

1.0 PURPOSE

This procedure describes the minimum requirements for weld repair of induction bends made from carbon steel, low intermediate alloy steel, and high alloy steel.

2.0 SCOPE

This procedure is for the implementation of repair welding procedure and verification all repair of welds.

3.0 RESPONSIBILITY

The Shop Superintendent is responsible for the implementation of procedure and overseeing all repair of welds. Other designated individuals may be involved in these areas as required by the procedure.

4.0 PROCEDURE

4.1 Outside NDE or QC Inspection personnel shall evaluate weld quality in accordance with applicable acceptance standards. Welds that do not meet the applicable acceptance standards shall be marked for repair and the spool drawing will be held in Q.C. until necessary repairs are made.

4.2 The foreman responsible for the repair of welds shall utilize only qualified welders and welding procedures to repair defective welds. Welding filler materials used for the repair welds shall meet the same quality requirements as the original weld.

4.3 Defects in the welds may be removed by abrasive grinding or arc gouging.

4.4 When arc gouging is used, the repair area shall be preheated to the preheat temperature specified in the welding procedure to be used for the weld repair. Preheat may be applied by any suitable method except that the use of oxyacetylene is prohibited for preheating alloy, stainless and nickel steels.

4.5 Cutting preheat temperatures will be checked using temperature indication crayons or thermocouple pyrometers.

4.6 When arc gouging is used, the entire surface area of the cavity shall be ground to assure complete removal of oxides and surface irregularities prior to repair welding.

	CONTROL COPY DATA		DATE
Prepared By:	GORDON AAKER		DECEMBER 07, 2016
Reviewed By:			
Approved By:			
Issued By:			
Issued To:			

4.7 The cavity shall be ground with approximately a one-quarter inch minimum radius at the bottom of the cavity to allow adequate fusion at the bottom and sides of the cavity. The sides and ends of the cavity shall have a minimum included angle of 45°.

4.8 After the defect has been completely removed visually, Shop Superintendent or NDE Personnel shall examine the area prior to any repair welding.

4.9 All repair welds shall be made using qualified welding procedures approved for use by the Shop Superintendent and customer (when applicable).

4.10 A weldment that is defective after two separate repair cycles shall be reviewed by the Welding foreman and the Shop Superintendent prior to any additional weld repairs. (A repair cycle is the complete cycle of removing the defect through repair welding, but not including post weld heat treatment.)

4.11 As a minimum, the repair weld shall be subjected to the same non-destructive examination(s) as the initial weldment.

	CONTROL COPY DATA		DATE
Prepared By:	GORDON AAKER		DECEMBER 07, 2016
Reviewed By:			
Approved By:			
Issued By:			
Issued To:			