



## Work card 15 301-01

### Renewal of wear parts in propeller hub

Safety precautions	Man power	Tools
<ul style="list-style-type: none"> <li>● Engine stopped and blocked for start</li> <li>○ Propeller shaft locked for rotation</li> <li>● Propeller shaft locked for axial movement</li> <li>● Shut-off stern tube lubricating oil system</li> <li>● Hydraulic power unit stopped and blocked</li> </ul>	Working time: 10 hours Capacity: 2 men	Lifting equipment Chain lever hoists Jacks etc.  See plate 3 4510
Data		Replacement and wearing parts
Plant specific data: Chapter 3 05 Tightening data sheet: Chapter 3 10		Plate no: 3 1505

2001-05-10

**Starting position:** Vessel docked.

Scaffolding etc prepared to achieve adequate working conditions.



## Procedure

### Before renewal of parts:

1. Close valve for gravity tank and drain lub oil from propeller hub and stern tube system.
2. Remove propeller blades, see work card 10 305.
3. Dismantle coupling flange, see work card 10 303.
4. Remove rudder if necessary to gain access to the internal parts of the propeller.

5. Remove zinc anode from propeller hub cylinder.
6. Remove propeller hub cylinder (be aware of outcoming oil).
7. Dismantle servo piston from pitch control head and servo oil pipe.
8. Remove end cover.



### Note

Before lifting check that the weight does not exceed the SWL of the lifting gear/beam, see Plant specific data chapter 3 05.

**Renewal of parts:**

1. Make an iron keeper bar and fit it as shown in fig 15.2. This is to prevent the blade flange in the top position to drop down when the pitch control head is pulled.
2. Carefully pull the complete pitch control system out of the propeller hub, ie guide, head and rod.

**Warning**

*Be aware that the lower slide block will drop down when the pitch control system is pulled out. Take action to prevent this.*

3. Mark each blade flange position in relation to the propeller hub to make reassembly easier before removing the blade flanges.
4. Inspect/check all internal parts in the propeller hub for wear according to "Tolerances for wear parts in propeller hub" given in the *Maintenance program* (see chapter 3 05).

**Note**

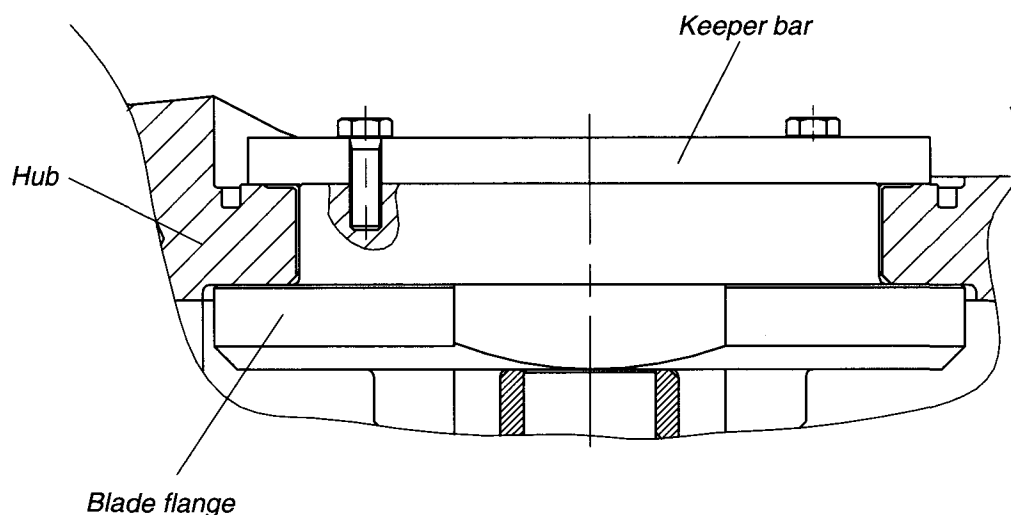
*To inspect the shaft seal please refer to the shaft seal supplier manual.*

*To be able to inspect the stern tube bearings the propeller shaft must be removed. For measuring of bearing wear, see shaft seal supplier manual.*

*Before the propeller shaft is removed, please be aware of special demands for the specific shaft seals installed.*

**After renewal of parts:**

1. For reassembling, simply follow the procedure in opposite order. Please refer to *Tightening instruction for screws* and *Tightening data sheet* chapter 3 10.

**Fig 15.2****Fitting the keeper bar**

15 301-01 - VB

2001-05-10