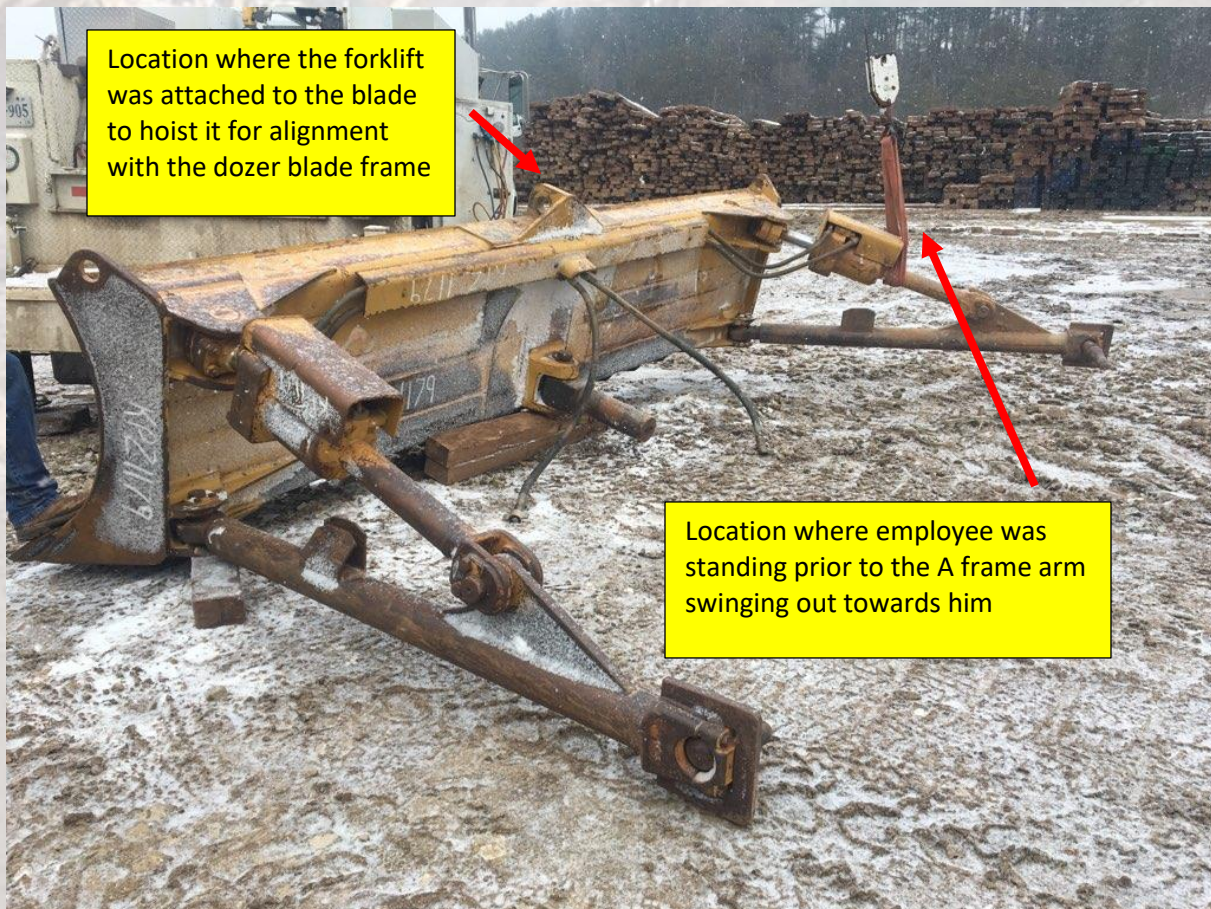


# Safety Alert

## Installing or Removing Dozer Blades

On 11/28/2018, an employee was helping a mechanic during the installation of a dozer blade and was standing near the right side of the blade, close to the A-frame arm. The blade was being hoisted using a forklift attached to the center lifting lug on top of the blade in order to line it up with the dozer blade frame. The mechanic was signaling the forklift operator to hoist the blade slow and easy. However, the forklift operator pulled the lever with a little more force than anticipated which caused the boom to raise rapidly and resulted in the A-frame arm swinging out and down towards the employee when the weight shifted, knocking him to the ground. The employee's left leg and foot were momentarily pinned beneath the A frame arm and the ground. The mechanic signaled to the forklift operator to raise the boom which lifted the entire blade, freeing the employee.

The industry experiences multiple injuries each year from dozer blade installation. Most predominantly these injuries occur when the pin of the A-frame is inserted into the socket of the C-frame and placed in a bind. As the operator maneuvers the C-frame to complete installation, the energy is released, and the A-frame swings out with great force.



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## Path Forward

- Provide training to all employees on line of fire situations during dozer blade installation
- Prior to installation, a hazard assessment must be completed
  - Line of fire areas must be emphasized, and exclusion areas set
  - These areas include potential movement of A-frames prior to hydraulic hook up and after hydraulic hook up (i.e. when installing the center pin and when lining up A-frame pin/socket)
- The “short-corner” should always be installed first
  - The operator has limited view of installation of short corner
  - Installation of short corner first provides needed “play” in blade
- The “long-corner” is installed second
  - The operator has full view of ground employee and connection point
- When removing the blade the order of removal does not matter, however, to maintain consistency have a set approach (i.e. always start with short corner installing, start with short corner removing)
- Install blade on as even as terrain as possible
  - Utilize equipment (i.e. excavator or mechanic’s crane) when installing A-frames in less even terrains
- Never try to “man-handle” the A-frame during installation
- Recognize the stored energy present when pin is inserted in bolster
  - Recognize the potential for stored energy release
- Ensure the mechanic and operator maintain communication throughout installation process
  - Every crew member has STOP WORK AUTHORITY
  - Only properly skilled operators should complete the task



Kickback can occur from the pin being partially inserted in the socket of the C-frame. Pressure put on the C-frame from the operator results in the socket sliding down the taper of the pin.



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Danger Zone of A-frame

