

Casualty Information

Information from DNV to the maritime industry No. 6 September 2006

Open lifeboat – corroded tie band side plates!

Ship type: Any Size (grt): Any Year built: 1983

Course of events

The empty port lifeboat was lowered to the embarkation platform, see Fig. 1, when the aft boat hook tie band gave way from its attachment to the boat keel.

Extent of damage

Fortunately, there were no persons in the boat and no human injury, only mechanical damage.

Upon inspection of the damaged tie band and the tie bands in the other lifeboats, it was noted that all the tie band side plates had suffered serious corrosion and wastage and consequently had to be replaced.

Probable cause

The most probable cause is believed to be the corrosive environment at the bottom of the lifeboats combined with shortage of maintenance over time.

Tie bands are vital structural elements for safe and controlled launching of lifeboats.

However, tie band side plates may easily be overlooked during inspection as access to them may be hampered by debris and the presence of bilge water.

Two more examples are given in order to highlight the problem:

Example 1

In connection with davit tests on one ship, tie band side plates in the lifeboats were checked and found heavily corroded. Forward tie band side plates of one boat were completely wasted. It was well painted and thus looked well preserved but by hammering, an open gap of approx. 10 mm was revealed, see Fig. 2. Immediate repairs were required.

Launching of this boat with people could have caused fatalities.

Example 2

During inspection of another lifeboat, equipment was removed forward and aft for access to the bottom of the boat. In this case the tie band side plates were connected to the boat with three bolts and with one counter-nut per bolt as shown in Fig. 3.

By chipping and scaling out the nuts, they were found extremely corroded and partly missing and the boats were subject to immediate repairs.



Fig. 1: For reference only!

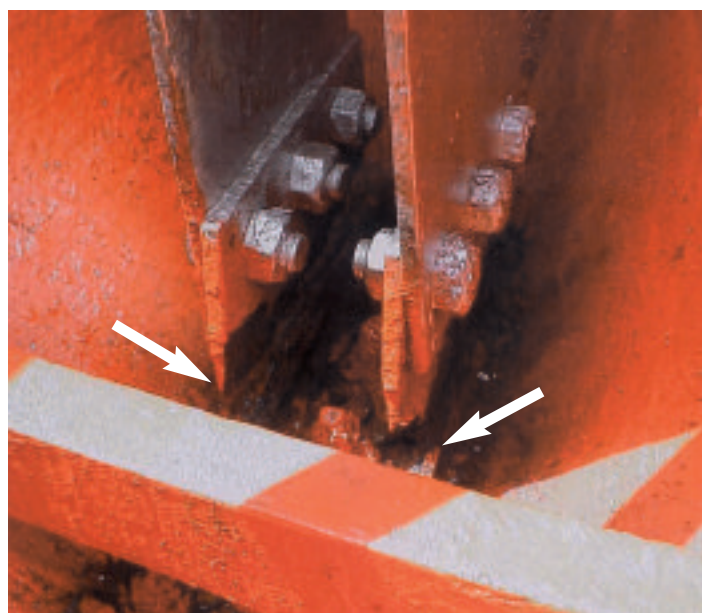


Fig. 2: Serious corrosion of tie band side plates at connection to the bottom of the lifeboat. An open gap of approx. 10 mm may be seen!

Lessons to be learned

- The lifeboat tie bands, hooks and release system should be inspected and maintained according to maker's recommendations, and be included in the ship's maintenance system.
- All items encompassed by scheduled inspections, should be properly examined regularly.
- Access to and cleaning of the tie band side plates (even by hammering) must be made prior to inspection of lifeboats and special attention is to be paid to cleanliness of the bilges.

Please also note:

SOLAS does not require people to be on board when the boat is lowered during drills.

In order to reduce the probability of casualties during drills, the following alternative procedures may be applied:

1. Lifeboat first lowered to about 2m above the water then hoisted for boarding by assigned operating crew and lowered to water for releasing and manoeuvring.
2. Alternatively: Lifeboat to be lowered to water without crew on board. Crew to embark via embarkation ladder, boat to be hoisted approximately 2–3m and lowered again from inside of the boat.

There have been many accidents similar to those described, and Casualty Information No. 5/97 was issued in that respect.

Corrosion damages as described above may also take place in totally enclosed and partly enclosed lifeboats, due to lack of maintenance over time!

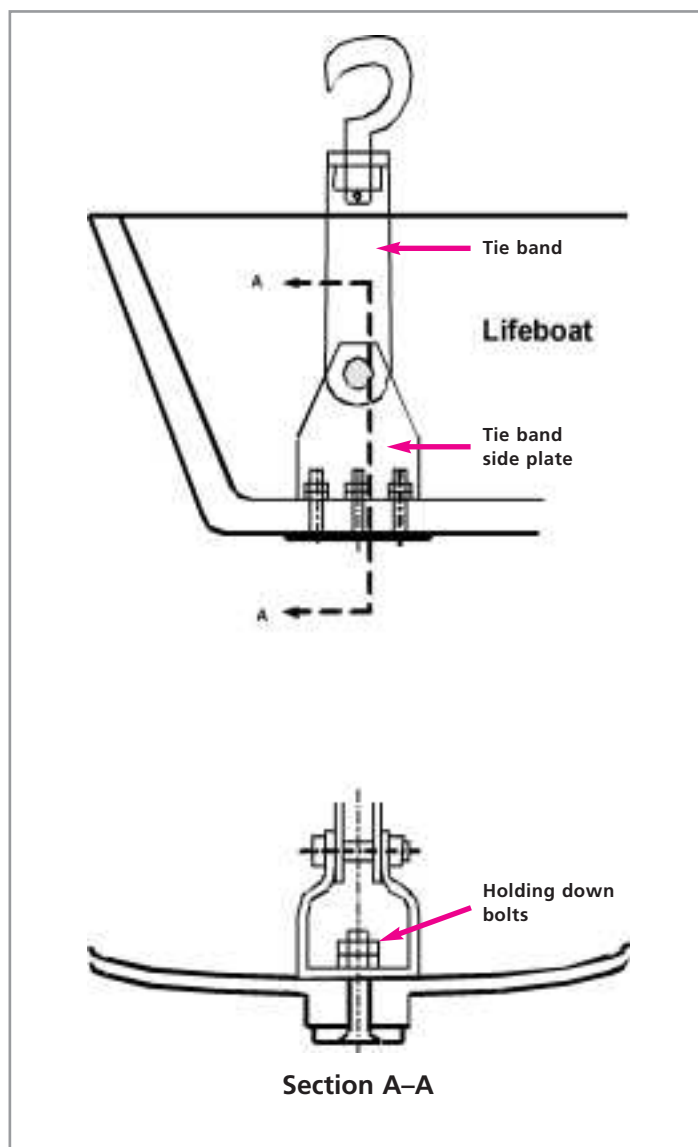


Fig. 3: Tie band side plates connected to the boat with three bolts and with one counter-nut per bolt.

We welcome your thoughts!

Casualty Information is published by DNV Maritime, Maritime Technology and Production Centre (Dept. for Ships in Operation).

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The purpose of *Casualty Information* is to provide the maritime industry with 'lessons to be learned' from incidents of ship damage and more serious accidents. In this way, Det Norske Veritas AS hopes to contribute to the

prevention of similar occurrences in the future. The information included is not necessarily restricted to cover ships classed with DNV and is presented, without obligation, for information purposes only.

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