

potential trajectory of the lock ring of a multi-piece wheel rim.

(b) To prevent injury from wheel rims during tire inflation, one of the following shall be used:

(1) A wheel cage or other restraining device that will constrain all wheel rim components during an explosive separation of a multi-piece wheel rim, or during the sudden release of contained air in a single piece rim wheel; or

(2) A stand-off inflation device which permits persons to stand outside of the potential trajectory of wheel components.

**§57.14105 Procedures during repairs or maintenance.**

Repairs or maintenance on machinery or equipment shall be performed only after the power is off, and the machinery or equipment blocked against hazardous motion. Machinery or equipment motion or activation is permitted to the extent that adjustments or testing cannot be performed without motion or activation, provided that persons are effectively protected from hazardous motion.

**§57.14106 Falling object protection.**

(a) Fork-lift trucks, front-end loaders, and bulldozers shall be provided with falling object protective structures if used in an area where falling objects could create a hazard to the operator.

(b) The protective structure shall be capable of withstanding the falling object loads to which it could be subjected.

**§57.14107 Moving machine parts.**

(a) Moving machine parts shall be guarded to protect persons from contacting gears, sprockets, chains, drive, head, tail, and takeup pulleys, flywheels, coupling, shafts, fan blades; and similar moving parts that can cause injury.

(b) Guards shall not be required where the exposed moving parts are at least seven feet away from walking or working surfaces.

**§57.14108 Overhead drive belts.**

Overhead drive belts shall be guarded to contain the whipping action of a

broken belt if that action could be hazardous to persons.

**§57.14109 Unguarded conveyors with adjacent travelways.**

Unguarded conveyors next to travelways shall be equipped with—

(a) Emergency stop devices which are located so that a person falling on or against the conveyor can readily deactivate the conveyor drive motor; or

(b) Railings which—

(1) Are positioned to prevent persons from falling on or against the conveyor;

(2) Will be able to withstand the vibration, shock, and wear to which they will be subjected during normal operation; and

(3) Are constructed and maintained so that they will not create a hazard.

**§57.14110 Flying or falling materials.**

In areas where flying or falling materials generated from the operation of screens, crushers, or conveyors present a hazard, guards, shields, or other devices that provide protection against such flying or falling materials shall be provided to protect persons.

**§57.14111 Slusher, backlash guards and securing.**

(a) When persons are exposed to slushing operations, the slushers shall be equipped with rollers and drum covers and anchored securely before slushing operations are started to protect against hazardous movement before slushing operations are started.

(b) Slushers rated over 10 horsepower shall be equipped with backlash guards, unless the equipment operator is otherwise protected.

(c) This standard does not apply to air tuggers of 10 horsepower or less that have only one cable and one drum.

**§57.14112 Construction and maintenance of guards.**

(a) Guards shall be constructed and maintained to—

(1) Withstand the vibration, shock, and wear to which they will be subjected during normal operation; and

(2) Not create a hazard by their use.