Contractor Significant Mishap
Tipped-over Crane

180-ton Crane Tipped Over; Crushed Elevated Work Platform; 3 Injured Employees with Total of 70 Lost Work Days

Activity: A contractor was conducting a critical lift of a 64 ton steel truss with a 180 ton and 200 ton hydraulic mobile crane rigged at opposite ends of the truss. The steel truss was raised in tandem by the cranes to the proper height. The fabricators were sent up on man-lifts to bolt the truss to the columns, but the man-lifts were improperly raised to extend underneath the boom of the crane. The steel truss on the right side was in alignment with the bolt plate while the left side of the truss was out of alignment and in touch with its bolt plate. The rigging lift supervisor signaled to the crane operator to move the load forward in order to align the left side with the bolt plate. The crane operator lowered the boom, but the truss was still in contact with the bolt plate, which restricted the truss' movement. The rigging lift supervisor did not tell the operator that the truss was caught by the bolt plate as the crane boom continued to be lowered. The load suddenly slipped from the bolt plate and swung forward of the crane, causing shock loading. As a result, the load fell and pulled the crane over, tipping the chassis to a 60 deg angle from the ground surface. As the crane boom fell, it struck the extended boom of the man lift that was positioned below.

Initial Suspected Cause

- Communication failure between crane operator and rigging lift supervisor

Initial Communication Points:

- Adhere precisely to critical lift plan, which shall include proper crew communication
- Do not allow personnel or equipment to operate under a suspended load
- Verify contractor notification procedures for critical lifts are being followed
- Insure staff conducting pre-work meetings is fully qualified to conduct such meetings