

MANUFACTURING DATA REPORT

JOB NUMBER: 21183

3679083-0.02.05
R 09.05 142
H 54.55.56.57
S 6.19.20.28.37.41.50.53.70.72.76
OS ST 77.97
CQFMS.21183.04.21



Client: CQ HOLDINGS

Purchase Order: N/A

Description: RH340 BOOM

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Technical Document Report Index

	Section	Records Provided	
		Yes	No
Work Instruction	1	✓	
Client Purchase Order	2		✓
Quality Control Check Sheet	3	✓	
Dimensional Check Sheet	4	✓	
Welding & Pre-Heat Records	5	✓	
NDT Records	6	✓	
Machining Report	7	✓	
Stress Relieving Report	8	✓	
Fabrication Drawing	9	✓	
Material Certification	10	✓	
Photos	11	✓	

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Section 1

WORK INSTRUCTION

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Work Instruction



RH340 Boom Repair

JN:

21183

1. Remove and Inspect Top Chord plate. Inspect, prep and make fit for re-instating.
2. Remove side walls extending to either side of bulkhead areas.
3. Remove both transverse bulkheads and replace with new, including bulkhead stiffeners. Note: All welds to be blended. Effective throat thickness equivalent to 25mm Corner fillet.
4. Remove and Inspect top ear torque tube. Inspect, prep and make fit for re-instating.
5. Remove and replace top ears and bosses with BIS80 material or equivalent.
6. Reinststate side walls with new GR350PL.
7. Blend all internal bulkhead welds 300mm past any welded intersections. Effective throat thickness equivalent to 25mm Corner fillet.
8. Blend all new internal welds welds 300mm past any welded intersections. Effective throat thickness equivalent to 25mm Corner fillet.
9. Reinststate Top Chord.
10. Reinststate top torque tube.
11. NDT all welds.
12. Stress Relieve complete boom. Ex National Heat
13. Linebore all bush recepticles and replace all bushes. Ex JD Lineboring.
14. Paint - Oyster white, Lifting Points - Red.

Photos: Photos to be taken of all items being dispatched. Photos need to show condition of all items at time of dispatch. Photos also need to be suitable for use on website, etc (clean background, good light, show full job).”

Dispatch Method: Freight to site: As per client PO.

Dispatch date to site: As per client PO.

Section 2

CLIENT PURCHASE ORDER

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Section 3

QUALITY CONTROL CHECK SHEET

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Manufacturing Quality Control Worksheet

CUSTOMER

Customer PO No:

CQ HOLDINGS

N/A

Customer Contact:

CQFMS Job No:

CQFMS Project Co-Ord:

S. Contor

21183

Job Description:

Relevant Drawing No's:

Delivery Date:

RH340 Boom Refurb

TEREX 3690734

13/07/1905

Tick

Office Use (To be completed prior to issuing to workshop)

	YES	NO	Comment	Responsible Person	Sign	Date
1 All relevant information and specification received	✓			MEALE	<i>[Signature]</i>	29-6-20
2 Material ordered	✓			MEALE	<i>[Signature]</i>	30-6-20
3 Job briefing with workshop personnel	✓			MEALE	<i>[Signature]</i>	1-7-20
4 Risk Assessment complete	✓		JSA	MEALE	<i>[Signature]</i>	1-7-20

Workshop Use (Workshop Co-ordinator and personnel to complete)

1 Items received correct from suppliers	✓			MEALE	<i>[Signature]</i>	1-7-20
2 Items processed correct (eg rolling and pressing)			N/A	MEALE	<i>[Signature]</i>	1-7-20
3 Marking of hole location and size checked prior to drilling	✓			MEALE	<i>[Signature]</i>	1-7-20
4 Tack items checked and tested for correct position	✓			MEALE	<i>[Signature]</i>	1-7-20
5 Items braced for distortion prior to welding	✓			MEALE	<i>[Signature]</i>	1-7-20
6 Welding information identified	✓			MEALE	<i>[Signature]</i>	1-7-20
7 NDT Required	✓		AXS	MEALE	<i>[Signature]</i>	13-4-21
8 HOLD POINT - Do not proceed until signed						
9 OK to start welding	✓			MEALE	<i>[Signature]</i>	1-7-20
10 Welding complete, job dressed and free from spatter	✓			MEALE	<i>[Signature]</i>	1-7-20
11 All hole and item locations rechecked after welding	✓			MEALE	<i>[Signature]</i>	1-7-20
12 Checked for distortion and fit-up	✓			MEALE	<i>[Signature]</i>	1-7-20
13 HOLD POINT - Do not proceed until signed						
14 Machining required-	✓		3D LINE BORING	Super MEALE	<i>[Signature]</i>	14-4-21
15 a. Specifications determined and provided to contractor	✓			Super MEALE	<i>[Signature]</i>	14-4-21
14 Internal Lining required-	✓			Super MEALE	<i>[Signature]</i>	14-4-21
15 a. Specifications determined and provided to contractor	✓			Super MEALE	<i>[Signature]</i>	14-4-21
16 Surface treatment required-	✓		ALL POINT SOLUTIONS	Super MEALE	<i>[Signature]</i>	24-4-21
17 a. Specifications determined and provided to contractor	✓			Super MEALE	<i>[Signature]</i>	24-4-21
18 Thickness, colour, quality checked	✓			MEALE	<i>[Signature]</i>	24-4-21
19 HOLD POINT - Do not proceed until signed						
20 Photo's taken	✓			MEALE	<i>[Signature]</i>	6-5-21
21 Job ready for dispatch	✓			MEALE	<i>[Signature]</i>	7-5-21
22 Job completed and checked to quality standard	✓			Name	Sign	Date
23 Job loaded secure, items marked and protected				Name	Sign	Date
24 Approved for release to the client						

Section 4

DIMENSION CHECK SHEET

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Section 5

WELDING/PREHEAT RECORDS

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WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 21/11/2020 1/3/21											
Job Description: RH340B Boom Refurbishment R/H Sidewall		Drawing No:													
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials		
Diesel CQ174	R/H Sidewall		100°c	123°c	1/3/21	8:00	26.5 V	215 A		81ni					
			↓	127°c	↓	10:00	↓ V	↓ A		↓					
			↓	132°c	↓	11:00	↓ V	↓ A		↓					
			↓	122°c	↓	12:00	↓ V	↓ A		↓					
			↓	126°c	↓	1:00	↓ V	↓ A		↓					
			↓	100°c	120°c	2/3/21	6:00	26.6 V	222 A		81ni				
			↓	↓	115°c	↓	7:00	↓ V	↓ A		↓				
			↓	↓	123°c	↓	8:00	↓ V	↓ A		↓				
			↓	↓	133°c	↓	9:00	↓ V	↓ A		↓				
			↓	↓	130°c	↓	12:00	↓ V	↓ A		↓				
			↓	↓	137°c	↓	1:00	↓ V	↓ A		↓				
			↓	↓	122°c	↓	2:00	↓ V	↓ A		↓				
			↓	↓	119°c	↓	3:00	↓ V	↓ A		↓				
			↓	↓	100°c	123°c	3/3/21	10:00	27.0 V	238 A		81ni			
			↓	↓	↓	128°c	↓	11:00	↓ V	↓ A		↓			
			↓	↓	↓	133°c	↓	2:00	↓ V	↓ A		↓			
			↓	↓	↓	137°c	↓	3:00	↓ V	↓ A		↓			
			↓	↓					↓ V	↓ A		↓			



Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 24-02-21									
Job Description: RH340B Boom Refurbishment Outside Front section (L/H)			Drawing No:										
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
Diesel CQ 174	L/H side window		100°c	122°c	24-2-21	6:30	26.5 V	205 A		81ni			
				120°c		8:00	V	A					
				128°c		9:00	V	A					
				132°c		11:00	V	A					
				119°c		12:00	V	A					
				123°c		1:00	V	A					
				123°c		2:00	V	A					
				117°c		3:00	V	A					
			100°c	134°c	25-2-21	7:00	26.3 V	205 A		81ni			
				127°c		8:00	V	A					
				133°c		9:00	V	A					
				122°c		10:00	V	A					
				108°c		1:00	V	A					
				137°c		1:00	V	A					
						2:00	V	A					
						3:00	V	A					
							V	A					
							V	A					

JAMES



Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 22-2-21													
Job Description: RH340B Boom Refurbishment <i>OUTSIDE FRONT SECTION</i>				Drawing No:													
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials				
DW	L/H side window		100°c	125°c	22-2	6:30	28 V	235 A		81Ni	4824T						
CQ174	↓	↓	↓	136°c	↓	7:30	V	A	↓	↓	↓	↓	↓				
				130°c		8:30	V	A									
				122°c		9:30	V	A									
				118°c		11:30	V	A									
				138°c		12:30	V	A									
				123°c		1:30	V	A									
				129°c		2:30	V	A									
				136°c		3:30	V	A									
				100°c		23-2	7:00	27.7 V						225 A	81Ni		
				137°c		8:00	V	A									
				140°c		9:00	V	A									
				127°c		11:00	V	A									
				118°c		12:00	V	A									
				122°c		1:00	V	A									
				125°c		2:00	V	A									
133°c	3:00	V	A														
							V	A									



Mining Services

WELDING & HEAT RECORD SHEET

Client:	Cq Field Mining	Job No:	21183	Date:	5/3/21	21/11/2020
Job Description:		RH340B Boom Refurbishment <i>RH Sidewall leg.</i>			Drawing No:	

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ-039	RH Sidewall leg		100°C	128°C	5/3/21	7:00	268 V	227 A		8/21			
			↓	130°C	↓	8:00	↓ V	↓ A		↓			
			↓	135°C	↓	9:00	↓ V	↓ A					
			↓	127°C	↓	10:00	↓ V	↓ A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **2/3/21** **21/11/2020**

Job Description: **RH340B Boom Refurbishment** *R/H Side wall* Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CO-039	R/H Side wall		100°C	116°C	2/3/21	7.00	27.1 V	237 A		8127			
			↓	127°C		8.00	V	A		↓			
			↓	124°C		9.00	V	A		↓			
			↓	136°C		10.00	V	A		↓			
			↓	132°C		11.00	V	A		↓			
			↓	128°C		12.00	V	A		↓			
			↓	127°C		1.00	V	A		↓			
			↓	134°C		2.00	V	A		↓			
			↓	136°C		3.00	V	A		↓			
							V	A					
CO-039	R/H Side wall		100°C	118°C	4/3/21	9.00	27.6 V	238 A		8127			
			↓	127°C		10.00	V	A		↓			
			↓	116°C		11.00	V	A		↓			
			↓	132°C		12.00	V	A		↓			
			↓	131°C		1.00	V	A		↓			
			↓	136°C		2.00	V	A		↓			
			↓	129°C		3.00	V	A		↓			
			↓	128°C		4.00	V	A		↓			

DIFSEL



WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **22-2-21**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
133	Center plate between cars		150°	172°	10-3-21	7:30 am	27 V	120 A		31N1-144			
"	"		"	184°		10:45 am	" V	" A		"			
"	"		"	161°		14:40	" V	" A		"			
"	"		"	156°	11-3-21	6:45 am	" V	" A		"			
"	"		"	198°		11:20	" V	" A		"			
"	"		"	161°		14:00	" V	" A		"			
"	"		"	174°	12-3-21	6:30	25 V	320 A		Hobart			
"	"		"	182°		8:55	" V	" A					
"	"		"	157°		11:20	" V	" A					
"	"		"	191°		12:45	" V	" A					
Hudson	"		"	163°	16-3-21	6:30	" V	" A					
				178°		9:40	" V	" A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 10-3-21									
Job Description: RH340B Boom Refurbishment <i>inside Boom</i>			Drawing No:										
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ174	Outer baffle top		100°c	126°c	10-3-21	6:00	29.5 V	235 A		81ni	82141001A9305		
↓	↓		↓	150°c	↓	8:00	↓ V	↓ A		↓	↓		
↓	↓		↓	143°c	↓	9:00	↓ V	↓ A		↓	↓		
↓	↓		↓	127°c	↓	10:00	↓ V	↓ A		↓	↓		
↓	↓		↓	119°c	↓	1:00	↓ V	↓ A		↓	↓		
CQ039	Outer baffle top		100°c	137°c	10-3-21	2:00	29.5 V	235 A		81ni			
↓	↓		↓	142°c	↓	3:00	↓ V	↓ A		↓	↓		
CQ174	Outer baffle top		100°c	140°c	11-3-21	7:00	29.5 V	220 A		81ni			
↓	↓		↓	133°c	↓	8:00	29.5 V	220 A		↓	↓		
↓	↓		↓	127°c	↓	9:00	29.5 V	220 A		↓	↓		
CQ-039				138°c		10:00	↓ V	↓ A		↓	↓		
↓	↓		↓	136°c	↓	11:00	↓ V	↓ A		↓	↓		
↓	↓		↓	127°c	↓	12:00	↓ V	↓ A		↓	↓		
↓	↓		↓	126°c	↓	1:00	↓ V	↓ A		↓	↓		
↓	↓		↓	129°c	↓	2:00	↓ V	↓ A		↓	↓		
↓	↓		↓	136°c	↓	3:00	↓ V	↓ A		↓	↓		
↓	↓		↓	138°c	↓	4:00	↓ V	↓ A		↓	↓		
↓	↓		↓		↓		↓ V	↓ A		↓	↓		

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 12-3-21									
Job Description: RH340B Boom Refurbishment <i>Inside Boom</i>				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CA-174	<i>inside upper</i>		100°C	120°C	12-3-21	7.00	29.5 V	226 A		812I	8214100149305		
				128°C		8.00	V	A					
				126°C		9.00	V	A					
				129°C		10.00	V	A					
				132°C		11.00	V	A					
				136°C		12.00	V	A					
CA-039				129°C		1.00	V	A					
CA-039				122°C		2.00	V	A					
CA-133	<i>inside upper</i>		100°C	124°C	15-3-21	7.00	29.5 V	224 A		812I			
				132°C		8.00	V	A					
				134°C		9.00	V	A					
				131°C		10.00	V	A					
				129°C		11.00	V	A					
				127°C		12.00	V	A					
CA-039				128°C		1.00	V	A					
				132°C		2.00	V	A					
				130°C		3.00	V	A					
				136°C		4.00	V	A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 16/10/2020									
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No.	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
DW	BOSS ON EARS		175°c	182°c	9-12-20	8:00	28 V	37.6 A		MNMOO.9 _{1mm}	0103668		
				179°c		9:00	V	A					
				180°c		11:00	V	A					
				180°c		12:00	V	A					
				177°c		13:00	V	A					
				178°c		14:00	V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **16/10/2020**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
<i>PW</i>			<i>120°</i>		<i>30-11-20</i>		V	A					
<i>C2046</i>	<i>BOSS/EAR</i>		<i>140°-220°</i>	<i>160°</i>	<i>16/12/20</i>	<i>12:00</i>	<i>25.4</i> V	<i>300</i> A		<i>81N11H4</i>	<i>6958</i>		
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
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							V	A					
							V	A					
							V	A					



Mining Services

WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **16/10/2020**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	Boss/Ear		140°-220°	170°	9/12/20	12:30	26.7 V	475 A		MNMO	0103668		
CQ046	"		140°-220°	190°	9/12/20	13:30	25.4 V	310 A		81N1114	6958		
CQ046	"		140°-220°	180°	10/12/20	7:00	25.4 V	310 A		"	"		
CQ046	"		140°-220°	170°	10/12/20	8:50	24.9 V	330 A		"	"		
CQ046	Boss/Ear		140°-220°	180°	11/12/20	6:50	V	328 A		81N1114	6958		
CQ046	"		140°-220°	160°	11/12/20	8:00	25.1 V	310 A		"	"		
CQ046	"		140°-220°	180°	11/12/20	9:48	25.1 V	319 A		"	"		
CQ046	"		140°-220°	160°	11/12/20	12:00	27.4 V	325 A		"	"		
CQ046	"		140°-220°	170°	14/12/20	7:00	27.5 V	325 A		81N1114	6958		
CQ046	"		140°-220°	180°	"	8:30	" V	" A		"	"		
CQ046	"		140°-220°	170°	"	10:00	" V	" A		"	"		
CQ046	"		140°-220°	190°	"	12:00	" V	" A		"	"		
CQ046	"		140°-220°	170°	"	13:30	" V	" A		"	"		
CQ046	"		140°-220°	180°	"	3:00	" V	" A		"	"		
CQ046	Boss/Ear		140°-220°	185°	15/12/20	7:00	27.5 V	325 A		81N1114	6958		
CQ046	"		140°-220°	190°	"	9:30	25.4 V	300 A					
CQ046	Boss/Ear		140°-220°	190°	16/12/20	7:30	25.0 V	300 A		81N1114	6958		
CQ046	"		140°-220°	200°	"	8:50	25.5 V	300 A					



CQ Field Mining Services

WELDING & HEAT RECORD SHEET

Client:	Cq Field Mining	Job No:	21183	Date:	17/11/2020								
Job Description:		RH340B Boom Refurbishment				Drawing No:							
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CO-039	Boom Siderall ^{near hole}		110°C-120°C	127°C	12/11/20	10:00Am	24.5 V	288 A		LW16 9.2	1901263		
EDWIN	BOOM S/wall		110°C-120°C	117°C	13-11-20	7:30Am	V	288 A	FLEX TEC LINCON	VERTI-COR 3XP 1.2mm	200124119		
EDWIN	BOOM S/wall		110°C-120°C	113°C	13-11-20	8:30Am	V	288 A	u	u	u		
EDWIN	BOOM S/wall		110°C-120°C	123°C	13-11-20	11:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	124°C	13-11-20	1:00pm	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	115°C	16-11-20	9:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	126°C	16-11-20	8:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	117°C	16-11-20	10:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	16-11-20	11:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	1:30pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	16-11-20	3:00pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	4:00pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	17-11-20	9:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	120°C	17-11-20	10:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	17-11-20	12:00pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	121°C	17-11-20	1:30pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	126°C	17-11-20	8:00pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	119°C	17-11-20	4:30pm	V	u A	u	u	u		

WELDING & HEAT RECORD SHEET

Client:		Cq Field Mining			Job No: 21183		Date: 16/10/2020- 23/11/20						
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	Front Int Upper Bulk Head		100-120	130	23/11/20	6:30	22.1 V	250 A		8IN11H4	5982		
CQ046	" B/H		100-120	130	23/11/20	12:00	22.2 V	250 A		"	"		
CQ046	"		100-120	120	23/11/20	2:00	22.2 V	250 A		"	"		
CQ046	"		100-120	125	24/11/20	6:30	22.4 V	250 A		"	"		
CQ046			160-120	125	29/11/20	2:30	27.8 V	215 A		"	"		
CQ133			100-120	130	1/12/20	8:00	21.9 V	215 A		"	"		
CQ133			"	125	"	9:50	22.8 V	230 A		"	"		
CQ133			"	130	"	10:00	22.7 V	230 A		"	"		
CQ046			"	125	1/12/20	12:00	22.9 V	230 A		"	"		
CQ046			"	130	"	1:00	22.7 V	230 A		"	"		
CQ133			"	125	"	2:00	22.8 V	230 A		"	"		
CQ046			"	119	2-12-20	6:30	22.8 V	230 A		"	"		
CQ046			"	130	"	8:30	" V	" A		"	"		
CQ133	Rear Cavity Side wall		"	132°	3-12-20	8:30	23 V	220 A		"	"		
							V	A					
							V	A					
							V	A					
							V	A					



Mining Services

WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **16/10/2020**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
C.L	MANHOLE -		175	175	16/10/20	0930	27 V	5.0 A	MILLER CQW21	VERTICAL 3XP			
	REMOVE OFF FLATBAR						V	A					
	BACKING BAR BACKGOUGE REPAIR PREHEAT, FILL GRIND FLUSH						V	A					
S.T	weld LH Side Window		175°	180	18/11/20	7am	27 V	A	CQW21				
	LH side wall in feet plate.		175°	180	19/11/20	8 am	27 V	A	CQW21				
CQW22	LH SIDE wall plate		175°	180	20/11/20	10am	22.7V	27.8 A	CQW22	81NiH4			
	LH side wall plate		180°	180	23.11.20	7am	23.1 V	25.3 A		81NiH4			
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

WELDER - JALON



Mining Services

WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **10-2-21**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ-039	R/A LIFTING LUG	fill prep	100°-120°	127°c	10/2/21	10:00am	27.3 V	245 A		81NI	7680101145108		
CQ-039		fillet weld	100°-120°	133°c	10/2/21	1:00pm	27.3 V	245 A		81NI	7680101145108		
CQ-039		cap	100°-120°	147°c	10/2/21	3:00pm	27.2 V	239 A		81NI	7680101145108		
<hr/>							V	A					
CQ-039	torque tube	root	100°-120°	138°c	11/2/21	10:30am	27.2 V	242 A		81NI	7476602910216		
CQ-039	torque tube	Hot pass	100°-120°	142°c	11/2/21	11:20am	27.2 V	245 A		81NI	7476602910216		
CQ-039	Torque tube	fill	100°-120°	137°c	11/2/21	1:30am	27.2 V	245 A		81NI	7476602910216		
CQ-039	torque tube	cap	100°-120°	125°c	11/2/21	12:00pm	26.7 V	220 A		81NI	7476602910216		
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

Uncontrolled If Printed

Artek

WELDER No - HUDSON CQ-136
 JAMES



WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **12.2.21** **10-2-21**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
	FRONT INT UPPER BULK HEAD L/H			128	12/2	830	30 V	185 A	Boom			JAMES	J.F
				105	12/2	930	32 V	185 A	Boom			JAMES	J.F
				123	12/2	1030	30 V	200 A	Boom			JAMES	J.F
				115	12/2	1130	28 V	190 A	Boom			JAMES	J.F
				130	12/2	1250	28 V	190 A	Boom			JAMES	J.F
				105	12/2	1330	28 V	190 A	Boom			JAMES	J.F
				128	15/2	630	28 V	190 A	Boom			JAMES	J.F
				108	15/2	730	27 V	190 A	Boom			JAMES	J.F
				123	15/2	830	27 V	190 A	Boom			JAMES	J.F
				135	15/2	930	27 V	190 A	Boom			JAMES	J.F
				115	15/2	1030	27 V	190 A	Boom			JAMES	J.F
				138	15/2	1230	27 V	190 A	Boom			JAMES	J.F
				122	15/2	1430	27 V	190 A	Boom			JAMES	J.F
				135	16/2	930	30 V	232 A	BOOM			JAMES	J.F
				125	16/2	1130	30 V	245 A	Boom			JAMES	J.F
				138	16/2	1330	30 V	245 A	Boom			JAMES	J.F
							V	A					
							V	A					

WELDER - EDWIN - LOU1



WELDING & HEAT RECORD SHEET

Client: **Cq Field Mining** Job No: **21183** Date: **10-2-21**

Job Description: **RH340B Boom Refurbishment** Drawing No:

Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
	BULK HEAD MIDDLE		120°C	123°C	10-2-21	7:30	29 V	230 A	CQW23	1.6 mm 1082INI46	7680		
			120°C	130	10/2/21	7:52	" V	" A	"	"	"		
			120°C	125°C	10/2/21	11:30	" V	" A	"	"	"		
			120°C	122°C	10/2/21	12:30	" V	" A	"	"	"		
			120°C	125°C	10/2/21	2:30	" V	" A	"	"	"		
			120°C	127°C	10/2/21	4:30	" V	" A	"	"	"		
			120°C	129°C	10/2/21	5:30	" V	" A	"	"	"		
							" V	" A					
	BULK HEAD MIDDLE		120°C	123°C	11-2-21	7:00	" V	" A	CQW23	1.6 mm 1082INI46	"		
			120°C	126°C	11/2/21	8:30	" V	" A	"	"	"		
			120°C	125°C	11-2-21	11:00	" V	" A	"	"	"		
			120°C	127°C	11/2/21	1:30	" V	" A	"	"	"		
			120°C	121°C	11/2/21	3:00	" V	" A	"	"	"		
			120°C	123°C	11/2/21	4:00	" V	" A					
			120°C	123°C	15/2/21	7:00	" V	" A	"	"	"		
			120°C		15/2/21		" V	" A	"	"	"		
							" V	" A					
							" V	" A					



Mining Services

WELDING & PRE-HEAT RECORD SHEET

Client: LQ FIELD 6060 Boom		Job No:		Date: 1/04/21									
Job Description:						Drawing No:							
Welder ID	Joint Type/ID	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
LH Boom	Foot		180	100	1/04/21	10am	208 V	140 A		ER70-56			
RH Boom	Foot		180	100	1/04/21	10:15	208 V	140 A		ER70-56			
RH Boom	CYL IN		180	100	1/04/21	10:30	208 V	140 A		" " "			
"	OUT		180	100	1/04/21	11:30	208 V	140 A		" " "			
LH Boom	CYL IN		180	100	1/04/21	10:30	208 V	140 A		" " "			
	OUT		180	100	1/04/21	11:30	208 V	140 A		" " "			
LH Boom	-BODY		180	100	6/04/21	7am	208 V	140 A		" " "			
RH Boom	-BODY		180	100	6/04/21	7:30	208 V	140 A		" " "			
							V	A					
							V	A					
							V	A					

* NOTE: Readings to be recorded first when the recommended temperature is reached & once every Hour during Welding.

PRE-HEAT and CONSUMABLE GUIDE

Material	20mm & Under	20mm - 40mm	40mm - 60mm	60mm<	Process	Consumable
Q & T 80	100°C	100°C	150°C	200°C	FCAW	E81T1-N1-H4
Q & T 400	150°C	150°C	150°C	200°C	FCAW	E81T1-N1-H4
Q & T 450	150°C	150°C	150°C	150°C	FCAW	E81T1-N1-H4
GR250	75°C	75°C	75°C	108°C	FCAW/GMAW	E71T1-H8
GR350	75°C	75°C	75°C	108°C	FCAW/GMAW	E71T1-H8
Cruesabro	30°C	30°C	30°C	30°C	FCAW	E71T1-H8

Uncontrolled If Printed

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 4/3/21		21/11/2020							
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ174	L/H Sidewall		100°c	127°c	4/3/21	6:30	265 V	235 A		81ni			
				132°c		7:30	V	A					
				115°c		8:30	V	A					
				119°c		9:30	V	A					
				126°c		10:30	V	A					
				128°c		11:30	V	A					
				133°c		12:30	V	A					
				119°c		1:30	V	A					
				137°c		2:30	V	A					
CQ174			100°c	123°c	5/3/21	6:30	265 V	219 A		81ni			
				132°c		7:30	V	A					
						8:30	V	A					
						9:30	V	A					
						10:30	V	A					
						11:30	V	A					
						12:30	V	A					
						1:30	V	A					
						2:30	V	A					

WELDER - EDWIN - LOUI



Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 10-2-21									
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
	BULK HEAD MIDDLE		120°C	123°C	10-2-21	7:30	29 V	230 A	CQW23	1.6 mm 1081 Ni 116	7680		
			120°C	130°C	10/2/21	7:52	" V	" A	"	"	"		
			120°C	125°C	10/2/21	11:30	" V	" A	"	"	"		
			120°C	122°C	10/2/21	12:30	" V	" A	"	"	"		
			120°C	125°C	10/2/21	2:30	" V	" A	"	"	"		
			120°C	127°C	10/2/21	4:30	" V	" A	"	"	"		
			120°C	129°C	10/2/21	5:30	" V	" A	"	"	"		
							" V	" A					
	BULK HEAD MIDDLE		120°C	123°C	11-2-21	7:00	" V	" A	CQW23	1.6 mm 1081 Ni 116	"		
			120°C	126°C	11-2-21	8:30	" V	" A	"	"	"		
			120°C	125°C	11-2-21	11:00	" V	" A	"	"	"		
			120°C	127°C	11-2-21	1:30	" V	" A	"	"	"		
			120°C	121°C	11-2-21	3:00	" V	" A	"	"	"		
			120°C	123°C	11-2-21	4:00	" V	" A	"	"	"		
			120°C	123°C	15/2/21	7:00	" V	" A	"	"	"		
			120°C		15/2/21		" V	" A	"	"	"		
							" V	" A					
							" V	" A					

WELDER No - HUDSON CQ-136
 JAMES



WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 12.2.21		10-2-21							
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
	FRONT INT UPPER BULK HEAD L/H			128	12/2	830	30 V	185 A	Boom			JAMES	J.F
				105	12/2	930	32 V	185 A	Boom			JAMES	J.F
				123	12/2	1030	30 V	200 A	Boom			JAMES	J.F
				115	12/2	1130	28 V	190 A	Boom			JAMES	J.F
				130	12/2	1250	28 V	190 A	Boom			JAMES	J.F
				105	12/2	1330	28 V	190 A	Boom			JAMES	J.F
				128	15/2	630	28 V	190 A	Boom			JAMES	J.F
				108	15/2	730	27 V	190 A	Boom			JAMES	J.F
				123	15/2	830	27 V	190 A	Boom			JAMES	J.F
				135	15/2	930	27 V	190 A	Boom			JAMES	J.F
				115	15/2	1030	27 V	190 A	Boom			JAMES	J.F
				138	15/2	1230	27 V	190 A	Boom			JAMES	J.F
				122	15/2	1430	27 V	190 A	Boom			JAMES	J.F
				135	16/2	930	30 V	232 A	BOOM			JAMES	J.F
				125	16/2	1130	30 V	245 A	Boom			JAMES	J.F
				138	16/2	1330	30 V	245 A	Boom			JAMES	J.F
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 21/11/2020									
Job Description: RH340B Boom Refurbishment						Drawing No:							
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	RH Sidwall		100-120	130	17/11/20	630	20.8 V	384 A		LW1-6	1901263		
CQ046	"		100-120	120	17/11/20	730	23.3 V	300 A		"	"		
CQ046	"		"	125	"	900	23.3 V	305 A		"	"		
CQ046	"		"	120	"	1030	" V	" A		"	"		
CQ046	"		"	125	"	230	" V	" A		"	"		
CQ046	"		"	130	18/11/20	730	" V	" A		"	"		
CQ046	"		"	130	18/11/20	900	" V	" A		"	"		
CQ046	"		"	120	18/11/20	1030	" V	" A		"	"		
CQ046	"		"	130	18/11/20	1230	" V	" A		"	"		
CQ046	"		"	120	18/11/20	200	" V	" A		"	"		
CQ046	"		100-120	110	19/11/20	630	" V	" A		"	"		
CQ046	"		100-120	130	19/11/20	930	" V	" A		"	"		
CQ046	Front Int Upper Bulk Head		100-120	120	20/11/20	700	22.1 V	260 A		81N1LH4	5982		
CQ046	"		100-120	130	20/11/20	815	" V	" A		"	"		
CQ046	"		100-120	120	20/11/20	900	" V	" A		"	"		
CQ046	"		100-120	115	"	1160	" V	" A		"	"		
CQ046	"		100-120	130	"	1230	" V	" A		"	"		
							V	A					



WELDING & HEAT RECORD SHEET

Mining Services

Client:		Cq Field Mining		Job No:	21183		Date:	10-2-21					
Job Description:		RH340B Boom Refurbishment					Drawing No:						
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ-039	R/H LIFTING LUG	fill prep	100-120	127°C	10/2/21	10:00am	27.3 V	245 A		81NI	7680401145108		
CQ-039		fillet weld	100°C-120°C	133°C	10/2/21	1:00pm	27.3 V	245 A		81NI	7680401145108		
CQ-039		cap	100°C-120°C	147°C	10/2/21	3:00pm	27.2 V	239 A		81NI	7680401145108		
<hr/>							V	A	<hr/>				
CQ-039	torque tube	root	100°C-120°C	138°C	11/2/21	10:50am	27.2 V	242 A		81NI	7476602940216		
CQ-039	torque tube	Hot pass	100°C-120°C	142°C	11/2/21	11:20am	27.2 V	245 A		81NI	7476602940216		
CQ-039	torque tube	fill	100°C-120°C	137°C	11/2/21	1:30am	27.2 V	245 A		81NI	7476602940216		
CQ-039	torque tube	cap	100°C-120°C	125°C	11/2/21	12:00pm	26.7 V	220 A		81NI	7476602940216		
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

Artek

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 16/10/2020									
Job Description: RH340B Boom Refurbishment						Drawing No:							
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
C.L	MANHOLE - Gouge OFF FLATBAR BACKING BAR BACKGOUGE REPAIR PREHEAT, FILL GRIND FLUSH		175	175	16/10/20	09:30	27 V	5.0/15 A	MILLER COW21	VERTICORL 3XP			
S.T	weld LH Side Window		175°	180	18/11/20	7am	27 V	A	COW21				
	LH side wall inlet plate		175°	180	19/11/20	8 am	28 V	A	COW21				
TRW22	LH SIDE wall Plate		175°	180	20/11/20	10am	22.2V	27.8 A	COW22	81 NI H4			
	LH side wall plate		180°	180	23.11.20	7am	22.1 V	25.3 A		81 NI H4			
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					



Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 16/10/2020 - 23/11/20									
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	Front Int Upper Bulk Head		100-120	130	23/11/20	6:30	22.1 V	250 A		8IN11H4	5982		
CQ046	" B/H		100-120	130	23/11/20	12:00	22.2 V	250 A		"	"		
CQ046	"		100-120	120	23/11/20	2:00	22.2 V	250 A		"	"		
CQ046	"		100-120	125	24/11/20	6:30	22.4 V	250 A		"	"		
CQ046			160-120	125	29/11/20	2:30	27.8 V	215 A		"	"		
CQ133			100-120	130	1/12/20	8:00	21.9 V	215 A		"	"		
CQ133			"	125	"	9:00	22.8 V	230 A		"	"		
CQ133			"	130	"	10:00	22.7 V	230 A		"	"		
CQ046			"	125	1/12/20	12:00	22.9 V	230 A		"	"		
CQ046			"	130	"	1:00	22.7 V	230 A					
CQ133			"	125	"	2:00	22.8 V	230 A		"	"		
CQ046			"	119	2-12-20	6:50	22.8 V	230 A					
CQ046			"	130	"	8:30	" V	" A		"	"		
CQ133	Rear Cavity Side wall		"	132°	3-12-20	8:30	23 V	220 A		"	"		
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 12/11/2020									
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
02-039	Boom Siderall ^{near hole}		110°C-120°C	127°C	12/11/20	10:00Am	24.5 V	288 A		LW16 9.2	1901263		
EDWIN	BOOM S/wall		110°C-120°C	117°C	13-11-20	7:30Am	V	288 A	FLEX TEC LINCON	WEATH-COR 3XP 1.2mm	2001241191		
EDWIN	BOOM S/wall		110°C-120°C	113°C	13-11-20	8:30Am	V	288 A	u	u	u		
EDWIN	BOOM S/wall		110°C-120°C	123°C	13-11-20	11:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	124°C	13-11-20	1:00pm	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	115°C	16-11-20	9:00Am	V	280 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	126°C	16-11-20	8:20Am	V	283 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	117°C	16-11-20	10:00Am	V	283 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	16-11-20	11:30Am	V	284 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	1:30pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	16-11-20	3:00pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	4:00pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	17-11-20	9:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	120°C	17-11-20	10:30Am	V	286 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	17-11-20	12:00pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	121°C	17-11-20	1:30pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	126°C	17-11-20	8:00pm	V	u A	u	u	u		
EDWIN	BOOM S/W		110°C-120°C	119°C	17-11-20	4:30pm	V	u A	u	u	u		



CQ Field
Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 16/10/2020									
Job Description: RH340B Boom Refurbishment						Drawing No:							
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	Boss/Ear		140-220	170	9/12/20	12:30	26.7 V	475 A		MNMO	0103668		
CQ046	"		140-220	190	9/12/20	13:30	25.4 V	310 A		81N1114	6958		
CQ046	"		140-220	180	10/12/20	7:00	25.4 V	310 A		"	"		
CQ046	"		140-220	170	10/12/20	8:50	24.9 V	330 A		"	"		
CQ046	Boss/Ear		140-220	180	11/12/20	6:50		328 A		81N1114	6958		
CQ046	"		140-220	160	11/12/20	8:00	25.1 V	310 A		"	"		
CQ046	"		140-220	180	11/12/20	9:48	25.1 V	319 A		"	"		
CQ046	"		140-220	160	11/12/20	12:00	27.4 V	325 A		"	"		
CQ046	"		140-220	170	14/12/20	7:00	27.5 V	325 A		81N1114	6958		
CQ046	"		140-220	180	"	8:30	" V	" A		"	"		
CQ046	"		140-220	170	"	10:00	" V	" A		"	"		
CQ046	"		140-220	190	"	12:00	" V	" A		"	"		
CQ046	"		140-220	170	"	13:30	" V	" A		"	"		
CQ046	"		140-220	180	"	3:00	" V	" A		"	"		
CQ046	Boss/Ear		140-220	185	15/12/20	7:00	27.5 V	325 A		81N1114	6958		
CQ046	"		140-220	190	"	9:30	25.4 V	300 A					
CQ046	Boss/Ear		140-220	190	16/12/20	7:30	25.8 V	300 A		81N1114	6958		
CQ046	"		140-220	200	"	8:50	25.5 V	300 A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 28/2/21 21/11/2020									
Job Description: RH340B Boom Refurbishment		RH Side wall		Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CA-039	RH Side wall		100°C	125°C	28/2/21	7.00	27.1 V	238 A		81NI	853010 747902		
			↓	117°C		8.00	↓ V	↓ A		↓	↓		
				132°C		9.00	↓ V	↓ A					
				123°C		10.00	↓ V	↓ A					
				118°C		11.00	↓ V	↓ A					
				119°C		12.00	↓ V	↓ A					
				116°C		1.00	↓ V	↓ A					
				129°C		2.00	↓ V	↓ A					
			↓	152°C	1/3/21	9.00	↓ V	↓ A		↓	↓		
			100°C	126°C	1/3/21	8.00	↓ V	↓ A		81NI			
			↓	124°C		9.00	↓ V	↓ A		↓			
				129°C		10.00	↓ V	↓ A					
				137°C		11.00	↓ V	↓ A					
				134°C		12.00	↓ V	↓ A					
				138°C		1.00	↓ V	↓ A					
				127°C		2.00	↓ V	↓ A		↓			
				123°C		3.00	↓ V	↓ A					
							↓ V	↓ A					



CQ Field Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 25/2/21									
Job Description: RH340B Boom Refurbishment R/H Main Sidewall			Drawing No:										
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CO-039	main sidewall		100°C	170°C	25/2/21	7.00	77.4 V	9.18 A		81A1	78040104758		
				175°C		8.00	V	A					
				118°C		9.00	V	A					
				121°C		10.00	V	A					
				177°C		11.00	V	A					
				130°C		12.00	V	A					
				137°C		1.00	V	A					
				126°C		2.00	V	A					
				131°C		3.00	27.4 V	218 A		81A1	853010764792		
				125°C		4.00	V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					



Mining Services

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 21/11/2020 23-2									
Job Description: RH340B Boom Refurbishment <i>R/H MAIN SIDE WALL</i>			Drawing No:										
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CA-039	main side wall		100°C	130°C	23-2	10:30	27.7 V	228 A		81NI	7680101047502		
			↓	178°C	↓	11:30	↓ V	↓ A		↓	7680101047502		
			↓	132°C	↓	12:30	↓ V	↓ A		↓			
			↓	115°C	↓	1:30	↓ V	↓ A		↓			
			↓	118°C	↓	2:30	↓ V	↓ A		↓			
			↓	116°C	↓	3:30	↓ V	↓ A		↓			
CA-039	main side wall		100°C	122°C	24-2	7:00	27.4 V	216 A		81NI	7680101047502		
			↓	137°C	↓	8:00	↓ V	↓ A		81NI	71476602940216		
			↓	128°C	↓	9:00	↓ V	↓ A		↓	71476602940216		
			↓	124°C	↓	10:00	↓ V	↓ A		↓			
			↓	118°C	↓	11:00	↓ V	↓ A		↓			
			↓	130°C	↓	12:00	↓ V	↓ A		↓			
			↓	132°C	↓	1:00	↓ V	↓ A		↓			
			↓	127°C	↓	2:00	↓ V	↓ A		↓			
			↓	124°C	↓	3:00	↓ V	↓ A		↓			
							↓ V	↓ A		↓			
							↓ V	↓ A		↓			
							↓ V	↓ A		↓			

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 21/11/2020									
Job Description: RH340B Boom Refurbishment				Drawing No:									
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	RH Sidwall		100-120	130	17/11/20	630	20.8 V	384 A		LW1-6	1901263		
CQ046	"		100-120	120	17/11/20	730	23.3 V	300 A		"	"		
CQ046	"		"	125	"	900	23.3 V	305 A		"	"		
CQ046	"		"	120	"	1030	" V	" A		"	"		
CQ046	"		"	125	"	230	" V	" A		"	"		
CQ046	"		"	130	18/11/20	730	" V	" A		"	"		
CQ046	"		"	130	18/11/20	900	" V	" A		"	"		
CQ046	"		"	120	18/11/20	1030	" V	" A		"	"		
CQ046	"		"	130	18/11/20	1230	" V	" A		"	"		
CQ046	"		"	120	18/11/20	200	" V	" A		"	"		
CQ046	"		100-120	110	19/11/20	630	" V	" A		"	"		
CQ046	"		100-120	130	19/11/20	930	" V	" A		"	"		
CQ046	Front Int Upper Bulk Head		100-120	120	20/11/20	700	22.1 V	260 A		81N1LH4	5982		
CQ046	"		100-120	130	20/11/20	815	" V	" A		"	"		
CQ046	"		100-120	120	20/11/20	900	" V	" A		"	"		
CQ046	"		100-120	115	"	1160	" V	" A		"	"		
CQ046	"		100-120	130	"	1230	" V	" A		"	"		
							V	A					

WELDING & HEAT RECORD SHEET

Client:	Cq Field Mining			Job No:	21183		Date:	16/10/2020- 23/11/20					
Job Description:		RH340B Boom Refurbishment					Drawing No:						
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CQ046	Front Int Upper Bulk Head		100-120	130	23/11/20	6:30	22.1 V	250 A		8IN11H4	5982		
CQ046	"		100-120	130	23/11/20	12:00	22.2 V	250 A		"	"		
CQ046	"		100-120	120	23/11/20	2:00	22.2 V	250 A		"	"		
CQ046	"		100-120	125	24/11/20	6:30	22.4 V	250 A		"	"		
CQ046			160-120	125	29/11/20	2:30	27.8 V	215 A		"	"		
CQ133			100-120	130	1/12/20	8:00	21.9 V	215 A		"	"		
CQ133			"	125	"	9:00	22.8 V	230 A		"	"		
CQ133			"	130	"	10:00	22.7 V	230 A		"	"		
CQ046			"	125	1/12/20	12:00	22.9 V	230 A		"	"		
CQ046			"	130	"	1:00	22.7 V	230 A		"	"		
CQ133			"	125	"	2:00	22.8 V	230 A		"	"		
CQ046			"	119	2-12-20	6:50	22.8 V	230 A		"	"		
CQ046			"	130	"	8:30	" V	" A		"	"		
CQ133	Rear Cavity Side wall		"	132°	3-12-20	8:50	23 V	220 A		"	"		
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client: Cq Field Mining		Job No: 21183		Date: 16/10/2020									
Job Description: RH340B Boom Refurbishment			Drawing No:										
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °C	Actual Preheat Temp °C	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
C.L.	MANHOLE - Gouge OFF FLATBAR BACKING BAR BACKGOUGE REPAIR PREHEAT, FILL GRIND FLUSH		175	175	16/10/20	0930	27 V	5.0 A	MILLER COW21	VERTICAL 3XP			
S.T	weld LH Side Window		175°	180	18/11/20	7am	27 V	A	COW21				
	LH side wall in Peel Plate.		175°	180	19/11/20	8 am	27 V	A	COW21				
	LH Side Wall Plate		175	180	20/11/20	10am	22.7V	27.8 A	COW22	81 NIT4			
	LH Side wall Plate		186°	180	23.11.20	7am	23.1 V	25.3 A		81 NIT4			
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					
							V	A					

WELDING & HEAT RECORD SHEET

Client:	Cq Field Mining		Job No:	21183	Date:	17/11/2020							
Job Description:		RH340B Boom Refurbishment				Drawing No:							
Welder ID	Area Welded	Weld Procedure No	Recommended Preheat Temp °c	Actual Preheat Temp °c	Date Taken	Time Taken	Volts	Amps	Plant ID	Consumable Used	Consumable Batch No:	Inspected By: Print Name	Inspected By: Initials
CO-039	Boom Sidewall		110°C-120°C	127°C	12/11/20	10:00Am	245 V	288 A		LW16 1.2	190 1263		
EDWIN	BOOM S/wall		110°C-120°C	117°C	13-11-20	7:20AM	V	288 A	PLEXTEC LINCOLN	WEBA-COR 3XP 1.2mm	200124119		
EDWIN	BOOM S/wall		110°C-120°C	113°C	13-11-20	8:30Am	V	288 A	u	u	u		
EDWIN	BOOM S/wall		110°C-120°C	123°C	13-11-20	11:30Am	V	288 A	1	u	1		
EDWIN	BOOM SIDEWALL		110°C-120°C	124°C	13-11-20	1:00Pm	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	115°C	16-11-20	9:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	126°C	16-11-20	8:20Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	117°C	16-11-20	10:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	16-11-20	11:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	1:30 Pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	16-11-20	3:00 Pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	121°C	16-11-20	4:00 Pm	V	u A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	118°C	17-11-20	9:00Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	120°C	17-11-20	10:30Am	V	288 A	u	u	u		
EDWIN	BOOM SIDEWALL		110°C-120°C	116°C	17-11-20	12:00Am	V	u A	u	u	u		
EDWIN	BOOM s/w		110°C-120°C	121°C	17-11-20	1:30 Pm	V	u A	u	u	u		
EDWIN	BOOM s/w		110°C-120°C	126°C	17-11-20	8:00 Pm	V	u A	u	u	u		
EDWIN	BOOM s/w		110°C-120°C	119°C	17-11-20	4:30 Pm	V	u A	u	u	u		

Section 6

NDT REPORTS

Document Name	Document ID	Version	Issue Date	Page
Workshop MDR	F_QA-013	1	10.02.2019	Page 8 of 13



N.D.T. TEST REPORT

BA:sk
12MAY21

REPORT NO.:

R21-0744

Page 1 of 10

CLIENT:

CQ Field Mining Services
19 Connors Road
Paget, Qld 4740

CLIENT CONTACT:

Mr. B. Sedcole

ORDER No.:

38412

JOB No.:

21183

DESCRIPTION:

NDT & Inspection of RH340B Boom
at CQ Field Mining Services Workshop, Mackay.

TECHNICIAN/S:

Mr. B. Anning / Mr. J. Bozier

DATE OF TEST:

19MAR21 / 15APR21

WORKSHEET REF. No.:

MPI 21 - 35413
VIS 21 - 6530
UT 21 - 0744

INSPECTION DATA:

PROCEDURE NO.: TP-001 / TP-301 / TP-701 / TP-702 / TP-703

AUST. STANDARD: AS 3978-2003 / AS 1171-1998 / AS 2207-2007 / AS/NZS 1554.4 SP

SURFACE CONDITION: As Welded

SURFACE PREPARATION: Blended

SURFACE CONDITION: ■ < 6.3µm Ra, □ < 3.2µm Ra

ACC/REJ LIMITS: AS/NZS 1554.4 2014 Cat SP Table 6.2
AS/NZS 1554.4 2014 Cat SP Table 6.3

MATERIAL SPECIFICATION: Carbon Steel – No Further Specification

TEST LIMITATIONS: 0°, 45°, 60° & 70° Scans Only
Some external surfaces painted at time of inspection
Drawing not provided

EQUIPMENT:

■ Ultrasonic □ Radiographic □ Penetrant
■ MPI ■ Other – Visual

Parker B300S Contour Probe AMP-040
Castrol Flux Indicator Strip
Krautkramer USM 36 Flaw Detector AUT-152
Krautkramer MB4S-E 0° Ultrasonic Transducer AUT-116
GE RHP 0-3.5 0° Ultrasonic Transducer AUT-086
GE MWB 45-4E 45° Ultrasonic Transducer AUT-080
GE MWB 60-4E 60° Ultrasonic Transducer AUT-081
GE MWB 70-4E 70° Ultrasonic Transducer AUT-082
GE MWB 45-2E 45° Ultrasonic Transducer AUT-083
GE MWB 60-2E 60° Ultrasonic Transducer AUT-084
GE MWB 70-2E 70° Ultrasonic Transducer AUT-085
Metric Universal Calibration Block AUT-019
Headlamp

MAGNETISATION: Continuous Method

DEMAGNETISATION: No

REF. SENSITIVITY: MPI – 3 Lines Castrol Flux Indicator
UT – 2nd BWEFSH / 80% Reference

CONSUMABLES: Ardrox, Black Magnetic Ink 800/3, Batch #4960506413
Ardrox, White Contrast Paint 8901/W, Batch #4960909564

EQUIPMENT CONTINUED:TEMPERATURE: 10° - 14° 15° - 45° 46° - 50°

RECORD: Photograph

LIGHTING: 1200 Lux

% COMPLETION: 100%

ACCESS: 100%

MAGNIFICATION: Nil

ULTRASONIC. INSPECTION DATA:

THICKNESS RANGE: 0 – 90mm

RANGE: 0° Scan: 0 – 200mm
45°, 60° & 70° Scan: 0 – 400mm

COUPLANT: Kerosene

SCAN POSITION: UM: A

SIZING: LSE / 6dB / 20dB

TEST ACCURACY: ± 0.5mm

RESULTS OF EXAMINATION**INSPECTION OF RH340B BOOM:****Magnetic Particle Inspection:****Worksheet No. 21 - 35413**

Identification	Result
Boom Job No. 21183 <i>100% Inspection of Bore Faces</i> <i>100% Inspection of Accessible Needle Gunned External Welds</i> <i>100% Inspection of New External Welds</i> <i>100% Inspection of New Internal Bulk Head Welds</i>	<ul style="list-style-type: none">➤ Nil Cracking / Anomalies Evident➤ Complies with the Requirements of AS/NZS 1554.1 2014 Cat SP Table 6.2.2

Note: Lighting Conditions comply with the Requirements of AS 1171 Section 3.5.2 1998**Limitation: Drawing not provided****Visual Inspection:****Worksheet No. 21 - 6530**

Identification	Result
Boom Job No. 21183 <i>100% Inspection of Bore Faces</i> <i>100% Inspection of Accessible Needle Gunned External Welds</i> <i>100% Inspection of New External Welds</i> <i>100% Inspection of New Internal Bulk Head Welds</i> <i>100% Inspection of External Surfaces</i>	<ul style="list-style-type: none">➤ Nil Defects / Anomalies Evident➤ Complies with the Requirements of AS/NZS 1554.1 2014 Cat SP Table 6.2.2

Note – Lighting Conditions comply with the Requirements of AS 3978 Section 6.1 - 2003**Limitation 1: Some external surfaces painted at time of inspection****Limitation 2: Drawing not provided**

RESULTS OF EXAMINATION CONTINUED**INSPECTION OF RH340B BOOM:****Ultrasonic Inspection:****Worksheet No. 21 - 0744**

Identification	Result
Boom Job No. 21183 <i>25% Inspection of New Welds</i>	<ul style="list-style-type: none">➤ Nil Recordable Anomalies Evident➤ Complies with the Requirements of AS/NZS 1554.4 2014 Cat SP Table 6.3

Note – Lighting Conditions comply with the Requirements of AS 3978 Section 6.1 - 2003
Limitation: Drawing not provided

Technicians**Ben Anning****Joshua Bozier**

B. Anning
Approved Signatory

PHOTOGRAPH NO. 1 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 2 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 3 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 4 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 5 – GENERAL VIEW OF RH340B BOOM



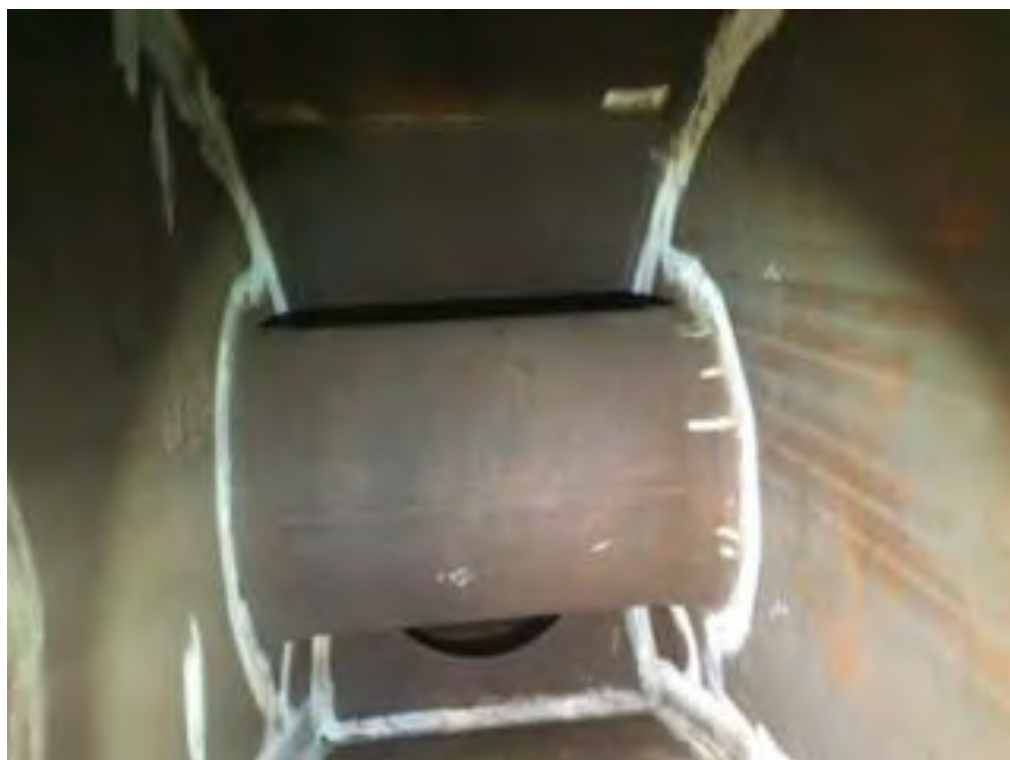
PHOTOGRAPH NO. 6 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 7 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 8 – GENERAL VIEW OF RH340B BOOM



PHOTOGRAPH NO. 9 – GENERAL VIEW OF RH340B BOOM



Section 7

MACHINING REPORT

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J.D Lineboring Pty Ltd
 Joshua Wright
 0455250386
 josh@dlineboring.com.au
 157 Jensens Rd, Farleigh, 4741
 ABN: 61 614 285 415

QA DOCUMENT:

Customer: Field Mining Services

Job Description: Linebore RH340 Boom – CQFMS Job# 21183

BORE:	Specified Size:	Bore Position:	Actual Size:
Boom – Stick	410.00mm +0.063mm – 0.00mm	LH	410.01mm
		RH	410.00mm
Boom Lift Cylinder	365.00mm +0.057mm - 0.00mm	LH Inner	365.00mm
		LH Outer	365.01mm
		RH Inner	365.00mm
		RH Outer	365.00mm
Boom Lift	410.00mm +0.063mm – 0.00mm	LH	410.01mm
		RH	410.00mm
Top Cylinder Mounts	339.949mm – 339.913mm	LH	339.94mm
		RH	339.93mm
Top Cylinder Mount Face Distances	Outside – Outside 1650mm		1650mm
	Inside – Inside 1310mm		1310mm
	Width 170mm	LH	170mm
		RH	170mm

Notes: Overall Face Distances for the Boom Lift Cylinders is 3070mm. To get the Top Cylinder Bores in the right position we straight edge off the outside face of the Boom Lift Cylinder bores and measure from face to Straight Edge. Measurement should be 710mm, this was achieved.

Section 8

STRESS RELIEVING

Document Name	Document ID	Version	Issue Date	Page
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Heat Treatment Report:

Report Number: NHT 4114

Date: 27/03/2021

Client: CQFMS

Job Location: Workshop Mackay

Project: RH340 Boom

Contact: Shannon

Job Description: PWHT furnace

Order No: P38173

PWHT Technician: Steve Harrison

Procedure: HTP007

Heat Treatment Details:

Signature: 

Soak Temp: 550°C	Soak Period: 2.5hrs.
Heat Increase Rate: 50°C	Controlled Cooling Rate: 100°C
Start Temp: 300°C	Switch Off Temp: 300°C
Preheat Temp: N/A	Insulation Removed At: N/A
Recorder Number: 166	Chart Speed: 25mm/h

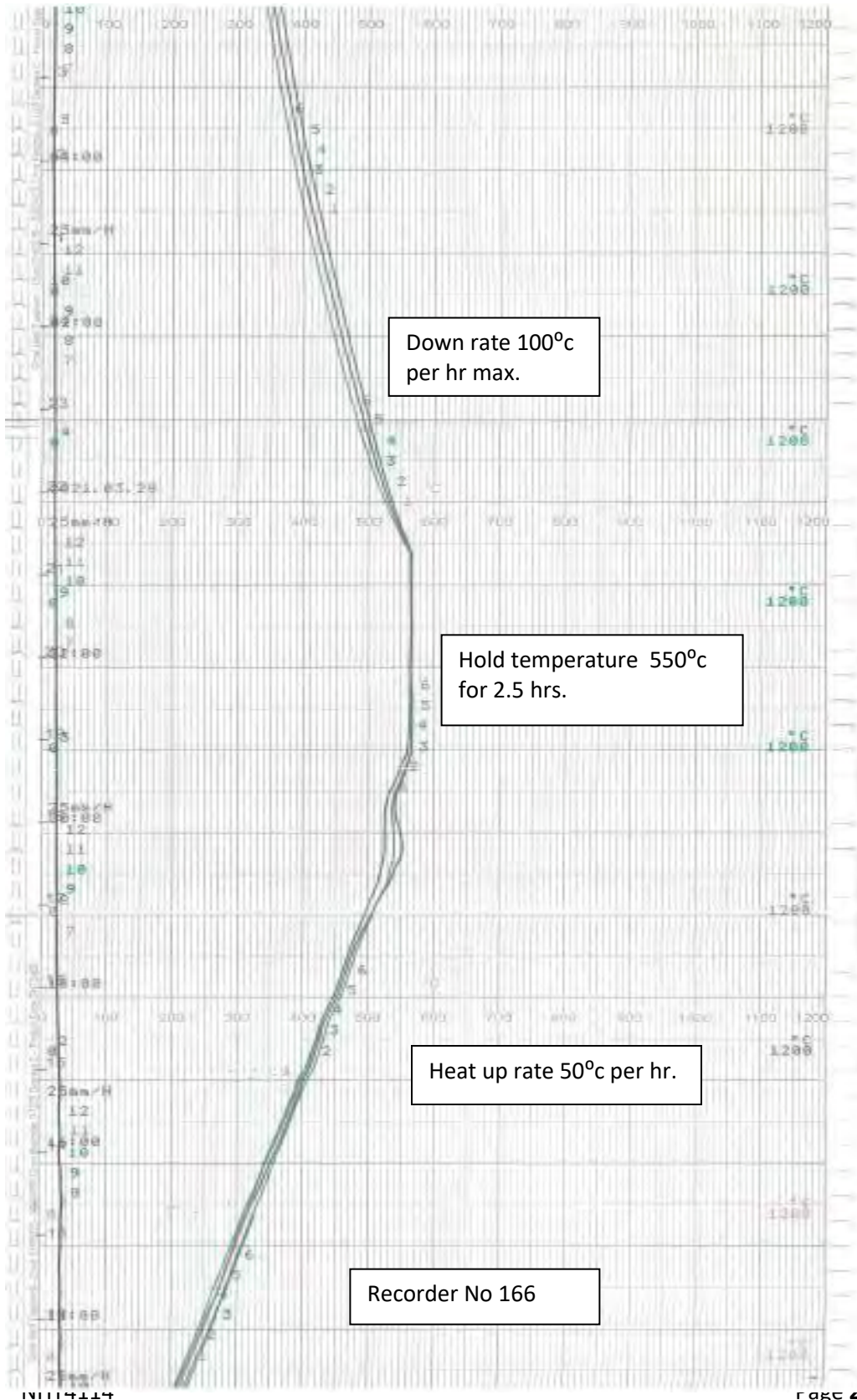
Job method:

NOTES

This process was monitored using a fully calibrated temperature recorder providing a print out graph for quality assurance documentation. A copy of these charts will be provided with this report. All original charts are held on file at National Heat and are available upon request.

Technical Controller: Steve Harrison

Signature: 



Certificate of Calibration / Test

Certificate N°: 8166 Date of Issue: 1 / 8 / 2020

Calibration carried out by (Print) S. Harrison

Equipment Description
Chino 12 Point Recorder

Input or Sensor Type <u>Type K</u>	Output or Range <u>0°C — 1200°C</u>
---------------------------------------	----------------------------------------

Ref. N° <u>R166</u>	Serial N° <u>R4139C196</u>	Next Calibration due <u>1/8/2021</u>
------------------------	-------------------------------	-----------------------------------------

Customer	Order N°	Ambient Temperature <u>23°C</u>
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Calibration Signal	Recorder Reading	Reading Acceptance (+/- 10%)
<u>200°C</u>	<u>201°C</u>	<u>C</u>
<u>600°C</u>	<u>601°C</u>	<u>C</u>
<u>900°C</u>	<u>900°C</u>	<u>C</u>

Instrument used	Model	Serial N°	Date Calibrated
<u>THERMO-ELECTRIC CALIBRATOR</u>	<u>TC-920</u>	<u>I.357913</u>	<u>31/7/2020</u>

All measurements are performed with equipment that is traceable to National Standards, unless otherwise stated.



Signature: *S. Harrison* Date: 1/8/2020





Section 9

FABRICATION DRAWING

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Section 10

MATERIAL CERTIFICATION

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THIS LABORATORY IS ACCREDITED FOR COMPLIANCE WITH ISO/IEC 17025 - TESTING.
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL. LABORATORY No. 1553.

CUSTOMER: INFRABUILD STEEL CENTRE MACKAY BRANCH LOCKED BAG 5044 PARRAMATTA NSW 2124		SPECIFICATION: STRUCTURE 80 (AS3597-2008 GRADE 700)													
CHEMICAL ANALYSIS		LADLE ANALYSIS - PERCENTAGE OF ELEMENT BY MASS													
HEAT No	92-07913	C	P	Mn	Si	S	Ni	Cr	Mo	Cu	Al	Sn	Ti	B	
		0.140	0.010	0.990	0.500	0.002	0.140	0.660	0.194	0.000	0.037	0.000	0.021	0.0016	
BATCH No		N = 0.0023 CE(IIW) = 0.4851													
HEAT TREATMENT DETAILS: 900°C/WQ / 615°C/QT															
MECHANICAL TESTS		TEST METHODS		AS1391				AS1816.1	AS1544						
PLATE AND ORDER DETAILS		PLATE SIZE mm x mm x m WIDTH X THICKNESS X LENGTH		0.2% PROOF STRESS MPa	TENSILE STRENGTH MPa	ELON-GATION %	GAUGE LENGTH (mm)	PS/TS RATIO	Hardness HBW 10/3000	CHARPY V-NOTCH IMPACT TEST				LATERAL EXPANSION (mm)	
PLATE No: 113868 CUST O/N: 7506610164 INSTOCK ITEM No: 393456		2485 x 60 x 6.000		787	849	22	50	0.93	258	SPEC SIZE mm x mm	DIR	TEMP °C	ENERGY J		
											10 x 10	L	-20	150 140 161	
											NOMINAL STRIKING ENERGY 300J NOMINAL IMPACT VELOCITY 5.24 m/s				

METRIC/IMPERIAL CONVERSION FACTORS PER ASTM E380

1inch = 25.4mm
 1ksi = 6.894757 Mpa
 °F = (°C x 1.8) + 32
 1ft. lbf = 1.355818 Joules

THE ABOVE CHEMICAL ANALYSES ARE REPRODUCED FROM FEED SUPPLIER NATA OR EQUIVALENT INTERNATIONALLY ENDORSED LABORATORIES.

FEED CERTIFICATE No. 201912240000141
 FEED LABORATORY No. CNAS No: L3008 DATED. 13/01/2020

WE CERTIFY THE ABOVE INFORMATION IS IN ACCORDANCE WITH THE RECORDS OF THE COMPANY AND CONFORMS TO THE SPECIFICATION AS STATED.

Section 11

PHOTOS

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180 64 891
HIRE

FORM 10 - 1500
FORM 10 - 1500
FORM 10 - 1500

07 4852 4

COOL





SCFU 4715468

4EG1

ld
Services
52 6557

3871089 S10 23
05-21-1415
02105











120
60
300
670