

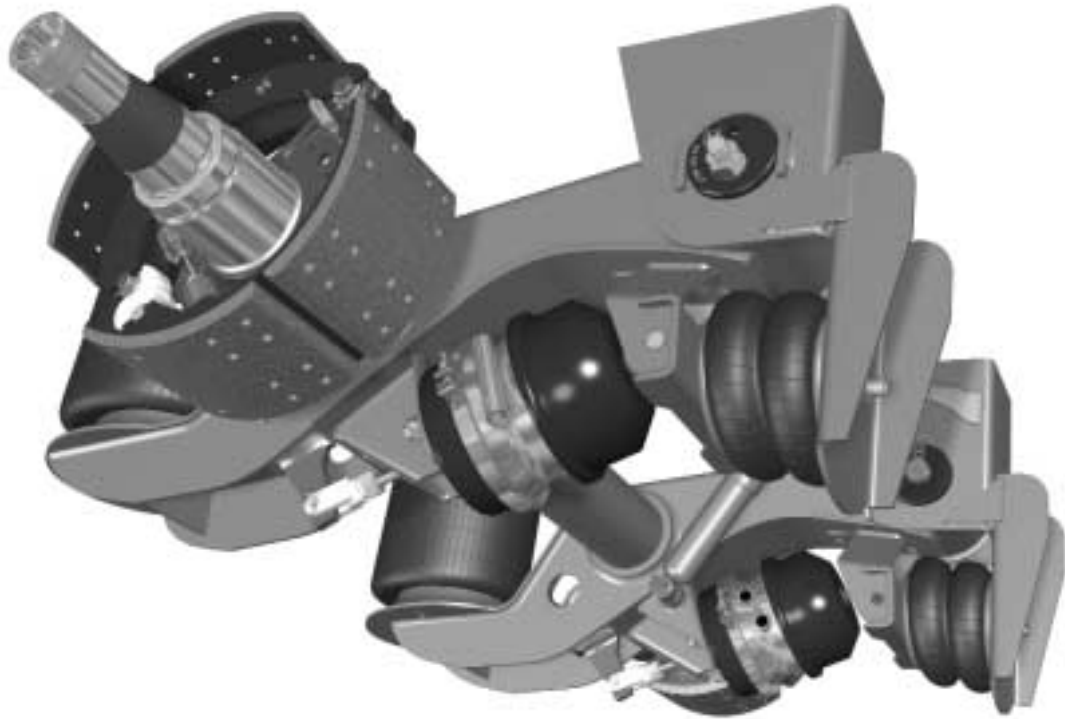
# **H** TECHNICAL PROCEDURE UNDER BEAM LIFT

SUBJECT: Kit Installation Procedures

LIT NO: L719 a

DATE: December 1999

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# UNDER BEAM LIFT KIT INSTALLATION PROCEDURES

## ALL INSTALLATIONS

1. Measure  $3\text{-}\frac{5}{8}$  inches from the bottom of the frame bracket up and scribe a line across it.
2. Align the scribe line on the frame bracket to the top of the lift hanger support.

**IMPORTANT:** The lift hanger support must be flush with the sides of the frame bracket.

3. Tack weld lift hanger support to the frame bracket (Figure 2).

**IMPORTANT:** Before continuing, review D-24657 *Under Beam Lift Assembly (AAL Suspension Series)* and D-24343 *Under Beam Lift Assembly (INTRAAX® Top Mount Suspensions)* for welding information.

4. Check for proper placement of the lift bracket.

## WELDING THE GUSSETS TO THE LIFT BRACKET

1. Place gusset .6-inch from the bottom of the frame bracket and forward .6-inch onto the lift bracket.
2. Weld into place with fillet welds (Figure 3).
3. Start and stop weld passes  $\frac{1}{4}$  inch from all sides (Figure 3). Fill in all craters at the end of each weld pass.

**IMPORTANT:** Weld  $\frac{1}{4}$ -inch gussets to both sides of the frame bracket.

## INSTALLING THE LIFT BRACKET

1. Install lift bracket to the bottom of the beam with two self-tapping screws (Figure 4). Torque the screws to 160 to 180 in-lbs (18 to 20 N•m).
2. Weld lift bracket to the beam; refer to the weld symbols on the drawing to properly weld it (Figure 5 on page 6 and the assembly drawing).

## INSTALLING THE C-CHANNEL

**IMPORTANT:** If the suspension has wingless frame brackets, install a C-channel across the wingless frame brackets. If a C-channel was originally on the suspension, reinstall it at this time. The C-channel dimensions are 3-inches by 41-inches ASTM A-36.

1. Position the C-channel on top of the hanger support bracket (Figure 6 on page 6 and the assembly drawing).
2. Weld the C-channel in place (Figure 5 and the assembly drawing).

## INSTALLING THE BRAKE CHAMBERS

1. Reinstall the brake chambers; torque the mounting bolts to 100 to 110 ft-lbs (136 to 149 N•m).

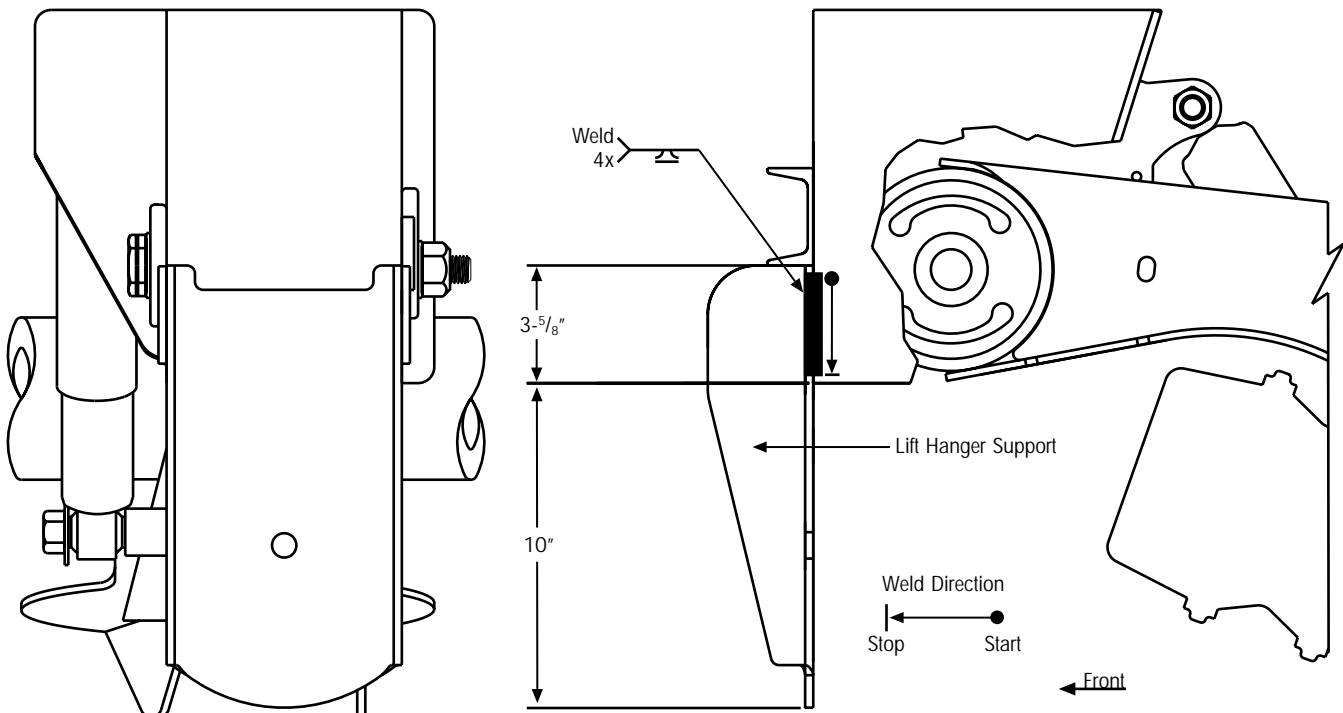
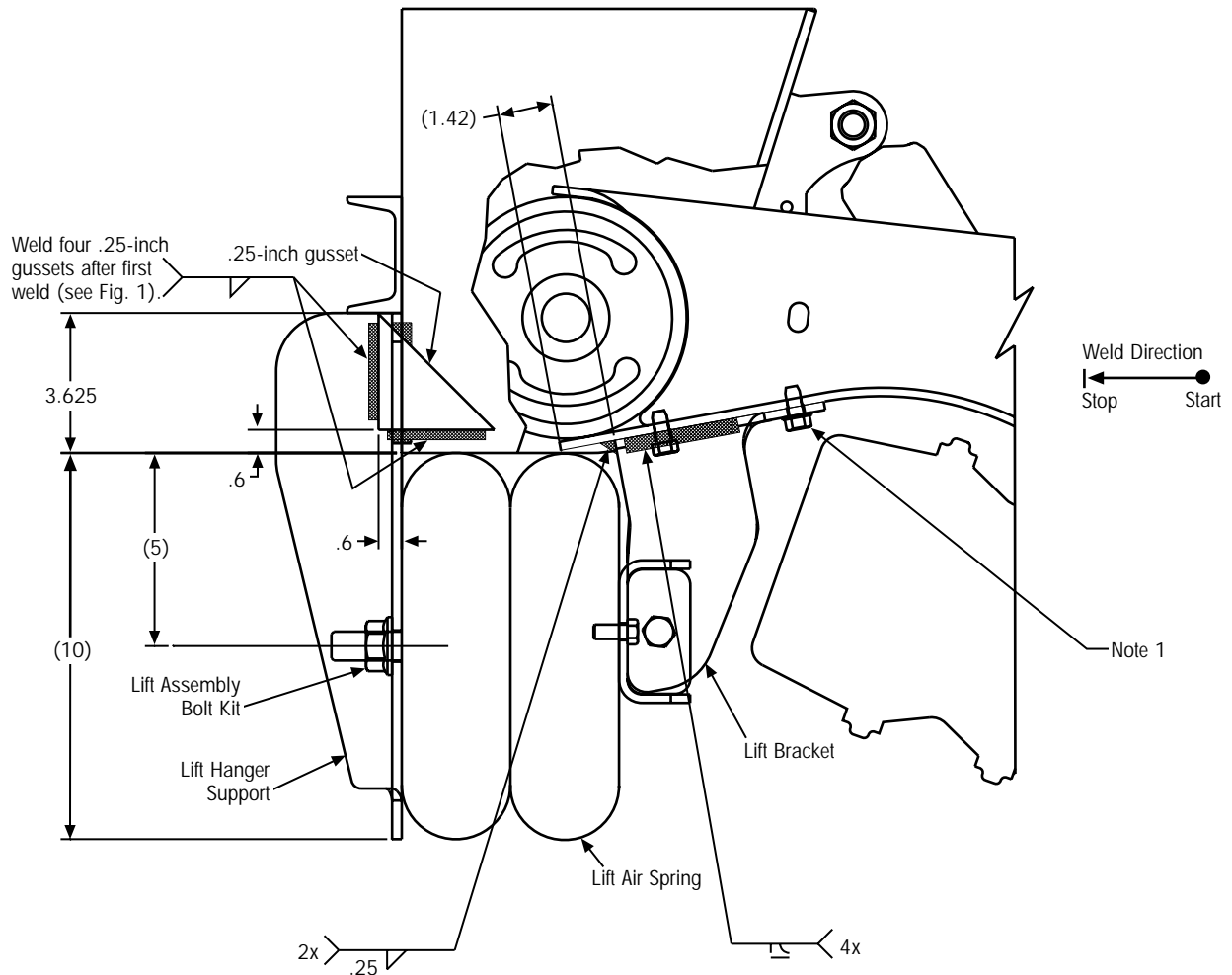


Figure 2. Welding the lift hanger support

# UNDER BEAM LIFT KIT INSTALLATION PROCEDURES



## NOTES:

1. When using long-stroke brake chambers, it may be necessary to remove the rear self-tapping screw after completing the welding operation.
2. When installing the channel assembly, the lift bracket may cause interference. If interference occurs, compress the legs of the lift bracket with a C-clamp and resume installing the channel assembly.

3. Welding parameters:
  - 28.5 Volts
  - 400 IPM
  - 275-300 Amps
  - 35 CFH (Gas flow)
  - .045 Wire

Figure 3. General welding instructions

**WARNING:** Self-tapping screws are for locating the lift bracket only. Weld the lift bracket as shown in figure 3 and the assembly drawing.

**IMPORTANT:** Remove channel assemblies (two 1/2-inch bolts at 65 ft-lbs of torque) to install or remove the parking brake chambers, but this does not apply to service brake chambers.

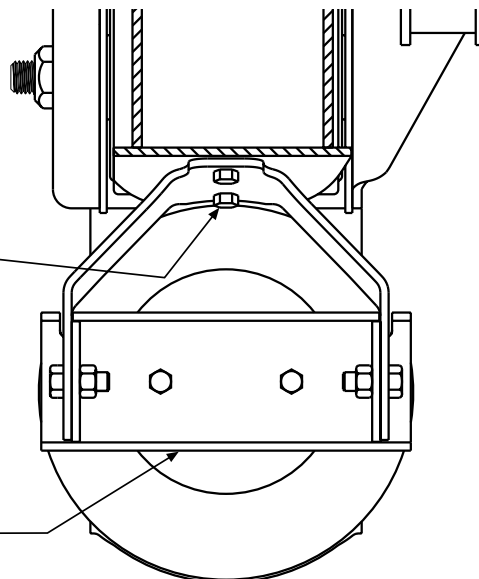


Figure 4. Positioning the lift bracket

# UNDER BEAM LIFT KIT INSTALLATION PROCEDURES

**IMPORTANT:** If installing long-stroke brake chambers, it may be necessary to remove the rear self-tapping screws.

## INSTALLING THE LIFT COMPONENTS

1. Install the lift air spring onto the lift spring channel assembly; torque to a value of 25 to 35 ft-lbs (34 to 47 N•m).
2. Attach the combo stud to the lift hanger support; torque to a value of 45 to 55 ft-lbs (61 to 75 N•m).
3. Install the nuts and bolts to the lift bracket; torque to a value of 55-75 ft-lbs (75 to 102 N•m).
4. Install air lines and the air kit for operating the lift.

## REINSTALLING THE TYRES

1. Reinstall the tyres; tighten the lug nuts to the torque recommended in the manufacturer's specifications.

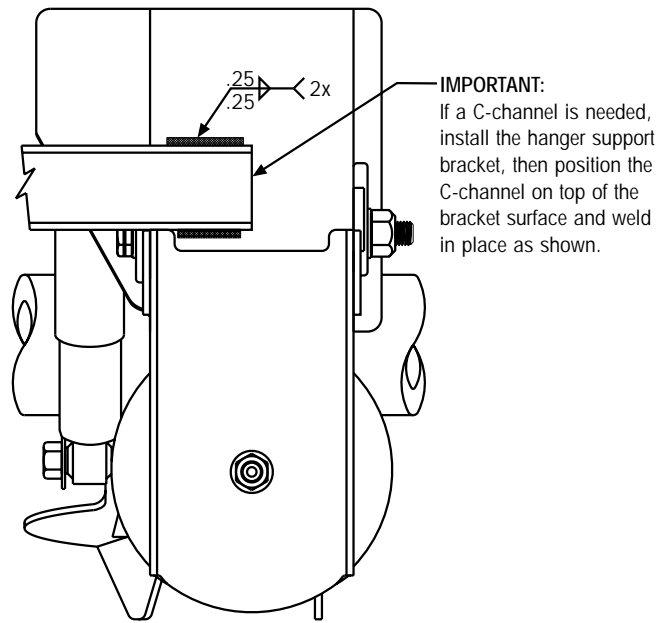


Figure 6. Installing the C-channel

## NOTES:

1. Start and stop welds .25 inch from the edges of the lift bracket.
2. The welds hidden by the lift bracket are shown in this view for clarity.
3. The lift air spring is not shown in this view for clarity of the welding.

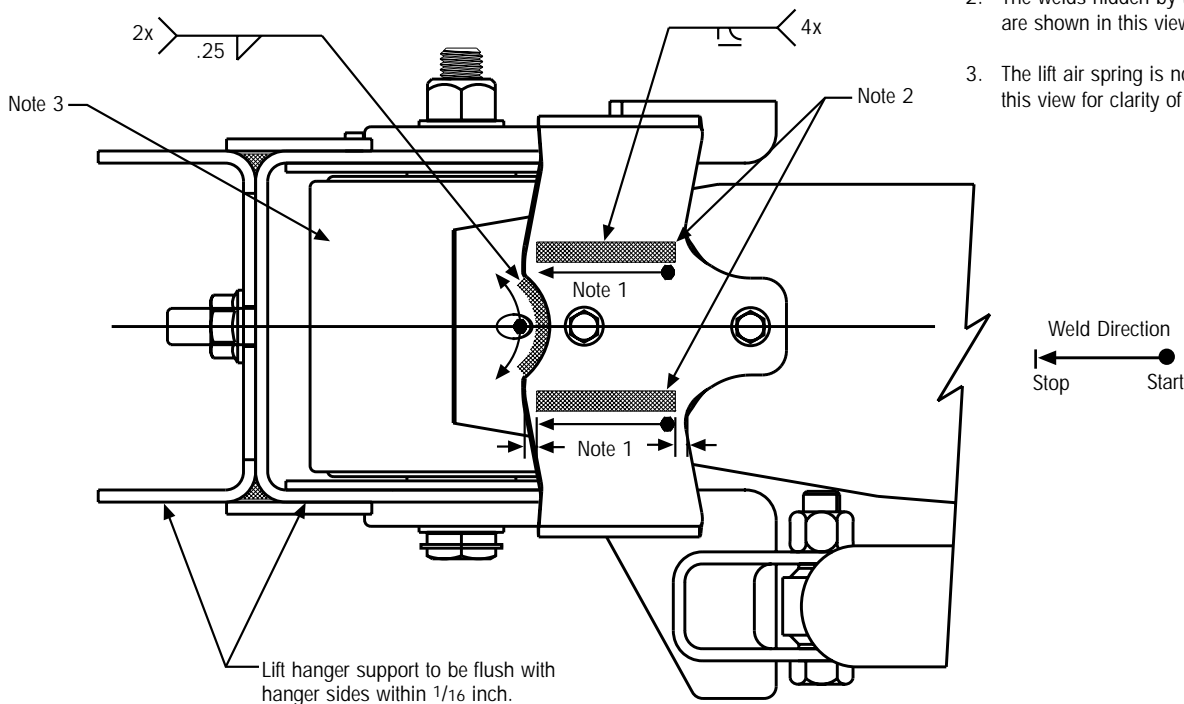
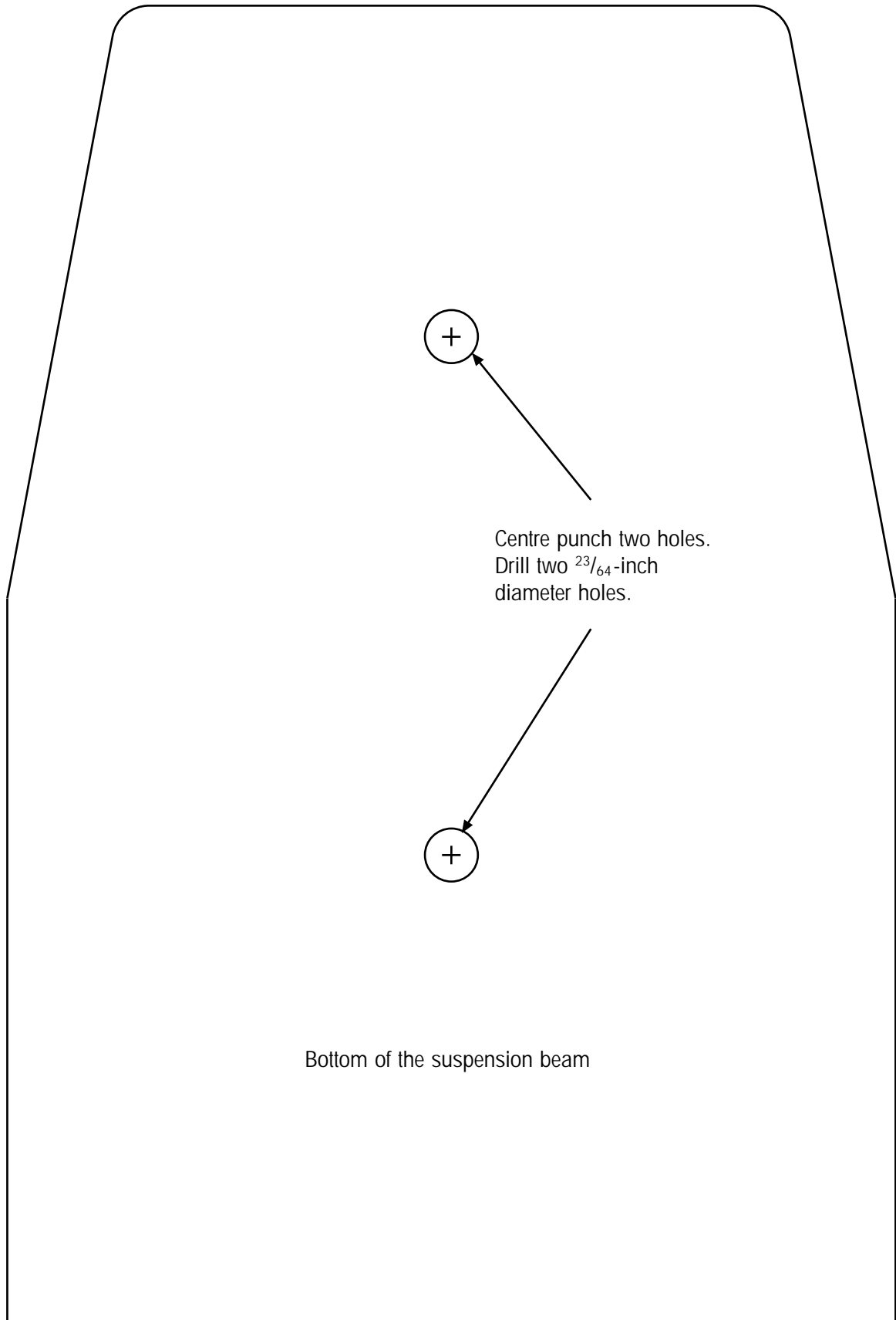


Figure 5. Welding the lift bracket



*Figure 7. Hole template for placement of the lift bracket*

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