

Safety Alert

From the International Association of Drilling Contractors

ALERT 00-04

WRONG LOAD CAUSES CRANE COLLAPSE

WHAT HAPPENED:

A hydraulic platform crane failed while lifting a 14,500 lb. (6525 kg) tank from a supply boat. As the load reached platform height, the crane boom did not respond to boom up control input and began to lower. The boom bottomed out and the crane parted at the ball ring. The crane operator, crane and load fell approximately 65 feet (19.5 m) into the sea. The crane operator immediately swam to the boat and suffered only a minor shin injury.

WHAT CAUSED IT:

Prior to the failure the crane operator had set the crane boom angle at 52 degrees, appropriate for the empty tank intended for the lift. Inadvertently, a *fully loaded* 25-barrel tank of calcium chloride, adjacent to two similar empty tanks on the boat deck, was rigged to the crane. The weight of the incorrect tank was more than twice the crane's lifting capacity at the pre-set boom angle.

CORRECTIVE ACTIONS:

- 1. When items of similar appearance are stored together on a deck, all parties involved in the lift should take care to ensure that the correct item is attached to the crane.
- Boat cargo load weights must be confirmed so that no lift is made without certain knowledge of the weight being lifted. If the load weight cannot be verified at the site by reviewing the manifest, equipment load markings or other means, then the load should not be lifted until it can be confirmed.
- 3. Radio communication should be used by lifting crewmembers during all lifts to and from boats. The crane operator, riggers and boat captain should maintain constant radio contact.
- 4. All offshore crane lifts to or from boat decks should be considered dynamic and the crane's dynamic load chart limits should be used. For static lifts on fixed facilities the crane's static load chart limits should be utilized.
- 5. All crane operators and riggers should meet the qualifications set forth in API RP 2D.
- 6. The site supervisor is responsible for ensuring that these safe lifting basics are followed in their operations.

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.