SkyTrak 10054, 10042, 8042
Pivot Repair of Base Boom Weldment - Option 1
Installation Instructions

For Kits 7131633 & 7131643

General Guidelines

- This repair procedure provides parts and repair information for a specific discrepancy. It is the responsibility of the entity performing the repairs to determine if the discrepancy can be corrected by this procedure.

⚠ CAUTION

Use all applicable Safety precautions while working on, around or under any machinery.

⚠ NOTICE

Reference the Service Manual and Illustrated Parts Manual for safe and proper disassembly/assembly procedures.

Weld Repair Guidelines

- All welding must be in accordance with ANSI/AWS D1.1 Standard.
- Disconnect the battery of the machine being repaired prior to welding.
- Ground only to the component being welded. Do not ground to any adjacent component or allow pins, wear pads, wire ropes, bearings, gears, seals, valves, electrical wiring, or hoses to be between the grounding position and the area to be welded.

⚠ NOTICE

Failure to comply with the above weld repair guidlines may result in component damage.

Tools & Equipment Required

1. Stands and lifting equipment capable of lifting/ supporting the affected components
2. Hand-held power grinder
3. Air carbon-arc equipment
4. Electric welding equipment
5. AWS 70 grade, low hydrogen rod or wire
6. Standard welder tools
7. Standard mechanic tools
8. Paint

Personnel Required

1. Qualified Equipment Mechanic
2. Certified Welder

Pivot Repair Kit:

Left Side P/N 7131633
Right Side P/N 7131643

Detailed parts list shown on Page 3.

Procedure

1. Remove components as required to facilitate repair.
2. Safely support the components to alleviate pressure or stresses at affected repair area(s).
3. Using a portable grinder or air carbon-arc equipment, remove the damaged slave cylinder pivot weldment from the base boom weldment.

⚠ NOTICE

Do not damage the base boom weldment during this procedure.

4. Visually inspect the welds and base metal around the pivot weldment on both sides to ensure there are no cracks or deformities. If any cracks or deformities exist, repair as outlined in Step 5 or as recommended by a certified welder.
5. Repair the cracks:
   a. For weld cracks, use air carbon-arc equipment or a portable power grinder to remove area(s) of weld discrepancy. Remove the weld 1 in. beyond end(s) of weld discrepancy, tapering to a depth of 0 in.
   b. For parent metal cracks, use a portable power drill to drill a 1/4 in. hole at the termination point(s) at the end(s) of each crack. Use a portable power grinder to grind along the crack(s) to form a 60°-90° “vee” groove, 0 in. opening.
   c. Prepare the affected areas for welding. Using the recommended weld material, weld the discrepancy area(s) using the appropriate sized fillet weld. For parent metal cracks, weld along the crack(s) through the drilled termination point(s).

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   d. Inspect welds using the magnetic particle or dye-penetrant inspection methods to assure there are no cracks or deformities. If any cracks or deformities exist, grind to remove affected area(s) and repeat the weld and inspection procedures.

6. Dress the repair area in preparation for installing a new pivot weldment.
7. Install the new pivot weldments. Refer to pages 3 & 4 of the Boom Pivot Replacement Kit illustrations.
8. Inspect welds using the magnetic or dye-penetrant inspection methods to assure there are no cracks or deformities. If any cracks or deformities exist, grind to remove affected area(s) and repeat the weld and inspection procedures
9. Clean, prime and paint the affected area(s).
10. Replace all damaged slave cylinder and pivot pin components and attachment hardware.
11. Reassemble all components and prepare the machine for operation.
12. Check hydraulic pressures per the Service Manual. Properly set all hydraulic relief pressures found to be out of spec.
13. Cycle the lift and telescope functions a minimum of five times before returning the machine to service.
14. Inspect the repair areas for discrepancies. All discrepancies must be properly corrected before returning the machine to service.

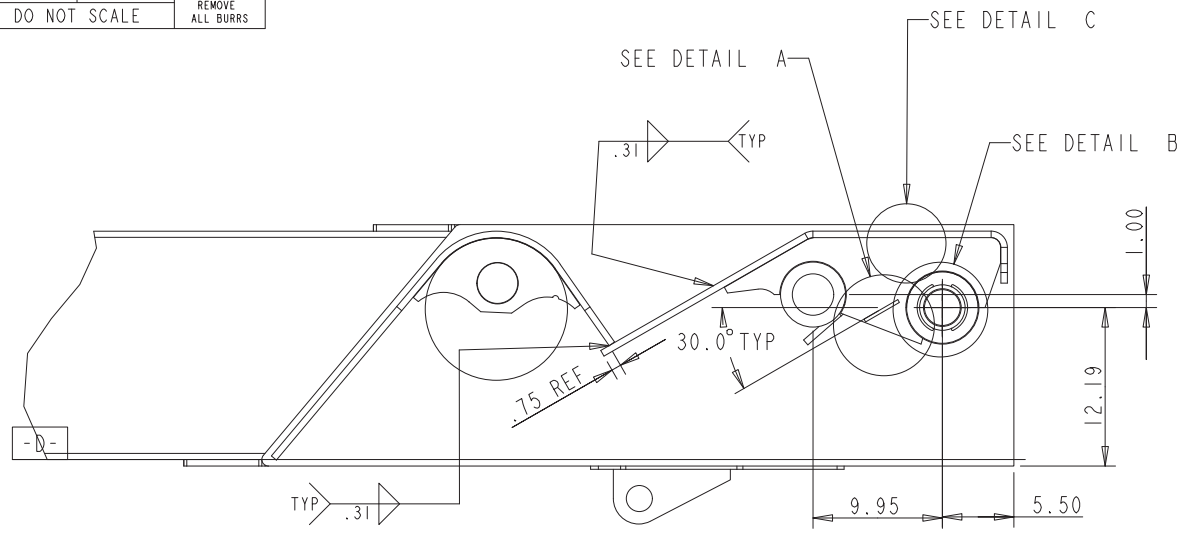
7131633 L.H.

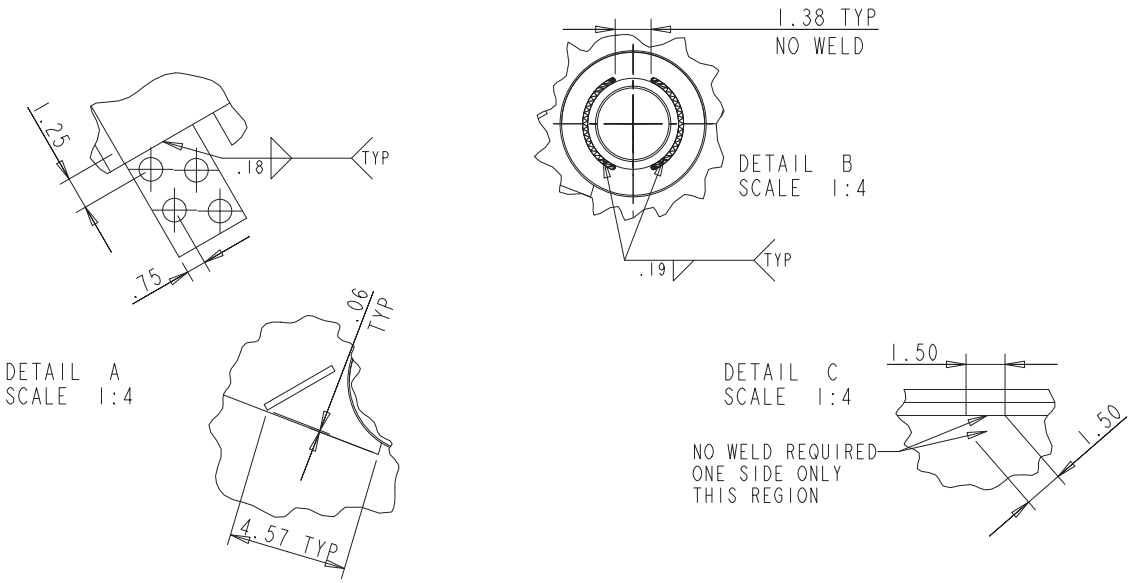
BILL OF MATERIALS				
QTY.	PART NO.	DESCRIPTION	WT.	ITEM
1	7131613	PIVOT, BOOM LEFT	51	1
2	8065640	BEARING 2.0 I.D. (SLAVE CYL)	2	3
2	7075641	HUB, LOCKING FOR BOOM PIVOT	1.2	5
1	7095911	PLATE, HOSE TERMINATION	0.8	6
1	7098181	PLATE, HOSE TERMINATION	0.4	7
2	7092292	PIN, HOIST AND SLAVE CYL.	6.5	8

7131643 R.H.

BILL OF MATERIALS				
QTY.	PART NO.	DESCRIPTION	WT.	ITEM
1	7131623	PIVOT, BOOM RIGHT	51	2
2	8065640	BEARING 2.0 I.D. (SLAVE CYL)	2	3
2	7075641	HUB, LOCKING FOR BOOM PIVOT	1.2	5
1	7095911	PLATE, HOSE TERMINATION	0.8	6
1	7098181	PLATE, HOSE TERMINATION	0.4	7
2	7092292	PIN, HOIST AND SLAVE CYL.	6.5	8

GENERAL TOLERANCE NOTES		THIRD ANGLE PROJECTION
INCH	MILLIMETER	
0.0 ±.12 0.00 ±.06 0.000 ±.020	0 ±3 0.0 ±1.5 0.00 ±0.50	
DO NOT SCALE		REMOVE ALL BURRS





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KIT BOOM PIVOT REPLACEMENT
FOR OUTER BOOM WELDMENT

GENERAL TOLERANCE NOTES		THIRD ANGLE PROJECTION
INCH	MILLIMETER	
0.0 ±.12 0.00 ±.06 0.000 ±.020	0 ±3 0,0 ±1,5 0,00 ±0,50	
DO NOT SCALE		REMOVE ALL BURRS

SUGGESTED SET-UP PROCEDURE:

1.) PRESS SPHERICAL BEARING INTO NEW SLAVE PIVOT.

2.) LOCATE BOOM PIVOT ON OUTER BOOM USING NEW BOOM PIVOT PIN.

3.) VERIFY PLACEMENT DIMENSIONS OF BOOM PIVOT AND TACK WELD IN PLACE.

4.) REVERIFY PLACEMENT DIMENSIONS AND COMPLETE FINAL WELD PROCEDURE.

5.) VERIFY ⊥ AND ◎ FOR BOTH LEFT AND RIGHT HAND BOOM PIVOT.

WELD PROCEDURE:

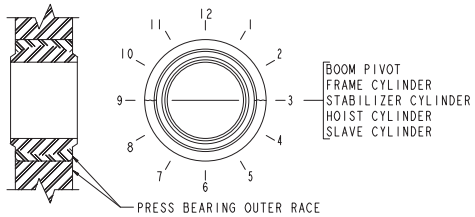
1.) WELDING SHOULD ONLY BE CONDUCTED BY A CERTIFIED WELDER. THE FINAL WELD QUALITY IS THE RESPONSIBILITY OF THOSE CONDUCTING THE PROCESS. THE FOLLOWING IS FOR GUIDANCE AND DOES NOT IMPLY THE ELIMINATION OF ANY OTHER PROCEDURES RELATED TO THE SAFETY OF THE FINAL PRODUCT.

2.) SURFACE RECEIVING REPLACEMENT PIVOT IS ASTM A36 36,000 YIELD MATERIAL.

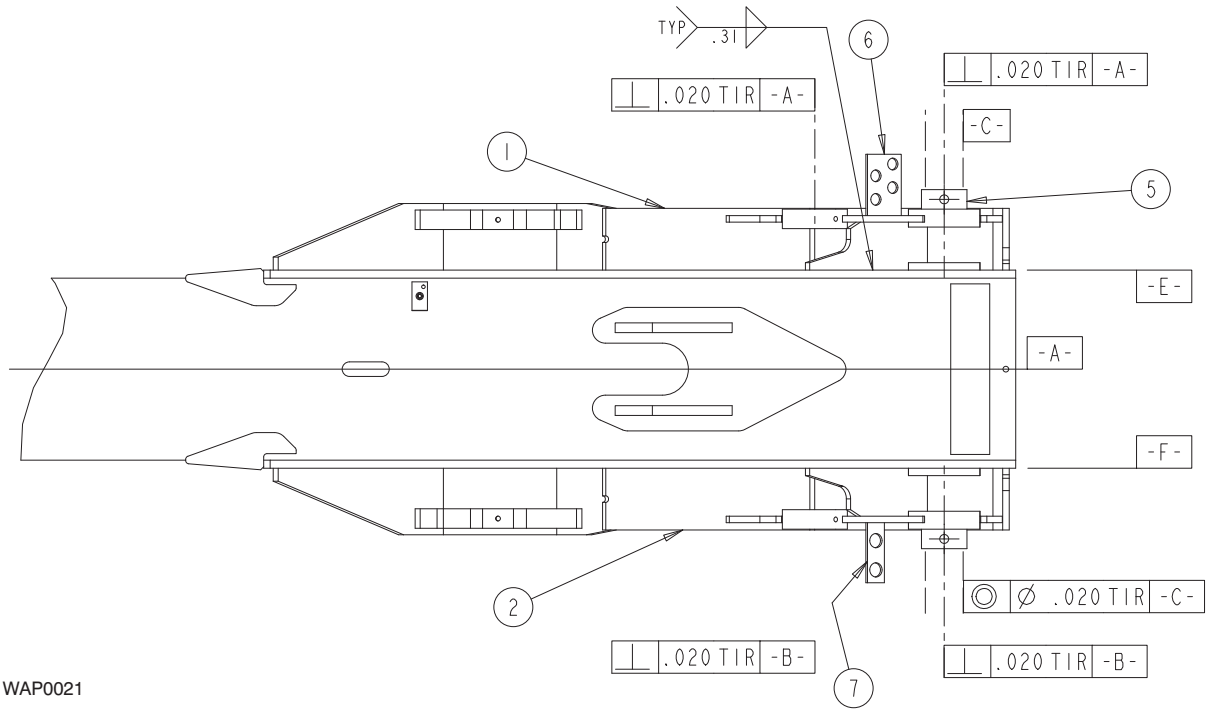
3.) REPLACEMENT BOOM PIVOT WRAPPER IS ASTM A572-50 50,000 YIELD MATERIAL.

4.) USE 70,000 PSI WELD ELECTRODE FOR WELDING.

ORIENT, FRACTURE IN BEARING OUTER RACE, AT CLOCK POSITION SHOWN FOR EACH APPLICATION



BEARING INSTALLATION (3)



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