



# Safety Alert

From the International Association of Drilling Contractors

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ALERT 99-17

## RIG COLLAPSE WITH FATALITIES AND INJURIES

### WHAT HAPPENED:

During the final stages of rigging-up operations, an offshore platform rig collapsed, resulting in 3 fatalities and 13 injuries. The rig, which consisted of an upper, intermediate, and lower substructure, was aligned transversely to the platform's skidding beams and supported by shimming, support, and false capping beams. The supporting beams did not extend to the end of the lower and intermediate substructures. As the upper substructure was skidded to within a foot of its targeted position in preparation for the derrick positioning and raising, the underlying substructures tilted and slid to the side to which the skidding was directed. As a result of that movement, the upper substructure and other rig components fell into the water. Three employees died, and 13 employees were injured.

### WHAT CAUSED IT:

During the skidding operation, the upper substructure had reached a point where its center of gravity had moved sufficiently past the last support beam. The weight of the upper substructure acting through its center of gravity about the last support beam was greater than the weights of the intermediate and lower substructures about the same support beams. This top-heavy imbalance caused the substructures to slide off the platform.

### CORRECTIVE ACTIONS:

The operator and contractor involved in the incident issued these recommendations for those cases where a drilling rig is not using the platform's skidding beams in a traditional manner, and also in those cases where rig substructures are used with a platform/substructure support beam interface:

1. The drilling contractor and operator should have written procedural guidelines detailing all engineering-related aspects of rig installation.
2. The drilling contractor and operator should be familiar with the procedural guidelines. Supervisory personnel onsite during installation should ensure compliance with the guidelines.
3. The operator and contractor should verify the correctness and adequacy of all engineering analyses related to rig installation.

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**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.**

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