

# TANK PREPARATION

This document contains the recommended procedures for preparing your tank to install a complete Hawkeye Level Indication System. This document is part of a series which will cover the entire level indication system installation process. Read and understand this document prior to starting preparation.

**TANK PREP.** GAUGE BOARD INDICATOR FLOAT & GUIDES GAUGE HEAD ACCESSORIES

**NOTE: INFORMATION REQUIRED FOR SUCCESSFUL INSTALLATION**

**CAUTION: INFORMATION IF NOT FOLLOWED MAY RESULT IN DAMAGE OR INSTALLATION FAILURE**

**WARNING: INFORMATION IF NOT FOLLOWED MAY RESULT IN INJURY OR DEATH**

**TOOLS**

- » Welder
- » Measuring Tape
- » Chalk Line
- » Plumb Bob
- » Level
- » Hole Saw

**PARTS REQUIRED**

Gauge Head Preparation

- » 1× 2 NPT-F Half Coupling (REDTAIL)
- » 1× 1-1/2 NPT-F Half Coupling (ALL OTHERS)

Float Guides Preparation

- » 2× 1-1/4 NPT-F Half Coupling
- » 2× Float Guide Cable Rings OR
- » 1× Float Cable Anchor

Gauge Board Preparation

- » { \* }× Weld-on Gauge Board Clips OR
- » { \* }× Magnetic Gauge Board Clips

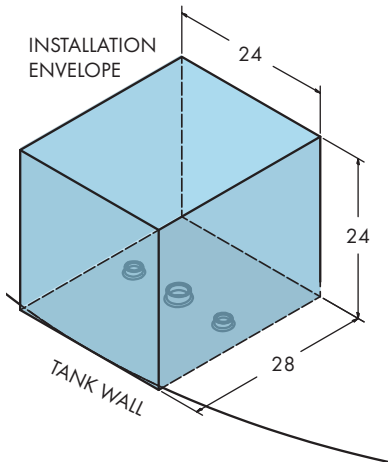
\* See TB-1211-GB to determine quantity of clips required

**PART A: ROOF CONNECTIONS**

**APPLIES TO: GAUGE HEAD, FLOAT GUIDE KIT**

**WARNING: THE FOLLOWING REQUIRES WELDING ON THE EXTERIOR OF THE TANK. ENSURE ALL APPROPRIATE SAFETY PRECAUTIONS ARE TAKEN WHEN PERFORMING THIS WORK.**

**CAUTION: FOR SUCCESSFUL INSTALLATION OF THE GAUGE HEAD IN LATER STEPS, ENSURE THE INSTALLATION ENVELOPE (SHADED AREA) IS CLEAR OF OBSTRUCTIONS.**

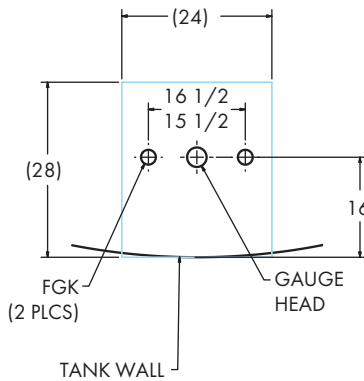


**1** Mark a location on the tank roof for the gauge head connection, 16 in. from the tank wall.

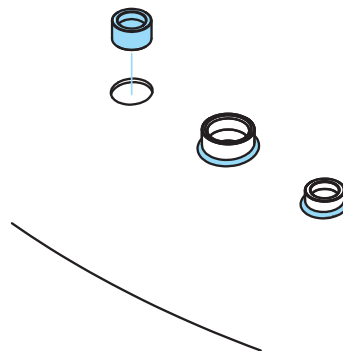
**2** Symmetrical about this point, measure two more locations 15-1/2 to 16-1/2 in. apart for the float guide kit.

**3** Cut holes to match the gauge head connection coupling and the float guide cable locks:

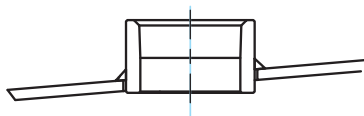
- REDTAIL: 2 NPTF COUPLING
- ALL OTHERS: 1-1/2 NPTF COUPLING
- FLOAT GUIDE: 1-1/4 NPTF COUPLING



**4** Insert the couplings into the hole and weld in place.



**NOTE: ON TANKS WITH SLOPED ROOFS, ENSURE THE COUPLING IS ORIENTED VERTICALLY, AND NOT PARALLEL TO THE ROOF.**



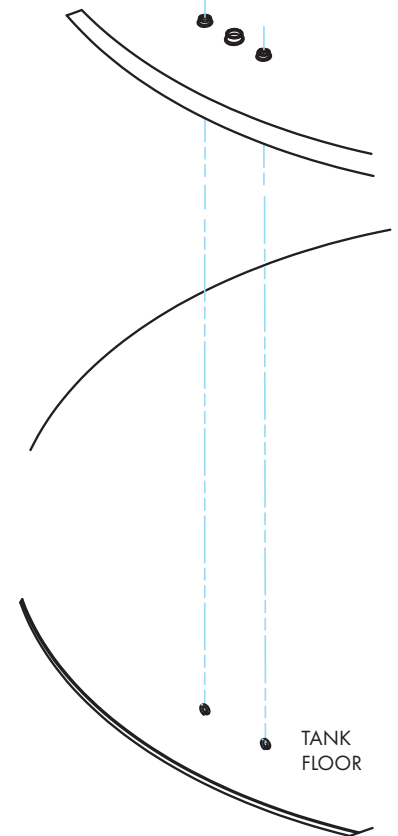
**PART B: INTERNAL CONNECTIONS**

**APPLIES TO: FLOAT GUIDE KIT**

**THE FOLLOWING REQUIRES WELDING ON THE INTERIOR OF THE TANK. ENSURE ALL APPROPRIATE SAFETY PRECAUTIONS ARE TAKEN WHEN PERFORMING THIS WORK.**

**1** Using the plumb line, mark two points on the tank floor directly below the 1-1/4 couplings mounted in the previous section.

**2** Weld float guide anchor rings at these locations.



**NOTE: ORIENTATION OF THE FLOAT GUIDE ANCHOR RINGS IS NOT CRITICAL.**

**NOTE: A NO-WELD ALTERNATIVE TO USING FLOAT GUIDE ANCHOR RINGS IS TO USE A WEIGHTED OR MAGNETIC FLOAT GUIDE ANCHOR.**

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## PART C: EXTERNAL CONNECTIONS

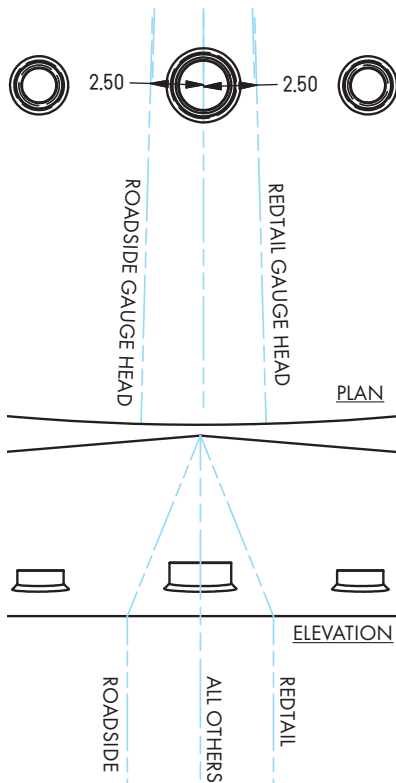
### APPLIES TO: GAUGE BOARD, INDICATOR

**WARNING: THE FOLLOWING REQUIRES WELDING ON THE EXTERIOR OF THE TANK. ENSURE ALL APPROPRIATE SAFETY PRECAUTIONS ARE TAKEN WHEN PERFORMING THIS WORK.**

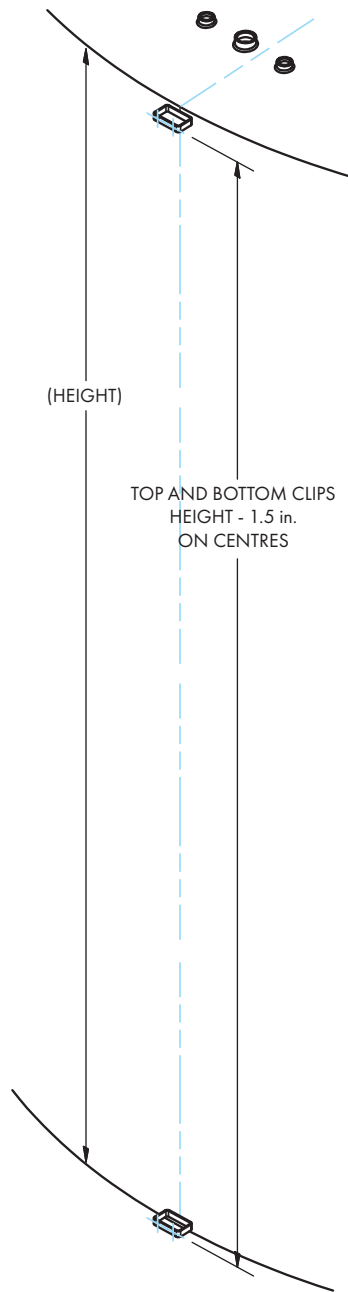
**1** Run a chalk line from the centre of the tank roof, to the to the ground.

### NOTE: THE GAUGE BOARD MOUNTING LOCATION VARIES WITH GAUGE HEAD.

- » For REDTAIL gauge heads, ensure the line is 2-1/2 INCHES TO THE RIGHT of the gauge head mounting coupling installed in part A and snap the line on the tank wall.
- » For ROADSIDE gauge heads, ensure the line is 2-1/2 INCHES TO THE LEFT of the gauge head mounting coupling installed in part A and snap the line on the tank wall.
- » For ALL OTHER GAUGE HEADS, ensure the line is aligned through the MIDLINE of the gauge head mounting coupling installed in part A and snap the line on the tank wall.

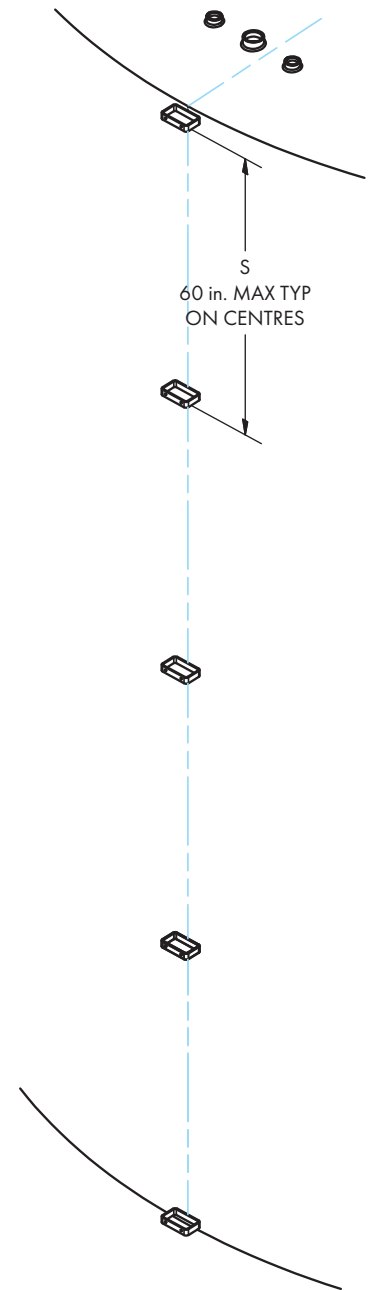


**2** Weld gauge board clips at the top and bottom of the chalk line. Ensure the outside distance between the top and bottom clips is 1-1/2 in. less than the height of the gauge board.



**NOTE: SEE TECHNICAL BULLETIN TB-1211-GB FOR A DETAILED PROCESS ON CALCULATING THE NUMBER AND SPACING OF GAUGE BOARD CLIPS.**

**3** Between the top and bottom clips, weld intermediate clips evenly spaced along the chalk line. Ensure that the clips are no further than 60 in [5 ft] apart.



**A NO-WELD ALTERNATIVE TO USING GAUGE BOARD CLIPS IS TO USE A MAGNETIC GAUGE BOARD CLIPS.**



2110 70 Ave NW

Edmonton, AB, Canada T6P 1N6

Toll Free:

(800) 910-4295

Phone:

(780) 490-4295

Fax:

(780) 490-4290

[www.hawk-eye.com](http://www.hawk-eye.com)

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Printed in Canada.