ALERT 00-22

LTI SHEAR POINT - LOST FINGER

WHAT HAPPENED:

A forklift operator was assisting a crane operator to straighten the cable on the spool of the crane by guiding it into the drum. When finished, the forklift operator placed his hand on the telescopic boom of the crane as he stepped down off the crane. He had inadvertently placed his finger in a grease hole in the square outer boom as the crane operator retracted the inner section of the crane boom.

As the inner section of the boom passed into the outer section, a shear point was created in the grease hole. The employee's index finger being in the grease hole was snipped off between tip and middle knuckle. The finger was reconnected to his hand, but the finger did not survive. The incident was classified as an LTI.

WHAT CAUSED IT:

The maintenance procedure required an employee to enter an area on the crane containing hazards that due to their location, under normal operations, employees are protected from. Once the maintenance operation was completed, the crane operator began normal operations before the forklift operator could leave the unsafe area.

CORRECTIVE ACTIONS:

- A Job Safety Analysis (JSA) that identifies the hazards and steps involved with the procedure should include a requirement that the operation of the crane is not started until everyone is clear. Information on performing JSAs can be found in the IADC Accident Prevention Reference guide.
- Changes to the procedure may occur when conditions change or a new or unforeseen hazard presents itself, anyone recognizing this new hazard should STOP the job, make everyone aware of the new hazard, develop a means to offset the hazard, and the JSA revised.
- When hazards cannot be engineered out, most jobs can be safeguarded through the Lockout/Tagout process, but in situations such as the need to guide the cable onto the crane drum, lockout/tagout may not be feasible. In these cases employees are safeguarded from the hazard by ceasing to operate the equipment while people are climbing on or off of it.
- A Pre Job Safety Meeting that includes everyone involved in the task should be held and the JSA discussed to take steps to avoid exposure to the hazards.
- Think about hazards on the rig such as shear points, nip points, points of operation that are guarded by location and think about what should be done before employees are exposed to them.
- Employees must be aware of shear points, nip points, points of operation before placing their hands on equipment.
- Identify energy sources—Motion, Gravity, Pressure, Chemicals, Heat/Cold, Electrical and Radiation, and control them through Lockout/Tagout, communications to personnel in Pre-job Safety Meetings and JSAs.

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.