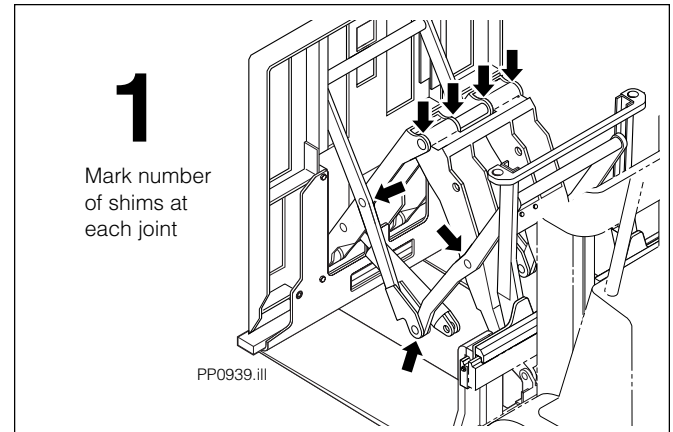


Technical Bulletin


Replacing Pivot Pins, Arms on E-Series Push-Pulls

This bulletin describes service techniques to assist in the replacement of mechanism pivot pins or primary and secondary arms on Cascade Push-Pull Attachments. Replacement can be accomplished without the use of an overhead hoist or crane. Tools required include a strap-type come-along, large C-clamps, lengths of wooden 2 x 4s and 4 x 4 wood blocking.

- 1 Before disassembly, count the number of shims at each pivot pin joint and mark the number on each joint.
IMPORTANT: Reassemble the unit with the same number of shims.

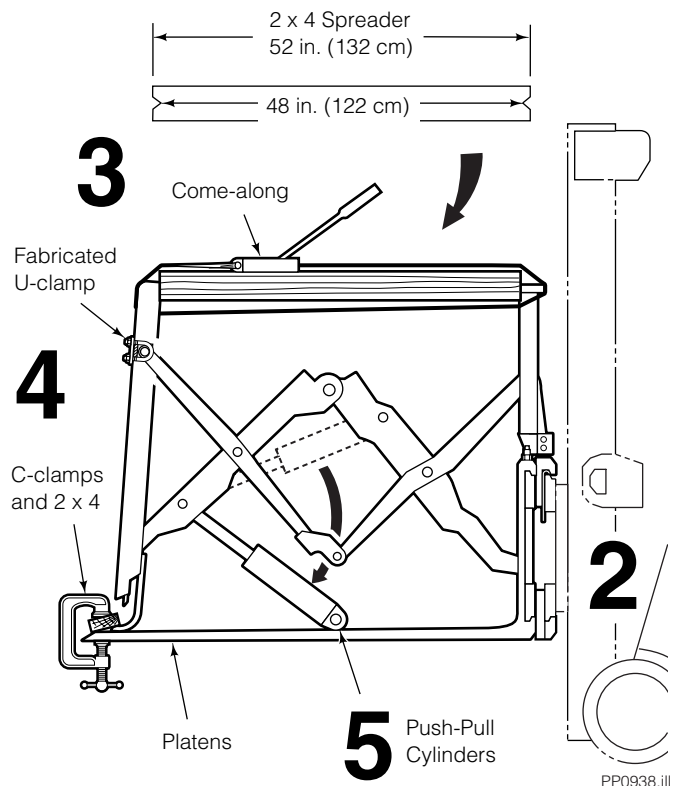


- 2 Raise the Push-Pull about 1 ft. (30 cm) off floor.
- 3 Make a 2 x 4 spreader as shown, to fit centered between the frame and faceplate. Secure in place with a strap-type come-along (see illustration).
- 4 Clamp the faceplate to the platens using 2 x 4s and C-clamps (see illustration). Fabricate a U-clamp (similar to a muffler clamp) to lock the mechanism cross-tube/pin to the faceplate. The mechanism will now be locked firmly in place,



WARNING: Before disconnecting hoses or tubes, relieve pressure in the Attachment hydraulic system. Turn the truck off and move the auxiliary control handle several times in both directions.

- 5 Disconnect the cylinder hoses and tubes and tag for reassembly. Cap the fittings and plug the hoses. Remove the cylinder headend mounting pins and allow the cylinders to rotate downward and rest on the platens.



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

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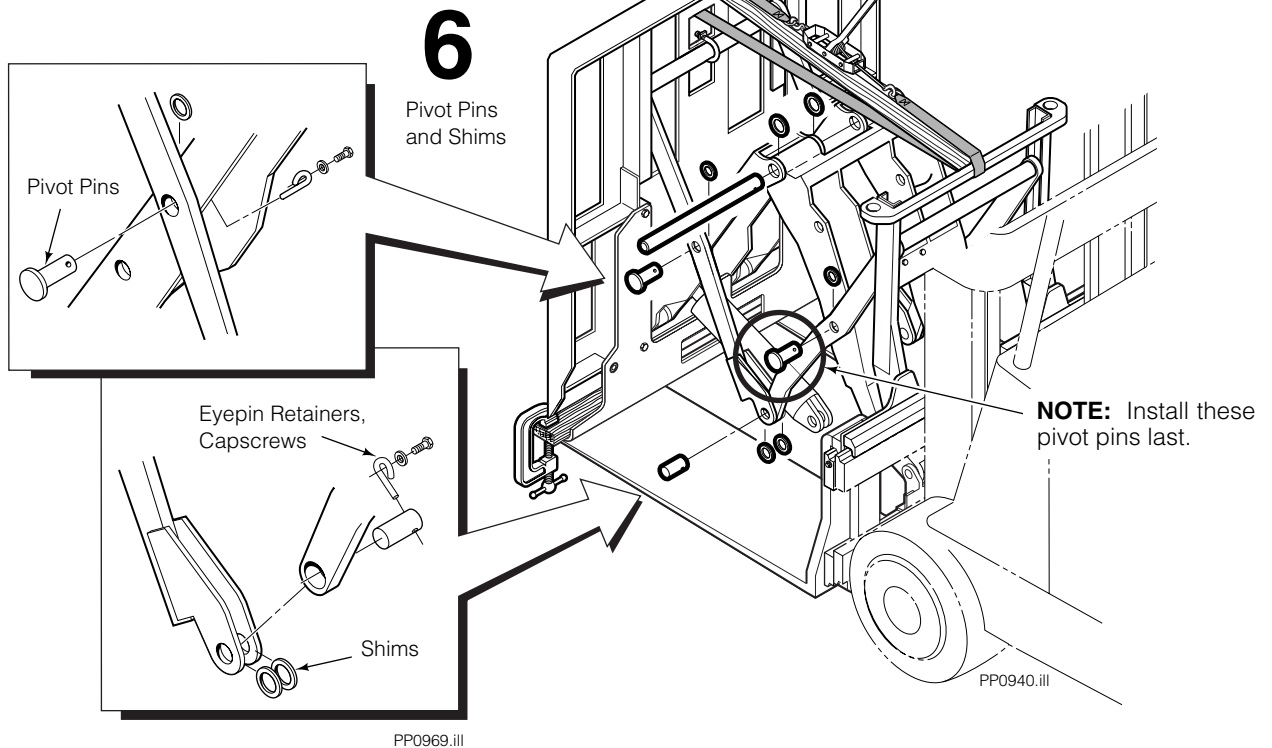
For Technical Support . . .

Call: 1-800-227-2233 Fax: 1-888-329-8207
 Internet: www.cascorp.com
 Write: Cascade Corporation, PO Box 20187, Portland, OR 97294

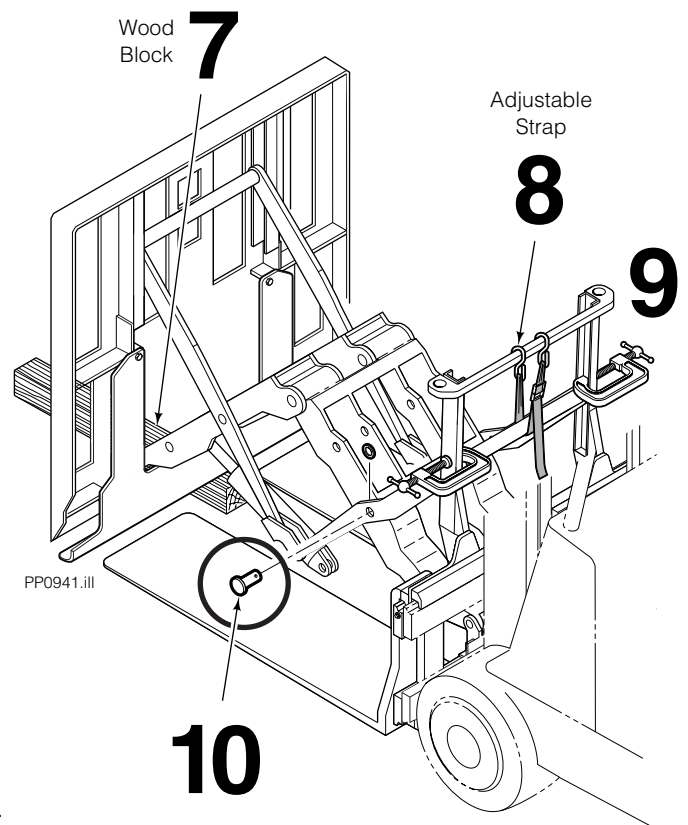
To Order Parts . . .

Call: 1-888-227-2233 Fax: 1-888-329-0234
 Internet: www.cascorp.com
 Write: Cascade Corporation, 2501 Sheridan Ave., Springfield, OH 45505

- 6** Remove and replace the pivot pins, or primary and secondary arms if required. Reassemble with the same number of shims (previously marked) in each joint. Tighten eyepin retainer capscrews to 10 ft.-lbs. (15 Nm). Lubricate all pins with general-purpose lithium-based chassis grease (NLGI grade 2). Remove come-along, spreader and C-clamps.



- 7** To install the last pins (circled), slowly lower the faceplate onto a 4 x 4 block placed between the platens, raising the faceplate about 1 in. (25 cm) off the platens.
- 8** Install a strap between the frame top crossmember and the cross-tube/pin of the mechanism. Adjust the strap to roughly align the last pin holes.
- 9** Install a C-clamp on each side of the bearing track on top of the cross-tube/pin to lock it in place.
- 10** Install the last pins and shims.
- 11** Raise the cylinders back into position in the arms and install the pivot pins/shims. Reconnect the hoses.



WARNING: After completing any service procedures, always test the Push-Pull through five complete cycles. First test without a load, then test with a load to make sure the Attachment is operating correctly before returning it to the job.

NOTE: Refer to Cascade *Service Manual* 686455 for complete service & maintenance procedures for the Push-Pull Attachment.