

## Safety Bulletin

### Divator DP1 Surface Supply

99 450A01

LIDINGÖ June 22, 2007

#### ANNOUNCEMENT

Risk for rupture in the umbilical hose in cases where the configuration is not in accordance with the design described in the Divator DP1 Surface Supply User Manual, or in cases when the product have not been handled in accordance with the instructions in the User Manual.

#### APPLIES TO

DP1 umbilical hoses that, in situations as described above, have been exposed to repeated and excessive bending at the P+ regulator attachment.

#### DESCRIPTION

A few incidents have been reported where the umbilical hose has ruptured at the regulator attachment.

Although, the rupture was very small; the high pressure airflow out of the hole can cause severe injuries to the human body.

Likely causes to these ruptures are that the umbilical relieving loop, which is attached to the diver's safety belt / harness, has been located in such a way that there is no slack left in the hose, between the relieving loop and the regulator connection point. Bending forces from the umbilical can then be transmitted to the hose fitting at the regulator end causing stressing of the hose (see illustration 1).

Severe kinking of the hose is also possible when the hose direction is looped back on itself (see Illustration 2).

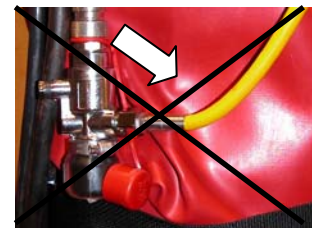


Illustration 1



Illustration 2

#### ACTION

##### Preparing the diver

When preparing the diver observe the following part of the Divator DP1 User Manual (96708 page 7):

*“Diver and attendant are responsible to anchor the umbilical in such a way that the end couplings and nipples do not get bent, or get loaded independently of load directions in the umbilical. This is very important and must be carefully checked.”*



Examples of relieving loop attachment to the life belt

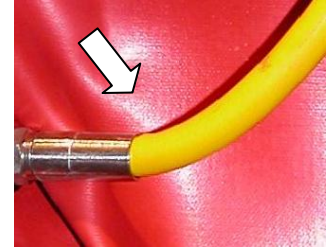
## TEMPORARY ACTIONS

The following temporary actions should be performed during the interim period that it takes for Interspiro to complete their tests and offer a bending protection upgrade.

### Check the umbilical

Carefully check the hose and connection nipple at the pressure regulator. The hose shall show no signs of kinking at the surface close to the connection nipple i.e. surface ripples or obvious sheath damage.

If signs of kinking are found the hose should be returned to Interspiro for testing and possible re-termination.



### Pressurizing the umbilical hose

According to current User Manual (96708, page 8)

*“Check that the umbilical is pressurised. Connect the quick coupling on the P+ regulator to the Divator manifold. Secure the quick coupling using the locking ring.”*

Since the few ruptures of the umbilical hose have occurred during pressurizing, the following special routine for pressurizing shall be observed until all umbilical hoses have been retrofitted with bending protection.

- Pressurize the umbilical when it's still wound on the winding frame (or equivalent).
- Let the umbilical settle for at least one minute to avoid exposure to a possible high pressure leakage.

## UPGRADE ACTIONS

Interspiro will offer bending protection that will reduce the risk for kinking damage at this point. This bending protection can be retrofitted to the umbilical hose without the need to return the umbilical hose to Interspiro.

### Bending protection - retrofit kit, part no. 99 448

- Bending protection
- Mounting instruction

### Availability

The Bending protection retrofit kit will be available for ordering from mid of July, 2007

**INTERSPIRO GROUP**

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