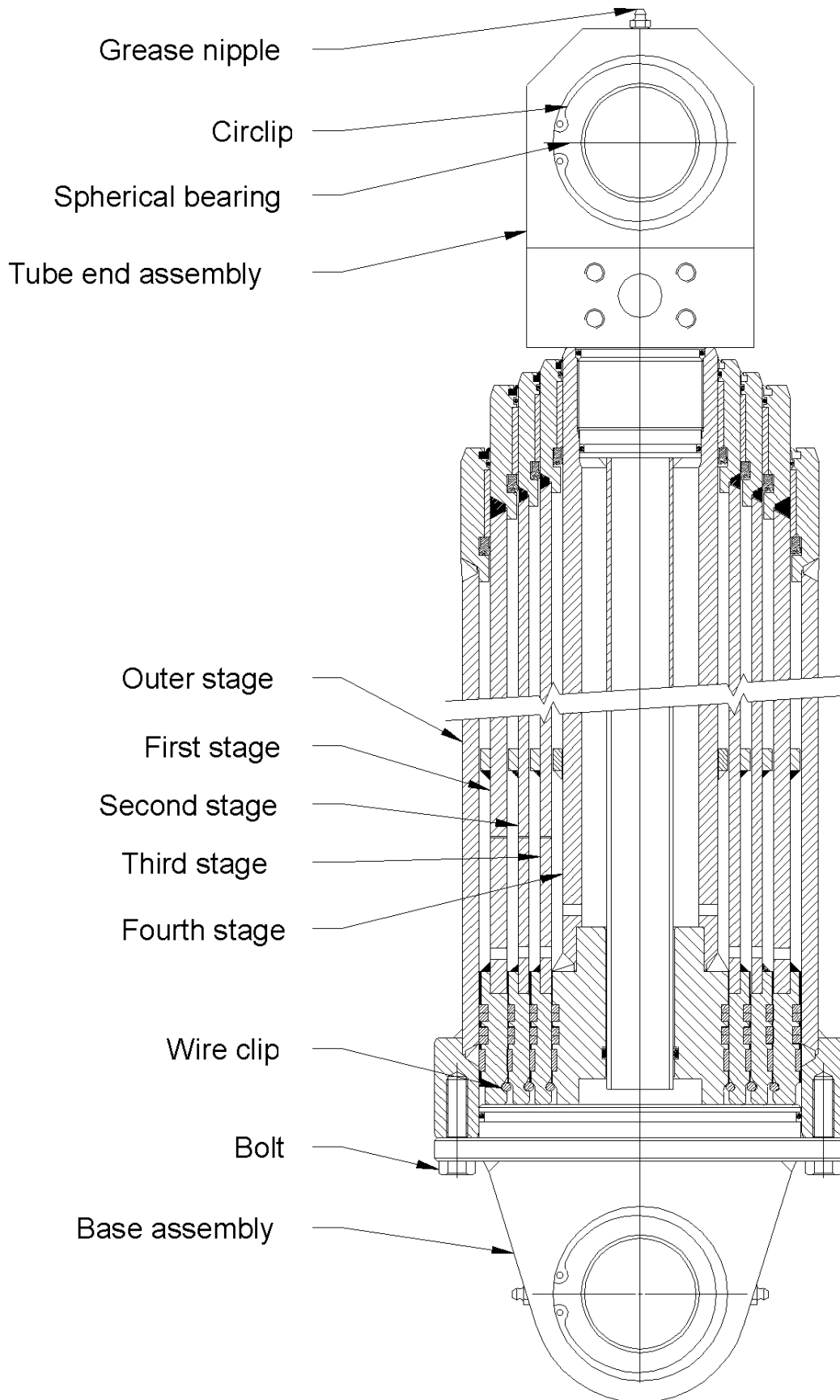


DA Delhoist Parts.



Note: Number of stages may vary between models.
Model shown is welded tube end type.

DA Delhoist Disassembly.

When disassembling a Delhoist Telescopic Cylinder, ensure that all parts are carefully handled so that no damage occurs, especially to sealing and wearstrip surfaces, and when removing wire clips, do not bend them past their elastic limit. The method of disassembly is as follows:

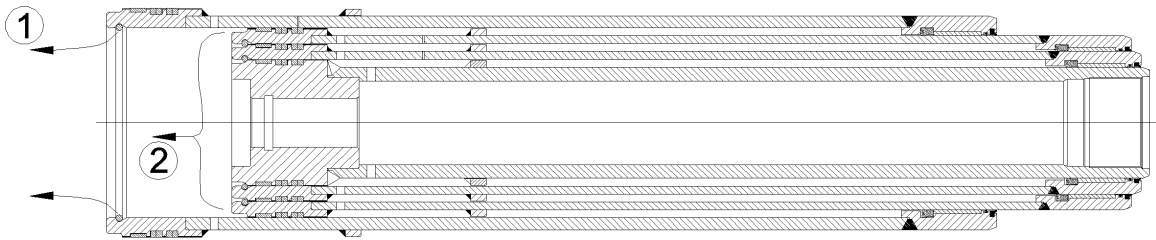
Step 1: Remove all brackets, grease nipples and port plugs from cylinder.

Step 2: Grip outer stage firmly & unscrew base with chain wrench. If the hoist is fitted with a screw in last stage tube end, unscrew & remove the tube end. If it is tight in the thread, grip the last stage with a chain wrench over a wearstrip on the stage (to prevent damage), then unscrew & remove the tube end.

Step 3: The stages may be removed in order from Outer Stage to Last Stage or vice-versa. To remove in order from Last Stage to Outer Stage, dollies are required to push the stages out (excepting the last stage) so as not to damage the wiper groove at the gland end.

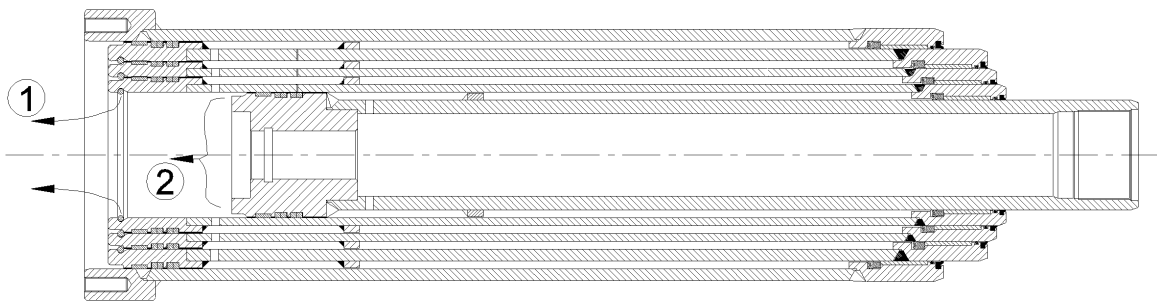
In order from Outer Stage to Last Stage:

Push all stages together out of the outer stage through the base end. Remove the first stage from the rest, by sliding the other stages in 3-4" past the wire clip. Pop the wire clip out of the first stage groove (do not use sharp edged screwdriver), and then push all of the remaining stages together, out of the first stage (through wire clip end). Follow this by removing the other stages, working from largest to smallest.



In order from Last Stage to Outer Stage:

Slide the last stage in 3-4" past the last stage wire clip. Pop the wire clip out of it's groove, and then push the last stage out of the other stages (through wire clip end). Follow this by removing the other stages, working from smallest to largest. It is important that dollies are used to remove stages with wipers, so that the wiper grooves are not damaged.



DA Delhoist Assembly.

When assembling a Delhoist Telescopic Cylinder, ensure that all parts are carefully handled so that no damage occurs, especially to sealing and wearstrip surfaces, and when installing wire clips, do not bend them past their elastic limit. It is important that all parts are clean, chamfers are polished and free of paint and sharp edges, and that plenty of oil is used to lubricate the tube bore & O.D. during fitting of stages together. All threads and seal grooves must be greased prior to assembly. The method of assembly is as follows:

Step 1: Fit all seals & wearstrips to the pistons & glands of all stages. The order in which to install the gland seals is: wearstrip → seal → wiper → O-ring. The O-ring must be stretched slightly before installing, so that it stays in it's groove during assembly. Note that if the hoist was not fitted with o-rings when it was disassembled, the o-rings are not to be fitted during reassembly.

Step 2: Fit piston rings to grooves using extreme care to ensure minimum distortion, as ring breakage will occur if overstressed. (Immersion in water to 80°C for 5 minutes may be used as an assistance). When fitted to groove, the ring gap in the relaxed position should be minimum 2 - 3mm. Gaps should be staggered at 180° intervals before installation.

Step 3: Beginning with the final stage, slide it into the second last stage. Ensure that the stage enters the gland correctly, and that all seals and wearstrips are correctly in their grooves (mainly as the stage end enters the gland, and as the piston enters the corresponding bore, use a ring compressor on piston seals). Push or soft hammer the final stage 3-4" inside the second last stage, and pop the smallest wire clip into it's groove. Push the final stage back against this wire clip, so that the stage piston ends are level.

Step 4: Slide these stages into the third last stage, following the same procedure. Push the final two stages 3-4" inside this stage, and pop the next wire clip into it's groove. Push the final two stages back against this wire clip, so that all the stage piston ends are level. Continue like this until all the moving stages have been loaded (ie. only the outer is left).

Step 5: Slide all stages together into the outer stage (through the base end), ensuring that the stages enter the gland correctly, and that all seals and wearstrips are correctly in their grooves. Be very careful not to damage the thread in the outer stage. Push all the stages 3-4" past the thread in the outer stage. (Note! 87's and larger do not have a screw-in base, rather a bolt-on base).

Step 6: If the last stage tube end is a screw in type, fit the o-ring (& backups as required) into the last stage piston or into the tube end. Apply lubricant and screw in the tube end & tighten to 500 ft lb.

Step 7: Fit the base O-ring(s) to the base and fit it into the outer stage, ensuring that it is not cross-threaded, and that the O-ring is not damaged by the thread. It must be screwed up snugly against the outer stage. Grip the outer stage firmly and tighten the base with a chain wrench to approximately 100 ft lb. (For 87's and larger, fit the base in and tighten it's bolts to approximately 100 ft lb).

Step 8: Pressure test at end of stroke, and test for operation as required. Internal leakage shall not exceed 2.5 L/min at 2500 psi. External leakage should be zero.

Step 9: Fit the grease nipples and plugs to the cylinder.