

Heavy Equipment Mechanic Dies Repairing Excavator

INCIDENT FACTS

REPORT #: 71-251-2024s

REPORT DATE: March 18, 2024

INCIDENT DATE: April 7, 2023

WORKER: 36 years old

INDUSTRY: Specialized freight trucking /
Mechanical contractors

OCCUPATION: Heavy Equipment
Mechanic

SCENE: Commercial construction site

EVENT TYPE: Mechanical asphyxia



A 36-year-old heavy equipment mechanic died while repairing a large excavator. He worked for his employer, a mechanical contractor, for three weeks. He had several years of work experience as a mechanic and operator. His job duties included maintaining construction vehicles, trucks, and trailers. He was married with young children.

The mechanic was installing a swing drive into the de-energized excavator. A supervisor showed up at 9 am to check the work and arranged to have new hydraulic hoses delivered to the mechanic. He then left the jobsite. After the hoses were dropped off, an assistant came to help the mechanic. They completed installing the swing drive just before noon. The assistant then left the site as the mechanic planned to install the hoses by himself. Another supervisor who was getting ready to leave asked the mechanic if he needed anything. The mechanic said no, so the supervisor left him alone at the site.

At 1:45 pm, the assistant texted and called the mechanic but got no response. The first supervisor texted the mechanic almost an hour later but also got no response and thought he went home. At about 5:30 pm, the mechanic's wife left a voice message on the employer's call service asking about her husband. A worker heard the message and texted the supervisor, but the text failed to reach him. The mechanic's wife also called a family friend. The friend did not know where the mechanic was but was able to get directions to the site from a worker.

The worker also contacted the supervisor, whose GPS showed the mechanic's service truck was still at the site. Now around 40 miles away, he began driving back to the site. The friend arrived there first, found the mechanic unresponsive and upside down in the swing drive compartment, and called 911. First responders pronounced the mechanic dead at the scene. The medical examiner reported the mechanic died from suffocation caused by being trapped in a head-down position.

Following the incident, investigators found:

- The mechanic had prior experience installing excavator swing drives.
- Ratchet straps, a come-along, and tools for the job posed trip hazards near the swing drive compartment.
- The boom side operator's cab window was shattered presumably when the incident happened.
- The employer had no written safety policy for lone workers.



Photo 1. Excavator that was being repaired.



Photo 2. Swing drive compartment where mechanic was trapped. Arrow shows operator's cab where side window was shattered.

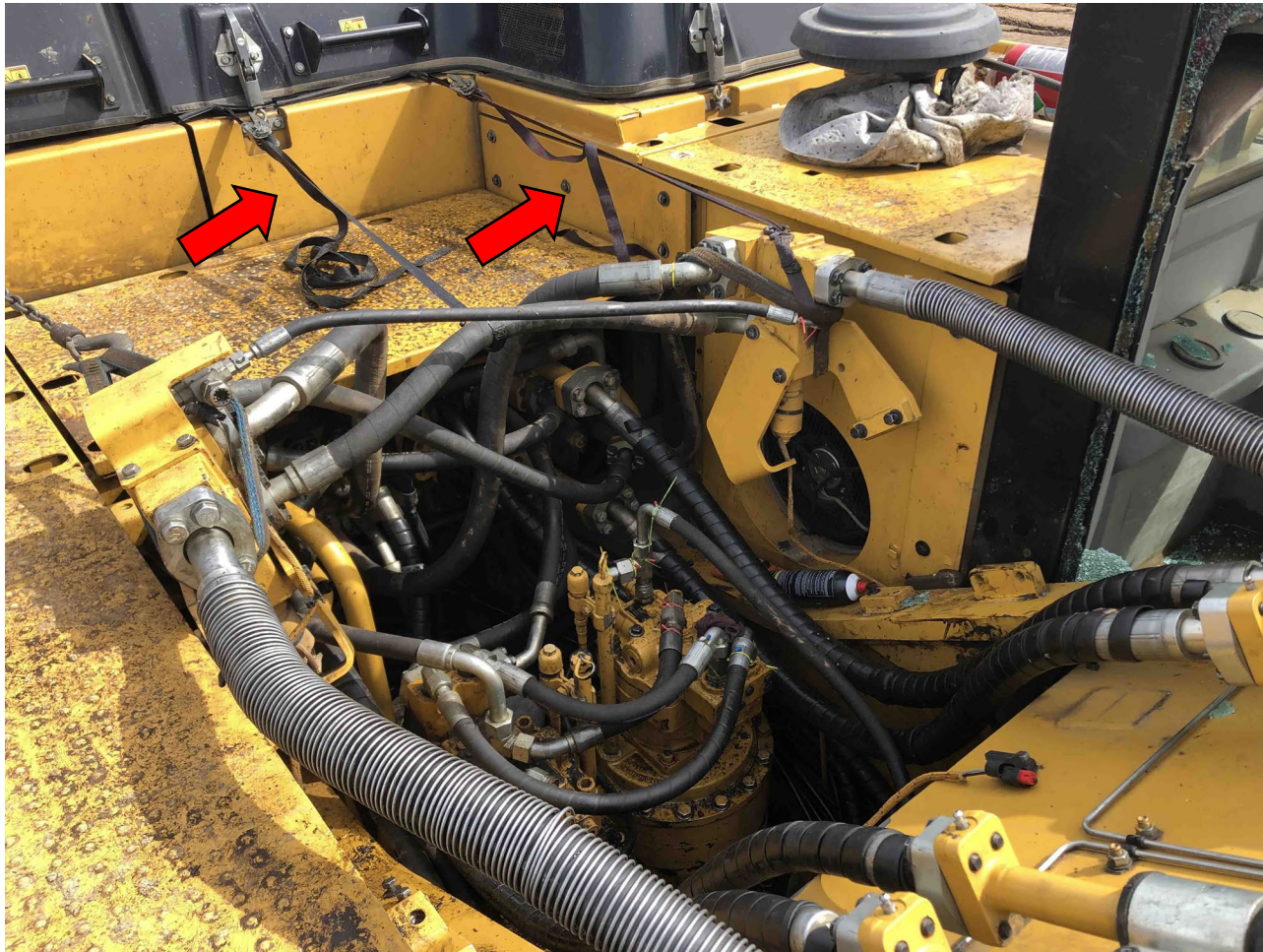


Photo 3. Diagonal view of swing drive compartment. Arrows show ratchet straps extending across platform to hold hydraulic components.



Photo 4. Arrows show how ratchet straps and a come-along pose trip hazards on the platform around the swing drive compartment.

Requirements

Employers must:

- You must provide your employees a workplace free from recognized hazards that are causing, or are likely to cause, serious injury or death. See [WAC 296-800-11005](#)

Recommendations

FACE investigators concluded that, to help prevent similar occurrences, employers should:

- Develop and enforce policies and standard operating procedures (SOP) in their written accident prevention program (APP) that:
 - Prohibit lone work and instead require using a buddy system where workers team up so they can observe each other and assist quickly when someone becomes endangered.
 - Require a formal job hazard analysis (JHA) be conducted jointly by supervisors and workers to identify hazards for lone work. Prevent hazards by implementing less hazardous work practices.

Recommendations

- If lone work is unavoidable, provide and require use of lone worker monitoring technology or communication procedures, such as two-way radios, in-person check-ins, wearable panic buttons or worker down apps for cell phones.
- Require supervisors to routinely observe workers to ensure they are following policies and procedures.

Resources

[Using Lone Worker Monitoring Technology to Protect Workers](#)

National Safety Council

FATALITY NARRATIVE



This narrative was developed to alert employers and workers of a tragic incident in Washington State and is based on preliminary data ONLY and does not represent final determinations regarding the nature of the incident or conclusions regarding the cause of the fatality.

Developed by the Washington State Fatality Assessment and Control Evaluation (FACE) Program and the Division of Occupational Safety and Health (DOSH), Washington State Dept. of Labor & Industries. The FACE Program is supported in part by a grant from the National Institute for Occupational Safety and Health (NIOSH grant# 5U60OH008487). For more information visit www.lni.wa.gov/safety-health/safety-research/ongoing-projects/work-related-fatalities-face.