



IUEC INCIDENT SUMMARY

CLOSE CALLS & INJURIES

INJURY

FEBRUARY 9, 2024



Description of Incident

Control Type: Electric

Machine Type: Chain Drive

Speed: 30 ft/min

Capacity: 700 lbs.

Rise: 3 Floors

Hoistway Configuration: Simplex

JHA/JSA Completed: Yes

- A repair team was repairing a broken chain link on the suspension means on a residential lift.
- The link they replaced was on the counterweight side. After completion of the repair, they sent the car on automatic from the bottom floor to the top of the three stop hoistway, and the car ran with no issues.
- The mechanic instructed the apprentice to ride the car to verify operation. On the first trip down the apprentice felt a slight jerk and he opened the gate stopping the car between floors. It was noticed there was a small amount of slack on the car side chain.
- The mechanic bumped the car up to remove the slack with the apprentice still inside the car. As soon as the car moved, the chains on the car side broke loose and the car crashed into the pit.
- Upon investigation, slide marks on the rails were discovered but the safeties did not stop the car. The pit is only 4 inches deep and the car with the apprentice inside crashed onto the pit floor.

Current Status:

The apprentice is at home recovering with 4 broken vertebrae and a hematoma.



Recommendations & Lessons Learned

- Always follow the company safety policy
- Always perform a JHA/JSA as per company policy
- Always follow the (MCP) Maintenance Control Program
- When no onsite documentation is available due to age of equipment, guidance can be found in ASME A17.2.
 - Item 2.21 Chain-Drive Machines
 - Item 2.29 Car and Counterweight Safeties

Possible Root Causes:

- Excessive wear on the master link that connects the chain to the car-side hitch
- Lack of experience and training on this type of equipment
- No enforcement of maintenance and testing requirements

ASME A17.1/CSA B44 Elevator Code

Section 8.6 Maintenance, Repair, Replacement, and Testing

Safeties shall be examined and tested in accordance with section 8.6.4.19.2.

