M2127

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Confidential Human Factors Incident Reporting Programme

M2127

Posted on 19.04.2023 by Adam Parnell

Category: Superyachts

Report TitleInappropriate risk assessment

Initial Report

During a passage through a busy straight at night, the vessel started to vibrate heavily. Weather conditions were uncomfortable, with two-meter swells and high winds. The general alarm was sounded and the vessel stopped. The position was checked, with no apparent signs of grounding, as the vessel was in the deepest part of the straits. There was minimal traffic in the area.

When the engines were reengaged, significant vibrations were felt on the port side, indicating an object around the prop. While investigations were carried out in the engine room and the rest of the vessel, the engines could not be used to keep the vessel pointed into the weather, and she began rolling heavily.

The captain asked the deckhand/dive instructor if they could dive under the hull to carry out an external inspection. Despite the conditions, the deckhand- who was the only qualified diver- agreed. Preparations were made and all aft machinery was isolated. The bow thruster was used to keep the vessel head to wind. Lots of lighting gear was used, and a safety line with a quick release was attached to the solo diver who entered the water.

The pitching hull struck the diver several times and they quickly aborted the dive for safety reasons, but it took 10-15 minutes to recover the diver onto the swim platform because the vessel was moving so violently. Once onboard, the vessel continued its passage to harbour using the starboard engine only, where a large tree trunk was found stuck between the port shaft and the vessel's hull.

Comment

Many aspects of this report are disturbing. An objective risk assessment would have identified that the sea and weather conditions were out of limits to carry out diving operations safely. The safest option was to head back to port on a single engine, where an inspection could safely be carried out in daylight.

Although the deckhand held a recreational diving instructors' licence, they were not a qualified commercial diver. Commercial diving requires a diving team in attendance so that a diver can be rescued if they get into difficulty. There was no back-up here; this was a clear demonstration of the 'overconfidence effect'.

The 'overconfidence effect': where a person's subjective judgement is greater than the objective accuracy of those judgements.

Finally, the captain should have recognised that the authority gradient between themselves and the deckhand placed unspoken pressure on the deckhand to agree to the task. No crew should feel pressured to carry out a task which is clearly unsafe and dangerous.

Key Issues

Situational awareness (SA)- Intentionally isolating propulsion machinery and making the vessel 'not under command' in a busy strait at night and in poor weather demonstrates poor SA by the captain

Overconfidence- In seeking to employ a recreational diver on a commercial diving task outside of safe weather limits, the captain should have recognised their own overconfidence bias. This was poor judgement.

Pressure- The authority gradient pressurised the deckhand to dive in obviously dangerous conditions.

Teamwork- Did the crew feel empowered to challenge to the decision to undertake the dive, or was "group think" involved?

Capability– The diver was not qualified to undertake this task, nor were the crew capable of mounting an effective rescue operation.

pressurePressure

loss_of_awarenessAwareness

teamworkTeamwork

lack_of_assertivenessAssertiveness



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There are no comments yet.