



# Technical Bulletin

## Cracked Frame Bearing Replacement for D-Series Clamps

D-Series Clamp frame bearings crack when not seated properly. The following instructions describe how to install and inspect frame bearings.

### Arm Assembly Removal

The following procedures can be performed with the attachment mounted on the truck.

- 1 Extend the arms. Lower the attachment to position the forks or arms .5 in. (12 mm) above the floor. Remove the cotter pin, locking cap and nut retaining the cylinder rod to the arm lug.
- 2 Attach a suitable overhead hoist and chain or strap to the arm. Keep chain or strap away from the arm bearing surface.



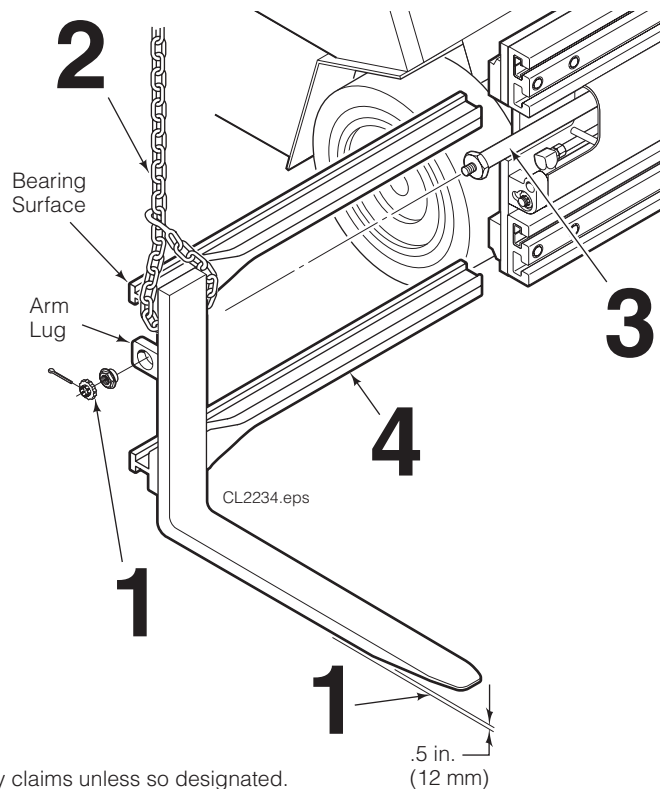
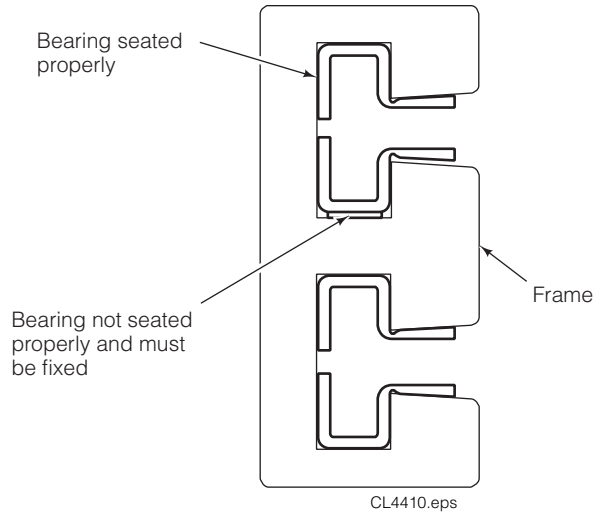
**WARNING:** Check the attachment weight (located on the nameplate) to make sure the overhead hoist and chains or straps are at least the rated capacity of the attachment.

- 3 Retract cylinder rod until they come out of engagement with the arm lugs.



**WARNING:** Keep fingers and feet out from under the forks or arms.

- 4 Pull arm assembly out of the frame.



**NOTE:** This information should not be interpreted as the basis for warranty claims unless so designated.

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#### For Technical Support . . .

Call: 1-800-CASCADE (227-2233)

OR

Write: Cascade Corporation, PO Box 20187, Portland, OR 97294-0187

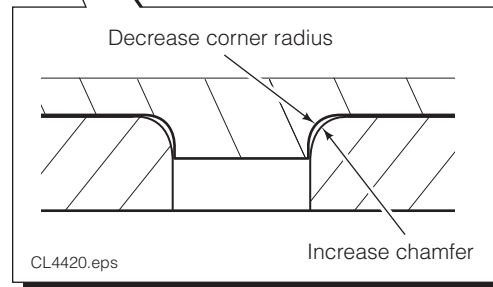
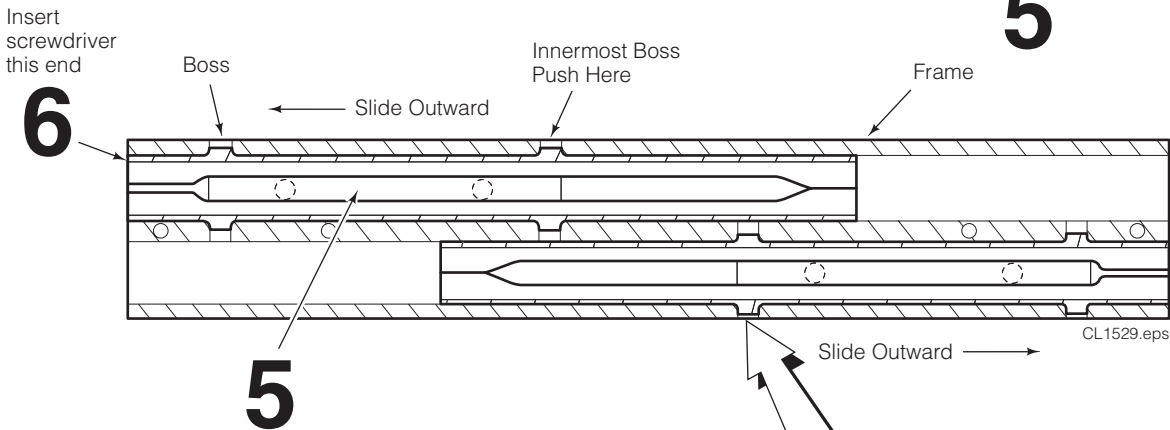
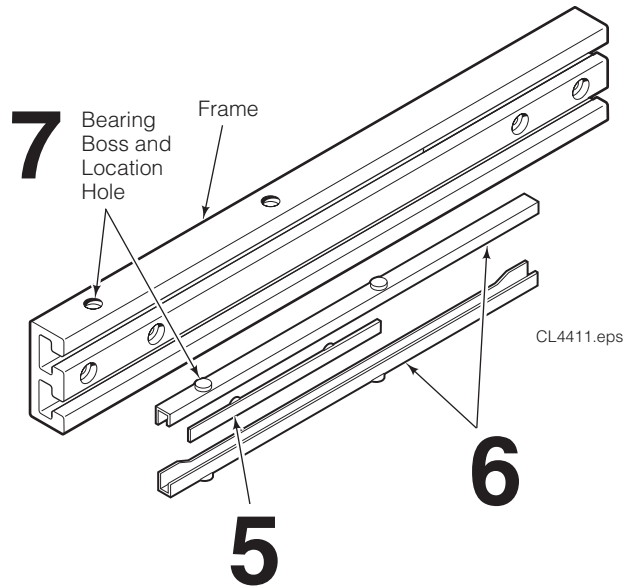
#### To Order Parts . . .

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Write: Cascade Corporation, 2501 Sheridan Ave., Springfield, OH 45505

- 5 Remove the bearing spacer located between the upper and lower bearing in each arm carrier slot.
- 6 Pry the bearings out of the frame with a screwdriver and slide outward.
  - CAUTION:** Do not gouge aluminum frame surfaces.
  - NOTE:** To ease removal of the first bearing from the frame, push the innermost boss out of its hole.
- 7 Modify the frame location hole and bearing boss.
  - Increase the inner chamfer on the fame locating hole.
  - Decrease the corner radius on the bearing boss.
- 8 Install bearings. Check for proper seating.
  - CAUTION:** If frame bearings are not properly seated, the bearings will crack after arm bar is installed.



- 9 For arm assembly installation, reverse steps 1 – 4 and in addition do the following:
  - Lubricate the cylinder rod threads, nut threads and spherical portion of nut with STP.
  - Install a hex washer on the rod end with the beveled side facing the lug.
  - Engage the rod into the lug.
  - Tighten the rod end nut to the following torque below. To prevent the rod from turning, use a wrench on the hex washer.
    - 25D, 35D, 40D, 50D** – 150–175 ft.-lbs. (200–235 Nm)
    - 70D, 80D** – 225–250 ft.-lbs. (305–340 Nm)
  - NOTE:** The rod end nut is being tightened against the hex washer. The nut will not be tight against the arm lug. This looseness allows for cylinder alignment during clamping.
  - Install locking cap and cotter pin.
  - Lubricate the bearing portion of the arm bars with a thin film of chassis grease.

