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Resistance Spotwelding

Mo/Yr

Revisions					Rev:		
Letter	E.O. Number - Description				Date		
Used On	Contract#:		Your Co				
Prepared By:							
Your Dept:							
Your Dept:			WELDING PROCEDURE				
Your Dept:							
Your Dept:			Size:	A	CAGE:		Form Rev: Orig 1 of 1

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1.0 Scope

Provide a standard for achieving uniform resistance spotwelds.

2.0 Guidelines

- 2.1 AWS A3.0, Standard Welding Terms and Definitions
- 2.2 Your #, Your Doc
- 2.3 Your #, Spotwelding Log or equivalent
- 2.4 Your #, Workmanship Standards
- 2.5 AMS-W-6858, Welding, Resistance, Spot and Seam

3.0 Equipment

- 3.1 Non-magnetic Jigs or Fixtures
- 3.2 Spotwelding equipment of sufficient capacity to achieve the required workmanship standards

4.0 Materials

- 4.1 Alcohol, 99% Anhydrous
- 4.2 Clean Cloth or Towel

5.0 Requirements

5.1 Base Metal Cleanliness

Material to be spotwelded must meet the applicable workmanship standard (Your #).

5.2 Component Cleanliness

Items may be used if they appear [redacted]
[redacted] The surface to be welded must [redacted]
[redacted]

5.3 Welding Machines

The welding machine(s) must consist of a suitable source of electrical energy, means of adequately cooling the electrodes, and a means of [redacted]
[redacted] It must not be possible to [redacted]
[redacted]

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5.4 Fitup

Mating parts assembled for welding must be designed and processed to fit so that before the first and each successive weld is made the surfaces to be joined by the weld are [REDACTED]
[REDACTED]

5.5 Jigs and Fixtures

All tooling that is required to locate welds or assist in the assembly of welded parts that passes through the magnetic field during the welding operation must [REDACTED]
[REDACTED]

5.6 Machine Qualification

Daily tests must be conducted according to 5.10 or according to the applicable manufacturing procedure to determine if [REDACTED]
[REDACTED]

5.7 Control Adjustments

When adjustment of the daily qualification weld schedule is desirable, the settings may be varied by [REDACTED] from the qualified values, or by [REDACTED] when only one qualified setting is adjusted. Production welds must be made within [REDACTED] of the settings used on qualification test specimens. If satisfactory welding cannot be maintained within these limits of adjustment, welding [REDACTED]
[REDACTED]

5.8 Test vs. Production Conditions

Results of tests must represent production parts. The welding conditions should be replicated in parts and materials used for weld tests. For example, [REDACTED]
[REDACTED]

5.9 Weld Acceptance Criteria

Test and production welds:
Delamination of or expulsion of any base material is [REDACTED]
[REDACTED]

Peel Test Requirements:

Your #

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Pull Test Requirements:

Your #

5.10 Test Frequency (Item 1, 2, and 3 apply)

- 1.) [REDACTED]
- 2.) [REDACTED]
- 3.) [REDACTED]

6.0 Definitions

6.1 Peel Test

A mechanical test in which the members are gripped and pulled apart perpendicular to each other to determine [REDACTED]

6.2 Shear Test

A mechanical test in which the members are gripped and pulled apart in parallel to each other to determine [REDACTED]

6.3 Member

Individual items to be joined in a welding process.

7.0 Workmanship

The quality of the welded assembly is determined according to [REDACTED]