

Overtured Equipment—Insp #1610411 CHC Mechanical Contractors Inc.

A **70 year old male** employee was operating a **mini excavator when it overturned**. The victim's torso struck another piece of equipment (skid steer) as he fell out of the excavator. He died as a result of internal trauma and bleeding.

This employer was hired to perform mechanical work including plumbing and HVAC in an existing building that was being converted into an emergency room. At the time of the incident, the victim was operating a Caterpillar 308.1 mini excavator and digging a shallow trench in the floor of the building where a sewer pipe was to be installed.

This task involved digging through the concrete floor of the building and removing the concrete with the mini excavator. A stand-up skid steer was positioned to the right of the excavator from the operator's seat and the victim was placing the spoils into the bucket of the stand-up skid steer so that it could be taken out of the building.

The excavator was situated such that the tracks were parallel with the ditch. The machine was completely straddling the ditch at the time of the incident such that the tracks were entirely on the concrete. The ditch had already been backfilled as the crew was installing the sewer pipe as they went. The ditch was 2' wide and 1' deep. The distance between the tracks on the machine measured 2'10". There were several pieces of rebar in the ditch. Most of the rebar, including one that was contacting the bucket of the machine had been bent. It is presumed that some part of the excavator or its tracks may have gotten hung on a piece of rebar causing it to turn over.

No one witnessed the machine overturning. It was determined that the victim's body likely struck the stand-up skid steer that was located next to where he was operating the excavator, when the excavator overturned. He was reportedly wearing his seatbelt.

An inspection of the machine determined that the roll over protection system (ROPS) which the machine had come equipped with, had been removed from the machine so that it would fit under the doorway to enter the building and additional doorways inside of the building. The ROPS was located outside of the building. The company president stated that the ROPS was not reinstalled once the machine was inside the building because they would have to remove and reinstall the ROPS every time it was necessary for the machine to be moved under a doorway.

It is not known exactly what caused the excavator to overturn, however rebar in the excavation was bent so it could have had some impact on the turnover, or possibly the excavator got off balance when it went off the edge of the concrete causing it to tip over.

Company management had evaluated the victim's equipment operating skills and determined that he was qualified to operate such machinery.

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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** **\$4,000**

29 CFR 1926.1000(b): Material handling equipment manufactured before July 15, 2019, was not equipped with a rollover protective structure:

In that an employee was fatally wounded when the 2017, Caterpillar 308.1 model mini excavator that he was operating overturned as the rollover protection system (ROPS) had been removed from the machine.



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