SAFETY ALERT

Safety Alert No. 452
December 12, 2022

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Commonly Found Ineffective Crane Stinger Hook Pin Installation: High potential for Injury and Equipment Damage

Figure 1

Figure 2

Figure 3

Figure 4

A high-potential near-miss recently occurred on a Gulf of Mexico energy facility. While using the platform crane to suspend a wireline lubricator, the pin holding the hook on the crane stinger backed out, resulting in the hook and lubricator falling. The incident caused damage to a section of the lubricator.

The incident investigation found that the cotter pin at the end of the hook pin had sheared (Figure 1), which allowed the washer to fall and the pin to back out. When the pin backed out, it caused the ear on the connection to distort (Figure 2), resulting in the hook failing. The investigation also found there was an inadequate pin configuration design. The pin installed on the hook assembly had a smooth composition (Figure 3). The operator determined that a threaded bolt with nuts and keepers (Figure 4) was the proper pin design for ensuring the stinger remains secure throughout lifting operations.

Following this event, the operator inspected their other facilities and found the same improper arrangement on additional cranes.

Therefore, BSEE recommends that operators and contractors do the following:

- Inspect all cranes on the facility and verify that the hook assembly has a threaded pin with nuts and keepers.
- Retro-fit any stingers equipped with an improper stinger hook pin configuration.
- Verify all crane components are in alignment with current manufacturer recommendations.
- Add “assessment of the pin condition” into the pre-use inspection checklist, which should be completed before conducting lifting operations.

– BSEE –

A **Safety Alert** is a tool used by BSEE to inform the offshore oil and gas industry of the circumstances surrounding a potential safety issue. It also contains recommendations that could assist avoiding potential incidents on the Outer Continental Shelf.

Category: Cranes/Lifting