Derrickman Climb Assist

WHAT HAPPENED:

During a recent windstorm, a counter weight and cable on the Derrickman's climb assist on an offshore rig became tightly wrapped around its guy wire and parted at the weight bucket connection. The weight bucket fell from a height approximately level with the monkey board, striking a light on its way down and breaking the light off its mount. No other damage or injury was incurred.

WHAT CAUSED IT:

The counter weight was affixed to the climb assist cable with a 3-foot steel wire rope “leader”. This leader had a plaited eye on the cable end and was threaded through a pad eye on the bucket side. The leader was approximately 2 years old and showed obvious signs of corrosion when inspected after the incident. The twisting of the cable and tension on the cable caused the climb assist line to part at its weakest point, the “leader”. The guide cable had been replaced six months earlier, however, the “leader” was not.

CORRECTIVE ACTIONS:

• Follow the manufacturer’s instructions for the proper method to connect the weight bucket to the cable. In the case of the device in this incident, the climb assist cable should be attached to the weight bucket with a swivel allowing the fall arrest cable to twist without placing stress on the weight bucket leader.
• When the climb assist cable is replaced, other wire rope components in the climb assist system should be replaced as well.
• Follow the manufacturer’s inspection procedures. The Derrick Inspection Form should include the climb assist weight bucket and guy wire.
• The Derrickman should visually inspect the climb assist cable connections at the belt end upon each use.
• The weight bucket and connections should also be visually inspected daily when possible. Options for this inspection are: [1. When climbing the derrick to service the crown, the Derrickman should visually inspect the weight bucket and connections as the weight bucket passes him. 2. On some rigs when the Derrickman is at the crown, the weight bucket low enough so that it can be inspected. In this case a Floorman should inspect the connections while the Derrickman is servicing the crown.]
• When servicing the crown each day, the Derrickman should inspect the climb assist sheaves and attachments.
• The cable and weight bucket connections should receive a complete inspection on a regular basis as part of the rig’s preventative maintenance program. On land rigs and other rigs that have a jack knife mast, the cable and bucket should be inspected when the mast is laid down.

The Corrective Actions stated in this alert are one company’s attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.