



Safety Alert

From the International Association of Drilling Contractors

ALERT 03 – 25

UNPROTECTED FLYWHEEL RESULTS IN A FATALITY

WHAT HAPPENED:

Note: Although this incident did not occur on a drilling rig or at a service yard, it is included in the alerts program because there is a potential for it to occur anywhere. A container containing a generator system was placed on the platform to provide power for testing some winches. The engine was fluctuating so a Mechanical Assistant and the two Motormen went into the container to investigate. It was decided that the engine needed to be shut down to change the filters. The Motorman stayed by the filters, while the Mechanical Assistant returned to the panel to ask the other Motorman to fetch new filters. While the Mechanical assistant left the control panel and went outside to tell the winch crew to stabilize the winches, the Motorman who stayed in the generator container decided to remove his jacket. As soon as the Deck Electrician heard a noise in the container he went to investigate and found the injured setting against the fan guard. His jacket wound into the unguarded balance wheel pulley assembly. The Motorman had his left hand amputated and suffered a skull fracture. He passed away after 15 days in the hospital.

WHAT CAUSED IT:

The investigation revealed that in preparation for the filter change, the injured person had partially removed his jacket, releasing his right arm first. The suction created by the fan pulled the free part of the jacket into the unguarded balance wheel pulley assembly. One of the main causes of the accident could be considered to be the improper guarding of the pulleys and belt.



CORRECTIVE ACTIONS: To address this incident, this company did the following or instructed personnel to:

- Performed a verification of all on board equipment and machinery in regards to Machinery Guarding or Machinery Protection of rotating and moving parts.
- Installed protective devices to the rotating parts on the generator and engine as necessary.
- All inspection operations beyond the control panel must have a stand-by person in attendance within the immediate area of the emergency stop and in a position to easily see the inspection operators.
- Ensure the emergency stop is immediately accessible to a stand-by person.
- Instructed workers that working alone is not allowed inside the auxiliary generator container when working beyond the control panel or activities require working/inspection while the engine is in operation.
- Installed protective devices for the hot surfaces (i.e. exhaust manifold) of the engine that may come into contact with operators.
- Installed safety signs at the entrance of the containers, such as “Authorized Person only”, “Hearing Protection required”, and the normal PPE requirements.
- The company also instructed their Safety dept. to ensure that also all the normal operations are assessed and JSAs are available.

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.
