



# Safety Alert

From the International Association of Drilling Contractors

---

ALERT 11 – 21

## NEAR MISS – LACK OF INSPECTION RESULTS IN DROPPED IRON ROUGHNECK

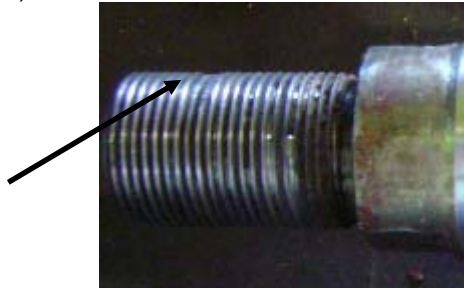
### WHAT HAPPENED:

While the Iron Roughneck was extended, the cylinder shaft pulled from the clevis on the extender end of the cylinder. This allowed the extender unit to fall outward onto the rig floor landing against the drill pipe stump. When the extender unit fell, it narrowly missed two employees. Fortunately, no employees were directly between the unit and the drill pipe stump and no injuries resulted from the incident.



### WHAT CAUSED IT:

The shaft of the extender is screwed into the clevis. Inspection of the threads revealed that the threads had stripped and pulled from the clevis. The threads appeared to have become galled at some point and the deterioration continued to weaken the contact between the clevis and shaft to the point it could not hold the weight (6900 lbs.) of the extender unit.



Upon inspection of the failed parts, it appeared they may not have been fully tightened against each other at the time of failure. An inspection was conducted of all other Iron Roughnecks in use. The inspection revealed that all shafts and clevises' on the units were fully tightened against each other except one. The extender unit that had a space between the two parts was replaced with a new cylinder, which comes with clevises attached. All the iron roughnecks had been in service approximately three years.

---

**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.**

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

Copyright © 2008 International Association of Drilling Contractors All rights reserved.

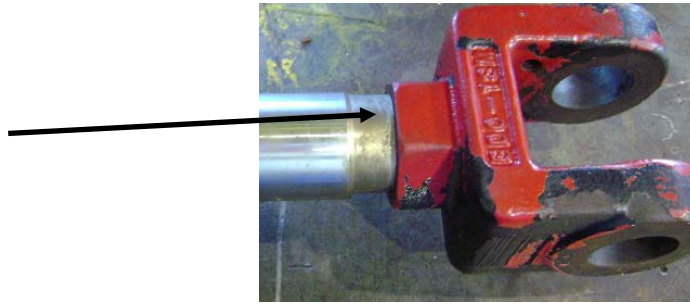
Issued September 2011



# Safety Alert

From the International Association of Drilling Contractors

---



The clevis was removed from the replaced extender cylinder assembly and was taken out of service for inspection and galling of the threads was discovered. This leads to the conclusion that if there is a gap between the shoulder of the shaft and the clevis, there is potential for failure and injury.

**CORRECTIVE ACTIONS: To address this incident, this company did the following:**

Prevention and Maintenance:

- Instructed designated company mechanics to conduct Bi-annual inspections of the extender units.
- Instructed the mechanics to train rig personnel to perform daily inspections to ensure all shafts and clevis's are snug with no gap between the two and to report any variance.
- Action: Any variance in the condition of the extender unit shaft and clevis which is noted will result in replacement of entire cylinder.

---

**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.**

This material is presented for information purposes only. Managers & Supervisors should evaluate this information to determine if it can be applied to their own situations and practices

Copyright © 2008 International Association of Drilling Contractors All rights reserved.

Issued September 2011