

High Potential Incident - Collapsed Winch Drum



Description of Process:

Replacement of crane winch barrel boss.

Description of Incident:

The crane winch drum barrel boss was being replaced.

The winch drum had been removed from the boom hoist winch and positioned on the deck.

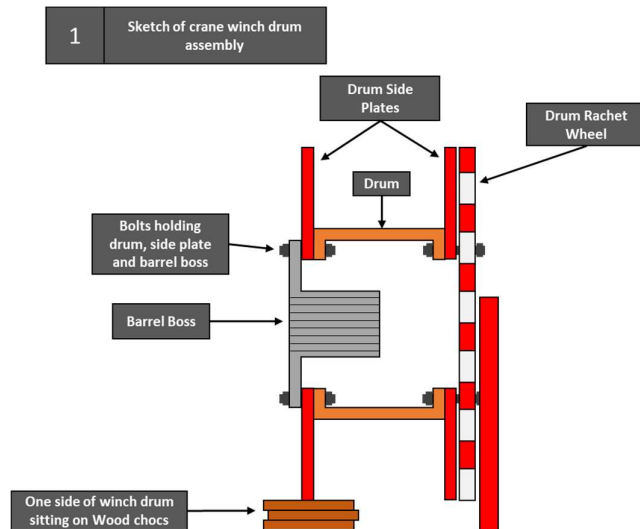
There was a discrepancy between the drawings and what the team found at site.

Approximately 15mins after the barrel boss was removed, the drum collapsed.

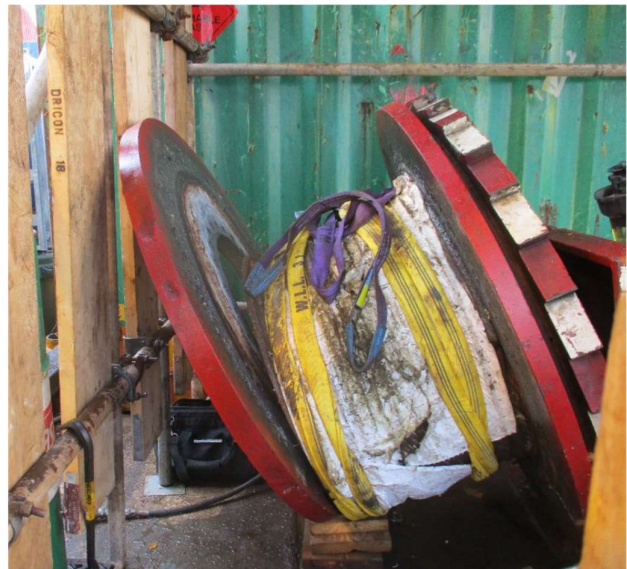
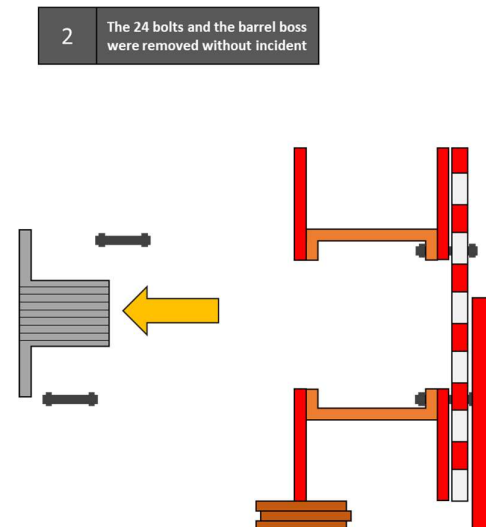
An individual was trapped between the collapsed drum and the scaffold boards.

What Happened:

The following 3 sketches explain what happened:

1: Overview of crane winch drum arrangement:**2: Barrel Boss Removed:**

The team removed the 24 bolts securing the barrel boss in position and removed it, leaving the winch drum resting in position.

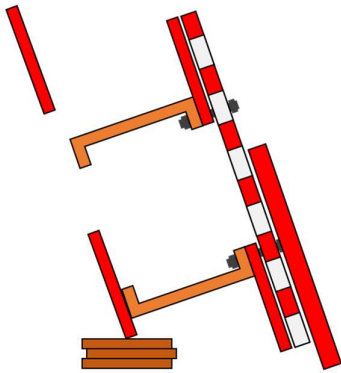


3: The Collapse:

Approximately 15 minutes later with two personnel still working in the area, the winch drum collapsed trapping the IP against the wall by his chest. The IP managed to call out as the winch rested on his chest alerting the other members of the team. The IP was struggling to breathe and was unable to speak, due to the pressure being exerted on his chest. 2 people managed to take enough weight off the IP's chest to allow him to slide out from the trapped position.

3

15m later, the winch drum assembly collapsed as the drum and side plate separated

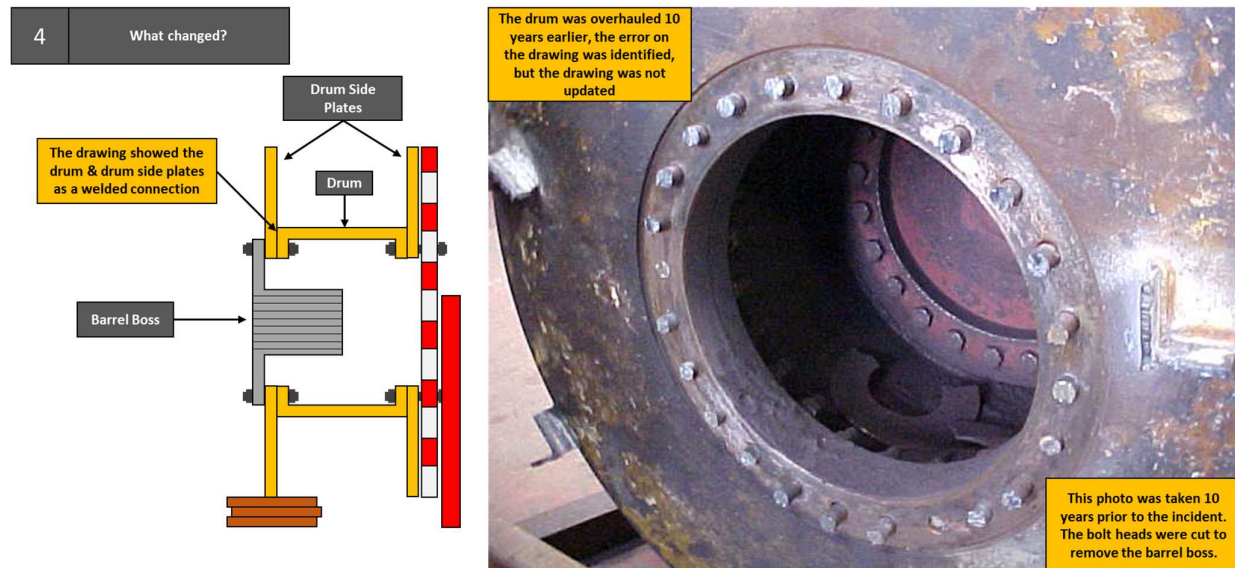


4: What Changed?

The work-pack drawings showed the drum and side plates were a single welded assembly, but this was not the case. The discrepancy was suspected by one of the team, but they did not raise this concern at the TBT.

The drawings showed the barrel boss was held in place by 8 off M24 X100mm bolts, the crew discovered that 24 off M24 X 170MM bolts were present, but this did not prompt a review.

This job had been completed before, the drawing discrepancies had been identified, but they had not been updated.



Good practice:

- If you identify an issue, raise your concern
- Ensure drawings are reviewed and revised to reflect known discrepancies
- Ensure processes are in place to; identify, assess, record and communicate change