

Shared Learning

The Thameslink Programme

Issue Date: 10th January 2018 - For further info contact mike.netherton@networkrail.co.uk

Issue Number: TLP083

Title: Cable Drum Spindle Fall into Public Area

Overview of Event:

On 19th November 2017 at 13:00hrs, a track team was lifting an empty cable drum from an 'A' Frame mounted on a track trailer. During the lift, the cable drum spindle bar snagged on the 'A' frame. On further attempting to lift, the drum jerked and tilted causing the spindle bar to slide from the centre of the drum. The spindle bar fell through a gap in the parapet wall approximately 8m to the ground below, into a public area.

The spindle bar weighs circa 50kg and is approximately 2m in length. The spindle bar did not come into contact with any persons or vehicles when it fell however, it had the potential to cause significant injury and/or damage.

General Key Messages:

- Lifting arrangements need to be clear, documented in a Lift Plan and carried out by competent personnel.
- Any equipment used for lifting, requires individual identification and routine checks for condition.

Causes:

Immediate: Insecure spindle bar sliding from slung cable drum.

Root and Underlying Causes

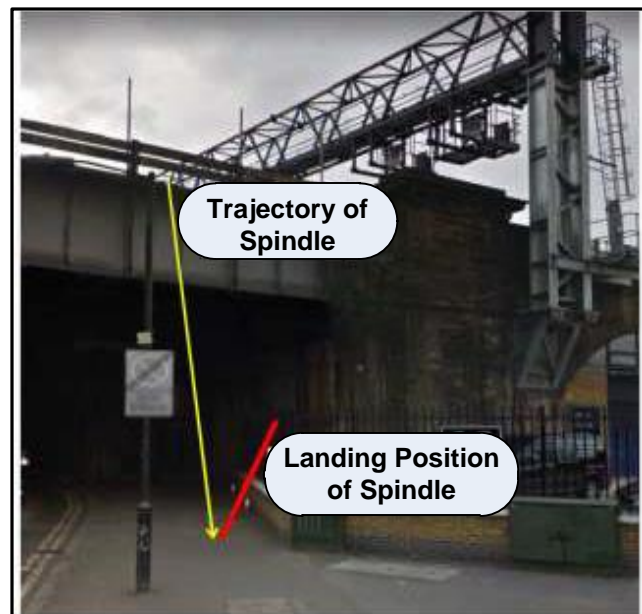
- Inadequate assessment of the worksite and lack of detail in the Task Brief in relation to working around bridges/viaducts.
- Neither the Task Briefing nor Point of Work Risk Assessment (POWRA) considered or addressed the risk of lifting on under-bridges or viaducts.
- The Lift Plan was generic for lifting activities and lacked specific detail.
- Although the Lift Plan showed that whilst lifting on viaducts & under bridges was a hazard, it failed to identify any controls to mitigate the risk.
- The Crane Controller & Supervisor believed that the collars on the spindle were there to prevent the spindle coming out of or through the cable drum whilst lifting, rather than controlling drift and keeping the spindle on the 'A' frame.
- The drum was incorrectly slung with a single Strop allowing it to tilt.
- Lack of competence/experience of the team in lifting cable drums.
- Cable drums had been stored on their sides on the trailer.



Method of Stropping

Actions Taken As a Result of the Investigations:

- Communication issued to the project/supply chain that lifting must be carried out in accordance with the Principal Contractor 'Lifting operations: Our Expectations' process.
- Going forward, diagrams/instructions to be included in cable drum Lift Plans, including stropping arrangements.
- Safety Bulletin issued – 'Lifting of cable drums on bridges and the correct procedure for lifting, including the prohibition of lifting on viaducts /under bridges without a detailed Risk Assessment'.
- Project instructed to place all cable drums into the correct storage position on their rims.
- Mandate and train supervisors in the use of Lift Plan assessment sheets and POWRA (point of work risk assessment).
- Re-training and assessment of the Crane controller involved in the incident, followed by a period of mentoring.



Trajectory of Spindle

Landing Position of Spindle