

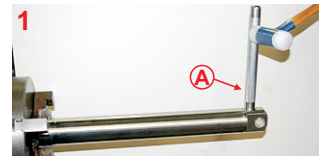
SERVICE INSTRUCTION



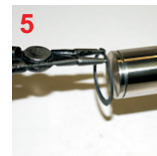
SR11 40 & 50 Series Hydraulic Plunger Cylinders

Disassembly

1. Fix the stuffing box end of the cylinder in a three-jaw chuck - alternatively in a vice with soft jaws. Long/large cylinders should be supported by a trestle.
2. To unscrew the stuffing box, (ill. 1) use a hammer mandrel (A) with a BSP-threaded end which fits into the cylinder connection port. The shoulder of the mandrel must fit tightly towards the port land.
3. Use a hammer (ill. 1) to strike the mandrel anticlockwise (seen from the rod end) to loosen the cylinder from the stuffing box.
4. Unscrew and remove the cylinder from the stuffing box and remove the tube/bottom piece.



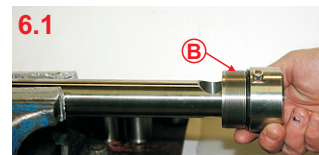
5. Remove the locking ring from the piston rod.



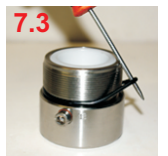
6. Fasten the piston rod (eye) in a vice with soft jaws (6.1). Be careful when not to damage the piston rod when you use the vice directly on the rod.

If the piston rod has a proper, welded eye, use the eye to fasten the rod in the vice (6.2).

Pull the stuffing box (B) off the rod (6.1).

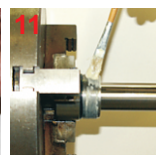


7. Remove the scraper (7.1), the rod seal (7.2) and the external O-ring from the stuffing box (7.3).



Reassembly

8. Fit the new rod seal (8.2) in the lower groove in the stuffing box. *Note that the lipped edge (E) must face downward (8.2).*
9. Fit the new scraper in the upper groove of the stuffing box.
10. Fit the new O-ring externally on the stuffing box. Take care not to damage the ring on the thread.
11. Fasten the stuffing box in a three-jaw chuck (or, with care, in a vice).
or
Fasten the piston rod (eye) in a vice.
Ad a bit of oil on the piston rod end and carefully slide the rod into the stuffing box/the stuffing box onto the rod. Take *care* not to damage the scraper and seal on the rod thread.
12. Apply a non-seize grease to the thread of the stuffing box (ill. 11).
Lead the piston rod into the cylinder tube and screw the tube onto the stuffing box. Use a spanner on the cylinder bottom eye to tighten the tube/box assembly.
13. After reassembling the cylinder it is recommended to extract and retract the rod a few times to ensure smooth operation before the cylinder is reinstalled.
If possible, subject the cylinder to a pressure/functional test in a hydraulic test bench.



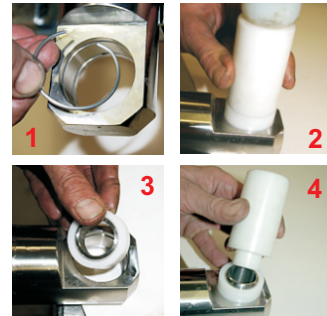
Manufacturer

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SR11 40 & 50 Series Hydraulic Plunger Cylinders

Replacement of Spherical Bearings

1. Remove the locking ring from both sides of the bearing
2. Use a suitable diameter mandrel (nylon or soft metal) to push the bearing out from the cylinder eye.
3. Insert a new locking ring in one of the eye grooves (1) and place the new bearing from the opposite side of the cylinder eye.
4. Use a mandrel to push/strike the bearing in place until it rests against the locking ring. A dual diameter mandrel as show on the photo will ease the aligning of the bearing with the eye.
5. Fit the upper locking ring.



TOOLS

The servicing of SSH Stainless hydraulic cylinders can be facilitated through the use of specialized tools:

- I. Mandrel with BSP thread, fitting the thread in the stuffing box port. Available with 1/8", 1/4", 3/8", 1/2", and 3/4" BSP thread.
- II. Split bushing for guiding the piston into the cylinder tube. Available for ID 25 mm thru 80 mm cylinders.
- III. Cone piece for rounding scraper, rod seal and guide rings in the stuffing box *and* for covering the thread on the piston rod when introducing the stuffing box (with fresh seals) onto the piston rod.



Contact SSH Stainless a.s for tool article numbers and prices.

Manufacturer