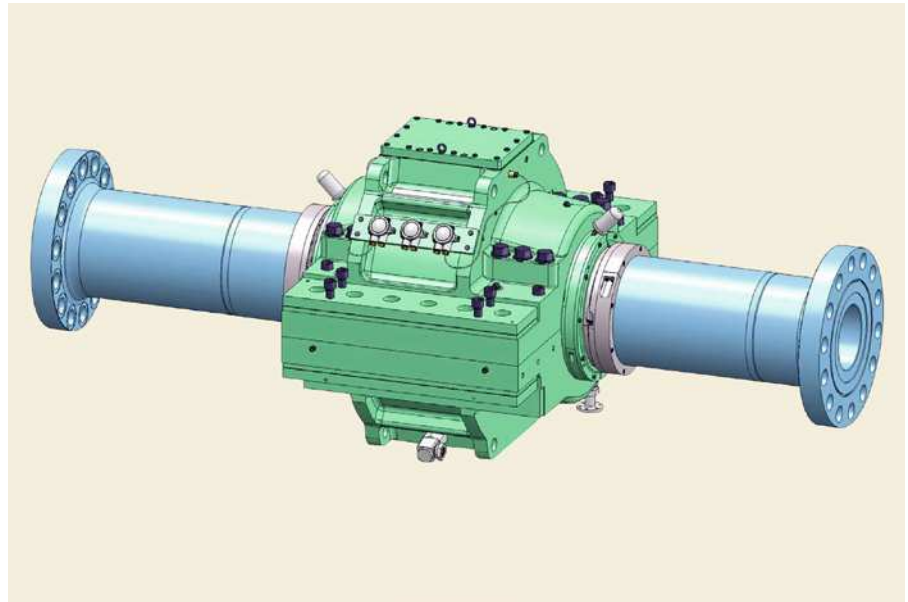


# Simplex High load thrust bearing

## General description

- Single-collar thrust bearing for taking up thrust loads produced by the ship's propeller
- For any type of propeller (CPP or FPP)
- Temperature sensor (Pt 100) fitted at the upper thrust pads in both thrust directions
- Simplex HL (high load) thrust bearings from size 500 upwards only as axial bearings due to more precise alignment of the separate radial bearing after thrust bearing foundation
- Manufactured in accordance with the rules of all international classification societies



	Standard	Optional
1 Resilient foundation – Damping of vibrations and shock effects		●
2 Remote temperature sensor junction box – Connection to the ship's central alarm system	●	
3 Yacht design including specific paint – Realisation of individual customer requirements		●
4 Adjustment screw – Exact positioning and alignment during installation		●
5 Removable cover – Convenient inspection and change of thrust pads	●	
6 Fulfilment of the SOLAS rules (safe return to port) by the Simplex seal system for bearings		●
7 SKF Supergrip Bolts for any fitted shaft flange connection		●
• Lubrication unit with temperature and pressure sensors – Mandatory, constant supply of fresh lubricant for reliable operation		●
• Approved shock design according to latest BV043		●
• Integrated radial bearing shell up to shaft diameter 500	●	
• Hydrostatic oil support for radial bearing shell – Realisation of individual customer requirements		●



The Original

# Advantages

## Design

Housing design of maximum stiffness, due to rigid ribs and form → proper load distribution directly from the thrust collar into the foundation

Self-aligning design type (self-tilting) thrust pads

Upper housing can be dismantled without losing alignment

Symmetrical shape with spherical support surface results in an optimized pressure distribution under any shaft speed and load

## Installation

Ready to install solution, carrying the thrust shaft in centred position by centre rings. These centre rings are temporarily retained

during the transport, installation and alignment phase, and removed before operation → No adjustment of the pad is necessary

Simple shaft alignment by adjusting screws → No further adjustments, no more alignment

Oil lubrication unit mandatory → constant supply of conditioned oil for maximum reliability and operation life

## Operation

Reliable operation due to perfect alignment

Optimized number of 10 self-tilting thrust pads and computational performance calculation

Monitoring of temperature with easily replaceable sensor

Labyrinth seals free of wear and maintenance

Almost no wear on the pads

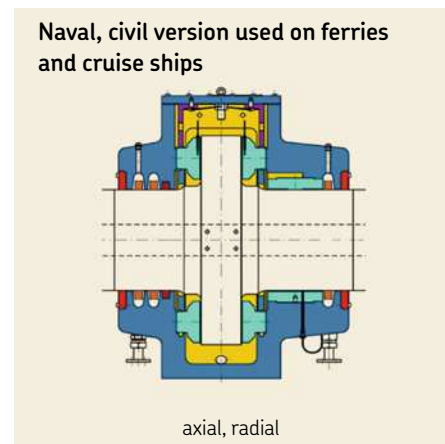
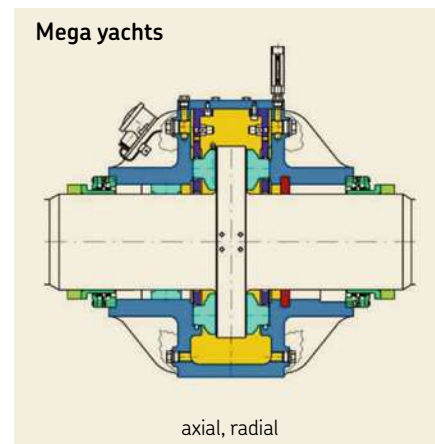
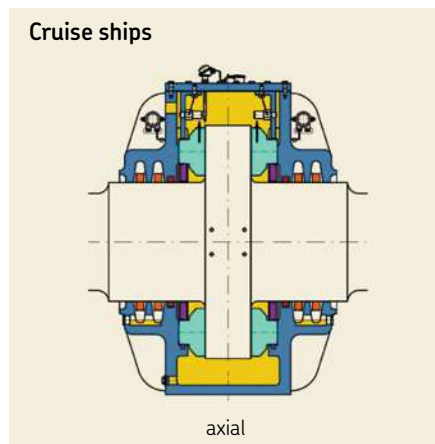
## Service

Simplex HL thrust bearings are most reliable and nearly maintenance free

Quick removal of thrust pads for inspection services via cover, without disassembly of the housing

Easy access to the inside by disassembling the upper housing without touching the alignment, as the lower housing is bolted to the foundation

## Three basic designs for Simplex HL thrust bearings



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## Special applications

- Cutter suction dredgers
- Supplied with a resilient foundation in order to reduce the transfer of oscillations and mechanical vibration

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