SkyTrak 10054, 10042, 8042
Pivot Repair of Base Boom Weldment - Option 2
Installation Instructions

For Kit 2915208

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 guidelines 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:

P/N 2915208

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 pivot weldments 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 the new pivot weldments.
7. Install the new pivot weldments. Refer to pages 3, 4 & 5 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 and hoist cylinder 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.

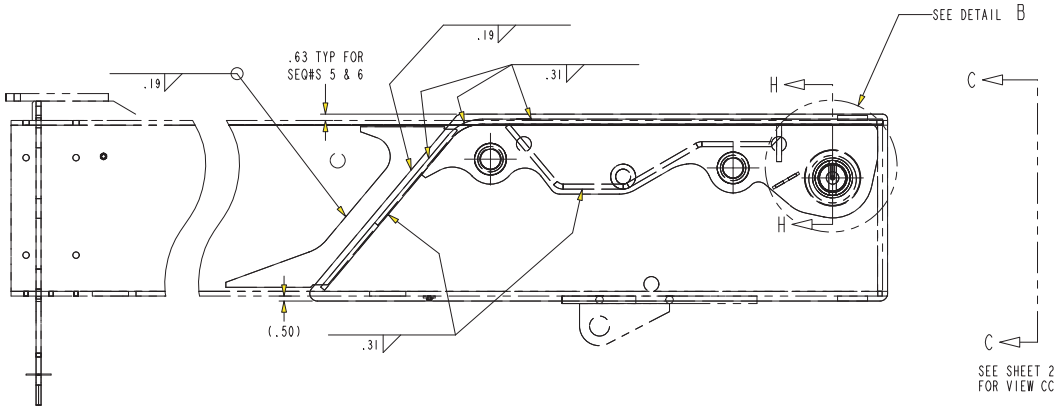
PARTS LIST			
SEQ.#	ITEM NO.	DESCRIPTION	QTY
1	3423226	PIN, BOOM PIVOT	2
2	3423227	PIN, HOIST & SLAVE CYL	4
3	3460383	TUBE ASSY, 42' BOOM EXTEND CYL INNER	1
4	3460384	TUBE ASSY, 42' BOOM EXTEND CYL OUTER	1
5	4341036	MOUNT, BOOM PIVOT RIGHT	1
6	4341037	MOUNT, BOOM PIVOT LEFT	1
7	7095911	PLATE, HOSE TERMINATION,	1
8	7098181	PLATE, HOSE TERMINATION,	1
9	7300672	TUBE ASSY, 42' BOOM TILT CYL INNER	1
10	7300673	TUBE ASSY, 42' BOOM TILT CYL OUTER	1
11	7300674	TUBE ASSY, 42' BOOM AUXILIARY INNER	1
12	7300675	TUBE ASSY, 42' BOOM AUXILIARY OUTER	1
13	8065640	BEARING, SELF ALIGN	4
14	8303655	SCR HHC, .625-11 NC X 4.500 GR5	2
15	8305626	NUT, HEX LOC ELAS, .312-18 NC LIGHT	1
16	8305643	NUT, HEX LOC ELAS, .625-11 NC LIGHT	2
17	8307910	WASHER, SHIM, 2.750 X .075 X 4.000	2
18	8307911	WASHER, SHIM, 2.750 X .134 X 4.000	2
19	0641520	HEX HD CAP SCREW, 5/16-18 X 2 1/2 LG	1
20	8520001	FITTING LUBE STR, 1/8 NPTF MALE THR	2
21	8520003	FITTING LUBE 90, 1/8 NPTF MALE THD	4
22	8522012	LUBE, ANTI SEIZE	A/R
23	8760305	ADPT, 90 S JIC/ORB 12-12 FG	2
24	8760465	ADPT, BH NUT F JIC 10 FG	4
25	8760468	ADPT, BH NUT F JIC 12 FG	2
26	8769128	COVER PLATE, TWIN	2
27	8769139	CLAMP SET, .750 DIA TWIN	1

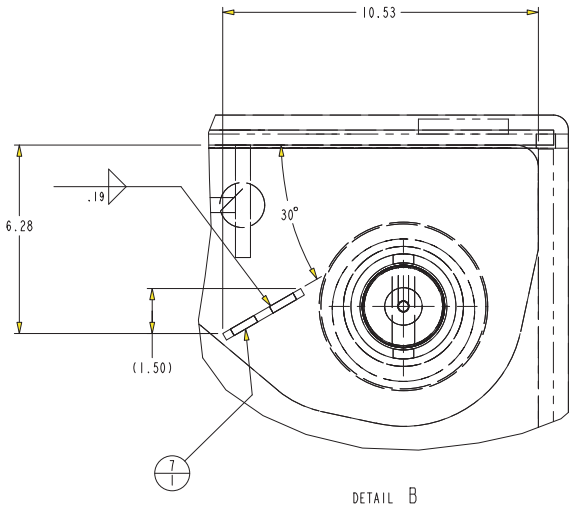
NOTES:

1. REMOVE BOOM FROM MACHINE AND POSITION SAFELY AND SECURELY FOR REWORK.
2. DISCARD THE BOOM CYLINDER ROD EYE PINS, PIVOT PINS SHIMS AND HARDWARE.
3. REMOVE THE TILT (AND AUXILIARY IF SO EQUIPPED) TUBES FROM BOOM PIVOT MOUNTS AND DISCARD.
4. TORCH CUT OFF EXISTING BOOM PIVOT MOUNTS FROM BOOM BOX, BEING CAREFUL NOT TO DAMAGE BOOM BOX SIDE PLATES OR ANY OTHER COMPONENTS THAT WILL BE REUSED. DO NOT SAVE THE SPHERICAL BUSHINGS IN THE LIFT AND COMP PINNING POINTS.
5. GRIND SMOOTH THE PREVIOUS WELDS AND PREPARE THE SURFACE TO ACCEPT THE NEW BOOM PIVOT MOUNTS. SEE THE LOCATING DIMENSIONS AND WELD SYMBOLS DESCRIBED ON THIS DRAWING.
6. RE-ASSEMBLE BOOM USING THE REMAINDER OF THE NEW PARTS (TUBES, BUSHINGS, PIVOT PINS, SHIMS AND HARDWARE) REUSE THE LIFT AND COMP PINS AND THEIR HARDWARE
7. INSTALL GREASE FITTINGS AT 90° TO CROSS-HOLES IN PINS AND ORIENTED DOWN

VIEWS ON THIS SHEET AND VIEW C-C SHOW ONLY WELDED COMPONENTS (SEQ#S 5, 6, 7 AND 8) ALL OTHER NON-WELDED COMPONENTS HAVE BEEN REMOVED FROM THOSE VIEWS FOR CLARITY

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





DETAIL B
SCALE 0.375

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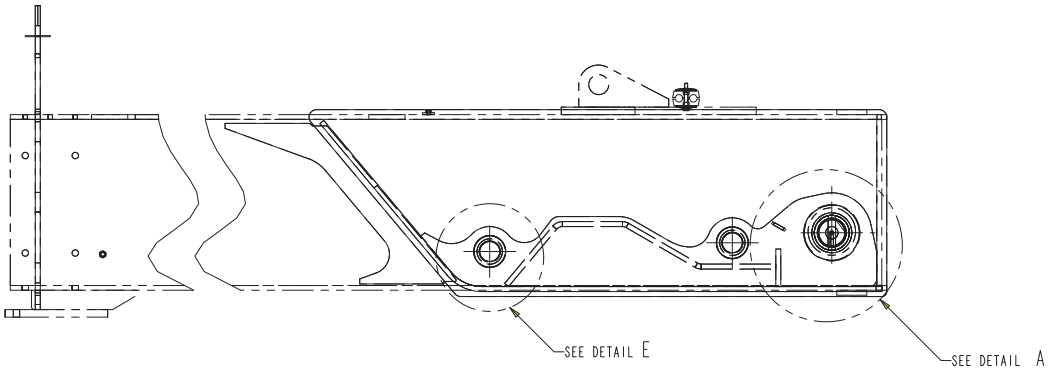
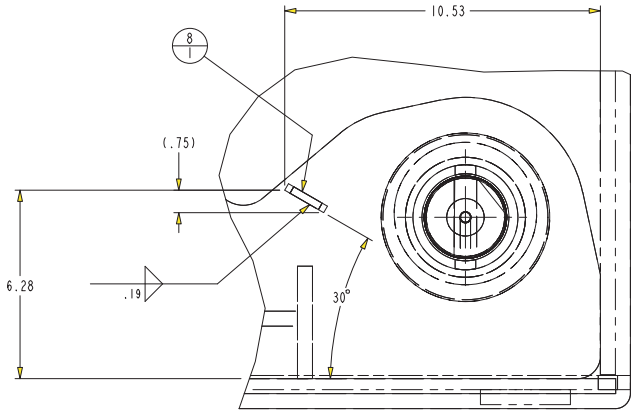
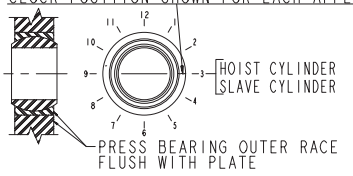


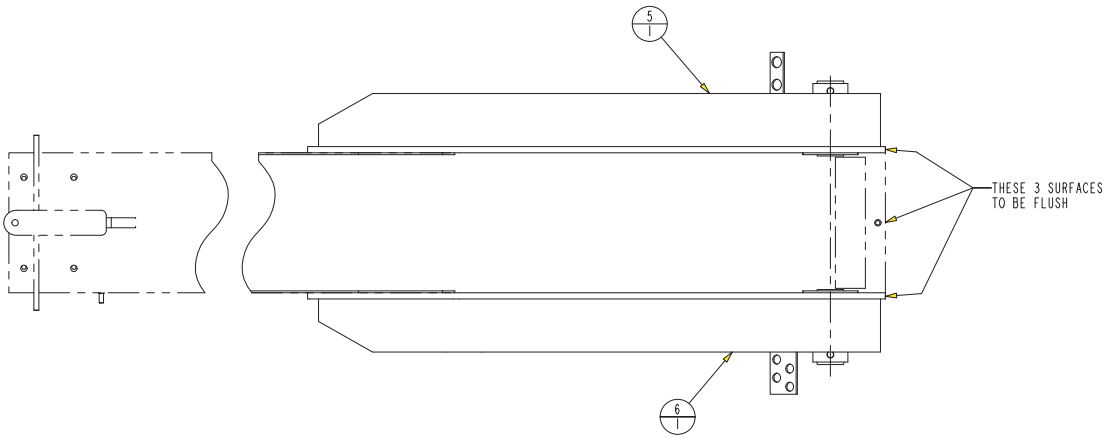


DETAIL A
SCALE 0.375

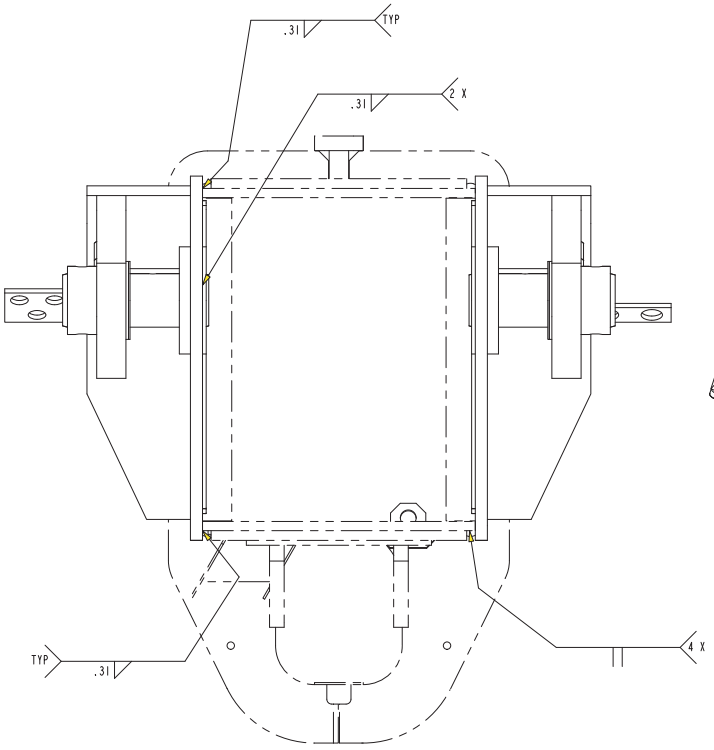
ORIENT FRACTURE IN BEARING OUTER RACE AT CLOCK POSITION SHOWN FOR EACH APPLICATION



VIEW "E"
BEARING INSTALLATION

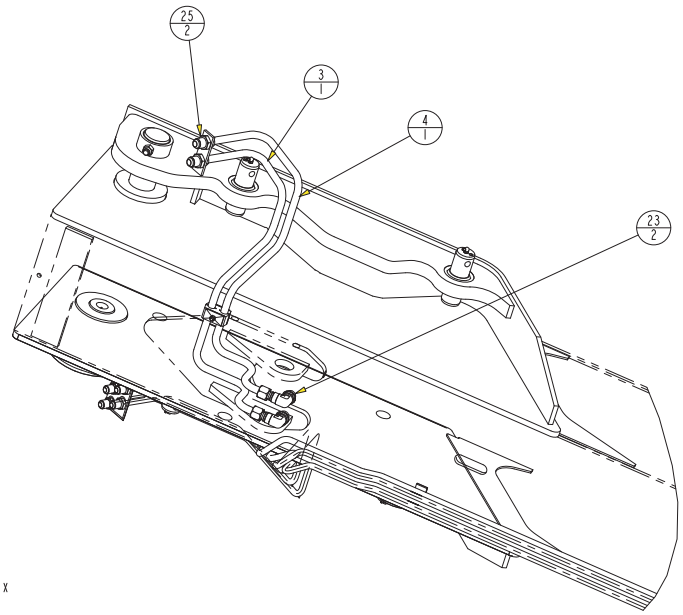


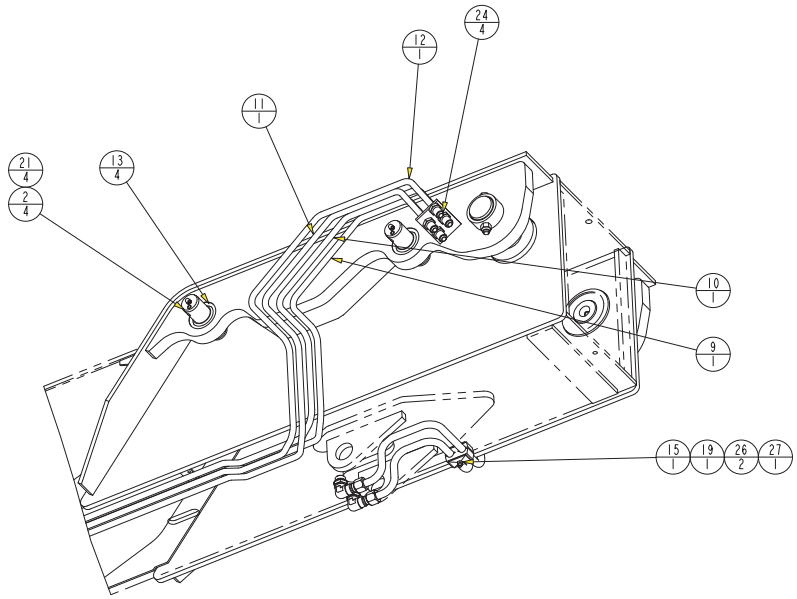
WAP0020



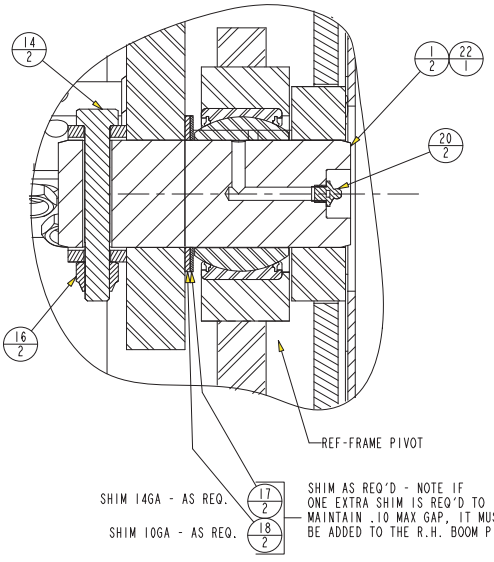
VIEW C-C
SCALE 0.250

ALL COMPONENTS EXCEPT SEQ#S 5, 6, 7 & 8 HAVE BEEN REMOVED FROM THIS VIEW FOR CLARITY





SECTION H-H
SCALE 0.500



SHIM 14GA - AS REQ. 17 2
SHIM 10GA - AS REQ. 18 2
SHIM AS REQ'D - NOTE IF ONE EXTRA SHIM IS REQ'D TO MAINTAIN .10 MAX GAP, IT MUST BE ADDED TO THE R.H. BOOM PIVOT

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