

A **33 year old male** employee was **struck by** a 2200 lb tire mold when it fell from slings while attached to an overhead crane. The victim was elevating the tire mold to flip it over during the cleaning process.

When the molds needed to be repaired or cleaned they are brought over to the mold repair and cleaning area by the Bridgestone America employees who monitor the tire formers. The plate is first delivered to the primary cleaning station and if necessary, taken to the mold repair area for further cleaning or to be repaired. The employees in the repair area were all employed by Cumberland Machine Company.

The victim was tasked with cleaning the vent holes on the bottom plate of the D9-right mold for the Kobelco Tire Steam Former NN87. The mold plate that was being cleaned formed the largest tire Bridgestone produced and weighed approximately 2200 pounds.

In order to clean the steel plate, it is lifted by an overhead DeShazo 6-ton crane and hoist. Attached to the hoist are two LiftAll 2 inch polyester straps. On the outer edge of the steel plate are several bolt holes. Employees insert two, 9" X 1" bolts into the holes opposite each other. Around each bolt is a shop fabricated sleeve that allows the plate to be flipped over while suspended in order to service both sides of the plate. Once lifted, the plate is then lowered on to a work station table to be serviced and if needed would be flipped over to work on the other side of the plate.

On the day of the incident, the employee was in the process of flipping over the plate to clean the other side of it. While suspended above the table one of the bolts securing the plate to the slings of the overhead crane failed causing the plate to fall. The employee, while attempting to avoid the falling plate, tripped and fell. The plate hit the work table falling onto the ground on its edge. It then rolled until falling over, crushing the employee.

Citation(s) as Originally Issued

A complete inspection was conducted at the accident scene. Some of the items cited may not directly relate to the fatality.

Citation 1 Item 1

Type of Violation: Serious

\$7,000

TCA 50-3-105(1): The employer did not furnish employment and a place of employment which were free from recognized hazards that were causing or likely to cause death or serious physical harm to employees.

In that employees were exposed to a struck-by hazard as the load bolts, load bolt holes, and bolt sleeves were not engineered, rated, inspected, or utilized in a manner to ensure that they could lift and support tire molds while they were being cleaned which resulted in a fatality.



12 Struck by tire mold--Inspection #1480490 Cumberland Machine Co Inc

