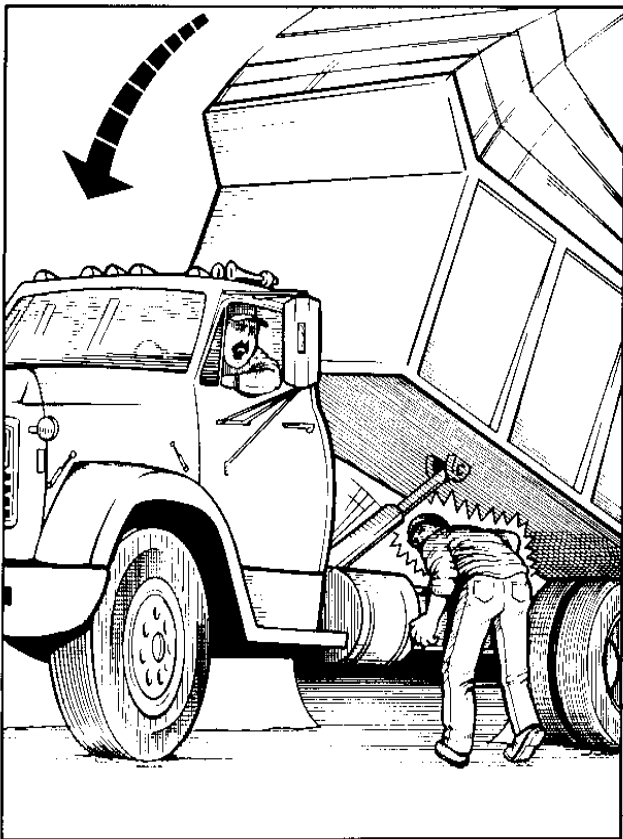


SAFE WORK



No. 148
March 2006

SUPPORT OF RAISED DUMP BOXES



Blocking of Dump Boxes

Serious injury and death have resulted from entry between raised dump boxes and truck chassis.

Never work under a raised dump box without first securely blocking the box in the elevated position.

Entry into pinch points, without first mechanically securing the movable portions is extremely dangerous. Hydraulic and mechanical failure, or human error in the handling of controls, can cause the pinch point to close very quickly, causing injury or death.

Methods of mechanical blocking may vary, depending upon the hoist and truck type. *Be sure to consult the manufacturer of the equipment to ensure that the procedure used to block the raised dump box is proper and adequate to support the elevated load.*

Preferred method of blocking:

- 'Stiff legs' permanently attached to the box subframe, which pivot and rest on the truck frame when the box is elevated.

Minimum requirements for blocking:

- A block of timber at least 6" x 6" x 5' (15 cm x 15 cm x 1.75 m) placed across the truck frame between the box subframe and truck frame, as near as possible to the box hinge point.
- Two pieces of timber, at least 4" x 4" x 5' (10 cm x 10 cm x 1.75 m) placed vertically between the tandem tires and blocked securely against the box understructure. (The box should be lowered onto the blocking to neutralize hydraulic or mechanical energy.)
- Pin locks provided by the manufacturer to secure truck box in elevated position.

All cables and controls under the truck should be housed in appropriate covers. This is to prevent intentional or accidental operation by a worker while under the truck or between the box and frame.

At all times, when servicing is required under a raised dump box, the box must be secured mechanically to prevent its being lowered. After securing the box, entry should be made from below the truck chassis. **Placement of the body or limbs between the chassis and box subframe should be avoided wherever possible.**

Installation and Use of Hydraulic Cylinders on Truck Boxes

When installing a hydraulic cylinder, there are times when the cylinder must be extended to enable it to be attached on a truck box. Manufacturers of hydraulic cylinders design and certify them for use with hydraulic fluids only.

Air is not to be used in the cylinder to suspend a load or retract the cylinder due to the unpredictability and compressibility of air. When compressed air is used in a hydraulic cylinder, the movement may be erratic due to the properties of the air. Hydraulic fluid is a non-compressible fluid designed to extend and retract the cylinder in a smooth, controlled manner.

When a truck mounted hydraulic system is not able to provide hydraulic fluid to the truck box hydraulic cylinder, alternative methods and equipment, other than compressed air, may be used to extend and retract the hydraulic cylinder. If alternative methods and equipment are to be used, a job hazard analysis to identify hazards needs to be performed to ensure worker safety. Based on the job hazards analysis, a safe work procedure is to be developed and workers instructed on the safe way to extend and retract the hydraulic cylinder, prior to alternative methods being used.