

Coded Note Number: **Y1760**

Revision: **C001**

Date: **September 29, 2017**

Title: **FORM 3 SPOOL WELDING WIRE TESTING REQUIREMENTS**

This revision history is provided for convenience and does not alleviate the supplier's responsibility with understanding and complying with the full coded note.

Change from Revision A – Editorial change to reformat to current standard.

Bolded font indicates changed/added content.

[Text deleted] inserted in the document indicates the removal of content.

The following procedure shall be used for testing each size and lot of Form 3 (spooled) MIL-70S-3 wire using the GTAW-AU process.

1. A 3/4" test plate shall be prepared in accordance with MIL-E-23765/1, Figure 1. The plate thickness may be reduced to 1/2" with the root gap reduced to 1/4", if a MIL-SPEC conformance test has been performed on 3/4" material with the GMAW or GTAW process.
2. Welding shall be in accordance with MIL-E-23765/1, Figure 1 notes with modifications specified herein.
3. Wires shall be tested in the final drawn condition.
4. Shielding gas shall be 100% Argon.
5. Parameters used shall be as follows:

Polarity:	DCSP	
	Layer 1	Layers 2 & Up
Amps	170-180	220-230
Volts	9-10	9-10
Travel Speed (IPM)	7-8	8-9
Wire Feed Speed		
(IPM) .035"	50-60	50-60
.045"	30-36	30-36

6. Welding shall be done in the flat position.
7. The joint shall be radiographed (RT) in accordance with MIL-STD-271 with acceptance to NAVSHIPS 0900-003-9000 Class 1.
8. Failure of radiographic testing rejects the size and lot, except as follows: if a test

plate fails other than for porosity, the plate may either be repaired and reinspected, or another test plate may be welded and inspected. If a test plate fails for porosity it may not be repaired. If the cause of porosity can be identified as other than wire related, additional welding and testing may be performed. In this case, two more test plates shall be welded and tested, both of which must pass RT. All test results, pass and fail, including rationale for retesting a failed size and lot, shall be submitted to NNS for information.