

# **TESTING AND ADJUSTMENT OF REGULATOR CYKLON 5000 (DIVEAIR) Art. No. 2950, 3950**

## First stage valve:

- 1. Connect the regulator to the test equipment.
- 2. Connect the test manometer hose to one of the low pressure outlets.
- 3. Open the LP valve (=20 bar)
- 4. Set the secondary pressure at 11.5 bar, an intermittently purge the second stage by means of the purge button. NOTE that the second stage valve must be fully tight during this test. When the pressure gauge needle stops at the preset pressure, a maximum rise in pressure of 1 bar is allowed before the needle finally stops. Adjust the pressure to a maximum of 11,5 bar (the maximum pressure) taking into account any rise in pressure. If the needle continiues to move to a higher pressure reading there is a fault in the seal between the valve seat an piston, or the O-ring.
- 5. Close the LP valve, and open the HP valve (=200/300 bar). Purge intermittently with the purge button, check the tightness, and adjust the pressure to 9 10 bar.
- 6. Close the LP valve and purge it fully.

#### Second stage valve:

- 1. Open the LP valve. Adjust the sec. pressure to 11,5-12,0 bar.
- Check to make sure that the clearance between the control unit and the low pressure valve is approximately 1mm. See ill. A. If the clearance is too small, do not seal the second stage valve. If the clearance is too large, reduce the flow of air and the inhalation resistance will increase.

### Adjustment of the clearance:

- 1. Close the LP valve, and empty the regulator completely by means of the purge button.
- 2. Unscrew and remove the low pressure hose from the second stage valve.
- 3. If the clearance is too small, screw the valve seat inwards (clockwise) using an 8.5 mm screwdriver. If the clearance is too large, screw the valve seat outwards (counterclockwise). NOTE that the adjustment torque is very sensitive, so you should screw carefully. The clearance can be checked only when the secondary pressure is approx 10 bar.
- 4. Fit the hose and open the LP valve. Check the clearance once again.
- 5. Close the LP valve.

#### Adjustment of ejector sleeve:

- 1. Open the HP valve.
- 2. Turn the ejector sleeve using a 3.5 mm screwdriver as shown in ill. B so that the edge of the hole is opposite the slit in the low pressure valve. See ill. C. Hold the second stage valve upright, press the button so that the valve will give a maximum flow of air, and then release the button. If the valve continues to blow itself, stop the air flow using your hand. Turn the ejector sleeve in the direction of the arrow, see ill. B, and make a new test using the button. The opening of the hole should be turned to face upwards as much as possible, that is, close to the limit where the valve blows itself. The regulator will then give a maximum flow of air and the inhalation resistance is minimal.
- 3. Close the HP valve and purge fully with the purge button. Tighten the nut moderately.





