

ALERT 14 – 17**LINE-OF-FIRE INCIDENT RESULTS IN FACIAL INJURIES****WHAT HAPPENED:**

The rig crew was attempting to manually latch a running tool onto the top of a tubing liner pump down hole. The crew installed a rod wheel onto the rod string. Employees, on the rig floor, held 10 to 15 turns of torque into the rod string with the wheel as the rod string was lifted. The running tool detached from the lock assembly thus causing the workers to lose their grip on the rod wheel. The release of torque caused the rod wheel to backspin in an uncontrolled manner. While spinning, the gate piece of the rod wheel broke away from the main body of the wheel and, struck a worker in the face, which resulted in major facial injuries.

	
The gate piece of the rod wheel broke away, striking a worker.	A new rod wheel

WHAT CAUSED IT:

- Defective tools: The rod wheel is made of plastic.
- If the rod wheel backspins from torque, the gate in the wheel is subject to failure.
- Improper procedures: There was no safe method of placing torque into a rod string using a rod wheel. If control of the wheel is lost, the resulting backspin places workers at risk from disintegration of the gate.
- There are no manufacturer operating specifications for the rod wheel that helps to identify the torque limitations or maximum number of turns on a rod string before it becomes a hazard.
- Use of a rod wheel relies on the workers manually holding a device with torque applied and, if they lose control of the wheel and it fails, there is no way to protect the workers.

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

- Recommended engineering control: The use of jaw-type rod tong dies coupled with a backup arm to rotate the rod string removes the hazard to workers.

Credit to: Enform Safety Alert SA-2014-08

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.