



## ALERT

February 2011

### Maeda 285 ML mini crawler crane cable fails



#### Background

The crawler crane, similar to the one above, was in the process of lowering the hook (with **no load** attached) to the ground. When the hook came within 3-4 metres of the ground, the cable ran off the winch drum, and both hook and steel wire rope fell to the ground. There were approximately 43 meters of wire rope on the drum. An exclusion zone was maintained on ground, as JSA describes, and no one was injured.

#### Contributing factors

- Investigation found that the wedge socket used to secure the steel wire rope to the winch drum had become dislodged.
- Metal shavings and markings found on the wedge socket and around the winch drum housing suggest the wedge socket had been dislodged for some time.
- The steel wire rope was 42 meters in length. The manufacturer's manual shows the length at 48 meters.

#### Additional information

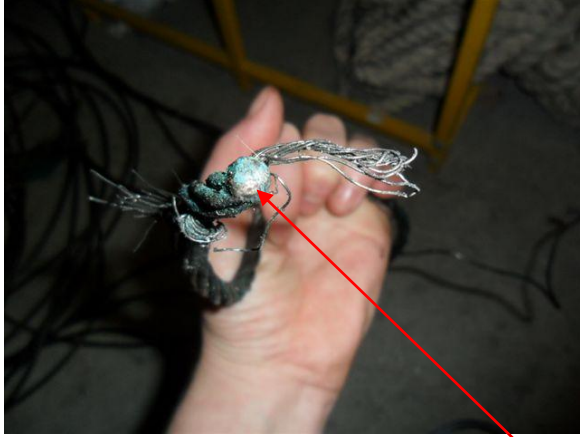
All similar cranes on site were stood down and inspected. Out of five cranes, inspected two had wedge sockets that had become dislodged in housing.

#### Corrective Actions

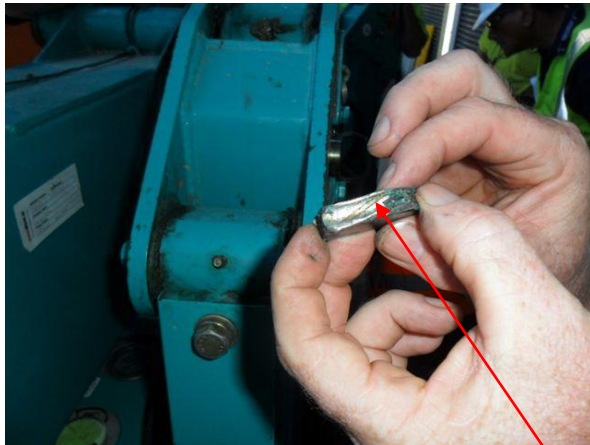
- Bulldog clip attached to the termination end of steel wire rope.
- Steel wire rope will be marked to indicate when a minimum of 5 turns remains on winch drum.
- Steel wire rope length to be logged with tag displaying length visible to operators.
- In addition, the field maintenance service will incorporate the inspection of the termination points of the steel wire rope on the winch drum.
- Manufacture to be advised of design concern and possibility of a grub screw to be installed to prevent wedged socket movement.



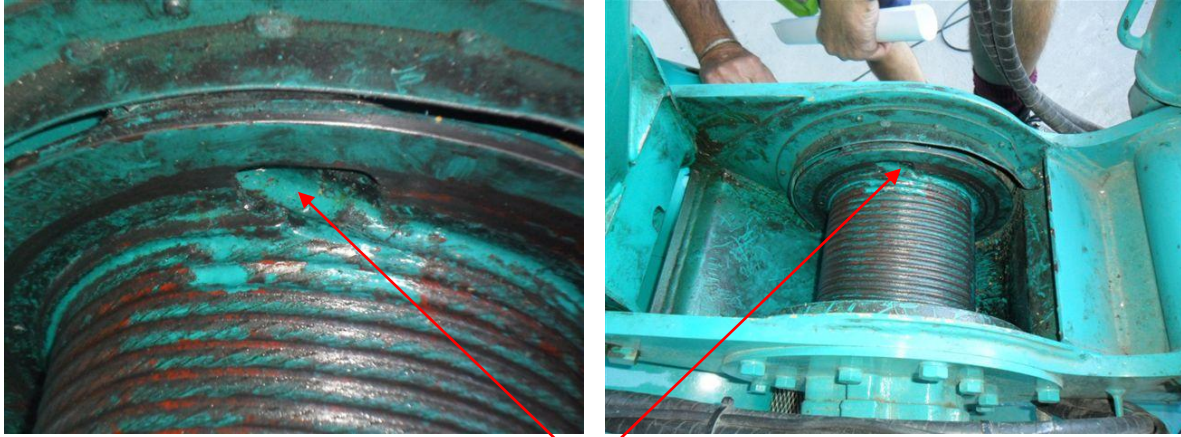
Further information about this safety alert contact CFMEU WA safety officer  
Mick Buchan on 0419 812 861 or Email [mbuchan@cfmeuwa.com](mailto:mbuchan@cfmeuwa.com)



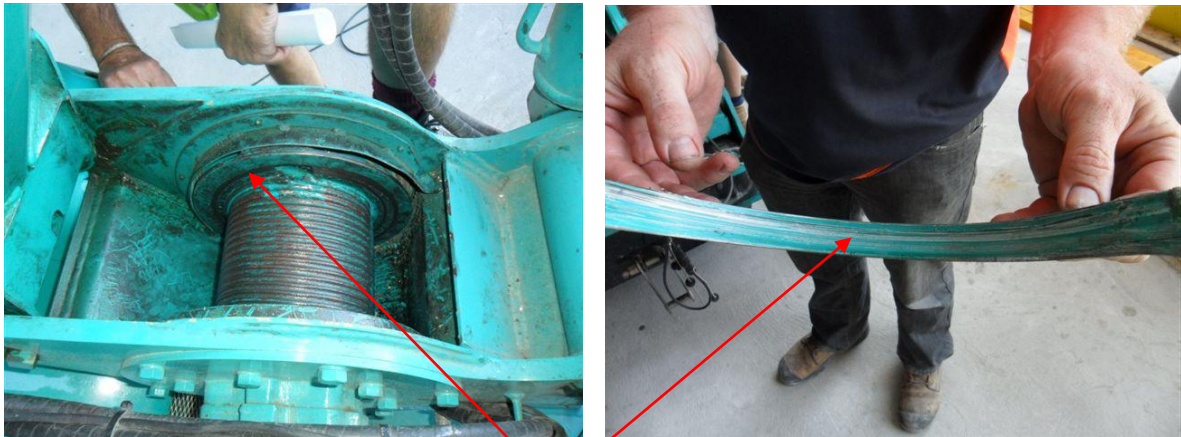
Termination end of winch wire (winch drum)



Termination Wedge (inside winch drum)



Termination opening in winch drum

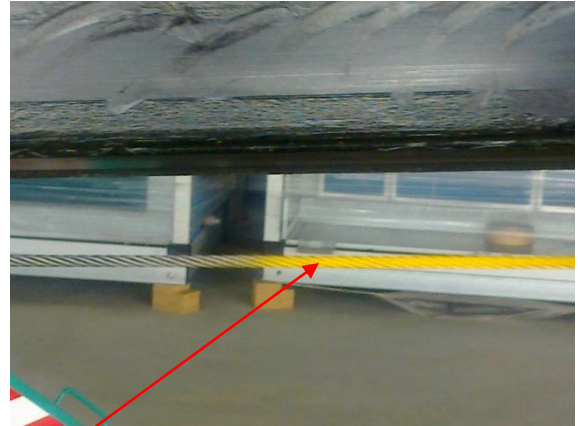


Winch cover showing damage by termination wedge

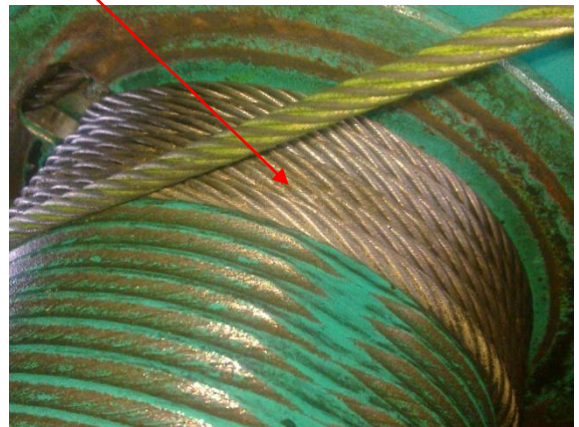


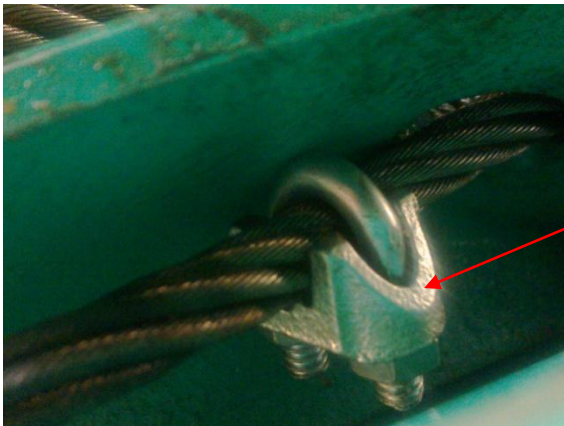
Termination end winch rope (hook end) showing rope having been cut

CORRECTIVE ACTIONS



Winch rope marked indicating min 5 turns left on winch drum





Bulldog Grip Attached To Termination End of Winch Rope (Winch Drum)