

## BIRRANA A13030 STRUT PIN TO SUIT KOMATSU 930E TRUCKS ASSEMBLY INSTRUCTIONS

Most accidents involving machine operation or maintenance are caused by failure to observe basic safety rules or safety precautions. Read and understand all safety precautions and warnings, before attempting installation and operation of this component.

H-E Parts International cannot anticipate every possible circumstance that may involve a potential hazard. You must comply with all mine-specific safety procedures, and satisfy yourself that any procedure, tool or operation method used is safe for yourself and others.

Refer to the truck manufacturer's repair and maintenance instructions in conjunction with these instructions where applicable. Obey all recommended safety instructions or warnings.

Before working on any equipment make sure that the work area is safe, and that the equipment is tagged and locked out in accordance with mine safety procedures.

### NOTE

Birrana A13030 strut pin assemblies have been designed to suit rear strut assemblies for 930-2 models onwards (i.e. AFE48-AT onwards) and as such are not suitable for 930E-1 models.

1. Remove the original pins as per manufacturer's instructions.
2. Remove the bushes from the housing bores. These bushes are not used when Birrana pin assemblies are installed.  
*Note: Birrana pin assemblies are a different diameter to OEM pins and as such do not fit in OEM bushes. Use Birrana slotted top hat bushes ONLY (1) with this assembly.*
3. Ensure that the pin components, the housing bores, and the surrounding areas are clean. The housing bores must measure  $\varnothing 159.05/159.00$ . If the bores do not measure within specification, the bores must be reworked.
4. Install the Birrana manufactured slotted top hat bushes (1) into the housing, the flange on the bearing side (refer diagram page 2).
5. Apply "Never-seize" (or similar product) to the collet bores (3) and tapers of the pin (4).  
**Do NOT use "Never-seize" on the outside of the collets, any surface of the bush, or the housing bores. These surfaces must be clean and dry.**
6. Align the bearing (5) between the top hat bushes (1). Insert the spacers (2) between the bearing and bush flanges.
7. Hold the spacers (2) in position between the bearing (5) and the respective bushes (1). Assemble the pin (4) through the bearing and spacers, rotating the pin as necessary to ensure the slots in the collets (3) will NOT align with the slots in the top hat bushes.
8. Ensure pin is installed centrally by measuring the distance from each end of the pin to the outer end of the top hat bush (approximately  $16\text{mm}/\frac{5}{8}"$ ).
9. Loosely fit the collets (3) to the bush bores (1). Tap the collets inwards, using a soft-faced hammer to engage the taper on the pin (4). Measure from the ends of the collets to the ends of the top hat bushes to ensure the pin remains centrally located. Use bolts if required to align the holes in the collet with the tapped holes in the pin.
10. Apply Loctite 262 to the bolt threads (6). Install bolts with the shields (7) and washers (8) and tighten finger tight only. Keep the pin positioned centrally in the bearing.
11. Tighten the collet bolts (6) evenly and incrementally on each end of the pin (4) in turn to ensure that the pin remains roughly central in the bearing (5). The final torque should be 450 ft.lb (610Nm).
12. Ensure that the collets (3) are properly seated by re-torquing the bolts (6) until there is no further collet movement.
13. Confirm pin assembly is still centrally mounted in the bearings by measuring from each collet head to the outer end of the top hat bush (approx.  $30\text{mm}/1.2"$ ). If the measurements differ by more than  $6\text{mm}/\frac{1}{4}"$  ( $\pm 3\text{mm}$  off central), remove collets and return to step 8.
14. Fit the grease nipples (9) into the ends of the collets (3).
15. Use the grease nipples (9) to slowly fill the collets (3) with grease, until the grease can be seen at the locations illustrated.  
*Note: The purpose of the grease is not to lubricate the pin, but simply to fill the voids to prevent corrosion and make disassembly easier at a later stage.*
16. At the next service interval, check the collet bolt torques (6). If below 450 ft.lb (610 Nm), use the procedure in step 11 to re-torque the bolts.

*If you require any further assistance with this procedure please contact your local H-E Parts representative.*

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## DISASSEMBLY INSTRUCTIONS

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Refer to the truck manufacturer's repair and maintenance instructions in conjunction with these instructions where applicable. Obey all recommended safety instructions or warnings.

Before working on any equipment make sure that the work area is safe, and that the equipment is tagged and locked out in accordance with mine safety procedures.

*Note: If the collets are undamaged, they may be used again. However, it is advisable that they are replaced with new ones. The old pin should not be reused and should always be replaced with a new pin.*

1. Undo the 4 off 7/8" bolts, and remove from the collets.
2. Use the four 5/8" UNF jacking holes to extract one collet from its bore.
3. Using the jacking holes, extract the remaining collet from it's bore.
4. If not previously removed, remove the pin.
5. Remove the strut assembly (with spacers) as per manufacturer's instructions.
6. If the second collet was not successfully removed previously, and the collet is to be replaced, it can now be removed with a soft drift.
7. Remove the top-hat bushes.

*Note: If when attempting to remove the collet, the pin moves instead of the collet, remove the pin. If the existing collets are to be reused, the second collet can then be left in it's bore.*

