



**Major Tool and Machine, Inc.**  
 1458 E. 19th Street, Indianapolis, Indiana, 46218  
**Welder Performance Qualification (WPQ)**  
 WeldOffice WPQ

Welder's name	Shafer, Eli	Test date	7/30/01
ID Number	230	WPQ record number	Shafer 003
Date of birth		Standard test number	Rev.
Stamp number		WPS record number	WPS003 Rev.
Company name	Major Tool and Machine, Inc.	Qualification code	ASME Section IX
Division			

**BASE METALS (QW-403)**

	Product form	Specification (type or grade)	P no.	Grp-no.	Size	Sch.	Thick. (in.)	Dia. (in.)
Welded to:	Plate	Inconel 617 (UNS N06617)	43		-	-	1.38	-
	Plate	Inconel 617 (UNS N06617)	43		-	-	1.38	-
Joint type	Groove							

**VARIABLES**

	Actual values	RANGE QUALIFIED
Type of weld joint	Plate - Groove	Groove and Fillet welds
Base metal	P43 to P43	P-no./S-no. 1 thru 11, 34, 4X

**BASE METAL THICKNESS**

	Groove	Fillet	Overlay	Groove	Fillet	Overlay
Plate thickness (in.)	1.38	-	-	no limit	no limit	-
Pipe/tube thickness (in.)	-	-	-	no limit	no limit	-
Pipe diameter (in.)	-	-	-	2.875 min	no limit	-

**PROCESS VARIABLES**

	Actual values		RANGE QUALIFIED	
	GTAW	GMAW	GTAW	GMAW
Welding process	GTAW	GMAW	GTAW	GMAW
Type	Manual	Semi-automatic	Manual	Semi-automatic
Backing	With	With	With	With
Filler metal specification	5.14	5.14	5xx	5xx
Filler metal classification	ERNiCrCoMo-1	ERNiCrCoMo-1	Any	Any
Filler metal F-number	43	43	34,41..45	34,41..45
Filler metal variety (QW-404.23)	Bare (solid)	-	Solid, metal cored	-
Consumable insert	None	-	Without	-
Number of layers deposited	3 min.	3 min.		
Weld deposit thickness (in.)	.68	.68	no limit	no limit
Weld position (Actual position tested)	3G	1G		
Groove - Plate & Pipe >24"			F,V	F
Groove - Pipe 2.875" to 24"			F	F
Groove - Pipe < 2.875"			-	-
Fillet - Plate & Pipe >24"			F,H,V	F
Fillet - Pipe 2.875" to 24"			F,H,V	F
Fillet - Pipe < 2.875"			F,H,V	F
Progression	Up	-	Up	-
Backing gas	Without	Without	With, without	With, without
GMAW transfer mode (QW-409)	-	Pulsed Spray	-	Spray, pulse, globular
GTAW welding current/polarity	DCEN (straight polarity)	-	DCEN (straight polarity)	-

**TESTS**

Type of test	Acceptance criteria	Result	Comments
Visual examination per QW-302.4	QW-194	Acceptable	see - ASME IX - QW-452.1 Note (8)
Radiographic examination per QW-191 and QW-302.2	QW-191.2	Acceptable	see - ASME IX - QW-142, QW-304

Notes

**CERTIFICATION**

Tests conducted by	U.S. Inspections	Laboratory test number	L3956
Mechanical tests by		Test file number	

We certify that the statements in this record are correct and that the test welds were prepared, welded and tested in accordance with the requirements of Section IX of the ASME Code.

**Signature**

Name	Signature
David Leapley	
Date	
8/1/2001	