



This safety resource was written for the recycled materials industry by the recycled materials industry and was developed to assist you in making your recycling operation a safe place for employees, customers, and visitors. This resource covers OSHA requirements that may or may not be applicable to your operation.

HYDRAULIC CAST BREAKER

DEFINITION: Hydraulic powered box type machine used to crack or crush castings such as motor blocks by means of a cylinder-mounted breakerhead.

Potential Hazards:

- Aerosolized particles
- Electric shock
- Fire
- Flammable gas/vapor/liquids
- Hazardous fumes
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces
- Caustic washing solutions
- Swinging/suspended/falling material during loading
- Flying metal fragments

Guarding/Shielding:

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, gates, and flying material. Access/loading doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.
- Shielding including overhead protection must be provided for ground operator.
- Mobile equipment used to load Cast Breaker should be equipped with shatter proof windshields or expanded steel in front of factory windshield.
- Controls must be positioned or guarded to prevent damage by workers or equipment.
- Power transmission parts including gears, shafts, and conveyor drives must be guard to prevent accidental entanglement.

Protective Equipment:

Hard hats*

Safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

**minimum requirements*

Safety Procedures:

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/ servicing.
- Designate a safe zone around Cast Breaker to prevent injury to pedestrians.
- Determine, through air monitoring, whether use of respirators is required.
- Practice good housekeeping to prevent slips/falls.
- Maintain adequate drainage/collection of fluids.
- Maintain proper number and location of emergency stops.
- Eye wash station must be near area where oil/fluid splashes could occur.
- Fire extinguishers should be near dryer, well labeled, with unobstructed access.
- Post emergency shut-down procedures.
- Dryer frame must be grounded to minimize spark ignition hazard.
- Stairs and walkways should be built from material to offer maximum protection and traction even if covered with oils.
- Precautions should be taken to prevent the tracking of oils from the Breaker area.
- Warning signs should indicate area of hazardous operations and appropriate restrictions.
- Warning signs should indicate PPE requirements prior to entrance.