



## Work card 10 303A-01

### Disassembling hydraulic coupling flange (ODG -type)

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: 4 hours Capacity: 2 men	Lifting tools — lever chain hoist Key spanner Allen key Eye bolt See plate 3 4510 Hydraulic tools See plate: 3 4505
Data		Replacement and wearing parts
Plant specific data : Chapter 3 05		Plate no: 3 1005

2003-03-03

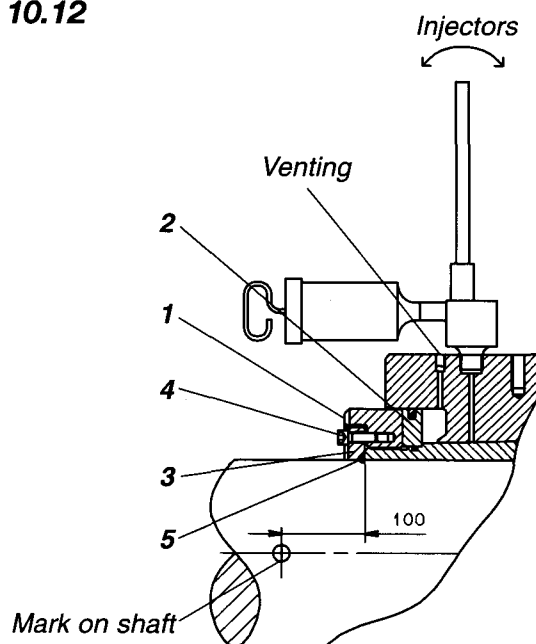
**Starting position:** Propeller shaft installed in sterntube.



## Procedure

1. Remove the screws (4) fig 10.12 and fig 10.13 and move the locking ring (3) and the O-ring (5) aft.
2. Check if the locating mark (100 mm mark) is intact.
3. Measure the exact distance from the aft end of the coupling to the locating mark on the propeller shaft and note it for later use when reinstalling the coupling flange.

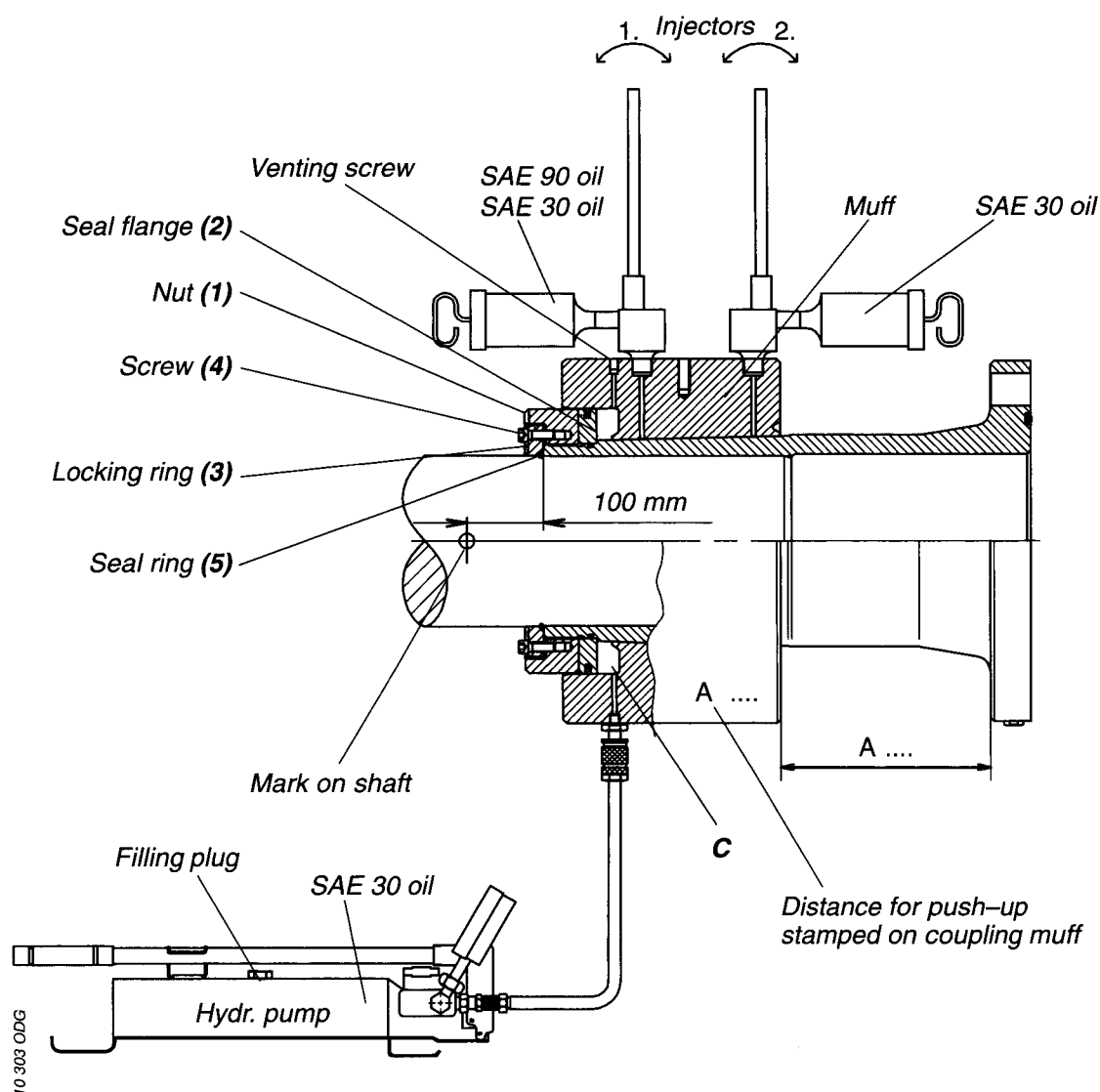
**Fig 10.12**



**Hydraulic coupling flange**

4. Secure the propeller shaft to ensure that the propeller shaft does not slide out of the stern tube.
5. Dismantle the assembling screws in the propeller flange except two.
6. Turn the shaft to bring the holes for injectors into position 12 o'clock and remove the plug screws for chamber "C" and the injectors.
7. Connect the hydraulic pump to chamber "C", see fig 10.13, and fill chamber "C" with SAE 30 oil. Plug the venting hole when oil without air comes out.
8. Raise the pressure to about 80 bars.

Fig 10.13

**Hydraulic coupling flange**

9. Install injector 1 and fill the oil container for injector pump 1, with SAE 90 oil.
10. Operate the pump until all air has escaped in the front of the muff and oil comes out of the hole for injector 2.
11. Change the oil for injector 1 to SAE 30.
12. Install injector 2 and fill the oil container with SAE 30 oil.
13. Operate both pumps simultaneously and keep pumping until the muff becomes loose. This is indicated on the pressure gauge on the pump connected to chamber "C" by a sudden rise in indicated pressure.

### **Warning**

*Keep well clear of the coupling flange and at no time stand in the vicinity astern of the coupling when hydraulic pressure is applied to loosen the muff.*

*Wear safety glasses when using high pressure hydraulics.*

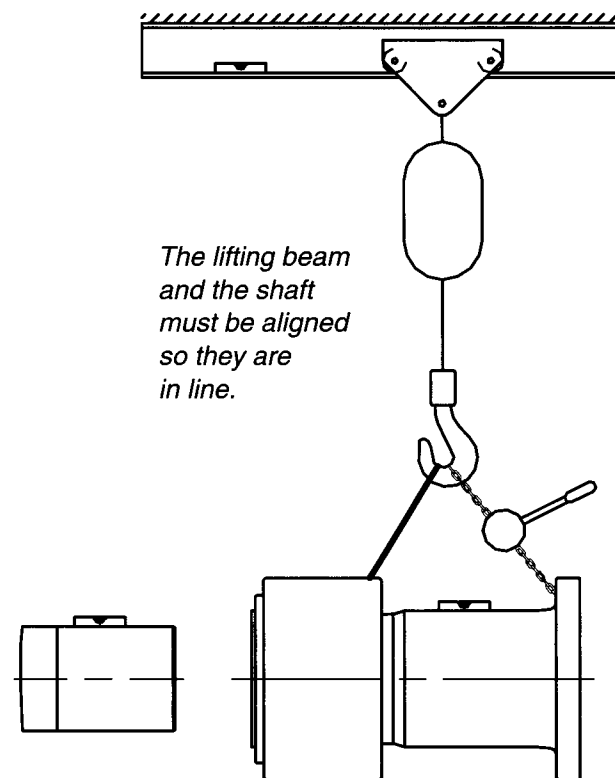
14. Keep operating both injector pumps, while a second person slowly opens the valve on the hydraulic pump allowing oil from chamber "C" to escape to the oil container of the hydraulic pump and allowing the muff to slide slowly down the cone.

### **Note**

*As a precaution, remove the filling plug from the oil container of the hydraulic pump, because the oil container may not be big enough to hold the volume of oil coming from chamber "C".*

15. Clean and oil the propeller shaft aft of the coupling flange before pushing the flange to the aft.

**Fig 10.14**



**Lifting arrangement for coupling flange**

### **Note**

*Coupling flanges for shafts larger than 350 mm diameter have additional venting screws located between the injectors. In this case both injectors and vent screws must be used for pumping and venting.*

### **Note**

*During shop test and later assembly of the coupling flange the muff is pushed up to the final specific distance.*

*When returning the muff to its original position some small impression lines may appear because of the high grip factor.*

*This is quite normal and has no effect on the functionality of the component.*