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A loose grub screw was apparently the reason why a Dutch owner of an X4^{9} in January experienced difficulties when taking part in the transatlantic race “ARC January”. X-Yachts’ Director of Design & Engineering, Thomas Mielec, met the boat on Gran Canaria after the boat had been salvaged.

During the race "ARC January", the rudder stock fell out of the top bearing of a Dutch-owned X4^{9}. In addition to the loss of the steering, this meant that the movement of the rudder stock damaged the GRP tube, which encapsulates the bottom bearing and forms a water seal towards the inside of the boat. The crew contacted X-Yachts Holland via satellite phone for guidance in resolving the issue.

The crew were unfortunately unsuccessful in their attempts to reinsert the rudder stock into the top bearing and were only able to partially secure the top of the rudder stock in position by provisional means. They did, however, manage to steady the water ingress to a level where the bilge pump could keep up. However, the crew was so insecure about the situation and its potential to worsen that the next day they chose to evacuate the boat and board two other yachts, which were attending the race.

Two days after the evacuation, the boat's insurance company entered with a salvage company, who, using the boat's tracker, found the boat afloat 4 days later. The generator had stopped, but the bilge pump was running and the water level in the boat was still below floorboard level.

The salvage crew got the rudder stock in place and secured in the top rudder bearing relatively quickly, and they had the leak repaired and the water pumped out, after which they could tow the boat towards Gran Canaria approx. 1400 nautical miles sailing from there.

X-Yachts’ Director of Design & Engineering, Thomas Mielec, was, together with people from the salvage company and the involved insurance companies, ready to meet them and by joint efforts to identify the cause of the damage:

"The crew from the boat took photos and video in their attempt to repair the rudder, and it appeared that the top bearing had separated, and the rudder stock had dropped down. The rudder bearing union nut, which holds the bearing together, had simply turned off the thread at the bottom of the inner housing, and this meant that the rudder and rudder stock, which are otherwise fixed in the bearing, had dropped downwards and out of the bearing.”

”This happened even though the locking screw was in place in the union nut, and that with only one impression mark, i.e. without traces or burrs, which could indicate that the union nut had been turned off with the locking screw engaged. The other parts of the bearing showed no signs of overload prior to the incident in general."

It is still too early to draw a conclusion of the definitive cause of the damage, but Thomas Mielec assesses two possible scenarios based on the facts and observations found:

1. If it is established that there is no trace of Loctite on the locking screw, one possible scenario is, that in error, the locking screw was never secured with Loctite during manufacture of the bearing, and that the screw, without being noticed, had loosened over a period of two years, permitting the nut to also unscrew over time.

2. If tests show that there were traces of Loctite in an expected amount on the locking screw, the cause could be that the safety screw had been removed / loosened by mistake during service work, which was carried out in Spain in November.

Thomas Mielec assesses scenario 2 as the seemingly most likely.

The locking screw in question is only intended to be operated during the manufacturing of the bearing itself, and it is not necessary / permitted to touch during either assembly or possibly disassembly of the rudder in the yacht.