Using Reach Forklifts as Cranes

Using reach forklifts, a type of powered industrial truck (PIT), to lift and move suspended materials can be hazardous. These activities can change the capacity and handling of the PIT. Recent severe incidents include tip overs, contacting power lines, and workers struck by loads.

DETAILS

REPORT #:
47-28-2020

REPORT DATE:
June 20, 2020

INDUSTRIES:
New Single-Family Housing Construction
Industrial Building Construction
Framing Contractors
Specialty Trade Contractors

OCCUPATIONS:
PIT operators and workers in the area

HAZARDS:
PIT tip over
Electrocution
Struck-by

EXAMPLES

TASK
Using a reach forklift to place 1300lb steel trusses.

HAZARDS
Workers were on foot in the fall zone while the operator picked and moved the trusses. The employer used new slings and a new beam clamp but did not realize that this method needed to be approved by the manufacturer.

TASK
Using a rough terrain reach forklift to place 3000lb steel purlins.

HAZARDS
The chain wrapped around the carriage, outside of the 24" load center, created a tip-over hazard. The operator’s manual warned, “Do not suspend loads using slings or chains directly from the forks or fork carriage”.

TASK
Using a reach forklift to place 850lb wood wall sections.

HAZARDS
Workers were directly under the sections as they were being placed. The winch attachment slid onto the forks. The manufacturer and rating of the attachment were unknown.

TASK
Using a reach forklift boom to hoist a 1900lb sculpture.

HAZARDS
With the carriage removed, they used a chain wrapped around the knuckle pin, a come-along, and a sling to rig the sculpture. Plastic zip ties were used to keep the chain on the hook while workers positioned the sculpture.

REQUIREMENTS

• You must have written approval from the PIT manufacturer before making any modifications to the PIT. See WAC 296-863-20010 for details.
• You must protect workers around PITs. See WAC 296-863-40005 for details.
• PITs configured to hoist and lower (by means of a winch or hook) and horizontally move a suspended load are considered power-operated cranes. See WAC 296-155-52900.

RESOURCES

• Forklift Safety Guide
• Forklift Training for Trainers
• Most manufacturers provide electronic versions of operator’s manuals and lift charts online.