



QA/QC DATA BOOK - WO 93-2022 -

- CRACK REPAIRS

FROM:

HIDRAMAR INTERNATIONAL

PROJECT MANAGER:

JONATHAN RODRÍGUEZ

TO:

SUBJECT:

CRACK REPAIRS DURING

DATE:

TRANSIT 17/02/2023



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1 DESCRIPTION

HIDRAMAR INTERNATIONAL was requested [REDACTED] provide manpower in order to carry out repairs of several cracks found in the vessel [REDACTED], during transit from KOREA to PANAMA.

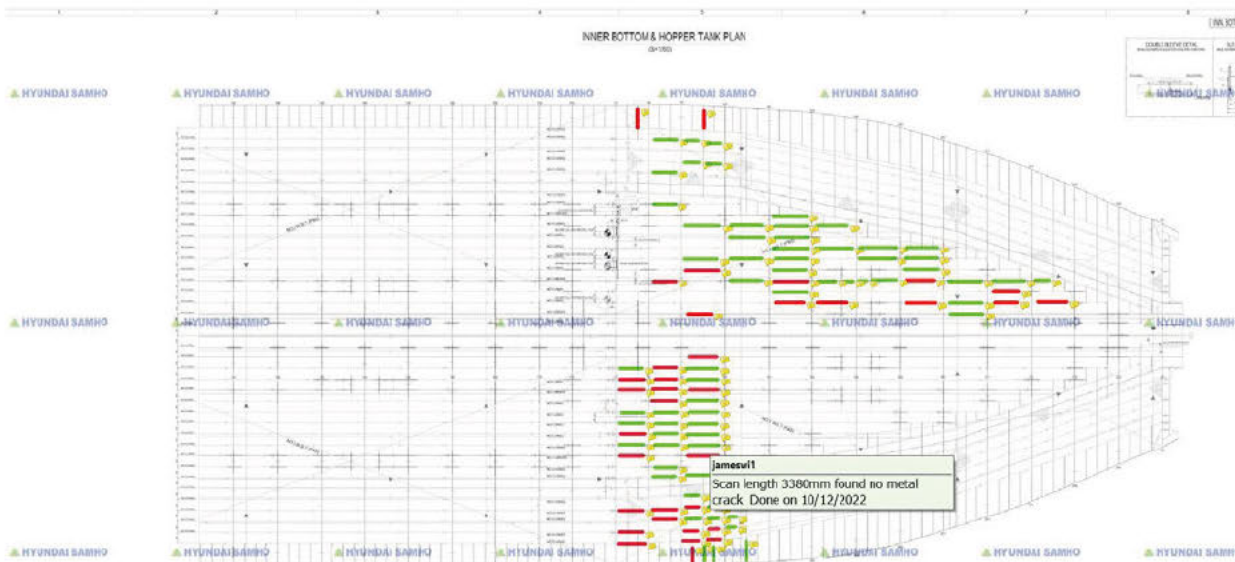
2 SCOPE OF WORK

The scope of work carried out by HIDRAMAR INTERNATIONAL consisted in gouging, cleaning, performing NDT inspection and repairing by welding the cracks found the vessel tanks. For the completion of the above-mentioned scope of work, HIDRAMAR INTERNATIONAL provided:

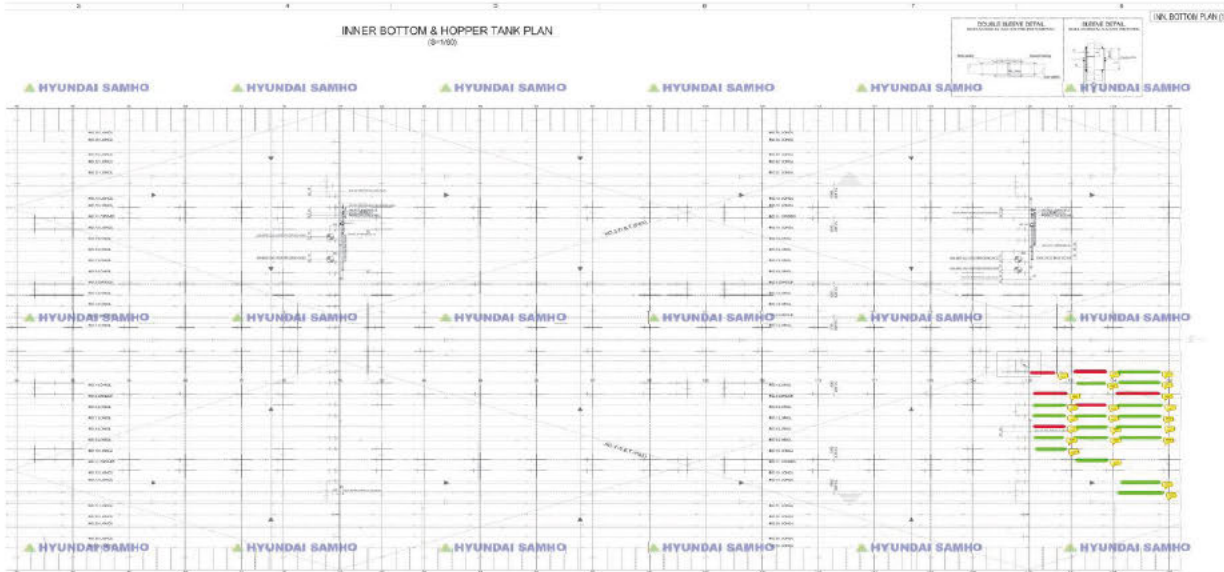
- A team of experienced steel fitters and certified welders.
- Two NDT inspectors and equipment to work around the clock, in order to speed up repairs.
- All required WPS, WPQR and required certifications for the Class Surveyor approval of repair procedure.

The following was provided by client for the execution of the scope of work:

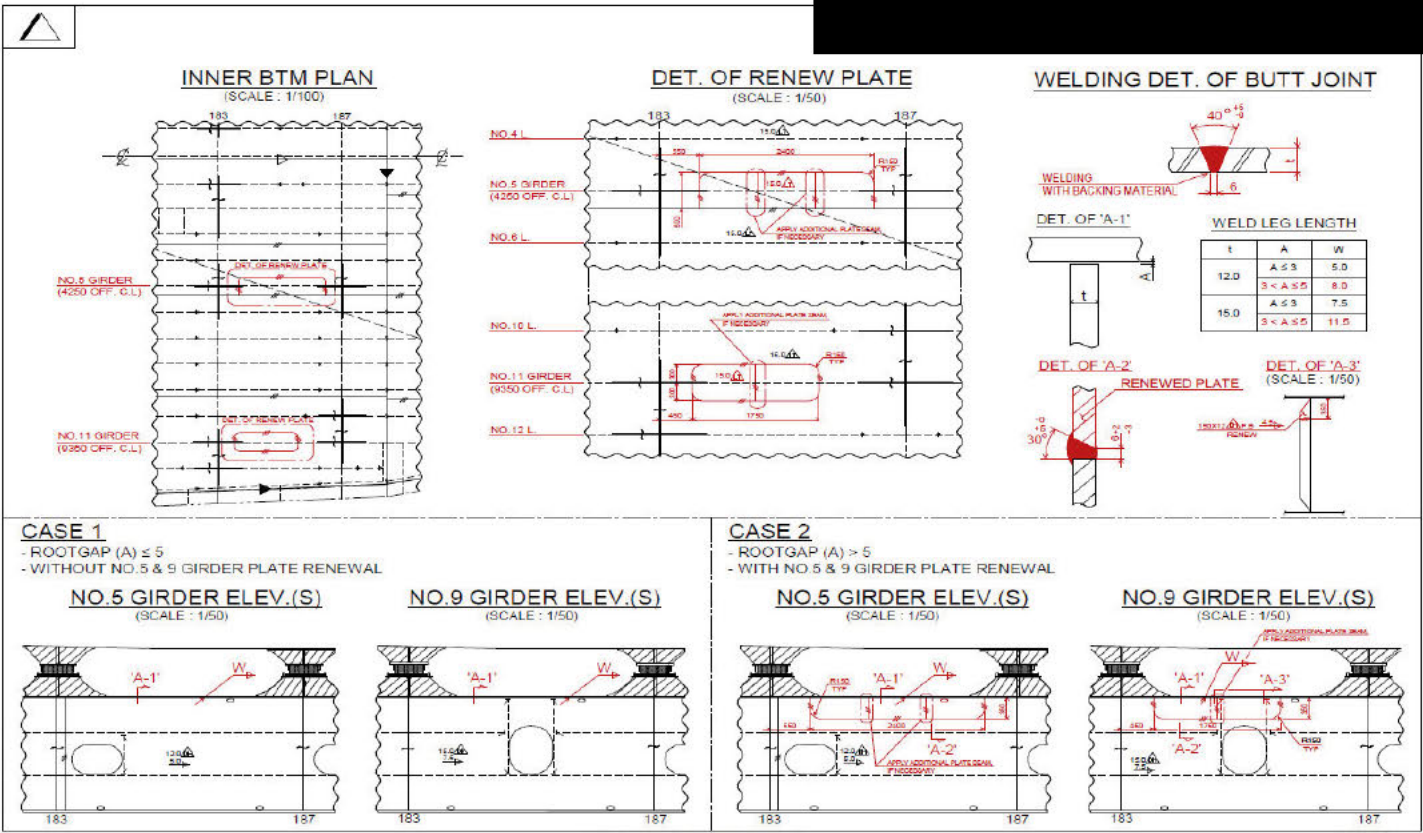
- Welding machines and general tools
- Consumables, including welding and oxy-acetylene cutting equipment
- Steel plates for replacement in the 2 locations where identified as required



1. Overview of Cracks in WBT #1 P & S



2. Overview of Cracks in WBT #2 P & S



3. Repair Procedure for Steel Plates Replacement

1 QUALITY ASSURANCE / QUALITY CONTROL MANAGEMENT

During the execution of this scope of work, we followed next technical instruction and procedures:

- IT08-4-1 Rev 03 - Material traceability and certificates management.
- IT85-68 Rev 01 NDT Procedure Welding Consumable Handling and Storage
- Welding procedure: HWPS-016-003-2G-3G-SMAW-EH36

2 BASE MATERIAL

Plates provided by client.

MILL TEST CERTIFICATE ACC. TO BS EN10204 : 2004

Test Certificate No. **0000319455**, Revision No. **000**

Test Method : Tensile : BSEN ISO 6892-1 ; Impact : BSEN ISO 148-1 ; Chemical : CR 10320

Date : **29.04.2022**

To,

Page 1 of 4

Process of Manufacture : EAF/NOF->LRF->CCM->RHF->Plate Mill

EAF - Electric Arc Furnace / LRF: Ladle Refining Furnace / VD : Vacuum Degassing / CCM : Continuous Casting Machine/ RHF : Re-Heating Furnace/NOF: New Oxygen Furnace

Deoxidation : Fully Killed

Material Grade EN10025-2 S355J2+N and Dimension (T x W x L) 10.00MMX2500MMX12.000M																															
ProductID		No.	Wts	Chemical Analysis											Micro Alloying			N	CE	Mechanical Properties											
HeatNo	Plate	of	(MT)	Chem												Element			ppm		YS	UTS	%El	Bend Test		Impact (Joule)				G Size	Hardness
	Coil	Pcs		Type	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Cr	%Ni	%Mo	%B	%V	%Nb	%Ti			(MPa)	(MPa)			I	II	III	Avg	U ^o C	ASTM No.	
2215376	CCB	1	2.355	L	0.16	0.97	0.010	0.020	0.16	0.030	0.005	0.013	0.006	0.0034	0.0002	0.0011	0.0003	0.0017	68	0.32	378	514	27		84	92	94	90.000	-20		
2215377	ACA	2	4.710	L	0.15	0.93	0.008	0.018	0.17	0.024	0.005	0.016	0.005	0.0024	0.0003	0.0010	0.0003	0.0018	66	0.30	395	529	26		56	54	50	53.333	-20		
2215382	CCB	2	4.710	L	0.16	0.94	0.011	0.016	0.19	0.040	0.004	0.009	0.005	0.0029	0.0003	0.0009	0.0003	0.0022	65	0.32	375	521	27		76	74	68	72.666	-20		
3215369	BCB	1	2.355	L	0.15	0.92	0.011	0.013	0.15	0.024	0.005	0.012	0.006	0.0023	0.0003	0.0009	0.0002	0.0017	68	0.30	384	512	27		74	86	88	82.666	-20		
3215374	BCF	1	2.355	L	0.15	0.92	0.004	0.014	0.21	0.023	0.004	0.014	0.005	0.0026	0.0002	0.0010	0.0002	0.0022	68	0.30	384	516	29		100	104	102	102.00	-20		
3215374	CCA	2	4.710	L	0.15	0.92	0.004	0.014	0.21	0.023	0.004	0.014	0.005	0.0026	0.0002	0.0010	0.0002	0.0022	68	0.30	380	512	28		102	106	100	102.66	-20		
3215380	CCA	2	4.710	L	0.15	0.92	0.012	0.018	0.15	0.024	0.004	0.013	0.005	0.0029	0.0003	0.0011	0.0003	0.0016	69	0.30	397	527	28		82	84	80	82.000	-20		
3215380	CCE	1	2.355	L	0.15	0.92	0.012	0.018	0.15	0.024	0.004	0.013	0.005	0.0029	0.0003	0.0011	0.0003	0.0016	69	0.30	397	527	28		82	84	80	82.000	-20		
Section Total		12	28.260																												
Material Grade EN10025-2 S355J2+N and Dimension (T x W x L) 15.00MMX2500MMX12.000M																															
ProductID		No.	Wts	Chemical Analysis											Micro Alloying			N	CE	Mechanical Properties											
HeatNo	Plate	of	(MT)	Chem												Element			ppm		YS	UTS	%El	Bend Test		Impact (Joule)				G Size	Hardness
	Coil	Pcs		Type	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Cr	%Ni	%Mo	%B	%V	%Nb	%Ti			(MPa)	(MPa)			I	II	III	Avg	U ^o C	ASTM No.	
2215357	DCD	1	3.533	L	0.15	0.95	0.006	0.016	0.17	0.028	0.005	0.012	0.005	0.0030	0.0003	0.0010	0.0003	0.0019	69	0.31	406	521	25		116	112	118	115.33	-20		
Section Total		1	3.533																												

Description of Goods : Prime Quality Hot Rolled Plates.

We hereby certify that the material described herein has been manufactured and tested with satisfactory results in accordance with specification EN 10025-2, thickness tolerance specification EN 10029 and agreed TDC.

Supply Condition : NORMALIZING ROLLING, TRIMMED

UltraSonic Examination : All the above plates are ultrasonically tested as per EN10160 S1E1 and found ok

R. S. Wadnalkar
(R. S. Wadnalkar)

Purchase Order No. & Date : PROV/EXP/PLT/11078-Aviles Lot 2 23.02.2022

Dispatch Advice No : 47405819

Truck / Wagon No :

FORMAT No. : F-16(8.6.0-08)/ ISSUE 03 DT. 05.11.2019

Gauge Length : 5.65(SO)1/2

Prepared by VIPIN AGARWAL

Preparation Date :29.04.2022 00:49:21

Printing Date 13.06.2022 & Time 17:12:18

**Authorised Signatory (Quality Assurance)
For, JINDAL STEEL & POWER LIMITED**

Test Certificate No. 0000319455, Revision No. 000

Test Method : Tensile : BSEN ISO 6892-1 ; Impact : BSEN ISO 148-1 ; Chemical : CR 10320

Date : 29.04.2022

To,

Page 2 of 4

Process of Manufacture : EAF/NOF->LRF->CCM->RHF->Plate Mill

EAF - Electric Arc Furnace / LRF: Ladle Refining Furnace / VD : Vacuum Degassing / CCM : Continuous Casting Machine/ RHF : Re-Heating Furnace/NOF: New Oxygen Furnace

Deoxidation : Fully Killed

Material Grade EN10025-2 S355J2+N and Dimension (T x W x L) 15.00MMX2500MMX12.000M																															
ProductID		No.	Wts	Chemical Analysis												Micro Alloying			N	CE	Mechanical Properties										
HeatNo	Plate	of	(MT)	Chem													Element			ppm		YS	UTS	%El	Bend Test	Impact (Joule)				G Size	Hardness
	Coil	Pcs		Type	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Cr	%Ni	%Mo	%B	%V	%Nb	%Ti			(MPa)	(MPa)			I	II	III	Avg	U _C	ASTM No.	
3215355	BCD	1	3.533	L	0.16	0.93	0.006	0.012	0.19	0.031	0.005	0.016	0.005	0.0030	0.0003	0.0010	0.0002	0.0021	63	0.32	375	515	26		104	108	110	107.33	-20		
Section Total		1	3.533																												
Material Grade EN10025-2 S355J2+N and Dimension (T x W x L) 8.000MMX2500MMX12.000M																															
ProductID		No.	Wts	Chemical Analysis												Micro Alloying			N	CE	Mechanical Properties										
HeatNo	Plate	of	(MT)	Chem													Element			ppm		YS	UTS	%El	Bend Test	Impact (Joule)				G Size	Hardness
	Coil	Pcs		Type	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Cr	%Ni	%Mo	%B	%V	%Nb	%Ti			(MPa)	(MPa)			I	II	III	Avg	U _C	ASTM No.	
2215375	BCA	2	3.768	L	0.15	0.93	0.013	0.020	0.17	0.027	0.005	0.013	0.006	0.0037	0.0003	0.0009	0.0002	0.0019	67	0.30	381	509	27		86	80	88	84.666	-20		
2215375	BCD	2	3.768	L	0.15	0.93	0.013	0.020	0.17	0.027	0.005	0.013	0.006	0.0037	0.0003	0.0009	0.0002	0.0019	67	0.30	381	509	27		86	80	88	84.666	-20		
2215375	CCB	2	3.768	L	0.15	0.93	0.013	0.020	0.17	0.027	0.005	0.013	0.006	0.0037	0.0003	0.0009	0.0002	0.0019	67	0.30	385	511	26		68	64	62	64.666	-20		
2215375	CCF	1	1.884	L	0.15	0.93	0.013	0.020	0.17	0.027	0.005	0.013	0.006	0.0037	0.0003	0.0009	0.0002	0.0019	67	0.30	385	511	26		68	64	62	64.666	-20		
2215375	DCE	6	11.304	L	0.15	0.93	0.013	0.020	0.17	0.027	0.005	0.013	0.006	0.0037	0.0003	0.0009	0.0002	0.0019	67	0.30	391	508	26		84	92	82	86.000	-20		
3215366	ACD	1	1.884	L	0.16	0.93	0.006	0.012	0.18	0.027	0.005	0.011	0.006	0.0024	0.0003	0.0009	0.0002	0.0016	70	0.31	384	513	26		84	88	90	87.333	-20		
3215366	BCE	4	7.536	L	0.16	0.93	0.006	0.012	0.18	0.027	0.005	0.011	0.006	0.0024	0.0003	0.0009	0.0002	0.0016	70	0.31	391	514	26		74	78	80	77.333	-20		
3215369	CCA	2	3.768	L	0.15	0.92	0.011	0.013	0.15	0.024	0.005	0.012	0.006	0.0023	0.0003	0.0009	0.0002	0.0017	68	0.30	382	514	27		82	74	84	80.000	-20		
Section Total		20	37.680																												

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UltraSonic Examination : All the above plates are ultrasonically tested as per EN10160 S1E1 and found ok

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(R. S. Wadnalkar)

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Preparation Date : 29.04.2022 00:49:21

Printing Date 13.06.2022 & Time 17:12:18

**Authorised Signatory (Quality Assurance)
For, JINDAL STEEL & POWER LIMITED**



JINDAL STEEL & POWER LIMITED
 P.B.NO.-16, Kharsia Road, RAIGARH (Chhattisgarh) PIN-496001 INDIA
 Registered Office : Delhi Road, Hisar- 125005 (Haryana)
 Corporate Office: Jindal Centre, 12 Bhikaji Cama Palace, New Delhi-110066



MILL TEST CERTIFICATE ACC. TO BS EN10204 : 2004

Test Certificate No. 0000319455, Revision No. 000

Test Method : Tensile : BSEN ISO 6892-1 ; Impact : BSEN ISO 148-1 ; Chemical : CR 10320

Date : 29.04.2022

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ProductID		No.	Wts	Chemical Analysis												Micro Alloying			N	CE	Mechanical Properties											
HeatNo	Plate	of	(MT)	Chem													Element			ppm		YS	UTS	%El	Bend Test	Impact (Joule)				G Size	Hardness	
	Coil	Pcs		Type	%C	%Mn	%S	%P	%Si	%Al	%Cu	%Cr	%Ni	%Mo	%B	%V	%Nb	%Ti			(MPa)	(MPa)			I	II	III	Avg	0C	ASTM No.		
3215369	DCA	1	1.884	L	0.15	0.92	0.011	0.013	0.15	0.024	0.005	0.012	0.006	0.0023	0.0003	0.0009	0.0002	0.0017	68	0.30	376	514	27		76	72	78	75.333	-20			
3215369	DCD	1	1.884	L	0.15	0.92	0.011	0.013	0.15	0.024	0.005	0.012	0.006	0.0023	0.0003	0.0009	0.0002	0.0017	68	0.30	376	514	27		76	72	78	75.333	-20			
3215370	ACC	1	1.884	L	0.15	0.92	0.011	0.018	0.18	0.033	0.005	0.016	0.005	0.0028	0.0003	0.0011	0.0004	0.0022	67	0.30	377	516	28		62	66	68	65.333	-20			
3215370	ACF	1	1.884	L	0.15	0.92	0.011	0.018	0.18	0.033	0.005	0.016	0.005	0.0028	0.0003	0.0011	0.0004	0.0022	67	0.30	377	516	28		62	66	68	65.333	-20			
3215370	ACG	1	1.884	L	0.15	0.92	0.011	0.018	0.18	0.033	0.005	0.016	0.005	0.0028	0.0003	0.0011	0.0004	0.0022	67	0.30	377	516	28		62	66	68	65.333	-20			
3215370	BCA	1	1.884	L	0.15	0.92	0.011	0.018	0.18	0.033	0.005	0.016	0.005	0.0028	0.0003	0.0011	0.0004	0.0022	67	0.30	370	512	25		72	76	78	75.333	-20			
3215370	CCB	1	1.884	L	0.15	0.92	0.011	0.018	0.18	0.033	0.005	0.016	0.005	0.0028	0.0003	0.0011	0.0004	0.0022	67	0.30	369	511	26		60	64	66	63.333	-20			
3215372	ACA	3	5.652	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	378	516	26		84	70	72	75.333	-20			
3215372	ACD	3	5.652	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	378	516	26		84	70	72	75.333	-20			
3215372	BCA	2	3.768	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	378	508	26		82	76	88	82.000	-20			
3215372	BCC	3	5.652	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	378	508	26		82	76	88	82.000	-20			
3215372	BCE	5	9.420	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	378	508	26		82	76	88	82.000	-20			
3215372	CCC	1	1.884	L	0.15	0.93	0.015	0.017	0.16	0.034	0.004	0.015	0.005	0.0028	0.0003	0.0011	0.0002	0.0020	69	0.30	371	510	26		84	80	78	80.666	-20			
Section Total		24	45.216																													
Total		58	118.222																													

Test Certificate as per EN 10204 Type 3.1

Remarks :

Durability: No performance determined

Description of Goods : Prime Quality Hot Rolled Plates.

We hereby certify that the material described herein has been manufactured and tested with satisfactory results in accordance with specification EN 10025-2, thickness tolerance specification EN 10029 and agreed TDC.

Supply Condition : NORMALIZING ROLLING,TRIMMED

UltraSonic Examination : All the above plates are ultrasonically tested as per EN10160 S1E1 and found ok

R. S. Wadnalkar
(R. S. Wadnalkar)

Purchase Order No. & Date : PROV/EXP/PLT/11078-Aviles Lot 2 23.02.2022

Dispatch Advice No : 47405819

Truck / Wagon No :

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Gauge Length : 5.65(SO)1/2

Prepared by VIPIN AGARWAL

Preparation Date :29.04.2022 00:49:21

Printing Date 13.06.2022 & Time 17:12:18

**Authorised Signatory (Quality Assurance)
For, JINDAL STEEL & POWER LIMITED**

Test Certificate No. 0000319455, Revision No. 000

Test Method : Tensile : BSEN ISO 6892-1 ; Impact : BSEN ISO 148-1 ; Chemical : CR 10320

Date : 29.04.2022

To,

Page 4 of 4

Process of Manufacture : EAF/NOF->LRF->CCM->RHF->Plate Mill

EAF - Electric Arc Furnace / LRF: Ladle Refining Furnace / VD : Vacuum Degassing / CCM : Continuous Casting Machine/ RHF : Re-Heating Furnace/NOF: New Oxygen Furnace

Deoxidation : Fully Killed

Regulated Substance: No performance determined
For Declaration of Performance: See Website www.jindalsteelpower.com
DOP :

End use: For building construction and civil engineering purpose
Direction/Orientation of sample:
Tensile-Transverse to rolling direction , Impact-Longitudinal to rolling direction
Type & Size of specimen:

Tensile:-

Flat:

For Thickness upto 18mm thickness: Full thickness x 25mm width

For Thickness >18mm to 30mm: Full thickness x 15mm width

For Thickness >30mm : 30mm thickness x 15mm width

Round:

For Thickness >30mm: Dia. 20 mm

Impact:-

For Thickness 12mm & above: size 10x10x55mm

For Thickness 9mm to <12mm: size 7.5x10x55mm

For Thickness 6mm to <9mm: size 5x10x55mm

DOP No: JSPL/CE/PL/S355J2

Description of Goods : Prime Quality Hot Rolled Plates.

We hereby certify that the material described herein has been manufactured and tested with satisfactory results in accordance with specification EN 10025-2, thickness tolerance specification EN 10029 and agreed TDC.

Supply Condition : NORMALIZING ROLLING, TRIMMED

UltraSonic Examination : All the above plates are ultrasonically tested as per EN10160 S1E1 and found ok

Purchase Order No. & Date : PROV/EXP/PLT/11078-Aviles Lot 2 23.02.2022

Dispatch Advice No : 47405819

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Gauge Length : 5.65(SO)1/2
Prepared by VIPIN AGARWAL
Preparation Date :29.04.2022 00:49:21
Printing Date 13.06.2022 & Time 17:12:18


**Authorised Signatory (Quality Assurance)
For, JINDAL STEEL & POWER LIMITED**

3 FILLER MATERIAL

Welding consumables provided by client.

INSPECTION CERTIFICATE

KOBELCO WELDING OF EUROPE B.V.

FLUX CORED WIRE

PURCHASER _____

CERTIFICATE NO: KC22-145

DATE OF ISSUE: 29/04/2022

TRADE DESIGNATION	DIAMETER (mm)	MFG.NO.	APPLICABLE SPECIFICATION AND CLASSIFICATION
DW-A81Ni1	1.2	NF2462	AWS A5.29 E81T1-Ni1M-J EN ISO 17632-A - T 46 6 1Ni P M 2 H5

1. CHEMICAL COMPOSITIONS OF ALL WELD METAL(wt%) (ACCORDING TO EN 10204 TYPE 3.1)

ELEMENT	C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb
WELD METAL	0.04	0.35	1.32	0.006	0.007	0.01	0.99	0.02	0.01	0.02	0.01

ELEMENT											
WELD METAL											

2. MECHANICAL PROPERTY OF ALL WELD METAL (ACCORDING TO EN ISO)

2.a TENSILE TEST (ACCORDING TO EN 10204 TYPE 3.1)

YIELD STRENGTH at 0.2% OFFSET (MPa)	TENSILE STRENGTH (MPa)	ELONGATION GL=5D(%)
536	600	24

2.b CHARPY IMPACT (ACCORDING TO EN 10204 TYPE 3.1)

TESTING TEMPERATURE (°C)	ABSORBED ENERGY(J)			AVERAGE
	EACH	EACH	EACH	
-60	91	111	83	95

3. WELDING CONDITIONS FOR THE TESTING

TYPE OF CURRENT	DC+	SHIELDING GAS	80%Ar+20%CO2
WELDING CURRENT	270	(A)	ARC VOLTAGE 31.0 (V)

4. REMARKS

ACCORDING TO GofQ DW-A81Ni1 R2

WE HEREBY CERTIFY THAT THE TEST RESULTS OF THE ABOVE WELDING MATERIAL ARE CORRECT





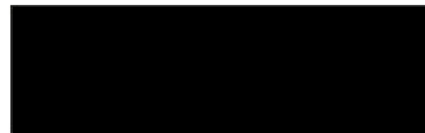
KOBELCO WELDING OF EUROPE B.V.


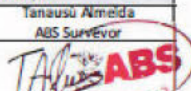
QA Manager

4 WELDING DOCUMENTS WPS

The welding procedure followed on the pad eyes welding is the following: HWPS-016-003-2G-3G-SMAW-EH36

 WELDING PROCEDURE SPECIFICATION REGISTRO DE CUALIFICACIÓN DE PROCEDIMIENTO DE SOLDEO		Página 1 de 3 Sheet 1 of 3
AWS D1.1		
WELDING PROCEDURE SPECIFICATION Nº REGISTRO DE CUALIFICACION Nº COMPANY: COMPAÑÍA: SUPPORTING PQR Nº: PQR SOPORTADO: REFERENCED DOCS:	HWPS-016-003 HIDRAMAR S.L. HWPQR- 016 - 003	DATE: Fecha: 10/10/2016
<u>WELDING PROCESS</u> <u>PROCEDIMIENTO DE SOLDADURA</u> TYPE: SMAW Manual GROOVE: AWS D1.1 Fig. 3.3 or 3.4 MECHANICAL PROPERTIES: ASTM A 131 Grades EH36 51 ksi min Yield 71-90 ksi Tensile	<u>JOINT DESIGN TYPE (QW 402)</u> <u>DISEÑO DE JUNTA</u> JOINT DESIGN TYPE Groove TIPO DE JUNTA: RESPALDO: NA BACKING TIPO DE MATERIAL DE RESPALDO: BACKING MATERIAL TYPE NA ROOT OPENING 2-4 mm TYPICAL JOINT DESIGN As per Sketch	
<u>BASE METALS (QW- 403)</u> <u>METAL BASE</u> TYPE OR GRADE ASTM A 131 (EH36) P No: NA GROUP: II THICKNESS RANGE: 3 mm to unlimited Impact tested: 16 min Partial Pen. 3 mm to unlimited Fillet: Unlimited BASE METAL THICKNESS, ESPESOR DEL METAL BASE 30 mm PIPE/TUBE DIAMETER RANGE QUALIFIED 600 mm to unlimited DEPOSITED WELD METAL 6 mm max	<u>POSITION (QW405)</u> <u>POSICIÓN</u> GROOVE POSITION: POSICIÓN 2G, 3G FILLET POSITION: F,H,V WELDING PROGRESSION VERTICAL UP OTHER:	
<u>FILLER METALS & GAS (QW - 404)</u> <u>METALES DE APORTE & GAS</u> F NUMBER: SMAW-F4 A NUMBER: A5.5 SPECIFICATION SFA: AWS NUMBER SMAW -A5.5 E8018 -C1 FILLER SIZE 2,5 mm , 3,25 mm , 4,0 mm	<u>PREHEAT (QW-406)</u> <u>PRECALENTAMIENTO</u> PREHEAT TEMP TEMP. PRECALENTAMIENTO (MIN): 85°C INTERPASS MAX. TEMP.PREHEAT MAINTENANCE: MÁXIMA TEMPERATURA ENTRE PASADAS: 256 °C PREHEAT MAINTENANCE: 85°C	
<u>SHIELDING (QW - 404)</u> <u>GAS</u> SHELIDNG GAS: NA GAS BACKING: NA PERCENTAGE COMPOSITION: NA FLOW RATE NA	<u>POST WELD HEAT TREATMENT (PWHT) (QW-407)</u> <u>TRATAMIENTO TÉRMICO</u> HEATING RATE: NA TEMPERATURE RATE: NA SOAK TIME: NA COOLING RATE: NA	



HIDRAMAR SHERYARDS		WPS N°:		HPS - 016 - 001			Página 2 de 3 Sheet 2 of 3	
WELDING PROCEDURE								
LAYERS	PROCESS	FILLER		CURRENT			SPEED RANGE (mm/min)	MAX HEAT INPUT (kJ/cm)
		CLAS	DIAM. (mm)	TYP. POLAR	RANG. (Amp)	RANG. (Volt)		
ROOT	SMAW	AS.5 E8018 C1	2,50	DCBP	80-250	20-24	30-75	3,0
RII/CAP	SMAW	AS.5 E8018 C1	3,25	DCBP	120-250	20-24	50-80	3,5
RII/CAP	SMAW	AS.5 E8018 C1	4,00	DCBP	120-250	20-24	50-80	2,5
ELECTRICAL CHARACTERISTICS [QW-409] CARACTERÍSTICAS ELÉCTRICAS								
CURRENT:		DIRECT						
AMPS (RANGE):		80-150 A						
VOLTS (RANGE):		20-24 V						
POLARITY:		SMAW (E P)						
TRANSFER MODE:		---						
TECHNIQUE [QW-410] TÉCNICA								
STRING OR WEAVE BEAD (DIRECCIÓN RECTO U OSCILANTE)		Stringer or Weave		MULTIPLE OR SINGLE PASS:			Single or Multiple	
INITIAL CLEANING LIMPIEZA INICIAL:		Machining and/or Grinding		CONTACT TUBE TO WORK DIST:			NA	
INTERPASS CLEANING LIMPIEZA ENTRE PASADAS:		Wire brush and/or Grinding		PULSING:			NA	
METHOD OF BACK GAUING MÉTODO DE RESANADO:		Grinding/Arc air		TUNGSTEN ELECTRODE:			NA	
MULTIPLE OR SINGLE PASS PASADA MÚLTIPLE O SIMPLE:		Single or Multiple		CLOSED TO OUT CHAMBER:			NA	
CONTACT TUBE TO WORK DISTANCE DISTANCIA A LA PUNTA DE CONTACTO:		12-20 mm		ELECTRODE SPACING:			NA	
USE OF THERMAL PROCESSES:		NA		OTHER:			NA	
FABRICATE MANUFACTURER				EXAMINING BODY PERSONA U ORGANISMO EXAMINADOR				
HIDRAMAR S.L				Supervised by Comprobado por		Approved by Aprobado por		
Name: Nombre:		Rayman J. Rodríguez Ramos		Name: Nombre:		Tamasu Almeida		
Signed Firmado:				Signed Firmado:				
Date Fecha:		10/10/216		Date Fecha:		10/10/2016		



5 WELDER'S QUALIFICATION & MACHINE CALIBRATION CERTIFICATE

This certificate evidence the welder's suitable qualifications and skills to carry out a satisfactory welding work.



James Martínez



DNV-GL

WELDER PERFORMANCE QUALIFICATION

According to AWS D1.1 (e.g. AWS D1.1, ASME IX)

Ref. No:

Welder's / Operator's / Tack Welder's name: [REDACTED] Photo (if required)

Date of birth: [REDACTED]

Stamp No. / Id. No.: [REDACTED]

Project: N/A

Manufacturer/Employer: HIDRAMAR S.L.

These tests performance are performed at: HIDRAMAR S.L.

Date of test welding: 06-07-2020

WPS No.: HWPS-019-001-2G-BRANCH
HWPS-019-001-5G-BRANCH
HWPS-019-001-6G

Base metal(s)	Specification	Type or Grade	AWS Group No.	Size (NPS)	Schedule	Thickness	Diameter
Base Material(s)	API 5L	X52 N	1	16 in	40	12.7 mm	406.4 mm
Welded to Base Material(s)	API 5L	X52 N	1	24 in	-	19.05 mm	610.0 mm

Variables	Actual Values	Range Qualified
Type of Weld Joint	BUTT	BUTT & FILLET
Base Metal Group(s)	1	1

Test Piece	Groove	Fillet	Groove	Fillet
Test piece Thickness	12.7 mm		5 mm - unlimited	ALL
Pipe Diameter(O.D.)	406.4 mm		203.2 - unlimited	ALL

Welding Process(es)	SMAW	FCAW
Type ¹	MANUAL	SEMI-AUTOMATIC
Backing	N/A	WELD METAL
Filler Metal	ESAB SFA/AWS A5.5	KOBELCO AWS A5.29
Classification	E8018-C1	EB1T1-Ni1M-J
F-Number	1	6
Position		
Groove	GGR	GGR
Fillet	-	-
Weld direction	UPHILL	UPHILL

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV GL AS, its parent companies and subsidiaries as well as their officers, directors and employees ("DNV GL") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.

¹ Manual, Semiautomatic, Mechanized, Automatic.



Form code: WELD 261

Revision: 2020-02

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Page 1 of 2

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Ref. No:

GMAW Transfer Mode	-	GLOBULAR/SPRAY
Single or multiple electrodes	SINGLE	SINGLE
Gas / Flux Type	-	20% CO2 + 80% Ar
Others	-	-

Test Results

Type of test	Acceptance criteria	Results	Remarks
VISUAL INSPECTION	AWS D1.1	ACCEPTED	921-57323-2
RADIOGRAPHIC TEST	AWS D1.1	ACCEPTED	921-57323-1

Laboratory

Test Conducted by	
Laboratory (name):	N/A
Test No.:	
File Number:	

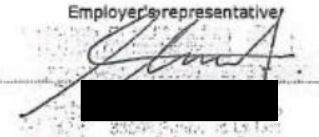
Other Information (Pre- and/or post weld heat treatment, etc.):

This is to confirm:

We, the undersigned, confirm that the statements in this record are correct and that the test welds were prepared, welded and tested in accordance with the requirements of the named standard.

Place: _____ Date: _____
 Witnessed by _____

 (name)

Place: Las Palmas de G.C. Date: 15-07-2020
 Employer's representative


Place: Las Palmas de G.C. Date: 28-07-2020
 for DNV GL


 Surveyor






FICHA EXTENSIÓN DE LA HOMOLOGACIÓN
PROLONGATION OF WELDER APPROVAL CERTIFICATION

Datos del soldador / Welder's personal data	
Nombre Name and Surname	[REDACTED]
DNI ID number	[REDACTED]
Identificación Identification	[REDACTED]


Datos homologación / Certificate details	
Número y descripción Number and description	18 - Pipe API 5L Tubular Joint TKY-8GR
Denominación/Designation	DNVGL-OS-C401:2019
Proceso/Welding process	SMAW+FCAW
WPS	HWPS-019-001-6G/ HWPS-019-001-2G/ HWPS-019-001-5G
Sociedad de clasificación Certification body	DNV GL
Número de certificado Registration number	NA
Fecha de emisión Date of issue	15/07/2020
Fecha de vencimiento Expired date	Prolongación 1 / Prolongation 1: 15/07/2020 a 15/07/2022

Fechas de control / Control dates					
Prolongación 1 / Prolongation 1		01/2021	07/2021	01/2022	07/2022
Fecha Welding Date	O.T. W.O.	Descripción/Informe Description/Report	END - Inspector NDT - Inspector	Position or Title	
07/2020 to 01/2021	16/9/2020	Stinger upgrade nodes Section II EVS-VT-RPT-2020-20	BARTOSZ SALWA	YARD MANAGER	
01/2021 to 07/2021	15/7/2021	SPRUE FABRICATION FOR BWTS SYSTEM EVS-MT-RPT-2021-89	BARTOSZ SALWA	YARD MANAGER	
07/2021 to 01/2022	7/6/2021 (TFSY)	STINGER EVS-VT-RPT-2021-43	BARTOSZ SALWA	YARD MANAGER	



01/2022 to 07/2022	151/2021 Ref 1124	Buoy fabrication EVS-07 RB5-2022 -300	Marian Bujorcanu	 Dr. Tenciu/shipyards
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Stanislav Stoyanov

		WELDER'S QUALIFICATION TEST CERTIFICATE CERTIFICADO DE CUALIFICACIÓN DEL SOLDADOR		Página 1 de 2 Sheet 1 of 2	
UNE-EN ISO 9606-1					
DESIGNATION : DESIGNACIÓN		UNE-EN ISO9606-1 141/111 T BW FM2 S/B t8,56 (2,56+6)D114,3 HL04S ss nb		CERTIFICATE No.: Nº DE CERTIFICADO:	
WPS Reference: Referencia WPS:		IT-75/12		<div style="border: 1px solid black; padding: 5px; text-align: center;"> Welder's photograph Optional </div>	
MANUFACTURE		HIDRAMAR S.L.			
Welder's name: Nombre del Soldador		<div style="background-color: black; width: 100px; height: 15px;"></div>			
Identification number:		<div style="background-color: black; width: 100px; height: 15px;"></div>		WELDER'S NUMBER NÚMERO DE SOLDADOR:	
Date and place of birth:				<div style="background-color: black; width: 100px; height: 15px;"></div>	
TEST CONDITION					
Welding Variable	Test Piece Cupón de Ensayo	Range of Qualification Rango cualificado			
Welding process(es) Proceso de soldo	141-111	141, 142, 143 y 145	111	Multiproceso (Multiprocess) 141+111	
Product Type: Plate (P) or Pipe (T) Tipo de Producto: Chapa (P) o tubo (T)	T 114,3 mm (D>25mm)	T (D≥57 mm); P	T (D≥57 mm); P	T (D≥57 mm); P	
Type of weld joint Tipo de Soldadura	BW	BW; Ramificaciones ≥ 60°	BW; Ramificaciones ≥ 60°	BW; Ramificaciones ≥ 60°	
Group parent material Grupo de Metal Base	1.1	1.1, 1.2, 1.4	1.1, 1.2, 1.4	1.1, 1.2, 1.4	
Filler Material Group(s) Consumibles grupo	FM1	FM1 y FM2	FM1 y FM2	FM1 y FM2	
Filler Material Material de aportación	141: AWS SFA 5.18 /ER70S6 111: AWS SFA 5.1 /E7018-1	(S) y (M, nm) Con y sin aportación With or Without	B; A; RA; RB; RC; 141: (S) y (M, nm) Con y sin aportación With or Without	141: (S) y (M, nm) Con y sin aportación With or Without	
Shielding Gas Gas de Protección	EN ISO 14175 II	EN ISO 14175 II	N.A.	EN ISO 14175 II	
Material Thickness (mm) Espesor de cupón de prueba	141+111: 8,56 mm 141: 2,56 mm 111: 6 mm	BW: 2,56 a 5,12	BW: 3 a 12 mm	BW: 3 a 17,12 mm	
Gas Backing	N.A.	N.A.	N.A.	N.A.	
Elementos Auxiliares	Cepillo y radial	Cepillo y radial	Cepillo y radial	Cepillo y radial	
Welding position Posiciones de Soldo	HL04S	PA; PC; PE; PF; HL04S	PA; PC; PE; PF; HL04S	PA; PC; PE; PF; HL04S	
Type of current and polarity	141: CC EN 111: CC EP	CC EN	CC EP	141: CC EN 111: CC EP	
Weld Details: Detalles de soldadura	ss nb	bs; ss mb; ss nb; ss gb; ss fb	bs; ss mb	bs; ss mb; ss nb; ss gb; ss fb	
TEST RESULTS		TEST PIECE ID / REPORT NO Número de Probeta/Informe			
VISUAL EXAMINATION: INSPECCIÓN VISUAL:	Performed	SS 630		ACCEPTABLE ACCEPTABLE ACCEPTABLE ACCEPTABLE	
RADIOGRAPHIC TESTING ENSAYO RADIOGRÁFICO:	Performed	921-35511-1			
MAGNETIC PARTICLES TEST PARTÍCULAS MAGNÉTICAS	Not Performed				
TENSILE TEST ENSAYO DE TRACCIÓN	Not Performed				
CHARPY IMPACT TEST ENSAYO DE FLEXIÓN POR CHOQUE	Not Performed				
GUIDED BEND TEST ENSAYO DE DOBLADO	Not Performed				
VICKERS HARDNESS TEST ENSAYO DE DUREZA VICKERS	Not Performed				
MACRO EXAMINATION EXAMEN MACROSCÓPICO	Not Performed				
PERSONA U ORGANISMO EXAMINADOR EXAMINING BODY					
Name: Nombre:	[Redacted]	Date and place of issue: Fecha y lugar de la emisión:		Santa Cruz de Tenerife, 30 Nov 2018	
Signature: Firmado	[Signature]	Date of welding: Fecha de la soldadura		Santa Cruz de Tenerife, 26 Nov 2018	
	[Redacted]	Validity of qualification until: Validez de la cualificación hasta:		26/11/2020	



Welder / Welding Operator / Tack Welder Performance Qualification Test Record

Welder's Name: [REDACTED] Test Date: **12-08-2021**
 Identification: [REDACTED] Record No.: **HWPQR-019-001-6G**
 ID Welder: [REDACTED] WPS No.: **HWPS-019-001-6G**
 Company: **HIDRAMAR, S.L.**
 According to rule/standard/code: **AWS D1.1/D1.1M, ASME IX**

Base metal(s)	Specification	Type or Grade	AWS Group No.	Size (NPS)	Schedule	Thickness	Diameter
Base Material(s)	API 5L	X52 N	1	20 in	XS	12.7 mm	508.0 mm

Variables	Actual Values		Range Qualified	
Type of Weld Joint	BUTT		BUTT & FILLET	
Base Metal Group(s)	1		1	

Test Piece	Groove	Fillet	Groove	Fillet
Test piece Thickness	12.7 mm		5 mm - unlimited	ALL
Pipe Diameter (O.D.)	508.0 mm		254.0 - unlimited	ALL

Welding Process(es)	SMAW	FCAW
Type ¹	MANUAL	SEMIAUTOMATIC
Backing	N/A	WELD METAL
Filler Metal	ESAB SFA/AWS A5.5	KOBELCO AWS A5.29
Classification	E8018-C1	E81T1-Ni1M-J
F-Number	1	6
Position		
Groove	6G	6G
Fillet	-	-
Weld direction	UPHILL	UPHILL
GMAW Transfer Mode	-	GLOBULAR/SPRAY
Single or multiple electrodes	SINGLE	SINGLE
Gas / Flux Type	-	20% CO2 + 80% Ar
Others	-	-

Test Results			
Type of test	Acceptance criteria	Results	Remarks
VISUAL INSPECTION	AWS D1.1	ACCEPTED	921-RX-71317-2-R.1
RADIOGRAPHIC TEST	AWS D1.1	ACCEPTED	921-RX-71317-2-R.1

Place: Las Palmas de G.C. Date: 12-08-2021

for NKK



[REDACTED]

Surveyor









6 NDT REPORTS & INSPECTOR CERTIFICATES

NDT Reports are provided separately due to size.

Magnetic Particle Testing Report

FORM-NDT-002 Rev 00

1	A	B	C	D	E	F	G	H	I	J
2	Report no.: EVS-MT-RPT-2023-02				Testing date: 08.01.2023-11.01.2023			Page: 1/2		
3	Project name: [REDACTED]				Specifications and Procedure					
4	Project no.:				Testing procedure no.: EVS-PRO-NDT-002					
5	Client:				Acceptance criteria: AWS D1.1/D1.1M 2020					
6	Location: [REDACTED]									
7	Items tested									
8	Part no.: Repairs welds WBT 1 PS				Weld no.: PC7					
9	Drawing no.: WBT 1P				Part / Weld description:			2010 mm weld		
10	Material: Carbon Steel				Dimensions / Thickness:			2010 / 13 mm		
11	Heat treatment: NO				Surface condition: After brushing					
12	Magnetization Technique									
13	Yoke brand: B&W Ltd.				Model: MY-3			Serial #: 230/24		
14	Lighting: N/A		μW/cm²		Lux-meter: LX 1330B			Serial #: S1072751		
15	1200 Lux				Magnetic Field: 38			Gs		
16	Current type: AC				Pole spacing: 60-100			mm Degmatization:		
17	Magnetization: Continuous				Cleaner: N/A			Batch #: N/A		
18					Contrast paint: WMP - 1 KDE Spray			Batch #: 223511		
19	Magnetization duration: 3-5 s				Magnetic Particles : 7C-BLACK KDE Spray			Batch #: 222031		
20	Results									
21										
22	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
23	Weld #									
24	STBD	Lineal indication	750	2010	Rej	09.01.2023				
25										
26	PS	Lineal indication	560	930	Rej	09.01.2023				
27	PS	Lineal indication	1860	660	Rej	09.01.2023				
28										
29										
30										
31										
32	After repaired									
33										
34	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
35	Weld #									
36	STBD	-	-	-	Acc	11.01.2023				
37										
38	PS	-	-	-	Acc	11.01.2023				
39	PS	-	-	-	Acc	11.01.2023				
40										
41										
42										
43										
44	Results: Acc. for accepted / Rej. for rejected									
45	Remarks: Dimension start from lower numbered frame (aft).									
46										
47	APPROVALS									
48										
49		Tenerife ShipYards Inspector	Tenerife ShipYards Supervisor	Client	Other (if any)					
50										
51	Name	Ibaute Báez Marrero								
52										
53	Qualification	EC-08427-AS-MT-2								
54										
55	Signature									
56										
57	Date	11.01.2023								
58										
59										
60										
61										
62										
63										
64										
65										
66										

67	A	B	C	D	E	F	G	H	I	J
68	Report no.: EVS-MT-RPT-2023-02				Testing date: 08.01.2023-11.01.2023			Page: 2/2		
69	Project name: [REDACTED]				Specifications and Procedure Testing procedure no.: EVS-PRO-NDT-002 Acceptance criteria: AWS D1.1/D1.1M 2020					
70	Project no.:									
71	Client: [REDACTED]									
72	Location: [REDACTED]									
73	Pictures									
74										
75										
76										
77										
78										
79										
80										
81										
82										
83	PC7 . Before repair									
84										
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95										
96										
97	PC7 . After repair									
98										
99										
100										
101										
102										
103										
104										
105										
106										
107										
108	PC7									
109	APPROVALS									
110										
111										
112										
113										
114										
115		Tenerife ShipYards	Tenerife ShipYards	Client	Other					
116		Inspector	Supervisor		(if any)					
117	Name	Ibaute Báez Marrero								
118	Qualification	EC-08427-AS-MT-2								
119	Signature									
120	Date	11.01.2023								
121										
122										
123										
124										

Magnetic Particle Testing Report

FORM-NDT-002 Rev 00

1	A	B	C	D	E	F	G	H	I	J
2	Report no.: EVS-MT-RPT-2023-04				Testing date: 08.01.2023-11.01.2023			Page: 1/2		
3	Project name: ██████████				Specifications and Procedure					
4	Project no.:				Testing procedure no.: EVS-PRO-NDT-002					
5	Client: ██████████				Acceptance criteria: AWS D1.1/D1.1M 2020					
6	Location: ██████████									
7	Items tested									
8	Part no.: Repairs welds WBT 1 PS				Weld no.: 17					
9	Drawing no.: WBT 1P				Part / Weld description:			mm weld		
10	Material: Carbon Steel				Dimensions / Thickness:			/ 13 mm		
11	Heat treatment: NO				Surface condition: After brushing					
12	Magnetization Technique									
13	Yoke brand: B&W Ltd.				Model: MY-3			Serial #: 230/24		
14	Lighting: N/A		μW/cm ²		Lux-meter: LX 1330B			Serial #: S1072751		
15	1200 Lux				Magnetic Field: 38			Gs		
16	Current type: AC				Pole spacing: 60-100			mm Degmatization:		
17	Magnetization: Continuous				Cleaner: N/A			Batch #: N/A		
18					Contrast paint: WMP - 1 KDE Spray			Batch #: 223511		
19	Magnetization duration: 3-5 s				Magnetic Particles : 7C-BLACK KDE Spray			Batch #: 222031		
20	Results									
21										
22	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
23	Weld #									
24	STBD	Lineal indication	2200	220	Rej	10.01.2023				
25										
26	PS	Lineal indication	1900	500	Rej	10.01.2023				
27										
28										
29										
30										
31										
32	After repaired									
33										
34	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
35	Weld #									
36	STBD	-	-	-	Acc	11.01.2023				
37										
38	PS	-	-	-	Acc	11.01.2023				
39										
40										
41										
42										
43										
44	Results: Acc. for accepted / Rej. for rejected									
45	Remarks: Dimension start from lower numbered frame (aft). The inspection for day 10.01.2023 was done by Peter Steel.									
46										
47	APPROVALS									
48										
49		Tenerife ShipYards Inspector	Tenerife ShipYards Supervisor	Client	Other (if any)					
50										
51	Name	Ibaute Báez Marrero								
52										
53	Qualification	EC-08427-AS-MT-2								
54										
55	Signature									
56										
57	Date	11.01.2023								
58										
59										
60										
61										
62										
63										
64										
65										
66										

Magnetic Particle Testing Report

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67	A	B	C	D	E	F	G	H	I	J
68	Report no.: EVS-MT-RPT-2023-04				Testing date: 08.01.2023-11.01.2023			Page: 2/2		
69	Project name: [REDACTED]				Specifications and Procedure Testing procedure no.: EVS-PRO-NDT-002 Acceptance criteria: AWS D1.1/D1.1M 2020					
70	Project no.:									
71	Client:									
72	Location: [REDACTED]									
73	Pictures									
74										
75										
76										
77										
78										
79										
80										
81										
82										
83										
84	Before repair									
85										
86										
87										
88										
89										
90										
91										
92										
93										
94										
95	After repair									
96	APPROVALS									
97		Tenerife ShipYards	Tenerife ShipYards	Client	Other					
98		Inspector	Supervisor		(if any)					
99	Name	Ibaute Báez Marrero								
100	Qualification	EC-08427-AS-MT-2								
101	Signature									
102	Date	11.01.2023								
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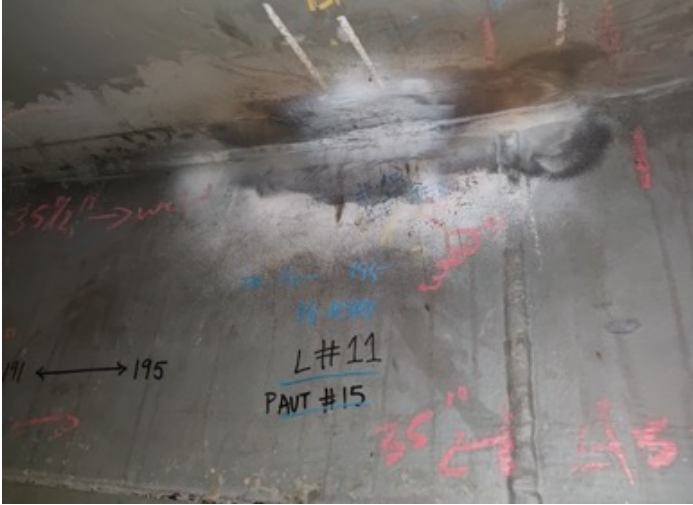
Magnetic Particle Testing Report

FORM-NDT-002 Rev 00

1	A	B	C	D	E	F	G	H	I	J	
2	Report no.: EVS-MT-RPT-2023-05				Testing date: 08.01.2023-11.01.2023			Page: 1/2			
3	Project name: ██████████				Specifications and Procedure						
4	Project no.:				Testing procedure no.: EVS-PRO-NDT-002						
5	Client: ██████████				Acceptance criteria: AWS D1.1/D1.1M 2020						
6	Location: ██████████										
7	Items tested										
8	Part no.: Repairs welds WBT 1 PS				Weld no.: 15						
9	Drawing no.: WBT 1P				Part / Weld description:			80 mm weld			
10	Material: Carbon Steel				Dimensions / Thickness:			80 / 13 mm			
11	Heat treatment: NO				Surface condition: After brushing						
12	Magnetization Technique										
13	Yoke brand: B&W Ltd.				Model: MY-3			Serial #: 230/24			
14	Lighting: N/A		μW/cm ²		Lux-meter: LX 1330B			Serial #: S1072751			
15			1200 Lux		Magnetic Field: 38			Gs			
16	Current type: AC				Pole spacing: 60-100 mm			Degmatization:			
17	Magnetization: Continuous				Cleaner: N/A			Batch #: N/A			
18					Contrast paint: WMP - 1 KDE Spray			Batch #: 223511			
19	Magnetization duration: 3-5 s				Magnetic Particles : 7C-BLACK KDE Spray			Batch #: 222031			
20	Results										
21											
22	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments					
23	Weld #										
24	STBD	Lineal indication	780	80	Rej	10.01.2023					
25											
26	PS	Lineal indication			Rej	10.01.2023					
27											
28											
29											
30											
31											
32	After repaired										
33											
34	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments					
35	Weld #										
36	STBD	-	-	-	Acc	11.01.2023					
37											
38	PS										
39											
40											
41											
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43											
44	Results: Acc. for accepted / Rej. for rejected										
45	Remarks: Dimension start from lower numbered frame (aft). The inspection for day 10.01.2023 was done by Peter Steel.										
46											
47	APPROVALS										
48											
49		Tenerife ShipYards Inspector	Tenerife ShipYards Supervisor	Client	Other (if any)						
50											
51	Name	Ibaute Báez Marrero									
52											
53	Qualification	EC-08427-AS-MT-2									
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55	Signature										
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57	Date	11.01.2023									
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Magnetic Particle Testing Report

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67	A	B	C	D	E	F	G	H	I	J
68	Report no.: EVS-MT-RPT-2023-05				Testing date: 08.01.2023-11.01.2023			Page: 2/2		
69	Project name: [REDACTED]				Specifications and Procedure Testing procedure no.: EVS-PRO-NDT-002 Acceptance criteria: AWS D1.1/D1.1M 2020					
70	Project no.:									
71	Client: [REDACTED]									
72	Location: [REDACTED]									
73	Pictures									
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113	APPROVALS									
114										
115		Tenerife ShipYards Inspector			Tenerife ShipYards Supervisor			Client		Other (if any)
116		Ibaute Báez Marrero								
117	Name	Ibaute Báez Marrero								
118										
119	Qualification	EC-08427-AS-MT-2								
120										
121	Signature									
122										
123	Date	11.01.2023								
124										

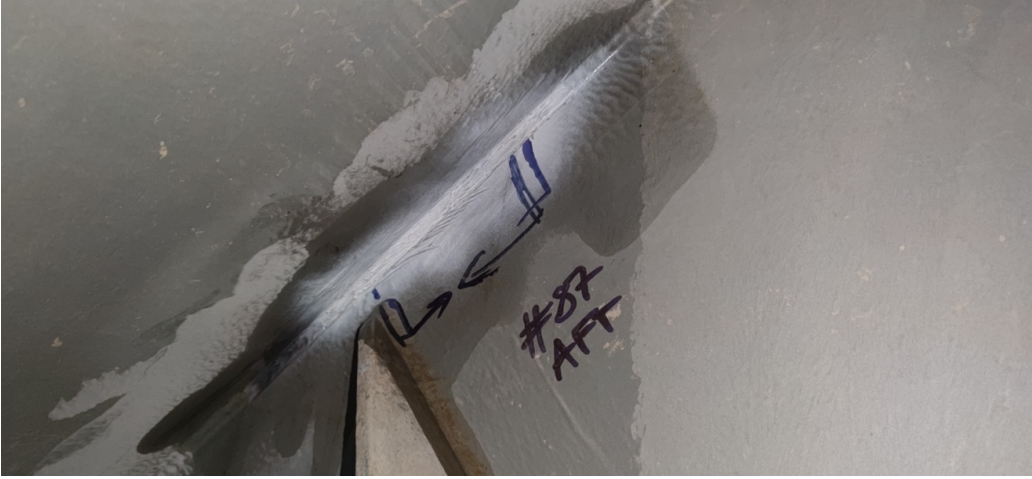
Magnetic Particle Testing Report

FORM-NDT-002 Rev 00

	A	B	C	D	E	F	G	H	I	J
1	Report no.: EVS-MT-RPT-2023-27				Testing date: 18.01.2023			Page: 1/2		
2	Project name: [REDACTED]				Specifications and Procedure					
3	Project no.:				Testing procedure no.: EVS-PRO-NDT-002					
4	Client:				Acceptance criteria: AWS D1.1/D1.1M 2020					
5	Location: [REDACTED]									
6	Items tested									
7	Part no.: Repairs welds WBT 1 STBD				Weld no.: 87					
8	Drawing no.: WBT 1S				Part / Weld description:			2000 mm weld		
9	Material: Carbon Steel				Dimensions / Thickness:			2000 / 15 mm		
10	Heat treatment: NO				Surface condition: After brushing					
11	Magnetization Technique									
12	Yoke brand: B&W Ltd.				Model: MY-3			Serial #: 230/24		
13	Lighting: N/A		μW/cm ²		Lux-meter: LX 1330B			Serial #: S1072751		
14	1200 Lux				Magnetic Field: 38			Gs		
15	Current type: AC				Pole spacing: 60-100 mm			Degmatization:		
16	Magnetization: Continuous				Cleaner: N/A			Batch #: N/A		
17	Magnetization duration: 3-5 s				Contrast paint: WMP - 1 KDE Spray			Batch #: 223511		
18					Magnetic Particles : 7C-BLACK KDE Spray			Batch #: 222031		
19	Results									
20										
21										
22	Part #	Weld #	Indication Type	Start (mm)	Size (mm)	Results	Comments			
23	PS		-	-	-	Acc	18.01.2023			
24	STBD		-	-	-	Acc	18.01.2023			
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27										
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31										
32	After repaired									
33										
34	Part #	Weld #	Indication Type	Start (mm)	Size (mm)	Results	Comments			
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44	Results: Acc. for accepted / Rej. for rejected									
45	Remarks: Dimension start from lower numbered frame (aft). Position: frame 202 from No55 Long to side.									
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47	APPROVALS									
48										
49		Tenerife ShipYards Inspector	Tenerife ShipYards Supervisor	Client	Other (if any)					
50	Name	Ibaute Báez Marrero								
51	Qualification	EC-08427-AS-MT-2								
52	Signature									
53	Date	18.01.2023								
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Magnetic Particle Testing Report

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67	A	B	C	D	E	F	G	H	I	J
68	Report no.: EVS-MT-RPT-2023-27				Testing date: 18.01.2023			Page: 2/2		
69	Project name: ██████████				Specifications and Procedure Testing procedure no.: EVS-PRO-NDT-002 Acceptance criteria: AWS D1.1/D1.1M 2020					
70	Project no.:									
71	Client: ██████████									
72	Location: ██████████									
73	Pictures									
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93	Before repair									
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111	NA									
112	After repair									
113	APPROVALS									
114										
115		Tenerife ShipYards Inspector		Tenerife ShipYards Supervisor		Client		Other (if any)		
116										
117	Name	Ibaute Báez Marrero								
118										
119	Qualification	EC-08427-AS-MT-2								
120										
121	Signature									
122										
123	Date	18.01.2023								
124										

Magnetic Particle Testing Report

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1	A	B	C	D	E	F	G	H	I	J
2	Report no.: EVS-MT-RPT-2023-32				Testing date: 20.01.2023			Page: 1/2		
3	Project name: ██████████				Specifications and Procedure					
4	Project no.:				Testing procedure no.: EVS-PRO-NDT-002					
5	Client: ██████████				Acceptance criteria: AWS D1.1/D1.1M 2020					
6	Location: ██████████									
7	Items tested									
8	Part no.: Repairs welds WBT 1 STBD				Weld no.: 104					
9	Drawing no.: WBT 1S				Part / Weld description:			1300 mm weld		
10	Material: Carbon Steel				Dimensions / Thickness:			1300 / 15 mm		
11	Heat treatment: NO				Surface condition: After brushing					
12	Magnetization Technique									
13	Yoke brand: B&W Ltd.				Model: MY-3			Serial #: 230/24		
14	Lighting: N/A		μW/cm ²		Lux-meter: LX 1330B			Serial #: S1072751		
15			1200 Lux		Magnetic Field: 38			Gs		
16	Current type: AC				Pole spacing: 60-100 mm			Degmatization:		
17	Magnetization: Continuous				Cleaner: N/A			Batch #: N/A		
18					Contrast paint: WMP - 1 KDE Spray			Batch #: 223511		
19	Magnetization duration: 3-5 s				Magnetic Particles : 7C-BLACK KDE Spray			Batch #: 222031		
20	Results									
21										
22	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
23	Weld #									
24	FWD	-	-	-	Acc	20.01.2023				
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26	AFT	-	-	-	Acc	20.01.2023				
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32	After repaired									
33										
34	Part #	Indication Type	Start (mm)	Size (mm)	Results	Comments				
35	Weld #									
36										
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43										
44	Results: Acc. for accepted / Rej. for rejected									
45	Remarks: Dimension start from lower numbered frame (aft). Position: frame 214 from N55 Long to side.									
46										
47	APPROVALS									
48										
49		Tenerife ShipYards Inspector	Tenerife ShipYards Supervisor	Client	Other (if any)					
50										
51	Name	Ibaute Báez Marrero								
52										
53	Qualification	EC-08427-AS-MT-2								
54										
55	Signature									
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57	Date	20.01.2023								
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Magnetic Particle Testing Report



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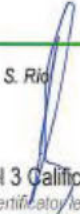

67	A	B	C	D	E	F	G	H	I	J
68	Report no.: EVS-MT-RPT-2023-32				Testing date: 20.01.2023			Page: 2/2		
69	Project name: [REDACTED]				Specifications and Procedure Testing procedure no.: EVS-PRO-NDT-002 Acceptance criteria: AWS D1.1/D1.1M 2020					
70	Project no.:									
71	Client: [REDACTED]									
72	Location: [REDACTED]									
73	Pictures									
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112	After repair									
113	APPROVALS									
114										
115		Tenerife ShipYards Inspector			Tenerife ShipYards Supervisor			Client		Other (if any)
116		Ibaute Báez Marrero								
117	Name	Ibaute Báez Marrero								
118										
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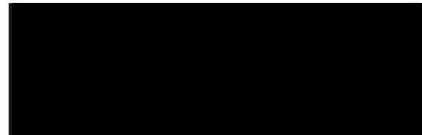
Ibaute Marrero

	Nº de Certificado <i>Certificate N°</i>	EC-08427-AS-RT-1	Válido hasta: <i>Valid to:</i>	19/02/2024 <i>(dd/mm/yyyy)</i>
	Nombre empleado: <i>Employee Name:</i>	IBAUTE BÁEZ MARRERO		
CERTIFICADO DE CUALIFICACIÓN DEL PERSONAL <i>Qualification Certificate of personnel</i>				
EUROCONTROL, S.A. certifica que D. [REDACTED] con DNI: [REDACTED] <i>EUROCONTROL, S.A. certifies that D. [REDACTED] with Id. Card N°: [REDACTED]</i>				
está cualificado en el método de: RADIOLOGÍA INDUSTRIAL como nivel: 1 <i>is qualified in the method of: RADIOGRAPHIC TEST as level: 1</i>				
Conforme a la práctica escrita EC-END-AS-PCA Rev.16 que cumple con la SNT-TC-1A. Emitido el: 19/02/2021 <i>According to the written practice EC-END-AS-PCA Rev.16 which meets the requirements of SNT-TC-1A. Qualification issued: (dd/mm/yyyy)</i>				
Datos personales del titular <i>Personal data of the holder</i>				
Fecha de nacimiento <i>Date of birth</i>	16/10/1994 <i>(dd/mm/yyyy)</i>	Titulación Académica: <i>Academic qualification:</i>	INGENIERO EN TECNOLOGÍA NAVAL <i>NAVAL TECHNOLOGY ENGINEER</i>	
Fecha ingreso en EUROCONTROL, S.A. <i>Date of entry at EUROCONTROL, S.A.</i>	08/02/2021 <i>(dd/mm/yyyy)</i>	Fecha de primera calificación en este método: <i>Date of initial qualification in this method:</i>	19/02/2021 <i>(dd/mm/yyyy)</i>	
Experiencia total en meses en el método objeto de esta certificación, en el momento de su emisión: <i>Total Experience in months in the method object of this certification, at the time of issue:</i>				20
Capacitación del titular <i>Capability of the holder</i>				
El titular ha recibido, anterior a la emisión de esta certificación, la formación teórica y práctica de acuerdo a lo establecido en la práctica escrita vigente. <i>The holder has received, prior to the issuance of this certification, training and education in accordance with the provisions of current written practice.</i>				
El titular ha superado un examen de evaluación compuesto de una parte general, una específica y una práctica para el método objeto de esta certificación, de acuerdo a práctica escrita vigente con una nota media superior al 80%. <i>The holder has passed an evaluation test consists of a general, a specific and practical examination for the method object of this certification, in accordance with current written practice, with a composite score better than the 80%.</i>				
El titular no tiene defecto físico alguno para la ejecución de su trabajo y reúne los requisitos de visión cercana requeridos por la práctica escrita. De la misma manera el titular es capaz de distinguir los colores necesarios para realizar los ensayos correspondientes al método objeto de esta cualificación. Esta capacitación física es avalada anualmente en el certificado adjunto emitido por el Servicio Médico competente. <i>The holder does not have any physical defect for the execution of their work, and meet the requirements of near vision as required by the written practice, in the same way, the holder is able to distinguish and differentiate colors necessary to perform the tests for the method object of this qualification. This physical training is supported annually in the attached certificate issued by the competent medical advice.</i>				
	 S. Río		 S. Río	
	Fdo. El nivel 3 Calificador. M. Nieto <i>Certificator level 3</i>		Fdo. La Dirección Técnica. M. Nieto <i>Technical Manager</i>	

	Nº de Certificado <i>Certificate N°</i>	EC-08427-AS-UT-2	Válido hasta: <i>Valid to:</i>	19/02/2024 <i>(dd/mm/yyyy)</i>
	Nombre empleado: <i>Employee Name:</i>	IBAUTE BÁEZ MARRERO		
CERTIFICADO DE CUALIFICACIÓN DEL PERSONAL <i>Qualification Certificate of personnel</i>				
EUROCONTROL, S.A. certifica que D. <i>EUROCONTROL, S.A. certifies that D.</i>		[REDACTED]		con DNI: <i>with Id. Card N°:</i>
[REDACTED]		[REDACTED]		[REDACTED]
está cualificado en el método de: <i>is qualified in the method of:</i>		ULTRASONIDOS <i>ULTRASONIC TEST</i>		como nivel: 2 <i>as level</i>
Conforme a la práctica escrita EC-END-AS-PCA Rev.16 que cumple con la SNT-TC-1A. <i>According to the written practice EC-END-AS-PCA Rev.16 which meets the requirements of SNT-TC-1A.</i>		Emitido el: <i>Qualification issued:</i>		19/02/2021 <i>(dd/mm/yyyy)</i>
Datos personales del titular <i>Personal data of the holder</i>				
Fecha de nacimiento <i>Date of birth</i>	16/10/1994 <i>(dd/mm/yyyy)</i>	Titulación Académica: <i>Academic qualification:</i>	INGENIERO EN TECNOLOGÍA NAVAL <i>NAVAL TECHNOLOGY ENGINEER</i>	
Fecha ingreso en EUROCONTROL, S.A. <i>Date of entry at EUROCONTROL, S.A.</i>	08/02/2021 <i>(dd/mm/yyyy)</i>	Fecha de primera calificación en este método: <i>Date of initial qualification in this method:</i>	19/02/2021 <i>(dd/mm/yyyy)</i>	
Experiencia total en meses en el método objeto de esta certificación, en el momento de su emisión: <i>Total Experience in months in the method object of this certification, at the time of issue:</i>				24
Capacitación del titular <i>Capability of the holder</i>				
El titular ha recibido, anterior a la emisión de esta certificación, la formación teórica y práctica de acuerdo a lo establecido en la práctica escrita vigente. <i>The holder has received, prior to the issuance of this certification, training and education in accordance with the provisions of current written practice.</i>				
El titular ha superado un examen de evaluación compuesto de una parte general, una específica y una práctica para el método objeto de esta certificación, de acuerdo a práctica escrita vigente con una nota media superior al 80%. <i>The holder has passed an evaluation test consists of a general, a specific and practical examination for the method object of this certification, in accordance with current written practice, with a composite score better than the 80%.</i>				
El titular no tiene defecto físico alguno para la ejecución de su trabajo y reúne los requisitos de visión cercana requeridos por la práctica escrita. De la misma manera el titular es capaz de distinguir los colores necesarios para realizar los ensayos correspondientes al método objeto de esta cualificación. Esta capacitación física es avalada anualmente en el certificado adjunto emitido por el Servicio Médico competente. <i>The holder does not have any physical defect for the execution of their work, and meet the requirements of near vision as required by the written practice. In the same way, the holder is able to distinguish and differentiate colors necessary to perform the tests for the method object of this qualification. This physical training is supported annually in the attached certificate issued by the competent medical advice.</i>				
	S. Rio		S. Rio	
	Fdo. El nivel 3 Calificador. M. Nieto <i>Certificator level 3</i>		Fdo. La Dirección Técnica. M. Nieto <i>Technical Manager</i>	

	Nº de Certificado Certificate N°	EC-08427-AS-PT-2	Válido hasta: Valid to:	19/02/2024 (dd/mm/yyyy)
	Nombre empleado: Employee Name:	IBAUTE BÁEZ MARRERO		
CERTIFICADO DE CUALIFICACIÓN DEL PERSONAL <i>Qualification Certificate of personnel</i>				
EUROCONTROL, S.A. certifica que D. [REDACTED]		con DNI: [REDACTED]		
EUROCONTROL, S.A. certifies that D. [REDACTED]		with Id. Card N°: [REDACTED]		
está cualificado en el método de: <i>Is qualified in the method of:</i>	LÍQUIDOS PENETRANTES <i>LIQUID PENETRANT</i>	como nivel: <i>as level:</i>	2	
Conforme a la práctica escrita EC-END-AS-PCA Rev.16 que cumple con la SNT-TC-1A.		Emitido el:	19/02/2021 (dd/mm/yyyy)	
According to the written practice EC-END-AS-PCA Rev.16 which meets the requirements of SNT-TC-1A.		Qualification issued:		
Datos personales del titular <i>Personal data of the holder</i>				
Fecha de nacimiento <i>Date of birth</i>	16/10/1994 (dd/mm/yyyy)	Titulación Académica: <i>Academic qualification:</i>	INGENIERO EN TECNOLOGÍA NAVAL <i>NAVAL TECHNOLOGY ENGINEER</i>	
Fecha ingreso en EUROCONTROL, S.A. <i>Date of entry at EUROCONTROL, S.A.</i>	08/02/2021 (dd/mm/yyyy)	Fecha de primera calificación en este método: <i>Date of initial qualification in this method:</i>	19/02/2021 (dd/mm/yyyy)	
Experiencia total en meses en el método objeto de esta certificación, en el momento de su emisión: <i>Total Experience in months in the method object of this certification, at the time of issue:</i>				29
Capacitación del titular <i>Capability of the holder</i>				
El titular ha recibido, anterior a la emisión de esta certificación, la formación teórica y práctica de acuerdo a lo establecido en la práctica escrita vigente. <i>The holder has received, prior to the issuance of this certification, training and education in accordance with the provisions of current written practice.</i>				
El titular ha superado un examen de evaluación compuesto de una parte general, una específica y una práctica para el método objeto de esta certificación, de acuerdo a práctica escrita vigente con una nota media superior al 80%. <i>The holder has passed an evaluation test consists of a general, a specific and practical examination for the method object of this certification, in accordance with current written practice, with a composite score better than the 80%.</i>				
El titular no tiene defecto físico alguno para la ejecución de su trabajo y reúne los requisitos de visión cercana requeridos por la práctica escrita. De la misma manera el titular es capaz de distinguir los colores necesarios para realizar los ensayos correspondientes al método objeto de esta cualificación. Esta capacitación física es avalada anualmente en el certificado adjunto emitido por el Servicio Médico competente. <i>The holder does not have any physical defect for the execution of their work, and meet the requirements of near vision as required by the written practice. In the same way, the holder is able to distinguish and differentiate colors necessary to perform the tests for the method object of this qualification. This physical training is supported annually in the attached certificate issued by the competent medical advice.</i>				
	S. Rio	S. Rio		
	Fdo. El nivel 3 Calificador. M. Nieto <i>Certificator level 3</i>	Fdo. La Dirección Técnica. M. Nieto <i>Technical Manager</i>		

	Nº de Certificado Certificate N°	EC-08427-AS-MT-2	Válido hasta: Valid to:	19/02/2024 (dd/mm/yyyy)
	Nombre empleado: Employee Name:	[REDACTED]		
CERTIFICADO DE CUALIFICACIÓN DEL PERSONAL <i>Qualification Certificate of personnel</i>				
EUROCONTROL, S.A. certifica que D. EUROCONTROL, S.A. certifies that D.		[REDACTED]	con DNI: with Id. Card N°:	[REDACTED]
está cualificado en el método de: Is qualified in the method of:	PARTÍCULAS MAGNÉTICAS MAGNETIC PARTICLE		como nivel: as level:	2
Conforme a la práctica escrita EC-END-AS-PCA Rev.16 que cumple con la SNT-TC-1A. According to the written practice EC-END-AS-PCA Rev.16 which meets the requirements of SNT-TC-1A.			Emitido el: Qualification issued:	19/02/2021 (dd/mm/yyyy)
Datos personales del titular <i>Personal data of the holder</i>				
Fecha de nacimiento Date of birth	16/10/1994 (dd/mm/yyyy)	Titulación Académica: Academic qualification:	INGENIERO EN TECNOLOGÍA NAVAL NAVAL TECHNOLOGY ENGINEER	
Fecha ingreso en EUROCONTROL, S.A. Date of entry at EUROCONTROL, S.A.	08/02/2021 (dd/mm/yyyy)	Fecha de primera calificación en este método: Date of initial qualification in this method:	19/02/2021 (dd/mm/yyyy)	
Experiencia total en meses en el método objeto de esta certificación, en el momento de su emisión: Total Experience in months in the method object of this certification, at the time of issue:				21
Capacitación del titular <i>Capability of the holder</i>				
El titular ha recibido, anterior a la emisión de esta certificación, la formación teórica y práctica de acuerdo a lo establecido en la práctica escrita vigente. <i>The holder has received, prior to the issuance of this certification, training and education in accordance with the provisions of current written practice.</i>				
El titular ha superado un examen de evaluación compuesto de una parte general, una específica y una práctica para el método objeto de esta certificación, de acuerdo a práctica escrita vigente con una nota media superior al 80%. <i>The holder has passed an evaluation test consists of a general, a specific and practical examination for the method object of this certification, in accordance with current written practice, with a composite score better than the 80%.</i>				
El titular no tiene defecto físico alguno para la ejecución de su trabajo y reúne los requisitos de visión cercana requeridos por la práctica escrita. De la misma manera el titular es capaz de distinguir los colores necesarios para realizar los ensayos correspondientes al método objeto de esta cualificación. Esta capacitación física es avalada anualmente en el certificado adjunto emitido por el Servicio Médico competente. <i>The holder does not have any physical defect for the execution of their work, and meet the requirements of near vision as required by the written practice. In the same way, the holder is able to distinguish and differentiate colors necessary to perform the tests for the method object of this qualification. This physical training is supported annually in the attached certificate issued by the competent medical advice.</i>				
	 S. Rio		 S. Rio	
	Fdo. El nivel 3 Calificador. M. Nieto <i>Certificator level 3</i>		Fdo. La Dirección Técnica. M. Nieto <i>Technical Manager</i>	



PART 1 - HOLDER'S DETAILS

PCN NUMBER:
326783

ISSUE DATE:
18/06/2021

ISSUE NUMBER:
6



NAME & ADDRESS:
[Redacted]
United Kingdom

RECORD OF PCN CERTIFICATION

Further information on the scope of certification available may be obtained from The Certification Services Department, British Institute of NDT, Midsummer House, Riverside Way, Bedford Road, Northampton NN1 5NX, United Kingdom. E-mail: pcn@bindt.org Tel: +44 01604 435500 Fax: +44 01604 435301

Valid only when signed on behalf of BINDT and incorporating stamp below.



This document may be withdrawn or revoked in part or in total at any time.

NORMAL SIGNATURE: *Peter Steel*

This part may be used by the employer to signify that the certificate holder is authorised to carry out NDT on behalf of the employing company.

COMPANY STAMP	SIGNATURE & NAME OF PERSON AUTHORISING	DATE
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PRESSURE EQUIPMENT DIRECTIVE (PED)
 Certification for the weldments and pre and in-service inspection sectors is issued in association with WQ-IC Limited, an FTPO accredited by INAB under ISO 17024:2012, INAB reference 7990. The certificate confirms compliance with the requirements of PED (Annex 1 section 3.1.2). By signing this certificate, the holder agrees to comply with the rules detailed in the WQ-IC QP 7.7.1 - NDT 15589 - Route B Certification Scheme. Confirmation of the approval can be verified by visiting: wqic.eu.com

FOR NOTIFICATION OF PERMANENT CHANGE OF HOLDER'S ADDRESS PLEASE REFER TO FORM PSL 18 AVAILABLE TO DOWNLOAD AT BINDT.ORG/CERTIFICATION

PART 2 - CERTIFICATION HELD (All certificates comply with EN ISO:9712 unless otherwise stated) D= Distinction (80% or above average)

CERTIFICATE NUMBER	ISSUE	LEVEL	SECTOR	METHOD	SCOPE OF CERTIFICATE (see over for key to codes)	ISSUES DATE	EXPIRY
F019S22122535	1	2D	2	21	Fixed installations, Portable equipment, NDT instruction writing	09/10/2019	07/10/2024
F015S22226258	2	2D	2	22	Dye penetrants, Fluorescent penetrants, NDT instruction writing	14/01/2020	13/01/2025
A016S62429320	2	2D	6	24	Plate, Node Welds, NDT Instruction Writing, Butt Welds in Pipe, Butt Welds in Plate	14/07/2021	13/07/2026

PCN Record of Certification issue 6 dated 18/06/2021

Verification of current certification status is strongly encouraged and is available at www.bindt.org/PCN or by post, telephone, fax or e-mail quoting the unique PCN Number or full name shown in Part 1

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petersteel11@hotmail.co.uk Accessed on 07/15/2021 at 21:55:13




ANNEX A:
RECORD OF VISION TEST

Name of individual tested:		PCN number: <u>325783</u>	
Employer: ASG Inspection Ltd.			
Address: Unit 8, Airways Industrial Estate, Pitmedden Road, Dyce, Aberdeen, AB21 0DT			
Telephone: +44(0)1224 961900		Email: info@asginspection.com	
RESULT OF NEAR VISION TEST (record the smallest text capable of being read).			
CORRECTED		UNCORRECTED	
OPTION 1: Times Roman N: _____, or		OPTION 1: Times Roman N: <u>✓</u> , or	
OPTION 2: Jaeger number: _____		OPTION 2: Jaeger number: <u>51</u>	
OPTION 3: RESULT OF NEAR VISION TEST – Tumbling E Option (candidates should correctly identify 5 out of 5 on each line, and lines 1-9)			
CORRECTED		UNCORRECTED	
Line 1 Pass/Fail Line 2 Pass/Fail Line 3 Pass/Fail Line 4 Pass/Fail Line 5 Pass/Fail Line 6 Pass/Fail Line 7 Pass/Fail Line 8 Pass/Fail Line 9 Pass/Fail		Line 1 Pass/Fail Line 2 Pass/Fail Line 3 Pass/Fail Line 4 Pass/Fail Line 5 Pass/Fail Line 6 Pass/Fail Line 7 Pass/Fail Line 8 Pass/Fail Line 9 Pass/Fail	
RESULT OF ISHIHARA COLOUR VISION TEST Record the Ishihara test results, and indicate if an alternative (trade) test is suggested.			
Please tick the box of the Ishihara plate edition tested: Failure to record this will result in vision test being rejected <input type="checkbox"/> 17 plates <input checked="" type="checkbox"/> 24 plates <input type="checkbox"/> 38 plates (MINIMUM OF FIRST 17)		Record of Ishihara plates failed. Please tick the appropriate box as below: <input checked="" type="checkbox"/> Plates tested passed with no errors <input type="checkbox"/> Plates tested failed, see attached trade test	
RESULT OF GREY SCALE TEST			
Which grey scale test was used? Dr Kolbl		Number of correct readings given for Dr Kolbl ONE/TUV/BV Eye Examination (20 minimum) Pass/Fail (delete as appropriate) <u>25 PASSED.</u> The Skerik grey scale test: - Contrast modification – It is required that the contrast of 2% and above shall be clearly discriminated on pattern while contrast of less than 1% shall not be visible. Pass/Fail (delete as appropriate)	

KL 1/2.

COLOUR VISION TRADE TEST

Name of individual tested:	[REDACTED]		PCN number:	325783
Employer:	ASG Inspection Ltd.			
Address:	Unit 8, Airways Industrial Estate, Pitmedden Road, Dyce, Aberdeen, AB21 0DT			
Telephone:	+44(0)1224 961900	Email:	info@asginspection.com	
RESULT OF COLOUR VISION TRADE TEST (WHERE REQUIRED SEE ABOVE)				
The employer should state the NDT methods and associated colours used by the employee:				
NDT METHOD	ASSOCIATED COLOURS	COLOUR DIFFERENTIATION	CONTRAST DETECTION	
MT	ISHIHARA PLATES	PASS	PASS	
PT	ISHIHARA PLATES	PASS	PASS	
UT	ISHIHARA PLATES	PASS	PASS.	
RESULT OF OPTIONAL FAR VISION TEST				
CORRECTED		UNCORRECTED		
Corrected far vision acuity shall have a minimum value of 0.8 (or imperial measurement 6/7.5 i.e. the candidate will be able to read the characters on the line marked 7.5 M-units at a distance of 6 metres).		Uncorrected far vision acuity shall have a minimum value of 0.8 (or imperial measurement 6/7.5 i.e. the candidate will be able to read the characters on the line marked 7.5 M-units at a distance of 6 metres).		
Pass/Fail (delete as appropriate)		Pass/Fail (delete as appropriate)		
DETAILS OF PERSON CARRYING OUT AND RECORDING ANY OF THE ABOVE TESTS				
Signature: 		Name of tester: Keith Little		
		Date of test: 15TH APRIL 2022		
		Expiry date of test: 14TH APRIL 2023 (note: maximum 12 months from date of test but may be prior to that)		
Organisation and telephone number (please use official stamp if available):				
01224 961900				

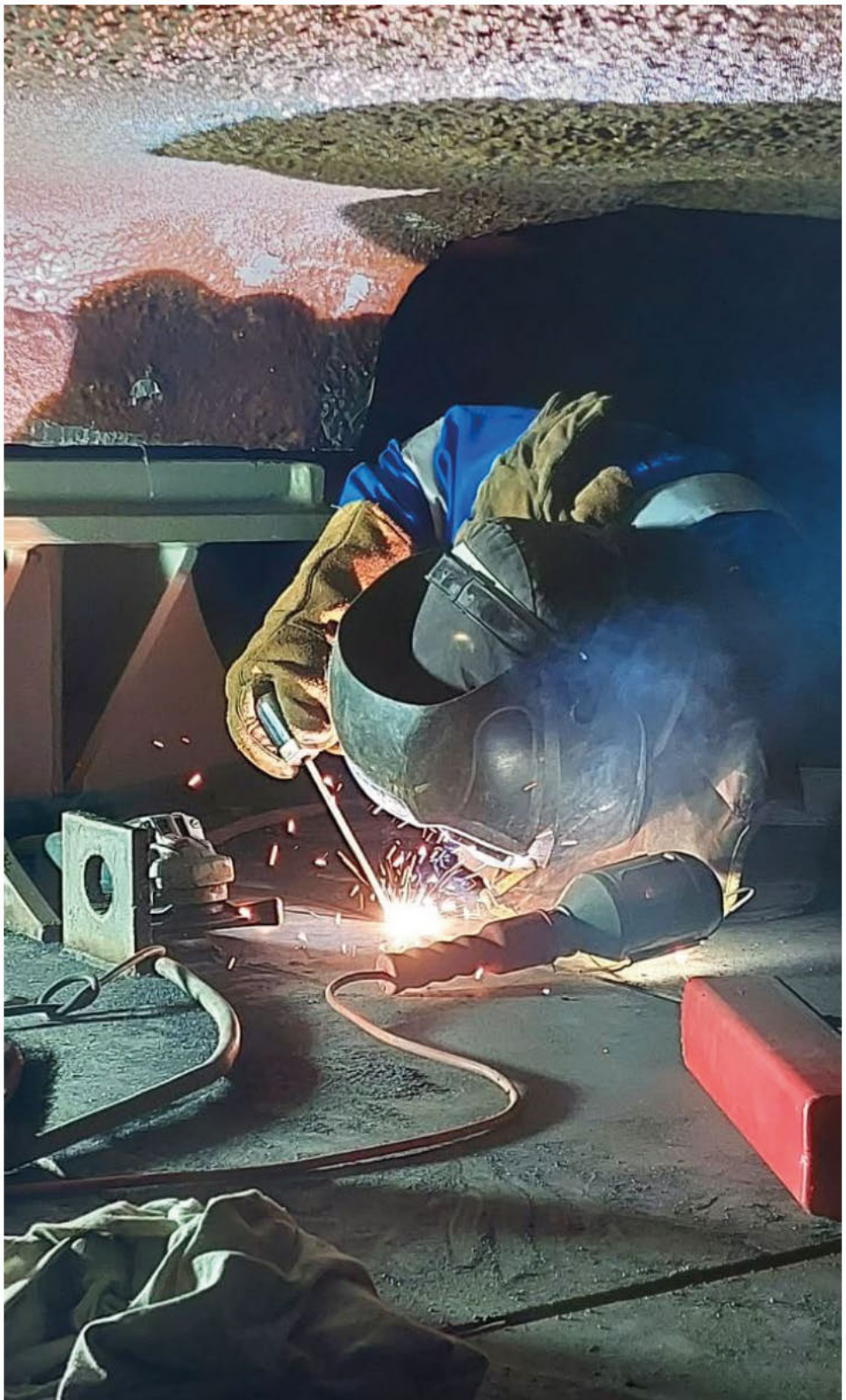
KL 2/2



7 PICTURES

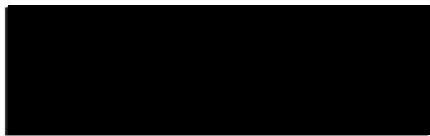


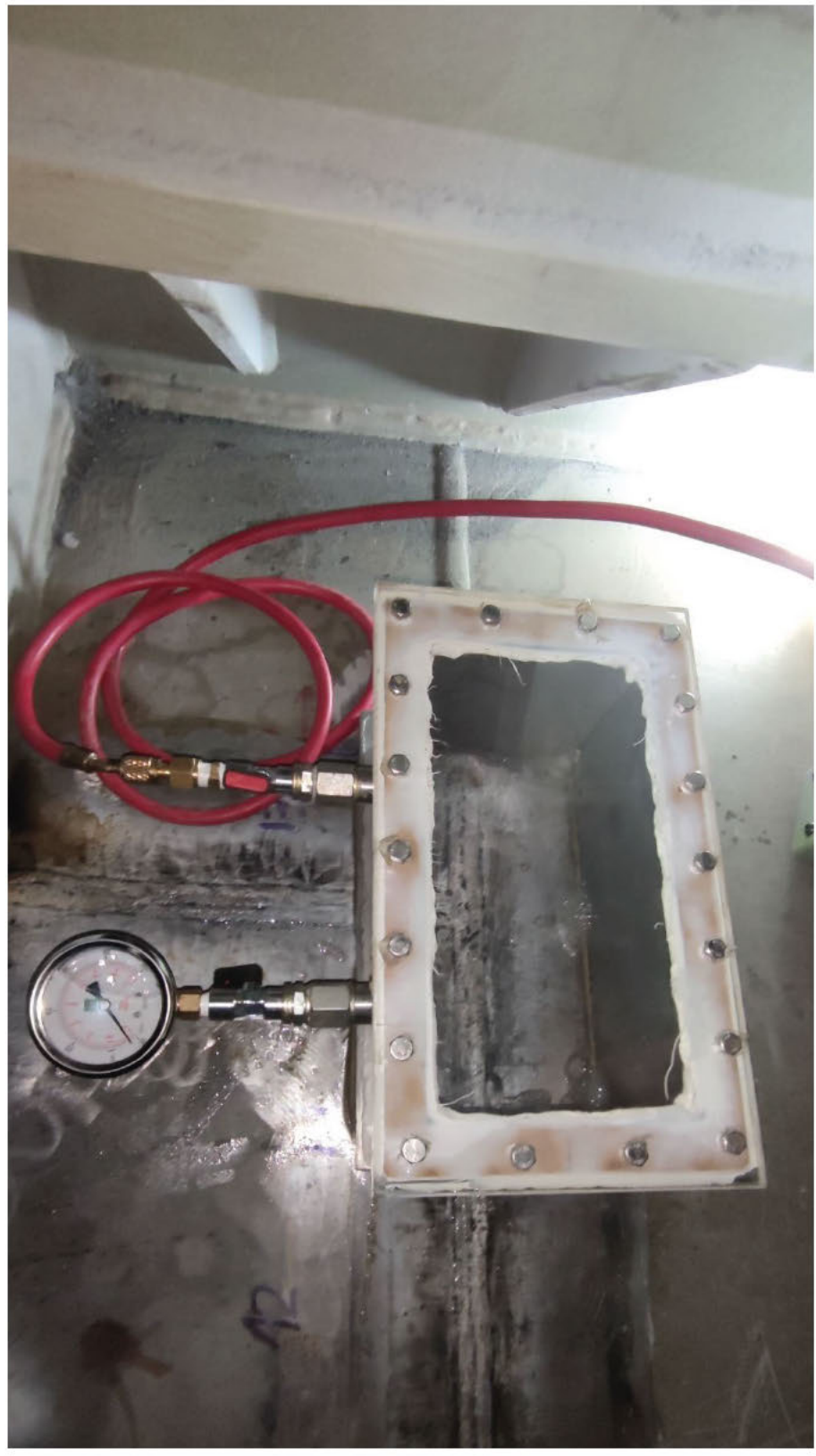
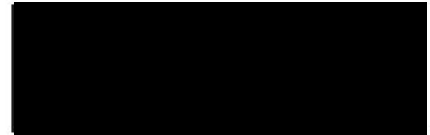




Steel Replacement









8 CONCLUSION

Scope of work was carried out successfully and to the satisfaction of the class surveyor, without delays or safety incidents.



Signed:

Signed:



Jonathan Rodriguez

Revised by:
Jonathan Rodriguez
Project Manager

Customer approval:

