TECHNICAL BULLETIN 201-6
SERVICE PROCEDURES -
Skipper/Admiral Series Helm Units - LOCK VALVE

The Skipper Series helm units are equipped with in-built lock valves which are highly efficient in preventing back-pressure to the helm unit, and discharging pressure built-up by line expansion when used with Nylon tubing. The valve is similar in operation to the HyDrive model 331 lock valve, except that it is much smaller in size.

This smaller size has obvious advantages when fitting into the rear casting, but it also has the disadvantage of being more prone to problems if foreign material is introduced to the system. Finer clearances with the smaller piston can result in jamming the piston with a foreign particle and may require dismantling to clean the valve. This can be achieved very simply, and you should follow the simple steps listed below:-

1) There are two end-caps (1) which are screwed into place and these should first be carefully removed using a wide-blade screwdriver. Be careful that the O-ring comes out with the end-cap as it may tend to catch on the thread. If the O-ring is damaged, you may need to replace it.

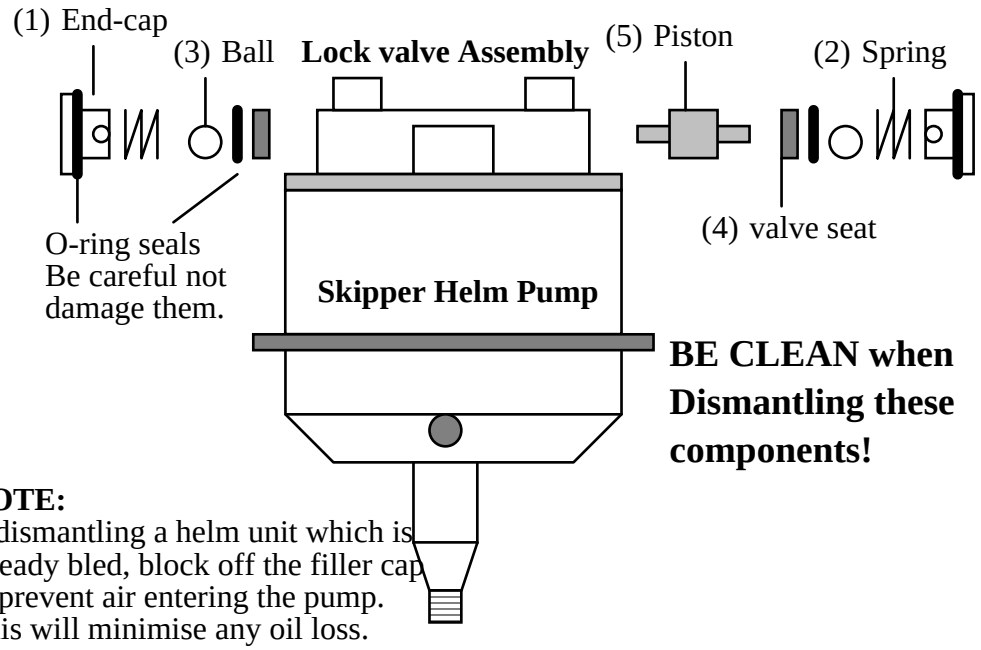
2) Behind each end-cap is a spring and ball (2) and (3). Be careful not to lose them.

3) Having removed the end-cap, ball and spring from each side, you will need a small screw-driver to push the piston (5) right through from one side to the other. This is done by pushing on the piston through the hole in the valve seat (4). Once you have dislodged the piston and other valve seat about 4mm then push them back from the other side. This will leave the O-ring exposed. Pull out the O-ring carefully using a pair of tweezers and avoid damage to the seal.. Now push the piston and valve seat together completely out of the same side.

4) Remove the remaining seal and then the valve seat, and you have now dismantled the valve completely. Now clean each of the parts and the bore. Check the piston in the bore by itself by sliding backwards and forwards using only your fingers. It should move very freely in the centre part of the valve bore.

Re-assemble in the reverse order, taking care to use some grease on the o-rings to prevent damage. Keep in mind that the O-ring on the valve seat is simply placed in position after the seat is inserted. The end-cap forms the other half of the O-ring groove area. Be clean and careful at all times.

BASIC DISMANTLING OF LOCK VALVE ASSEMBLY



BE CLEAN when Dismantling these components!

NOTE:
If dismantling a helm unit which is already bled, block off the filler cap to prevent air entering the pump. This will minimise any oil loss.