

Unapproved repair of diver gas supply umbilical

Safety Flash Published on 14 June 2018 Generated on 16 January 2025 IMCA SF 12/18

A diver umbilical assembly was recently returned from a diving support vessel (DSV) to a shore-based workshop, as it was no longer required.

What happened?

During the demobilisation of the umbilical assembly, it was noted that there had been a repair carried out on the diver gas supply hose. Repairs to a diver gas supply umbilical are not considered good practice by our member and as a direct result the umbilical assembly was scrapped.

The non-reclaim umbilical was 80m long and had been in service for approximately 5 years; the repair was located approximately 5 meters from the umbilical end. The diver gas supply hose had a maximum working pressure of 1000psi. The join was formed by standard umbilical end fittings with 6 JIC(F) swivels, connected by a 6 JIC(M) adaptor. The complete join was then covered with a layer of black heat shrink:

Conclusion

Our member noted that potential existed to trap sea water within the repaired section of the umbilical, resulting in an increased corrosion rate to the fittings forming the join. No evidence of the repair was found in the planned maintenance system (PMS). The failure of a diver umbilical could have potentially resulted in the loss of gas supply, activation of the secondary supply and the termination of the dive. The worst-case scenario, though unlikely, could have resulted in serious injury or death.

With this information now being circulated, it is hoped that all umbilical users will ensure that sufficient and correct information is made available to all applicable personnel. Our member noted that subject to maintaining diving operations, repairs such as this may take place, but only until a permanent fix is implemented and subject to the completion of a risk assessment and full management approval.

IOGP Life Saving Rules:



Bypassing safety controls

IMCA Safety Flashes summarise key safety matters and incidents, allowing lessons to be more easily learnt for the benefit of the entire offshore industry.

The effectiveness of the IMCA Safety Flash system depends on the industry sharing information and so avoiding repeat incidents. Incidents are classified according to IOGP's Life Saving Rules.

All information is anonymised or sanitised, as appropriate, and warnings for graphic content included where possible.

IMCA makes every effort to ensure both the accuracy and reliability of the information shared, but is not be liable for any guidance and/or recommendation and/or statement herein contained.

The information contained in this document does not fulfil or replace any individual's or Member's legal, regulatory or other duties or obligations in respect of their operations. Individuals and Members remain solely responsible for the safe, lawful and proper conduct of their operations.

Share your safety incidents with [IMCA online](#). Sign-up to receive Safety Flashes [straight to your email](#).