Technical Bulletin n°: 10-01

AQUA LUNG®
FIRST TO DIVE

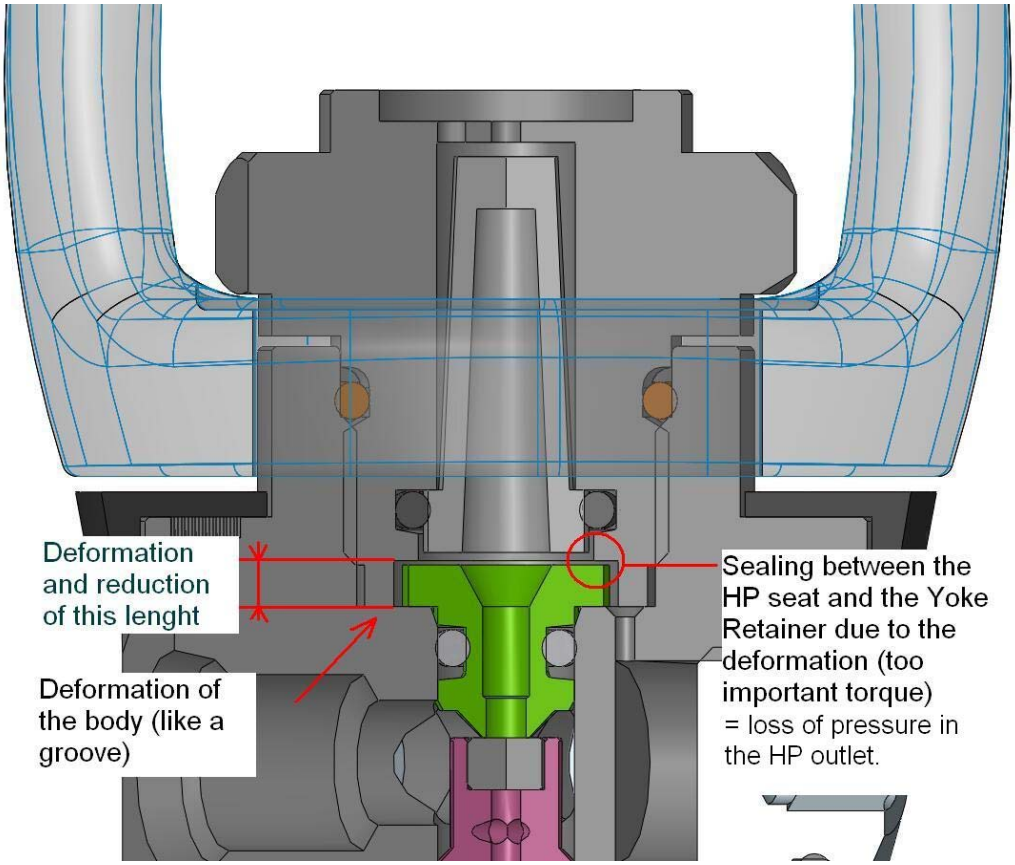
April 2010

Tightening torque of the Yoke Seat and DIN Seat of the CALYPSO regulator.

We were recently informed about several cases of lack of maintenance due to a too high torque applied on the Yoke Seat 125716 (or DIN Seat 125720) when tightened on the CALYPSO first stage body 125718.

Indeed, an excessive torque deforms the parts between them, and causes the loss of pressure in the HP outlet of the first stage.

The torque recommended by Aqua Lung is 25 N.m.
When this torque is not respected, the following issues are found:



When a component is screwed on another (i.e. seat on a body), the assembly must be reliable to prevent it from unscrewing due to vibrations, strains or expansion.

The torque load (torque load = force x length) eliminates first the frictional effects in the thread and creates a pre-load in the screw.

This pre-load creates a small lengthening of the screw and keeps the assembly under strain

The torque loads given in the technical manuals by Aqua Lung are calculated and checked to ensure the maximum of safety to divers.

A low torque load can create a loosening and a component loss.

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A high torque can produce warping or components breaking when tightening or under pressure

A high torque can also create stress corrosion, which causes components breaking under pressure

A torque wrench must be used to apply the torques recommended in the technical manuals.

Aqualung asks you to strictly follow this procedure during disassembly and assembly operations on equipments.

We thank you for co-operating with us.

If you have any queries concerning this technical bulletin, please don't hesitate to contact us.

Aqua Lung – La Spirotechnique I.C.

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Few pictures of deformed bodies due to an excessive torque: