

SAFETY BULLETIN No.01 of 2022

ROBUST MAINTENANCE AND TESTING OF BOLLARDS

BACKGROUND

On the 12th June 2021, a Thames Clipper vessel was manoeuvring for Tower Millennium Pier when the mooring bollard on the pier failed.



The mooring bollard was ripped out of its housing and struck the vessel, before landing back on the pier. In this instance there were no injuries to report and damage to the vessel was minor, however, the consequences could have been severe.

Tower Millennium Pier had been in situ on the tidal Thames for over 20-years.

The pier operator investigated the bollard failure, with key findings and recommendations from their report, which can be found below.

INITIAL FINDINGS

Corrosion: The bollard had sustained severe corrosion that the steel wall thickness had severely deteriorated. The original bollard paint protection had worn away over time with continued use and had not been renewed recently.

Inspections: The pier operator carried out visual inspections of the bollards from the pier behind the handrails in 2017 and 2019, corrosion was observed from the pier however the maintenance regime did not list this as a high priority.

Safe Working Load and Vessel Movement: The Bollard had a safe working load of 1.5 tonnes when installed, some 22-years previously. The investigation found that the vessel utilising the bollard was operating slightly ahead of the RPM parameters agreed with the pier operator.

The bollard had been used by other vessels in a horizontal or downwards angle previously, whereas on this occasion it was on an upward facing lead. With the vessel berthing at the pier, running ahead on its mooring lines, it is estimated that the safe working load had been exceeded and with the upward facing lead, quickly led to the failure.

SAFETY LESSONS

- Ensure all mooring bollards are identified as 'safety critical equipment', this should be documented in an asset inventory/register of the operator.
- Ensure that all 'safety critical equipment' is maintained and reviewed annually, with all mooring bollards assigned a unique identifier and physically tagged with; location, type and safe working load.
- Ensure that conditional inspections of all mooring bollards are undertaken at a pre-determined frequency, and remedial action is undertaken, including the removal of any unsafe bollards.
- Ensure that all vessels mooring utilising bollards at the operator's facilities use the correct bollard appropriate to the size and weight of the vessel.
- Assign a visible display to all mooring bollards, showing what the safe working load is and clearly visible to vessels operating at the facility.

This Safety Bulletin focuses on mooring bollards at pier, jetties and berths; however, the Port of London Authority (PLA) has noted several vessel bollards and cleats failing.

These are parts of the critical structure of vessels and therefore, should be tested and inspected on a frequent basis. Owners of vessels should take note of this Safety Bulletin and failures of mooring equipment must be reported to the relevant vessel licensing authority. For vessels licensed as an inland Class V passenger vessel, that is the Maritime and Coastguard Agency as soon as practical after the incident, along with the PLA.



14TH January 2021

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