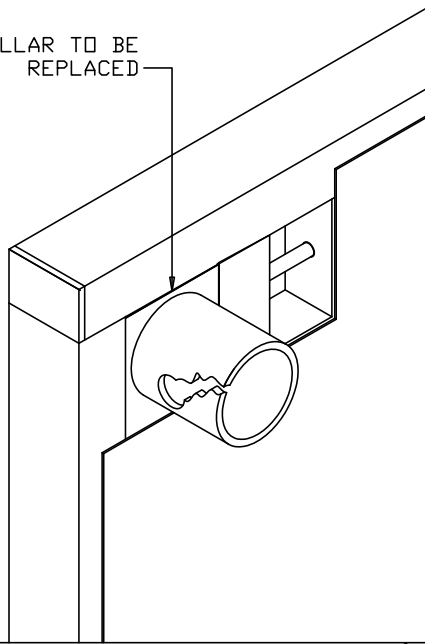


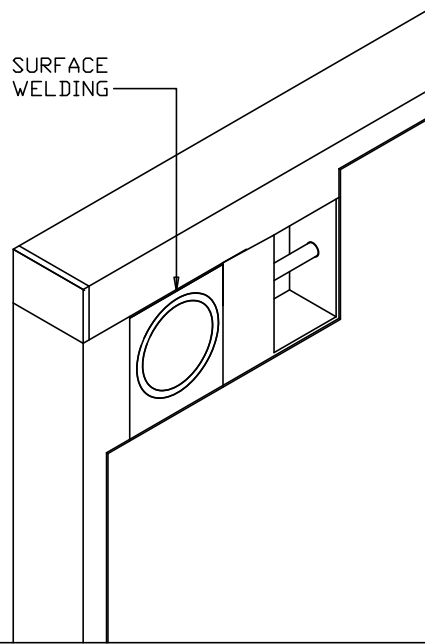
STEP ONE

DAMAGED COLLAR TO BE REPLACED



STEP TWO

PREPARE SURFACE FOR WELDING



GENERAL COLLAR REPAIR SPECIFICATION:

This specification applies to the following types of trench shields shields:

3M, 4L, 4M, 6M, 8M, T, E, N, K, and LD

SPECIFICATIONS:

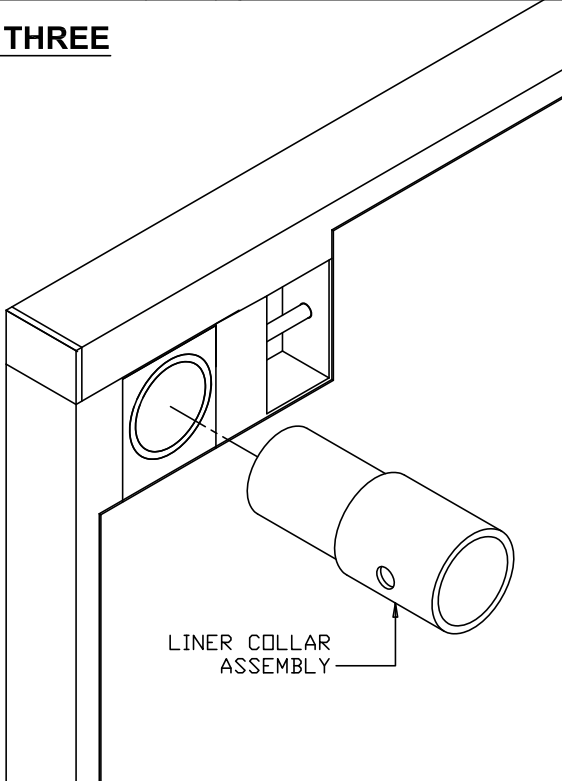
- All welding shall be performed according to the Structural Welding Code for Steel - AWS D1.1-90.
- A certified welder shall perform all welding.
- 70,000 psi welding rod or wire shall be used to complete the welds.
- 3/16" steel sheet with a 55,000 psi minimum yield strength shall be used to replace the skin plate cut away from the collars.
- The Replacement Collar shall be manufactured by GME.

PROCEDURE:

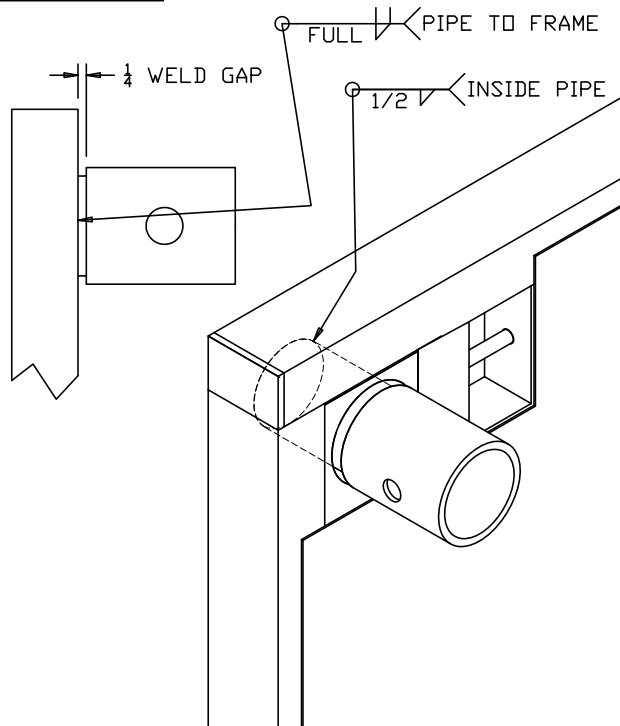
1. Identify collar that needs replacing.
2. Cut old collar out, being careful not to cut into the vertical tubes. Clean the area to be welded thoroughly with a wire brush or grinding wheel.
3. Insert assembly into collar opening in frame, making sure in leave a gap between frame and outer pipe (collar) to insure a full penetration weld.
4. See details in step four illustration for gap and welding details.

STEP THREE

LINER COLLAR ASSEMBLY



STEP FOUR



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GME GRISWOLD
MACHINE AND ENGINEERING, INC.
UNION CITY, MICHIGAN 49094

SCALE: AS SHOWN
DWN: BPS

LINER COLLAR REPAIR SPECIFICATION

DATE: 10/08/09

DRAWING NO. REPAIR 017
REV. NO. 0
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