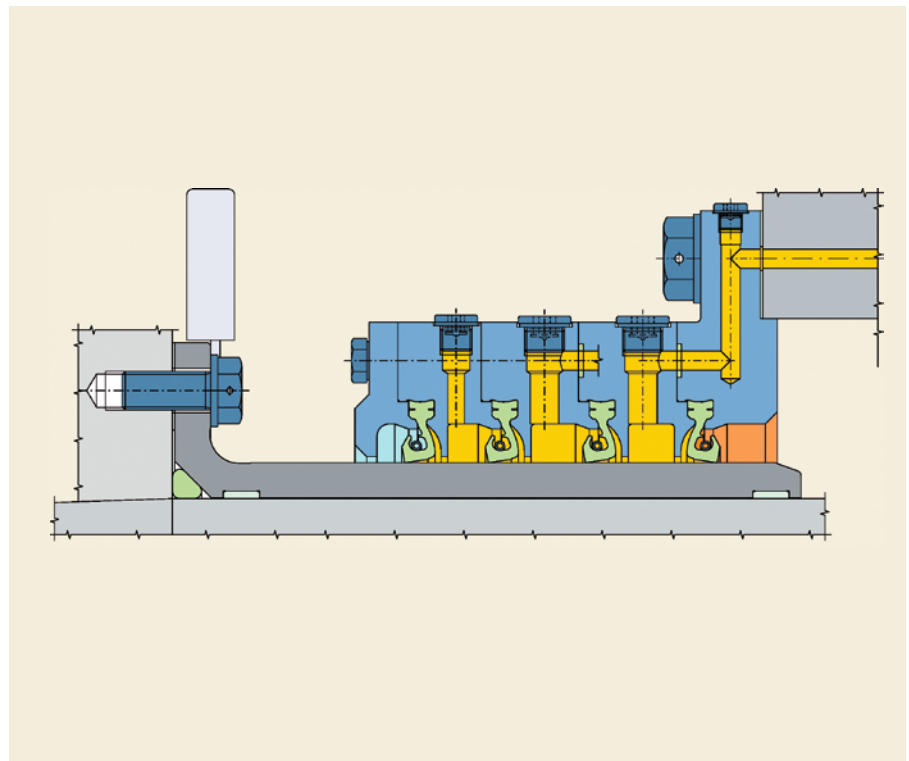


# Simplex Multisafe BR – aft seal

## 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



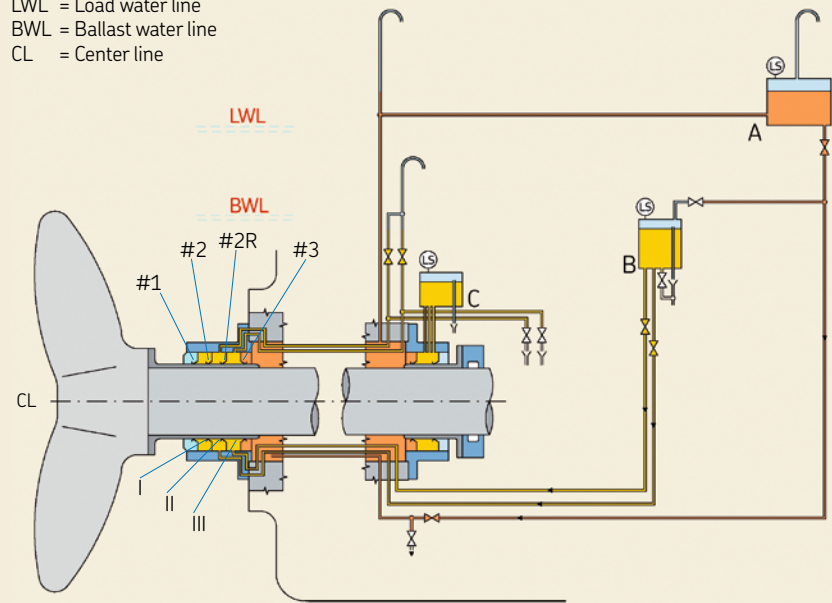
The Original

# Function

- A stationary housing guides the Simplex sealing rings (3 facing water/1 facing sterntube 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.

## Functional principle

- A = Header tank with level alarm
- B = Tank of aft seal with level alarm
- C = Tank for fwd seal with level alarm
- LS = Level switch
- LWL = Load water line
- BWL = Ballast water line
- CL = Center line



# Configuration

| Split design |         | Material housing |        | Liner coating |                  | Upgrades            |                    | Distance ring  | Bio oil durable |                   |
|--------------|---------|------------------|--------|---------------|------------------|---------------------|--------------------|----------------|-----------------|-------------------|
| Liner        | Housing | Cast Iron        | Bronze | Ceramic       | Tungsten carbide | Crease in Chamber 1 | Active circulation | Net protection | Split design    | e.g. for VGP 2013 |
| ○            | ○       | ●                | ○      | ○             | ○                | ○                   | ○                  | ○              | ○               | ○                 |

● Available/required ○ Available on request

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