



July 11, 2022

## Technical Bulletin - Main Hoist & Cradle Installation Guidelines

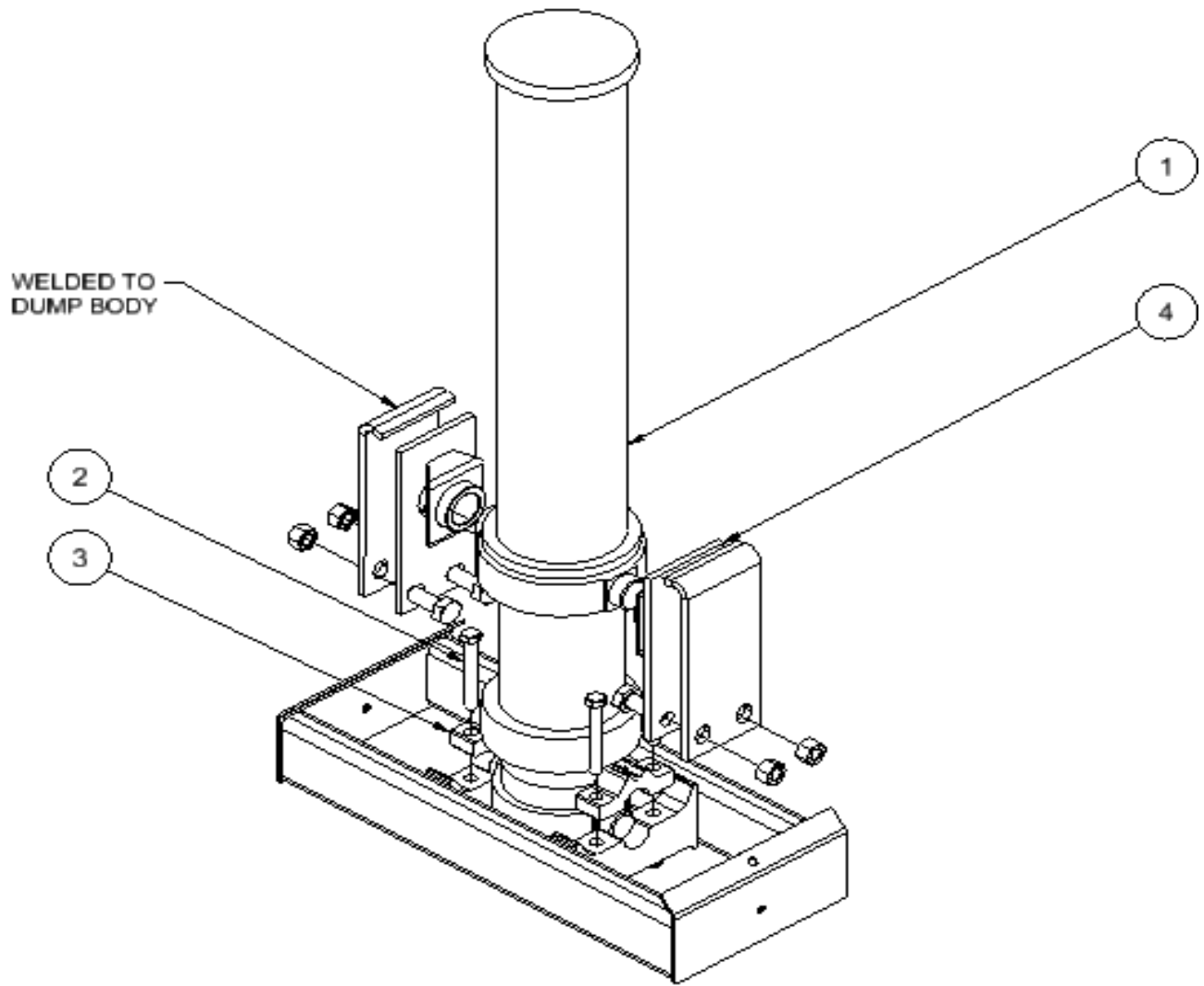
Dear Valued Partners,

This memo provides guidelines for the installation of trunnion mount main hoist cylinders and cradles on the truck chassis and the dump body. The installation of the cylinder and cradle on to the dump body and truck chassis, respectively, is critical to the safety and proper operation of the dump truck.

Please refer to the following procedure and figures.

### Part 1: Mounting the Cylinder to the Cradle and the Dump Body

- a) Remove fasteners and lock nuts ② and upper cradle blocks ③.
- b) Mount cylinder ① into cradle, then reinstall the upper cradle blocks ③.
- c) Tighten fasteners and lock nuts ② securely in place.
- d) Slide upper trunnion blocks ④ onto cylinder's trunnion mounts.
- e) Align the trunnion blocks ④ with holes of trunnion block brackets and tighten them in place with provided hardware to 375 ft-lbs. *Note: Cylinder may need to be partially extended to allow access to nuts and bolts for torquing.*



*Figure A – Mounting the Cylinder to the Cradle and the Dump Body*

## **Part 2: Mounting the Dump Body (with Cylinder Installed) & Cradle to the Truck Frame**

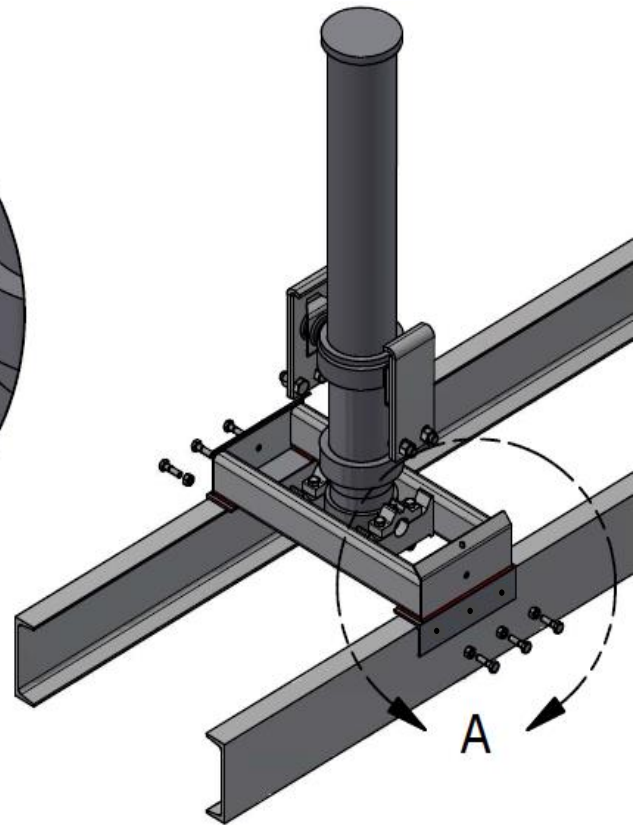
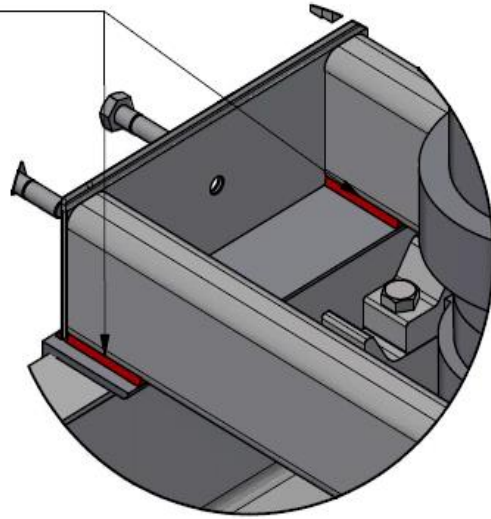
*Note: Alignment & installation of the dump body main hinge should be done at the same time as the cylinder cradle installation to ensure proper functionality of the dump body.*

f) Collapse the cylinder and locate the dump body on the truck frame at the desired position to achieve the required clearance at the front of the dump body, and the overhang at the rear of the dump body.

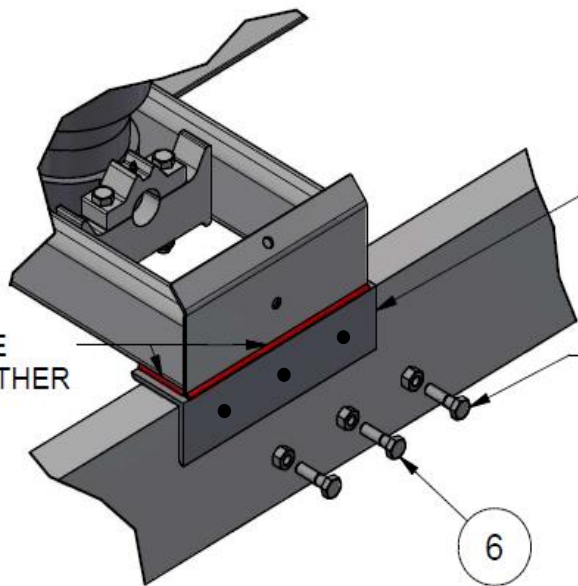
- g) Align the cylinder vertically with the front of the body. This will position the cradle on to the truck frame. Place the two angle irons ⑤ between the cradle assembly and the chassis frame. Extend the cylinder as required to allow the cradle to rest on the angle irons.
- h) Center the angle irons on the cradle, and tack weld in place.
- i) Drill 3 holes of 11/16" diameter through the frame and angle irons ⑤ for hardware installation ⑥ on each side.
- k) Install the 6 X 5/8"-18 bolts ⑥ supplied and tighten them to 230 ft-lbs.
- l) Weld both the exterior and interior surfaces of the cradle's ends & tubes to the angle irons to complete the installation as shown in Figure B. Ensure a weld bead of minimum 3/8" wide.

**Installation of cradle & cylinder is now complete. Visually inspect the welds for any defects and perform a functional check on the cylinder to ensure proper operation.**

FULLY WELD BOTTOM OF  
CRADLE AND ANGLE IRON  
(FRONT AND BACK)



FULLY WELD CRADLE  
AND ANGLE IRON TOGETHER



DRILL 3 HOLES  $11/16"$   $\varnothing$   
THROUGH CHASSIS AND ANGLE IRONS  
TIGHTEN PROVIDED 6 X  $5/8"$ -18 BOLTS  
AND NUTS AT 230 FT-LBS

Figure B – Mounting the Cradle to the Truck Frame