



Welding of Railway Vehicles and Components according to EN 15085-2

The Company: Responsive Engineering Ltd

Welding Manufacturing Sites: N/A

Address: Armstrong Works, Scotswood Road, Newcastle upon Tyne, NE15 6UX

Is certified to perform welding under classification level CL 1 according to EN 15085-2

Types of activities performed: P = Production

Field of application: Fabrication and welding of carbon-manganese steels, stainless steels and aluminium/aluminium alloys in conjunction with new build of railway vehicles and components to existing drawings and customer specifications "WITHOUT DESIGN".

Range of Qualification:

Welding Process according to EN ISO 4063	Material Group according to CEN ISO/TR 15608	Dimensions
111:MMA	1.1 Steels $R_{eH} \leq 275N/mm^2$	10mm – 40mm
	1.2 Steels $R_{eH} > 275N/mm^2 \leq 360N/mm^2$	
	2.1 Steels $R_{eH} > 360N/mm^2 \leq 460N/mm^2$ combinations between $2^a - 2, 1 - 1, 2^a - 1$	
131:MIG	22.1, 22.2 ^b , 22.3 ^b , 22.4 ^b Non heat treatable Al alloys combinations between 22.1, 22.2 ^b , 22.3 ^b , 22.4 ^b	3mm – 24mm
	23.1 Heat treatable alloys: Al-Mg-Si-alloys	
135:MAG	1.1 Steels $R_{eH} \leq 275N/mm^2$	3mm – 80mm
	1.2 Steels $R_{eH} > 275N/mm^2 \leq 360N/mm^2$	
136:MAG flux-cored wire	1.1 Steels $R_{eH} \leq 275N/mm^2$	3mm – 160mm
	1.2 Steels $R_{eH} > 275N/mm^2 \leq 360N/mm^2$	
	2.1 Steels $R_{eH} > 360N/mm^2 \leq 460N/mm^2$ combinations between $2^a - 2, 1 - 1, 2^a - 1$	
141:TIG	1.1 Steels $R_{eH} \leq 275N/mm^2$	3mm – 17,42mm
	1.2 Steels $R_{eH} > 275N/mm^2 \leq 360N/mm^2$	
	8.1 Austenitic stainless steels with Cr $\leq 19\%$	1,4mm – 9,56mm
	8.2 Austenitic stainless steels with Cr $\leq 19\%$	
	22.1, 22.2 ^b , 22.3 ^b , 22.4 ^b Non heat treatable Al alloys combinations between 22.1, 22.2 ^b , 22.3 ^b , 22.4 ^b	1mm – 40mm
23.1 Heat treatable alloys: Al-Mg-Si-alloys		

^a Covers the equal or lower specified yield strength steels of the same group

^b Provided Al-Mg filler material used

Responsible Welding Coordinator:

Kenneth Simpson MSc, European / International Welding Engineer (d.o.b 14 March 1961) Level A

Steven Long BSc, European / International Welding Technologist, CSWIP 3.0 Visual Welding Instructor, (d.o.b 09 March 1989), Level A

Deputy Responsible Welding Coordinator:

Peter Milligan, CSWIP 3.1 Welding Inspector, PCN II MT (d.o.b 21 September 1973) Level C

Certificate Number: CWRVC/021/GB

Valid Until: 25 May 2025

(subject to satisfactory periodic surveillance)

Issued On: 04 August 2023

Head of Manufacturer Certification Body, TWI Certification Ltd

Issued by: TWI Certification Ltd, Granta Park, Great Abington, Cambridge, CB21 6AL, UK