NATIONAL ENERGY EQUIPMENT INC.

Date: JUN/25/2018

Prepared for: Michael Cross Branch: Dartmouth

Sample Description: Coupons - 5052 Welder ID Number: 6421

Standard/Specification: ASME IX: QW-160 Guided Bend Test

Test Results

Sample ID	Visual Examination of Weld	Location	Bend Test	Comments
1G	Pass	Face	Pass	
2G	Pass		Pass	
3G	Pass		Pass	
4G	Pass		Pass	
1G	Pass	Root	Pass	
2G	Pass		Pass	
3G	Pass		Pass	
4G	Pass		Pass	

Test Findings

All positions passed bend test.

Recommendations

No recommendations needed.

Test Preformed By: Scott Gira

Test Date: JUN/25/2018

NATIONAL ENERGY EQUIPMENT INC.

Welding Performance Qualification (WPQ)

Form Number:NEE-FRM-019 Page 1 of 1 | Revision: 1

Welders Name: Michael Cross
WPS Used: A-MBF-1
Base Metal: 5052

Identification Number: 6421
Test Coupon: 1G
Thickness: 1/4"

	Actual Values	Range Values
Welding process	GMAW	GMAW
Type of Welder	Semi Auto	Semi Auto
Plate or Pipe	Plate	Plate
Base Metal	5052	5052
Filler Metal Spec	AWS 5.10	AWS 5.10
Filler Metal Class	ER5356	ER5356
Filler Metal	Aluminum	Aluminum
Consumable Insert		
Filler Type	Wire	Wire
Position/ Progression	Flat 1G/ Uphill	Flat 1G/ Uphill
Inert Gas Used	99.99% Argon	99.99% Argon
Voltage	23.0	22-25
Amperage	Auto	230-260
Transfer Mode	Spray Arc	Spray Arc
Welder Polarity	DCRP	DCRP
Cleaning Type	Wire Brush	Wire Brush

Welder and Welding Supervisor are responsible for the test coupons being prepared and welded in accordance with requirements of Section IX of the ASME Code.

Welding Supervisor: Robert Ward. Signature: Robert Ward.
Location: Dartmouth Shop

Results of Bend Test

Visual Examination of Complete Weld: Pass
Type of Test: Bend Root or Face
Code: ASME IX Result: Pass

Visual Examination of Complete Weld: Pass
Type of Test: Bend Root or Face
Code: ASME IX Result: Pass

Mechanical Test Preformed by: Scott Gira Signature:
Location: : NEE Winnipeg

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: Jun /25/18 Organization: National Energy Equipment
Name: Zanyar Farhadi Signature:

NATIONAL ENERGY EQUIPMENT INC.

Welding Performance Qualification (WPQ)

Form Number:NEE-FRM-019 Page 1 of 1 | Revision: 1

Welders Name: Michael Cross
WPS Used: A-MBH-1
Base Metal: 5052

Identification Number: 6421
Test Coupon: 2G
Thickness: 1/4"

	Actual Values	Range Values
Welding process	GMAW	GMAW
Type of Welder	Semi Auto	Semi Auto
Plate or Pipe	Plate	Plate
Base Metal	5052	5052
Filler Metal Spec	AWS 5.10	AWS 5.10
Filler Metal Class	ER5356	ER5356
Filler Metal	Aluminum	Aluminum
Consumable Insert		
Filler Type	Wire	Wire
Position/ Progression	Horizontal 2G/ Uphill	Horizontal 2G/ Uphill
Inert Gas Used	99.99% Argon	99.99% Argon
Voltage	23.0	21-24
Amperage	Auto	205-220
Transfer Mode	Spray Arc	Spray Arc
Welder Polarity	DCRP	DCRP
Cleaning Type	Wire Brush	Wire Brush

Welder and Welding Supervisor are responsible for the test coupons being prepared and welded in accordance with requirements of Section IX of the ASME Code.

Welding Supervisor: Robert Ward. Signature: Robt Ward.
Location: Dartmouth Shop

Results of Bend Test

Visual Examination of Complete Weld: Pass
Type of Test: Bend Root or Face
Code: ASME IX Result: Pass

Visual Examination of Complete Weld: Pass
Type of Test: Bend Root or Face
Code: ASME IX Result: Pass

Mechanical Test Preformed by: Scott Giza Signature:
Location: : NEE Winnipeg

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: Jan/25/18 Organization: National Energy Equipment
Name: Zanyar Farhadi Signature:

NATIONAL ENERGY EQUIPMENT INC.

Welding Performance Qualification (WPQ)

Form Number:NEE-FRM-019 | Page 1 of 1 | Revision: 1

Welders Name: Michael Cross
WPS Used: A-MBV-1
Base Metal: 5052

Identification Number: 6421
Test Coupon: 3G
Thickness: 1/4"

	Actual Values	Range Values
Welding process	GMAW	GMAW
Type of Welder	Semi Auto	Semi Auto
Plate or Pipe	Plate	Plate
Base Metal	5052	5052
Filler Metal Spec	AWS 5.10	AWS 5.10
Filler Metal Class	ER5356	ER5356
Filler Metal	Aluminum	Aluminum
Consumable Insert		
Filler Type	Wire	Wire
Position/ Progression	Vertical 3G/ Uphill	Vertical 3G/ Uphill
Inert Gas Used	99.99% Argon	99.99% Argon
Voltage	23.0	21-24
Amperage	Auto	185-205
Transfer Mode	Spray Arc	Spray Arc
Welder Polarity	DCRP	DCRP
Cleaning Type	Wire Brush	Wire Brush

Welder and Welding Supervisor are responsible for the test coupons being prepared and welded in accordance with requirements of Section IX of the ASME Code.

Welding Supervisor: Robert Ward. Signature: Robert Ward.
Location: Dartmouth Shop

Results of Bend Test

Visual Examination of Complete Weld: Pass
Type of Test: Bend
Code: ASME IX
Root or (Face)
Result: Pass

Visual Examination of Complete Weld: Pass
Type of Test: Bend
Code: ASME IX
(Root) or Face
Result: Pass

Mechanical Test Preformed by: Scott Gzia Signature:
Location: : NEE Winnipeg

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: Jan/25/18 Organization: National Energy Equipment
Name: Zanyar Farhadi Signature:

NATIONAL ENERGY EQUIPMENT INC.

Welding Performance Qualification (WPQ)

Form Number:NEE-FRM-019 Page 1 of 1 | Revision: 1

Welders Name: Michael Cross
WPS Used: A-MBO-1
Base Metal: 5052

Identification Number: 6421
Test Coupon: 4G
Thickness: 1/4"

	Actual Values	Range Values
Welding process	GMAW	GMAW
Type of Welder	Semi Auto	Semi Auto
Plate or Pipe	Plate	Plate
Base Metal	5052	5052
Filler Metal Spec	AWS 5.10	AWS 5.10
Filler Metal Class	ER5356	ER5356
Filler Metal	Aluminum	Aluminum
Consumable Insert		
Filler Type	Wire	Wire
Position/ Progression	Overhead 4G/ Uphill	Overhead 4G/ Uphill
Inert Gas Used	99.99% Argon	99.99% Argon
Voltage	230	21-24
Amperage	Auto	200-220
Transfer Mode	Spray Arc	Spray Arc
Welder Polarity	DCRP	DCRP
Cleaning Type	Wire Brush	Wire Brush

Welder and Welding Supervisor are responsible for the test coupons being prepared and welded in accordance with requirements of Section IX of the ASME Code.

Welding Supervisor: Robert Ward. Signature: Robert Ward.
Location: Dartmouth Shop

Results of Bend Test

Visual Examination of Complete Weld: Pass
Type of Test: Bend Root or (Face)
Code: ASME IX Result: Pass

Visual Examination of Complete Weld: Pass
Type of Test: Bend (Root) or Face
Code: ASME IX Result: Pass

Mechanical Test Preformed by: Scott Gira Signature:
Location: : ASME IX

We certify that the statement in the record is correct and that the test coupons were tested in accordance with the requirements of Section IX of ASME Code.

Date: Jun/25/18 Organization: National Energy Equipment
Name: Zanyar Farhadi Signature: