

M2124

Posted on 19.04.2023 by Adam Parnell

Category: [Superyachts](#)

Report TitleLifting eyebolts failed while launching a Tender.

Initial Report

Our reporter was part of a team launching the tender from the shell door opening in calm weather conditions. After checking the hoist arrangement and securing the forward and aft lifting arms, the tender was lifted off the chocks. Another crew member went around to lower the outboard side of the tender chocks. Once they were back inboard, the crane arms were extended, but when the tender was halfway out, the bow suddenly dropped to the deck and slid into the water. Meanwhile, the aft end of the tender hit the deckhead, sending ceiling panels flying.

The cause was a sheared eye bolt thread. No additional loading was introduced while lifting the tender until the point of failure. The eyebolt conditions appeared to be in good condition, although there was some uncertainty about when they were replaced last.

Comment

Such incidents are not uncommon; and failure under load is often caused by inappropriate eyebolt design or weight-carrying capacity. When lifting, we naturally focus on the type and rating of the lifting strops used, but often the fixed lifting points are overlooked. Lifting eyebolts should have their capacity and test-date stamped on them or on a metal test certificate affixed immediately adjacent to them. Be sure to check your lifting arrangement for the tenders and work boats on your vessel!

This information will be available in the new building spec for the tender. The tender's crane and lifting equipment should also have been subjected to a proof test, like commercial vessel lifeboats.

When eyebolts are replaced, it is important to replace them with the same specification as the original, and properly fixed back in position. Another contributing factor can be the angle that the eyebolts make with the lifting shackles. If the lifting eyebolt and lifting strops are not in alignment, a shear force is produced which can cause failure of the eyebolt/s.

This cautionary report reminds us all never to stand or pass under any suspended load, as failure can occur unexpectedly either with inadequate or poorly maintained lifting equipment.

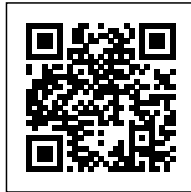
Key Issues

Overconfidence- Often there is an expectancy that the eyebolts will 'just work'. Be aware of such single points of failure in a lifting rig and pay particular attention to these areas, such as deformation, pitting or wear and tear.

Capability- During our investigation we heard anecdotes from yacht crews that eyebolts were sometimes changed locally, with a different design e.g. to be less obtrusive. Given the criticality of the eyebolts for safe lifting, maintainers must ensure that the eyebolt specification is safe and meets the original design specification, which will have an additional safety margin for shock-loading lifting forces. If you're not certain that the eyebolts on your vessel are 'as originally designed' then seek expert advice!

Local Practices- As the eyebolts were replaced, it is essential that the original equipment parts were replaced with the same specification eyebolts. Thoroughness in the procurement process is critical to ensure that the tender can be lifted each time safely. How thoroughly do you procure original spare parts? Does your management have a procurement policy?

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There are no comments yet.