

INSTRUCTION FOR START-UP AND FLUSHING OF HYDRAULIC SYSTEM FOR KS-PROPELLERS

Carefully check that all pipe connections are according to pipe diagram (See drawing valid for each equipment).

Fill the tank with oil via a filter with a mesh size smaller than 25 μ in order to prevent dirt from coming into the tank. (The tank is carefully cleaned before delivery and it is very important to keep it that way).

Start both pump units.

Check dirt indicator on return filter and change insert if required.

The pumps must run for at least 4 hours in this condition. When this is finished, the oil inside the tank is sufficiently clean to be distributed to the OD-box and main cylinder.

CONTROL OF PROPELLER STROKE AND LENGTHS OF TWIN TUBE / PUSH PULL RODS

The complete propeller consists of many components and it is very important to check that the length of the push-pull rod corresponds to the shaft length.

There are mechanical end positions (limitations) in the pitch setting mechanism. If the lengths of the rods or pipes are not correct the limitation is in the OD-box. In such a case the OD-box or feed back components can be destroyed.

FREE END TYPE OD-BOX (TYPE B)

Remove cover of OD-box and check clearance to OD-box housing in both end positions. Measurements are stated in assembly drawings for OD-box. Set valve V4 to minimum pressure, and carry out manoeuvres by hand with valve V3. If necessary increase pressure to about 10 bar (until propeller starts moving).

When the clearances are checked, total stroke shall also be measured and checked against figures in combinator diagram or pitch diagram.

The tolerances are as follows

Hub size below 79 + 2 mm
 - 2 mm

Hub size above 79 + 3 mm
 - 3 mm

INTERMEDIATE TYPE OD-BOX TYPE A

Carry out manoeuvres (the same procedures as for free end type OD-box) with low oil pressure. Check that feed back yoke will not hit split muff coupling in end positions. Mechanical stop shall be between lock nuts for yoke and shaft ends. Check total stroke (same procedure as for free end type OD-box).

If some of above mentioned measurements or check points are not acceptable or unclear, please contact KaMeWa for further investigations or explanations.

Fill up drain tank with oil (if installed) and start up the pump.

If required fill up the main tank with hydraulic oil via filter.

Set safety valve to 40 bar and carry out manoeuvres with back up system. (Both pumps running). Full strokes to mechanical end positions. 15 strokes, wait for 15 minutes, 15 more strokes, wait another 15 minutes and finally 15 strokes. This procedure will prove that the pipes supplied by yard as well as the hub, the OD-box and twintube are clean inside.

Change over to remote control and adjust remote controls.

Run both pump units and carry out 10 manoeuvres with full flow capacity by el. remote control.

Check all pipe connections.