

OLAER (Schweiz) AG

Bonnstrasse 3 CH - 3186 Düdingen

Telephone 026 / 492 70 00

Telefax 026 / 492 70 70 E-Mail info@olaer.ch www.olaer.ch

# MAINTENANCE AND SERVICING

**OSP 815** 

### Repair Instructions Series IBV







#### DISMANTLING THE ACCUMULATOR

- Shut off the hydropneumatic accumulator supply, and discharge the hydraulic fluid from the accumulator.
- Remove the accumulator from its mounting and lay horizontally in a vice or other holder. Take care not to damage the accumulator.
- Where necessary, remove the lead seal from the protective cap(s) of the gas inlet valve, and unscrew.
- Deflate the bladder using the OLAER tester and pressurizer instrument (Fig. 1). Operate the tester and pressurizer instrument as described in OSP 746.
- Unscrew the gas inlet valve (Fig. 2).

- Release the gas inlet valve sub-assembly nut, and remove the nameplate (Fig. 3).
- Unscrew the flange or reduction from the hydraulic fluid end (where applicable). Dismantle the venting screw (not present on all models), without damaging the gasket ring.
- Remove retention ring from inside hydraulic fluid connector (Fig. 4).
- Remove mesh plate (Fig. 5).
- Extract the bladder through the hydraulic end opening (Fig. 6).













#### **CLEANING, INSPECTION AND REPAIRS**

- Carefully clean all metallic parts of the accumulator and dry with compressed air.
- Inspect the vessel for any internal damage.
- Check that the O-ring on the reduction or flange shows no sign of wear or any indication of rubbing.
- Check that the bladder has no sign of major frictional wear or other damage.
- Under no circumstances attempt to repair the bladder.
- Replace all worn or damaged parts.

#### ASSEMBLY

- Ensure that no foreign bodies are in the accumulator.
- To facilitate the reassembling of the bladder, smear it and the vessel interior with the system hydraulic fluid.
- Press the upper part of the bladder together and feed in through the hydraulic end opening (**Fig. 7**).
- Lightly screw the nameplate and gas inlet valve subassembly nut on (Fig. 8).
- Check that the bladder is neither folded nor twisted.
- Push the mesh plate in till it is fully against the hydraulic fluid inlet rim (**Fig. 9**).
- Put in the retention ring (Fig. 10).

#### - Inflate the bladder **slowly** with nitrogen to a pressure of 1 - 1.5 bar with the tester and pressurizer instrument. Operate the tester and pressurizer instrument as described in OSP 746.

- Fit the reduction onto the hydraulic fluid input end (where applicable) (Fig. 11).
- Mount the venting screw (not all models) and gasket.
- Tighten the nameplate and gas inlet valve sub-assembly nut fully (Fig. 12).
- Inflate the accumulator to the precharge pressure required by the system.

#### **FIRST OPERATION**

Before pressurizing the system, vent via the venting screw (not all models).

Retighten the screw carefully as soon as the hydraulic fluid has left the vessel. Finally, pressurize the hydraulic system to the maximum, and check the seal of the connections and gaskets.

## No welding/soldering or mechanical operations of any kind must be undertaken on the accumulator.

Hydropneumatic accumulators are subject to official pressure vessel regulations. These regulations demand that the accumulator be inspected on a regular basis. The interval between inspections varies from state to state.

Request details concerning inspection intervals relevant to your operation from the authorities responsible.







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