

Failure of main hoist rope on mobile crane

Issued to: All Network Rail line managers, safety professionals and RISQS registered contractors

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Location: Blackpool North Depot

Contact: [Jonathan Morris](#), Principal Health & Safety Manager, IP Northern Programmes



Overview

During collection by the supplier an RRV crane was being used to lift a fuel bowser (approx. 1.5T) onto a low loader lorry in a compound area. The load was connected to the crane lifting hook by a 4 leg chain sling. The exclusion area was clear.

When extending the RRV boom, the lifting eye/pulley was drawn up to and make contact with the jib. The operator was concentrating on the clearance between the base of the fuel bowser and the bed of the lorry and did not notice the proximity of the eye/pulley to the jib, so took no evasive action. The wire became sufficiently tight to snap the hoist rope at the drum.

The fuel bowser fell approx. 1.5 metres to the ground at the side of the lorry, making contact with the moulding on the side of the lorry tractor unit. This resulted in minor damage to the fibreglass panel.

An initial engineering inspection of the three other RRV cranes in the TXM fleet has been undertaken. Functional checks on the boom telescopic function revealed none of the three will extend when the safety switch (as shown in annotated photograph) is activated. This is a safe condition.

The RRV involved in the incident has been identified as not functioning correctly: the safety switch does operate when the boom is retracted but not when extended. This is an unsafe condition which is thought to have existed since upgrade and crane modifications. Operators do judge the rope tension during operations and this may be why the failure mode has not been revealed during use earlier.

Immediate action required

- Owners and operators of similar equipment shall arrange for the operation described above to be replicated under safe conditions to check whether the interlocking device fails to operate safely.
- Equipment that fails this test should be quarantined.
- Network Rail Construction Managers and supervisors should carry out a review of lifting equipment on their sites. Where any potentially affected equipment is identified they should check with the POS Representative that this test has been undertaken.
- Construction Managers should then confirm back the results of these checks to their Programme Directors.

Copies of Safety Advice are available on [Safety Central](#).