



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

The Company: Responsive Engineering Ltd

Welding Manufacturing Sites: Armstrong Factory

Address: Scotswood Road, Newcastle, NE15 6UX, United Kingdom

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

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 Certification:

Welding Process according to EN ISO 4063	Material Group according to GEN 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 $R_{eH} > 360N/mm^2 \leq 460N/mm$ 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 $R_{eH} \leq 275N/mm^2 \leq 360N/mm^2$	
136: MAG flux-cored wire	1.1 Steels $R_{eH} \leq 275N/mm^2$	3mm – 160mm
	1.2 Steels $R_{eH} \leq 275N/mm^2 \leq 360N/mm^2$	
	2.1 Steels $R_{eH} > 360N/mm^2 \leq 460N/mm$ 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 $R_{eH} > 275N/mm^2 \leq 360N/mm^2$	1.4mm – 9.56mm
	8.1 Austenitic stainless steels with Cr \leq 19%	
	8.2 Austenitic stainless steels with Cr $>$ 19%	
	22.1, 22.2 ^b , 22.3 ^b , 22.4 ^b Non heat treatable Al alloys combination 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: Mr Philip Dodds, European/International Welding Specialist, CSWIP Welding Inspector 3.1 (d.o.b 18 April 1961) (Level A)

Responsible Welding Coordinator: Mr Kenneth Simpson, European/International Welding Engineer (d.o.b 14 March 1961) (Level A)

Deputy Responsible Welding Coordinator: Mr Vijay Lopes de Graca Pinto EngTech TechWeldI, CSWIP Senior Welding Inspector 3.2.1 (d.o.b 22 March 1986) (Level A)

Certificate Number: CWRVC/021/GB

Valid Until: 3 August 2019
 (subject to satisfactory periodic surveillance)

Issued On: 14 August 2017


TWI Certification Ltd, Chief Executive

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