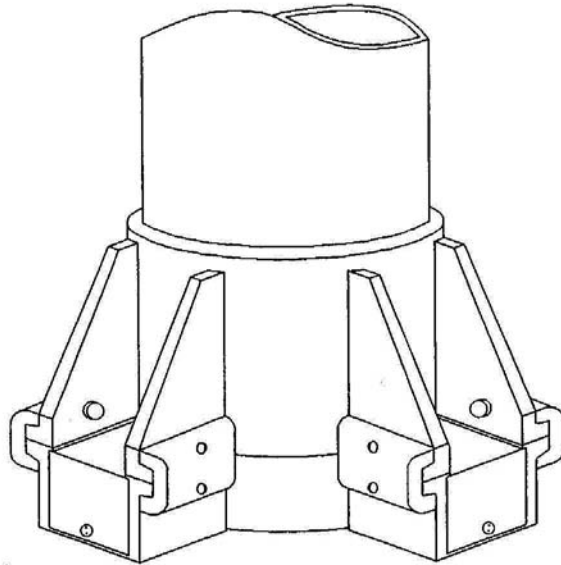


# X-BASE POLE FIELD REPAIR INSTRUCTIONS



**No warranty or representation, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose is extended by anything contained in these instructions. Hapco neither assumes nor authorizes any other person, firm or entity to assume for it any liability in connection with the approval for reuse of any pole which may be described in these instructions.**

# FIELD REPAIR OF X-BASE POLES



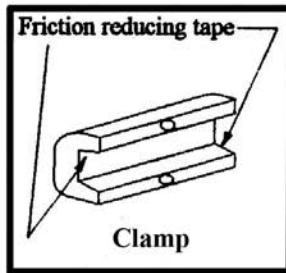
**WARNING:** READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY. IMPROPER REPAIR, INSTALLATION OR MODIFICATION COULD RESULT IN THE POLE FALLING OR FAILING TO BREAK WHEN HIT BY A VEHICLE AND COULD CAUSE SERIOUS INJURY OR DEATH.

## 1. IDENTIFY AND INSPECT PARTS

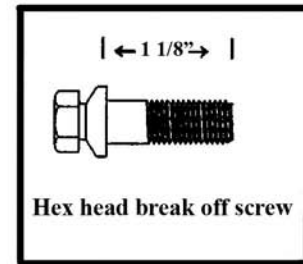
The field repair kit for poles to be reused consists of the following items:



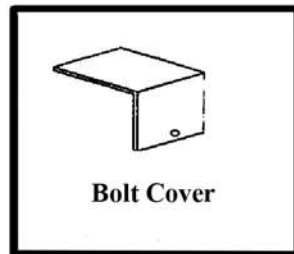
**FIGURE 1**



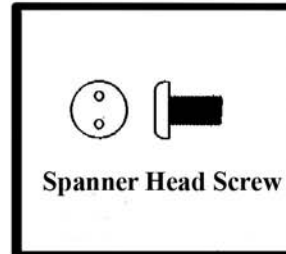
**FIGURE 2**



**FIGURE 3**



**FIGURE 4**



**FIGURE 5**

- Figure (1) Base lugs with friction reducing tape on bearing surfaces (4 ea.)
- Figure (2) Clamps with friction reducing tape on bearing surfaces (8 ea.)
- Figure (3) Hex head break off screws with left hand threads (16 ea.)
- Figure (4) Bolt cover (4 ea.)
- Figure (5) Spanner head screws (4 ea.)

**INSPECT REPAIR KIT TO MAKE SURE ALL PARTS LISTED ABOVE ARE INCLUDED. COMPARE REPAIR KIT PARTS BEING REPLACED TO MAKE SURE THAT POLE ASSEMBLED WITH NEW PARTS WILL FIT ON FOUNDATION ANCHOR BOLTS.**



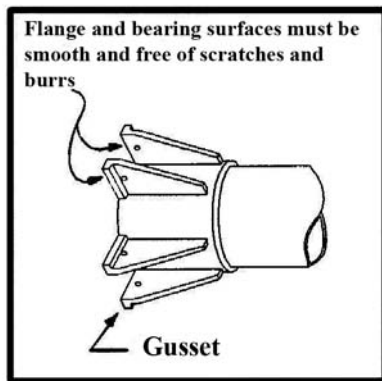
**CAUTION:** IF PARTS ARE MISSING, DAMAGED, APPEAR TO BE THE WRONG PARTS, OR HAVE PEELING, BUBBLING OR MISSING FRICTION REDUCING TAPE, DO NOT USE, INSTEAD CALL HAPCO AT 276.628.7171.



**WARNING: READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY. IMPROPER REPAIR, INSTALLATION OR MODIFICATION COULD RESULT IN THE POLE FALLING OR FAILING TO BREAK WHEN HIT BY A VEHICLE AND COULD CAUSE SERIOUS INJURY OR DEATH.**

## **2. DETERMINE IF POLE IS REUSABLE**

The decision to reuse any pole rests solely with the customer, and by providing a field repair kit and instructions for the use of any such kit, Hapco assumes no liability for either the decision to reuse any pole or the approval of any pole for reuse. Field repair of X-Base poles should only be performed if structural damage from vehicle impact will not affect the performance of the pole. Poles should be carefully inspected for any damage which could adversely affect the performance of the poles.



**FIGURE 6**

Remove and discard all old clamps, including broken clamps and any clamps which did not detach from the gussets during vehicle impact.



**CAUTION:** In no event should a pole be reused if any of the following damage is present:

- 1) Shaft is bent or fractured.
- 2) One or more of the gussets is bent or fractured.
- 3) Weld is cracked.
- 4) Bottom surface of any gussets has deep scratches or burrs (greater than 1/32"), dented corners or edges, or excessive scratches and burrs.

## **3. PREPARATION OF X-BASE POLE FOR REUSE**

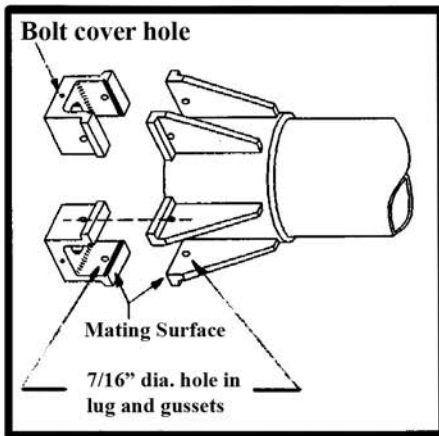
If pole is acceptable for reuse, the following steps should be taken:

- 1) Remove all burrs and debris from the gusset flange and bearing surfaces. Burrs can be removed with a file. **CARE SHOULD BE TAKEN TO REMOVE THE BURRS AND NOT THE SURROUNDING GUSSET MATERIAL. Removal of gusset material will cause a poor fit between the gusset and clamp which weakens the joint.**
- 2) Wipe all gusset flange and bearing surfaces clean with a damp cloth. Inspect all surfaces to ensure that they are smooth and free of burrs.



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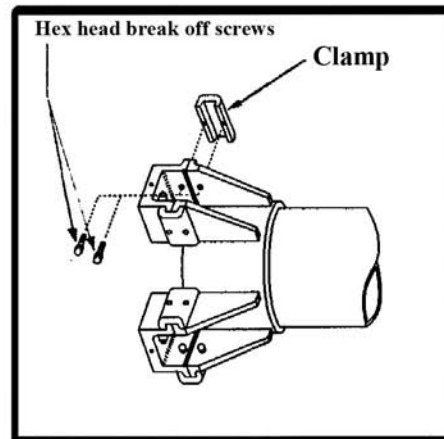
#### 4. ATTACHMENT OF LUGS



**FIGURE 7**

1) Lugs are to be positioned as shown in Figure 7. Bolt cover holes are to be facing away from pole and 7/16" diameter holes are to be in line with one another as shown in Figure 7.

**NOTE:** Mating surfaces must be clean and free of debris.

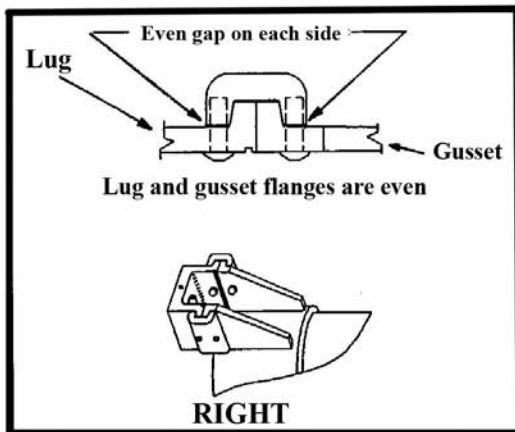


**FIGURE 8**

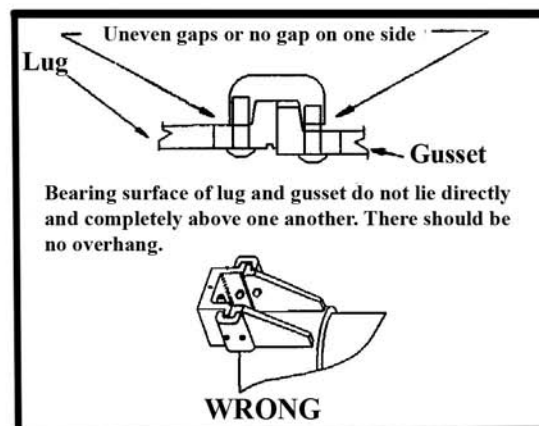
2) Attach clamps to base lug and gussets with hex head break off screw as shown in Figure 8. Line up edges of base lug and gusset and alternate tightening of hex head break off screws so the assembled clamp will appear as shown in Figure 9. The screws have left hand threads. Turn counter clockwise to tighten until hex head breaks off.



**WARNING:** DO NOT REMOVE FRICTION REDUCING TAPE. The friction reducing tape allows the pole to break loose from the base when hit by a vehicle, thereby reducing the risk of injury to the occupants of the vehicle. IF THE FRICTION REDUCING TAPE IS DAMAGED OR MISSING FROM ANY OF THE PARTS, DO NOT USE. INSTEAD CALL HAPCO AT 276.628.7171.



**FIGURE 9**

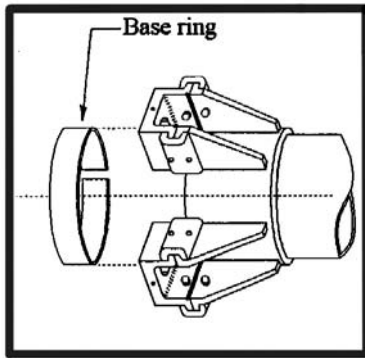


**FIGURE 10**



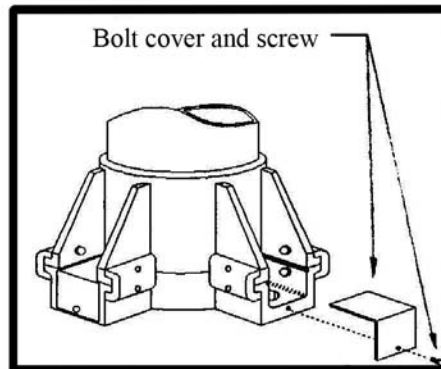
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## **5. ASSEMBLY FOR BASE RING AND BOLT COVERS**



**FIGURE 11**

- 1) Insert base ring from pole to be reused between base lugs as shown in Figure 11.
- 2) Install pole on level surface and tighten 1" anchor bolt nuts.
- 3) Secure bolt covers to base lugs as shown in Figure 12.



**FIGURE 12**

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