

Case 177. 40-year-old male machine operator was killed when the hydraulically operated door of a shot blast machine closed while the decedent's head and upper chest was inside the machine.

A 40-year-old male machine operator was killed when the hydraulically operated door of a shot blast machine closed while the decedent's head and upper chest was inside the machine. When the required number of parts accumulates into the shot blast machine's loading mechanism, the operator pushes a single activating button to start the automatic cycle of the machine. The shot blast machine hydraulic door opens and the loading mechanism dumps the parts to be machined into the shot blast machine. After dumping the parts, the loading mechanism returns to original position. After the loading mechanism has returned to its original position, the hydraulic door of the shot blast machine requires 7 to 8 seconds to close with 3000-psi pressure. During the loading cycle and the opening and closing cycle of the shot blast machine door there was an audible alarm that sounded. MIOSHA compliance personnel noted that the audible alarm could barely be heard over the noise of the machine. Upon completion of the cleaning cycle the door of the shot blast machine opens and the machine tips forward and dumps the cleaned parts on to a shaker conveyor and then returns to its original position. Once the machine is back into the cleaning position, a limit switch is made and the door would automatically close after 70 seconds, automatically starting the shot blast machine unless the operator switches the machine from automatic to manual mode. When the shot blast machine is in the automatic mode, if the shot blast door remains open for more than 70 seconds, the door will close automatically. The operator can interrupt the shot blast machine's cleaning and dumping cycles at any time while the machine is in the automatic mode.

It is unknown why the decedent was positioned with his chest and head inside the open door of the shot blast machine. He may have been reaching in to pick up parts that fell from the loading mechanism or performing a change over from one part to another. A coworker found him pinned by the door of the shot blast machine. His coworker requested the assistance of another coworker to remove the decedent from the machine. One of the coworkers manually changed to machine operation from automatic to manual to permit the opening of the shot blast door.

MIOSHA General Industry Safety and Health personnel issued the following Serious citation to the company:

SERIOUS:

GENERAL PROVISIONS, PART 1, RULE 34(9).
R408.10033 Machine Controls

When an employee was exposed to a hazard created by a pinch point other than point of operation, the hazard was not guarded or the employee was not otherwise protected.

- a. No guard, pinch point between skip loader and frame.

- b. No guard, pinch point between machine and frame on backside when machine lowers back down after dumping parts, all shot blast machines
- c. No guard, pinch point between door and shot blast machine.