



Significant Incident Report No. 255

Subject: Telehandler rollover during a lift

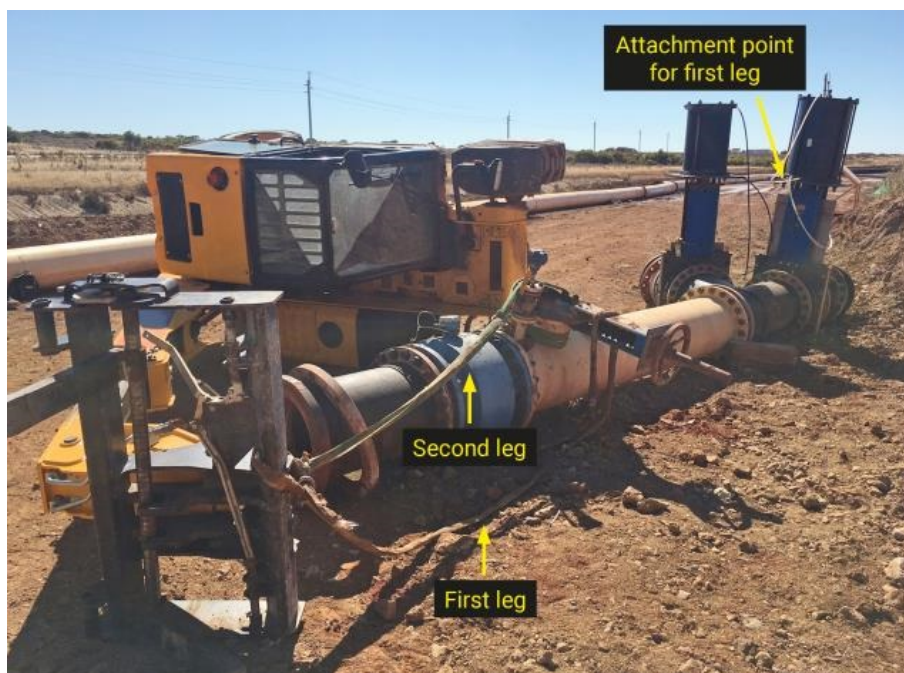
Date: 10 November 2017

Summary of incident

Note: The Department of Mines, Industry Regulation and Safety's investigation is ongoing. The information contained in this significant incident report is based on materials received, knowledge and understanding at the time of writing.

In January 2017, a telehandler was being used to lift a pipe assembly at a tailings storage facility. A worker had attached the first leg – a single roundsling rated to three tonnes – to a knife gate valve while the other end was choked around the tool carrier frame. A second leg – comprising two connected two tonne-rated roundslings – was attached to a branch of the pipe assembly. This was then secured to a shackle placed through a hole in the tool carrier frame.

As the load was lifted, the three tonne-rated roundsling broke and the telehandler fell on its side. The worker was standing near the telehandler when it hit the ground.



Final position of telehandler and pipe assembly showing the lifting arrangement.

Direct causes

- The three tonne-rated roundsling failed.

Note: The sling had been damaged prior to the incident when it was used to drag a section of pipe over hard and rocky ground.

Contributory causes

- The three tonne-rated roundsling initially took more of the load when the pipe assembly was lifted.
- The weight of the pipe assembly (over 3 tonnes) was greater than the maximum-rated lifting capacity of the telehandler (2.5 tonnes).
- The work required the use of slinging techniques for the purposes of lifting a load, for which a dogging high risk work licence is the minimum requirement. The worker that slung the load did not have an applicable high risk work licence.
- The telehandler operator had a high risk work licence and had been assessed as competent for using the tynes on the telehandler, but had not been assessed as competent for lifting freely suspended loads.
- The roundsling that failed was attached to an unrated lifting point on the knife gate valve and was choked around the tool carrier frame which had sharp edges.

Actions required

Verification of competency

Responsible persons are reminded that under the Mines Safety and Inspection Regulations 1995, the following is required.

- A person (e.g. dogman, rigger) must not do high risk work of a particular class at a mine unless they hold a high risk work licence for that class of work [r. 6.37 (1A)(a)].
- Before commencing work at a mine every worker must be assessed to verify they are competent to perform the tasks they are assigned, and to operate any plant or equipment they are required to operate [r. 4.13 (1)(b)]. This includes the assessment of telehandler operators, doggers and riggers working at the mine.

Safe systems of work

- Conduct an adequate risk assessment of the task before lifting the load that includes:
 - assessing the load as accurately as possible using pipe and equipment specifications and using the skills of a competent person to calculate the weight of the load
 - using fit-for-purpose plant (e.g. cranes, multi-tool carriers) that have a maximum rated lifting capacity capable of safely lifting the load
 - using fit-for-purpose lifting equipment that has a working load limit (WLL) capable of safely lifting the load.
- When lifting a pipe assembly, consider separating it into smaller parts which can be safely lifted with telehandler attachments approved by the original equipment manufacturer.

Roundsling management

- All slings must be inspected before each lift by a competent dogger or rigger, and if there are any visible cuts or damage to the sleeve or protective coating, the sling must be discarded.

- Do not drag a load that is slung, nor allow a sling to be dragged over the ground or over rough surfaces.
- Use protective sleeves or corner pieces to protect the sling from sharp edges.
- Loads must be slung so they are balanced and stable and cannot topple or fall out during the lift.

Further information

- Standards Australia, www.standards.org.au

AS 4497.2 *Roundslings – Synthetic fibre – Care and use*

- Department of Mines, Industry Regulation and Safety

High risk work licence training and verification of competency, www.dmp.wa.gov.au/Safety/High-risk-work-licence-training-20550.aspx

Hazard awareness videos, *Raising the issue*, www.dmp.wa.gov.au/Safety/Hazard-awareness-videos-16435.aspx

Licensing requirements for industrial lift truck, forklift truck and multi-purpose tool carriers, www.commerce.wa.gov.au/sites/default/files/atoms/files/multipurpose_machine.pdf

Dogging licence: Applying slinging techniques and the use of judgement, www.commerce.wa.gov.au/publications/dogging-licence-applying-slinging-techniques-and-use-judgement

This Significant Incident Report was approved for release by the State Mining Engineer on 10 November 2017