

## Incorrect measurement and markings on divers umbilical

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During a diving operation it was seen that the colour distance markings on the divers umbilical were not the same as stated in the diving contractor's Diving Operations Manual.

### What happened?

The dive was stopped and the umbilical length/markings were checked.

When the umbilical markings were measured it was found that not only were the distance markings using the wrong colour code system, but also, the datum point for measurement was also incorrect.

The contractor's Diving Operations Manual stated the umbilical datum (zero) was from the divers end of the gas hose.

The umbilical had been measured from the D ring.

No-one was harmed, but there was lost time while the umbilicals were checked, measured and correctly marked.

### What went wrong?

It was not clear who was responsible for checking the umbilical distance markings for accuracy – as a result this was not checked.

### What were causes of the incident?

Our member notes that the dive team was complacent:

- The divers and supervisor knew that the marking colour system was incorrect but did nothing to correct it.
- The dive team should have known that the distance markings were in the incorrect position as recently they had changed the markings on other umbilicals.

### Actions

- All diving umbilicals were checked for:

- Correct colour code marking (as stated in contractor's diving manual).
- Measurement from the gas hose end not the D ring (as stated in contractor's diving manual).
- The supervisor and divers underwent refresher training and behavioural training.
- During DESIGN audit all umbilicals should be laid out alongside each other with a 50m tape so the auditor/supervisor can check for accuracy.

## Lessons learned

- When a diving job is mobilised or new umbilicals are received on site, any existing marking method on the umbilicals should be checked against the company standard. A notice at the tending point, if practical, should state what the company manual marking system is, as well as any safety critical measurements to the nearest thruster or hazard.
- It was noted that DESIGN doesn't allow for accuracy of distance measurement. *[IMCA D 023 only states that umbilicals should be marked 'At least every 10 m using a recognised system'. The contractor's manuals should state what their recognised system is. Their induction process should convey this to those that need to know.]*

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