

# Safety Alert

**Number:** 23-16

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**Subject:** Messenger Line in Propeller

## What Happened / Narrative

A multi-purpose vessel was required to assist a tanker to connect to the transfer hose of an integrated pipeline and manifold system on the seabed, commonly called a Single Anchor Loading (SAL) operation.

The job entailed the multi-purpose vessel using the dynamic positioning joystick to maintain position, whilst the deck crew pick up the floating marker buoy which is connected to the messenger line. The messenger line in turn is connected to the transfer hose which is located on the seabed. Once retrieved the vessel can then pull up the transfer hose and pass it to the tanker.

The SAL operation is a complex system with multiple parties involved from various departments on board. In this incident, simultaneous errors occurred, both on the bridge and on deck. On the bridge, the Dynamic Position Operator (DPO) mistakenly shifted the vessel in the wrong direction, between 10 – 15 meters aft. At the same time, the deck crew were struggling to disconnect the messenger line from the buoy as the marker buoy had become entangled in it. These issues were not communicated to the DPO which resulted in the messenger line becoming slack in the water with the deck crew unable to pull the line in.

## Why Did it Happen / Cause

- The combination of the vessel moving aft, and the deck crew being unable to pull in the messenger line slack are the immediate causes for the line becoming entangled in the propeller.
- There were also additional personnel on the bridge who were being instructed by the DPO and Captain. This led to a loss of situational awareness and overview of where the vessel was in relation to the in-sea equipment.

## Corrective Actions Taken / Recommendations

Below is a distilled list from the investigation which addresses the immediate causes identified:

- The marker buoy design needs to be improved to allow for a tangle free operation.
- The risks of losing situational awareness due to training of other personnel and how to avoid this during a complex operation must be addressed before the operation commences.
- Improve the specific communication requirements between the deck crew and the DPO so that relevant and necessary information about the operation is conveyed effectively.

## Photographs / Supporting Information



Figure 1: Messenger line in propeller



Figure 2: Marker Buoy

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