

HOISTING APPARATUS AND CONVEYORS

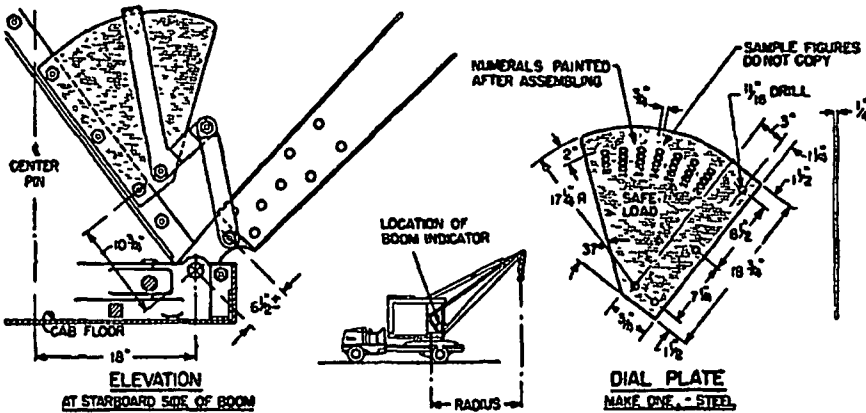


Fig 18-17. Some details for boom-indicating device that shows the safe load with the boom at any angle. Notes (1) Verify all dimensions of the crane before fabricating the indicator. (2) After assembling the indicator, ascertain from the manufacturer of the crane the radius at which each additional 1,000 pounds may be lifted safely. Raise or lower the boom to give the desired radius and paint the figures on the dial at the proper point. (3) Note that the boom radius is from the center pin of the crane, and not from the boom hinge pin.

From Consolidated Edison Company of New York and from "Handbook of Rigging" W E Roussagel
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in safety, he must have an unobstructed view of the load hook and the point of operation at all times. He must also be able to see ahead of the crane when it is traveling on the ground, whether the chassis is moving forward or backward.

On some cranes, visibility ahead is obstructed, and the operator must use extreme caution.

A crane operated after dark should have clearance lights. Floodlights should illuminate the area beneath the boom, and lights mounted on the underside of the boom are recommended.

A warning bell or horn is a necessary piece of equipment for a mobile crane

Men should be kept beyond the range of the cab swing and out from under the boom and the load

Locomotive and automotive crane's frequently present a serious shear hazard between the side of the operator's cab near the counterweight and the side of the car body or chassis. Many a man has been killed

by being caught in this shear point Fig 18-18 shows one way of guarding this location on a locomotive crane

A guard consisting of two segments of metal attached one to each side of the cab and suspended in a horizontal position by chains is available commercially. This guard completely covers the shear points in all positions of the cab. Since legal restrictions on the width of vehicles traveling on highways prevent use of such a guard on an automotive crane, other methods must be employed. An alarm can be installed to sound when an operator first touches the slewing lever and before the crane begins to move, so the man has time to jump clear of the hazard.

Also, a bar gate can be installed, so placed that a man must move it to reach the box of tools, shackles, clips, and similar items that usually is located on the chassis. Movement of the gate causes an alarm to sound in the crane cab, warning the operator not to slew the crane.

Mirrors can be placed so that the opera-