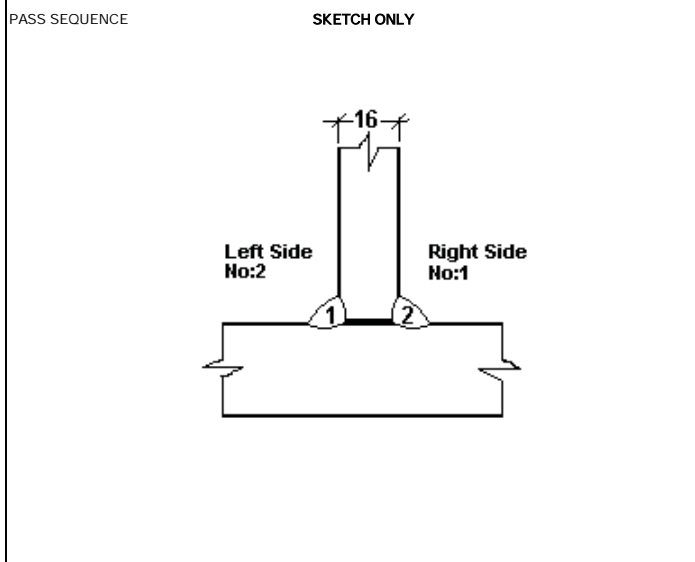
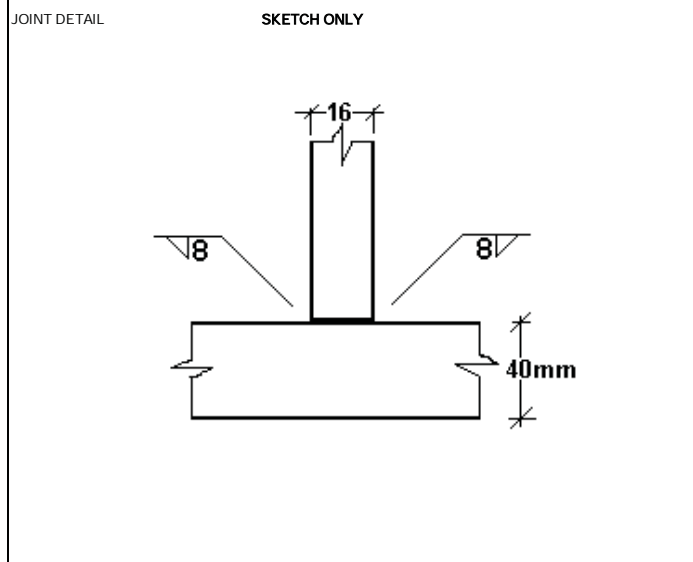


WELDING PROCEDURE SPECIFICATION	W.P.S. No. SGF-75
	REVISION. 2 AMENDMENT:A
	P.Q.R. No. SGF-75 Rev.1

WELDING STANDARD	AS/ NZS 1554.1-2011	SPECIFICATION	AS 3678 - 350
WELDING PROCESS	SAW (AUTOMATIC PROCESS)	GROUP NUMBER	1,2,3 & 4
EDGE PREPARATION	FLAME CUT,GRIND CLEAN	THICKNESS (t)	16mm Web/40mm Flange RANGE : Unlimited
JOINT TYPE	8MM FILLET DEEP PENETRATION WELD		



JOINT TOLERANCE		THERMAL TREATMENT	
ROOT GAP G	0-1.5mm	BACKING	NA
ROOT FACE Fr	NA	POSITION	2F
INCLUDED ANGLE θ°	85-100°	PROGRESSION	FOREHAND
		MINIMUM PREHEAT	SEE NOTE 3
		MAX. INTERPASS TEMP.	250°
		P.W.H.T.	NA

WELD PASS DETAILS			ELECTRODE DESCRIPTION			FLUX / GAS TYPE	WELDING PARAMETERS			TRAVEL SPEED mm/min.	INTERPASS ° C Max.	HEAT INPUT Kj / mm.
PASS	SIDE	POSITION	TYPE	SIZE	BRAND		AMPS	VOLTS	POLARITY			
LEAD	No:1 RIGHT	2F	EM12K	2.4	LINCOLNWELD L-61	960 FMM			DC+	RANGE 850 - 1150	-	RANGE 0.55 - 1.04
TRAIL	No:1 RIGHT	2F	EM12K	3.2	LINCOLNWELD L-61	960 FMM	502 - 614		AC	850 - 1150	-	0.76 - 1.44
LEAD	No:2 - LEFT	2F	EM12K	2.4	LINCOLNWELD L-61	960 FMM			DC+	850 - 1150	-	0.43 - 0.82
TRAIL	No:2 - LEFT	2F	EM12K	3.2	LINCOLNWELD L-61	960 FMM	562 - 686		AC	850 - 1150	-	0.84 - 1.61

TECHNIQUE		CONSUMABLES	
STRING OR WEAVE	STRINGER	CLASS.-ROOT :EM12K	CLASS.-REMAINDER : NA
CLEANING : INITIAL	GRIND / POWER WIRE BRUSH	SPEC.-ROOT : AS/NZS1858.1	SPEC.-REMAINDER : NA
INTERPASS	CHIP/GRIND/POWER WIRE BRUSH	BRAND NAME : LINCOLN WELD L-61	BRAND NAME :NA
BACKGOUGE METHOD	NA	FLUX:FMM 960	
STICK-OUT	24-36mm	SPECIFICATION: AS/NZS 1858.1	
TRAVEL SPEED RANGE	as detailed	GAS TYPE : N/A	
MAX. WEAVE WIDTH	NA	GAS FLOW : N/A	
TUNGSTEN SIZE/TYPE	NA		

COMMENTS.

- REMOVE EXTRANEIOUS MATERIAL FROM WELD JOINT PRIOR TO WELDING.
- ELECTRODES TO BE PRE-CONDITIONED AND STORED FOR USE AS RECOMMENDED BY THE MANUFACTURER.
- MINIMUM PREHEAT DEPENDENT ON COMBINED THICKNESS(ct)
 Minimum Preheat:Grade 250/300 (ct) < 30mm 20°C, 30-50mm 25°C, >50mm 50°C
 Grade 350 (ct) < 30mm 20°C, 30-40mm 25°C, 40-50mm 50°C, 50-70mm 75°C, >70mm 100°C
- AMENDMENT A-DENOTES CHANGES AS PER CURRENT EDITION OF THE STANDARD AS/NZS 1554.1-2011 HAVE BEEN INCORPORATED IN THIS ISSUE.

Prepared By: M.Lawrenson Date: 02.02.12	Approved By: M.Lawrenson Date:03.02.12
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PROCEDURE QUALIFICATION RECORD

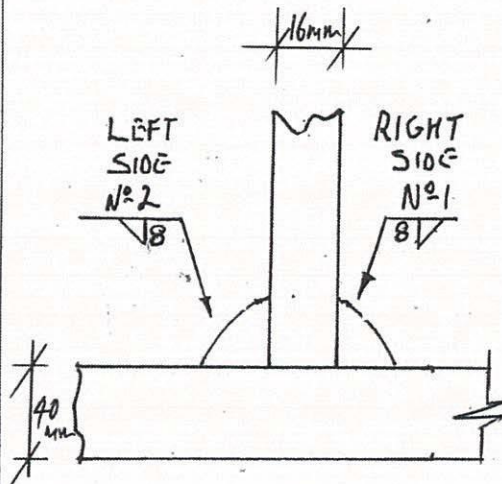
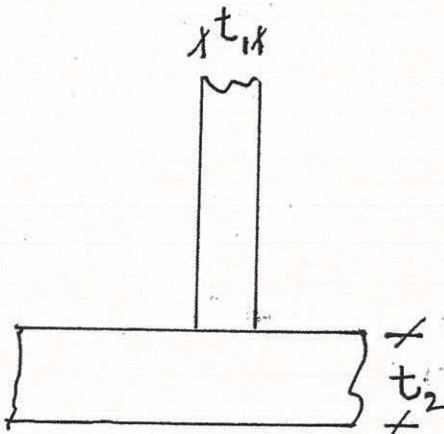
P.Q.R. No. **SGF-75**

REVISION **DNF**

WELDING STANDARD	AS 1554-1-2004	MATERIAL GRADE	AS/NZS-3578 350 GRADE	FILLER TYPE	WIRE L612.4 / WIRE L613.2 / FLOW 960
WELDING PROCESS	S.A.W	HEAT NO	7185979/619239	BATCH NO	DVK02 / BUG 29 / 1KM302
EDGE PREPARATION	FLAME CUT / GRIND	MATERIAL CERTIFICATE	T72219/T74405	TRADE NAME	LINCOLN
THICKNESS (t)	t₁ 16mm / t₂ 40mm	GAS TYPE/FLOW RATE	NA	GAS MIXTURE	NA
PRE-HEAT TEMPERATURE	100°	P.W.H.T	NA	OTHER	NA.

JOINT DETAILS

RUN SEQUENCE



AS 1554-1-2004 R3
JOINT TYPE QUALIFIED **F1**

ROOT GAP G mm **NA**

ROOT FACE Fr mm **NA**

INCLUDED ANGLE ° **NA**

BACKING **NA**

SPEC-ROOT **NA**

CLASS-ROOT **NA**

AS/NZS **1858-1**

SPEC-FILL **EM12K**

CLASS-FILL **EM12K**

SPEC-CAP **NA**

CLASS-CAP **NA**

POSITION **2F**

PROGRESSION **FORWARD.**

INITIAL CLEANING **GRIND/POWER WIRE BRUSH** TECHNIQUE **STRINGER.**

INTER-PASS CLEANING **NA** ELECTRODE STICKOUT **27MM**

RUN NO	SIDE	CONSUMABLES		GAS/FLUX		AMP	VOLTS			TRAVEL RATE			INTERPASS °C Max.	HEAT INPUT KJ/mm.	
		SIZE	CLASS	TYPE	CLASS		DC/POL	AC	DC/POL	AC	SEC	mm			mm/min.
1	N°1-LEAD	2.4	L61	960	FMM			Dct		Dct	60	1000	1000	0	0.753
1	N°1-TRAIL	3.2	EM12K	960	FMM	558		Ac		Act	60	1000	1000	0	1.038
1	N°2 LEAD	2.4	L61	960	FMM			Dct		Dct	60	1000	1000	0	0.591
1	N°2 TRAIL	3.2	EM12K	960	FMM	624		Ac		Act	60	1000	1000	0	1.161

PREPARED BY: **JOHN CARTER**

WELDER ID: **BW15-LL97-AA92.**

TEST RESULTS

TEST TYPE	VISUAL	MACRO	TENSILE	BEND	HARDNESS	CHARPY V	OTHER
TEST BY AIS	ONE	TWO	11	-	ONE	-	-
REPORT NO H0018		99a/b	99a		99a		
RESULT		COMPLIES	COMPLIES		COMPLIES		

NOTES/COMMENTS:

WITNESSED BY: **JOHN CARTER.**

APPROVED BY: **M. LANRIBNSON**

MECHANICAL TESTING REPORT

Client	Purchase Order 101176	
Location of Test	150 – 152 Francis Road, Wingfield 5013	Job No. Not Specified
Job Description	Weld Procedure Qualification Test Plate (Fillet Weld)	Weld Procedure No. SGF-75 Rev.1
		Acceptance Criteria AS/NZS 1554.1-2004 SP & AS/NZS 3679.2-1996 Gr.350
Product Standard	AS/NZS 1554.1-2004 & AS/NZS 3679.2-1996	Material AS/NZS 3679.2-1996 Gr. 350, 16mm W.T to 40mm W.T
Inspection Specification	AS 2205.2.1-2003, AS 2205.5.1-2003 & AS 2205.6.1-2003	
Weld Process	SAW	Welder ID "BW15, LL97, AA92"
Weld Position	2F	

TENSILE TEST RESULTS

Test No.	Min Test Load Per Unit Width kN/mm	Remarks
T2360	8.05	Fractured through web material

REMARKS: Weld Procedure Qualification Test Plate No. SGF-75 Rev.1 "BW15, LL97, AA92" conforms to the tensile requirements in accordance with AS/NZS 3679.2-1996 Gr.350.

TEST RESULTS

Test No.	Type	Result	Comments
M5295	Macro Examination (Side A)	PASS	No Apparent Defects, Fillet size ~8mm, DTT~8.9mm
M5295	Macro Examination (Side B)	PASS	No Apparent Defects, Fillet size ~8mm, DTT~8.05mm

REMARKS: Weld Procedure Qualification Test Plate No. SGF-75 Rev.1 "BW15, LL97, AA92" conforms to the macro examination requirements in accordance with AS/NZS 1554.1-2004 SP.

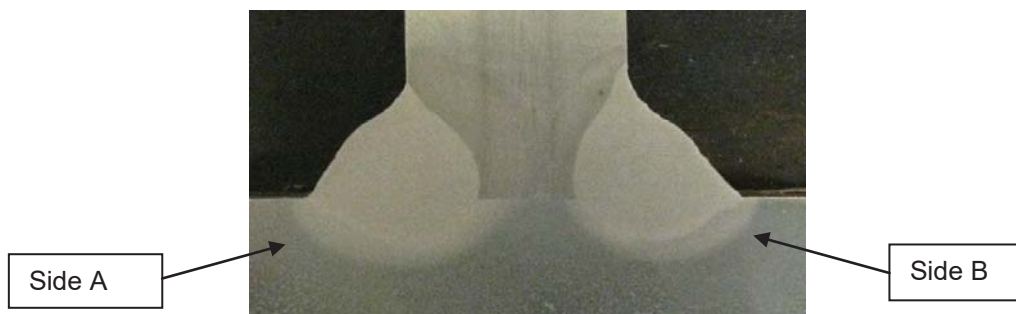
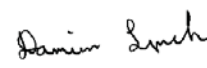


Figure 1, Etchant 10% Nital Acid

Technician/s P Cresswell / M Heinrich

Signatory  D Lynch
 Date of Issue 18 August 2010



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MECHANICAL TESTING REPORT

VICKERS HARDNESS SURVEY

SAMPLE ID: SGF-75 Rev.1 Side 1
INDENTER: Diamond
LOAD: HV10
TEST NO.: HS1265

Trav.1	Result (HV10)	Trav.1 Cont.	Result (HV10)	Trav.2	Result (HV10)	Trav.2 Cont.	Result (HV10)
P.M	164	HAZ	229	P.M	179	HAZ	238
	164		215		170		223
	170		194		162		199
HAZ	169	P.M	179	HAZ	169		188
	174		176		177	P.M	182
	182		176		183		176
	195				192		179
	215				210		
WELD	225			WELD	227		
	231				228		
	232				231		
	233				231		
	238				231		
	238				235		
	231				240		
					231		

Remarks: Weld Procedure Qualification Test Plate No. SGF-75 Rev.1 "BW15, LL97, AA92" conforms to the Vickers Hardness requirements in accordance with AS/NZS 1554.1-2004 SP.

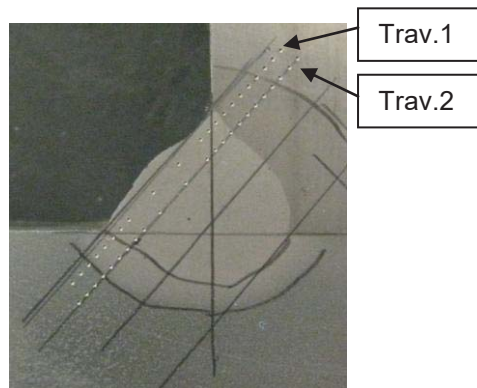


Figure No.2 Hardness Survey Locations

Technician/s P. Cresswell / M Heinrich

Signatory *Dominic Lynch* D Lynch
 Date of Issue 18 August 2010



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