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## **CRANE BOOM FAILURE**

When a crane boom fails, watch out. As the heavy piece comes crashing down, lives can be snuffed out and thousands of dollars' worth of property damaged.

Crane boom failure can be one of the biggest disasters on a construction job; yet it can be caused by poor planning on the simplest lifting job.

The time to discuss crane boom failure is before it happens, not afterwards.

The two main causes of crane boom failure are overloading and improper loading.

Some of the specific things of which we constantly should be aware are:

- 1. Overloading for length, size, or angle of boom.
- 2. Improper calculation of load weight. Remember to include the weight of all rigging.
- 3. Boom too high.
- 4. Sudden release of load on near-vertical boom.
- 5. No boom stop to keep it from going over backwards.
- 6. Two blocking.
- 7. Attempting long side pulls.
- 8. Top block not centered overload.
- 9. Swinging load and not paying attention to centrifugal force on boom.
- 10. Load hitting boom.

- 11. Walking or turning too fast, causing load to swing and twist boom.
- 12. Failure to use tagline or other control on a load.
- 13. Chassis not level, causing side bend in boom.
- 14. Not using outrigger, or outriggers improperly shored.
- 15. Not enough counterweight, tipping the cab house and chassis.
- 16. Using boom with twisted members or braces. Makeshift repairs.
- 17. Improper maintenance.
- 18. Poor brakes. Worn clutch.
- 19. Failure to check boom.
- 20. Inexperienced or careless operation. Chance taking. Short cuts.