

Lull 1044C-54 Series I Frame Crossmember Weldment Repair Installation Instructions

For Kit 1001102164

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. This repair is only for repairing of weld cracks that exist around the frame cross tube. If the frame cross tube is damaged, this repair cannot be performed.

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

Crossmember Sleeve Kit:

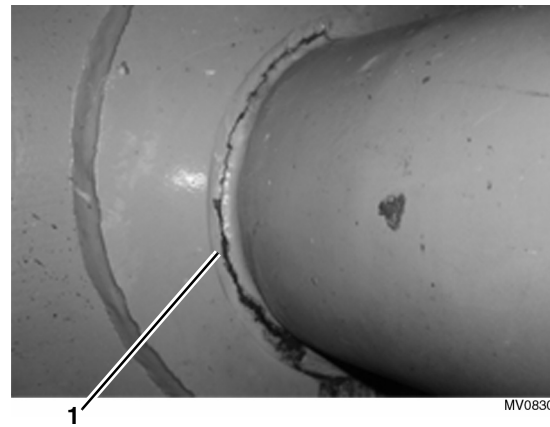
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Kit Parts List:

- 1001102162- (2) Top Sleeve Plate, Qty 2
- 1001102163- (3) Bottom Sleeve Plate, Qty 2

Procedure

1. Remove any attachment from the machine.
2. Park the machine on a firm, level surface with the machine level, retract the transfer carriage, retract and raise the boom for access to the frame crossmember. Properly support the boom. Place the transmission control lever in the (N) NEUTRAL position and engage the parking brake. Shut the engine OFF.
3. Place an Do Not Operate Tag on both the ignition key switch and the steering wheel, stating that the machine should not be operated.
4. Allow the engine and all system fluids to cool.
5. Properly disconnect the battery cable.
6. Protect any hoses, wires and hydraulic cylinder rods before preparing or welding in the crossmember area.
7. Remove components as required to facilitate repair.



8. Using a portable grinder or air carbon-arc equipment, remove the damaged weld (1) from the crossmember weldment.

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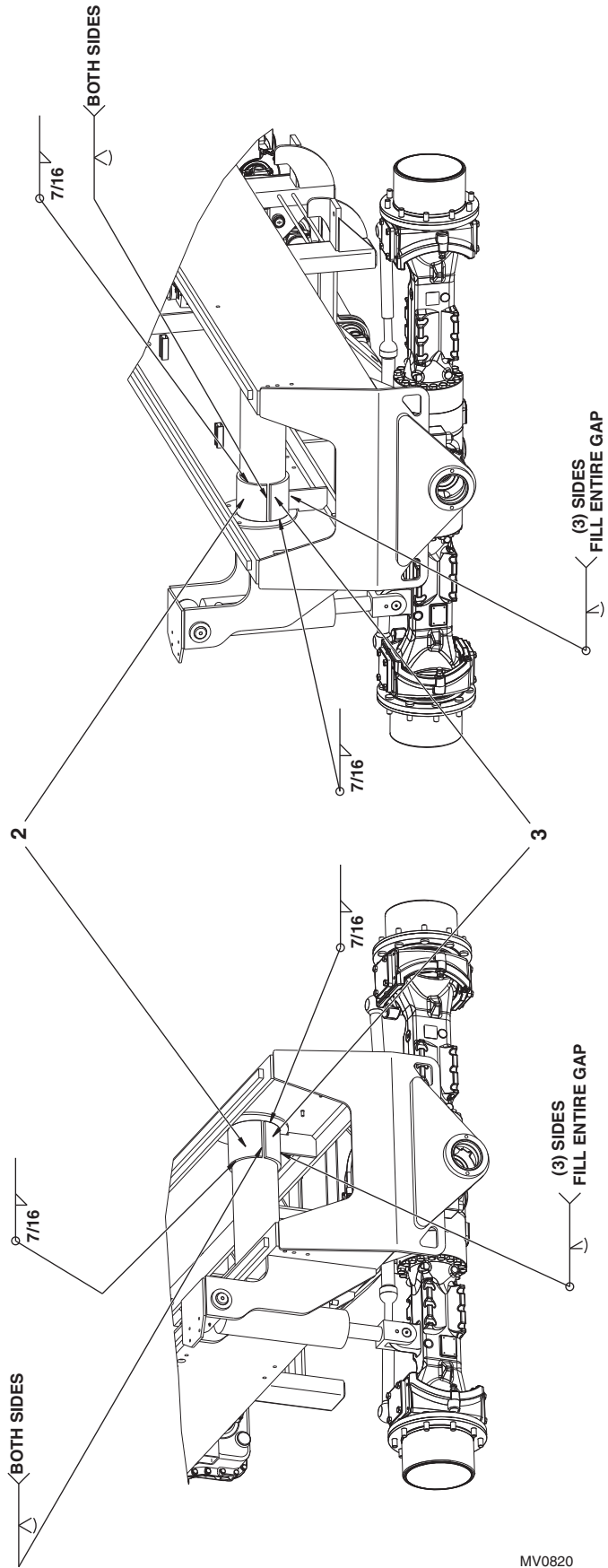
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9. Thoroughly clean the area (i.e., dirt, grease, rust, paint, etc.) from the repair area.
10. Visually inspect the welds and base metal around the crossmember weldment on both sides to ensure there are no cracks or deformities. If any cracks or deformities exist, repair as outlined in Step 11 or as recommended by a certified welder.
11. 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).
 - 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.
12. Dress the repair area in preparation for installing the new sleeve plates.
13. Install the new sleeve plates. Refer to page 3 of the Frame Crossmember Weldment Repair illustration.
14. 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
15. Clean, prime and paint the affected areas.
16. Remove all protective coverings from any hoses, wires and hydraulic cylinder rods.
17. Reassemble all components and prepare the unit for operation.
18. Connect the battery.
19. Remove boom support.
20. Install the previously removed attachment.
21. Cycle the boom functions and the transfer carriage throughout their full range of movement a minimum of five times to ensure proper clearance between the bottom of the transfer carriage and the top of the sleeve plates and to ensure safe and proper operation.

Note: *If any interference between the transfer carriage and sleeve plates is observed, using a hand grinder, remove only enough material from the sleeve plates to provide adequate clearance.*

22. Inspect the repair areas for discrepancies. All discrepancies must be properly corrected before returning the machine to service.
23. Remove the Do Not Operate Tag from the ignition key switch and the steering wheel.
24. Return machine to service.



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