

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Railtech PLA CJ Welding Process

Product Description

Railtech PLA CJ Welding Process in conjunction with either standard or modified (Gas Box) preheating systems using conventional igniters or the Startwel spark ignition system.

Product Image



Scope of Acceptance

Full Acceptance

To be used with the Specific User Conditions.

Network Rail Acceptance Panel (NRAP) hereby authorises the product above for use and trial use on railway infrastructure for which Network Rail is the Infrastructure Manager under the ROGS regulations.
Authorised by:

pp James Lewis
Technology Introduction Manager

Andy Jones
Professional Head of Track

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Specific Conditions

The following Conditions are specific to the approved product/s contained within this Certificate. These conditions must be adhered to in addition to the Network Rail General Conditions contained within the "General Terms and Conditions" section.

Failure to adhere to these conditions may result in the withdrawal or suspension of Acceptance of some, or all of the items contained within the accepted configuration.

Manufacturer

- 1) Ensure that the latest relevant standards/drawings are available and worked to and that the product is compliant
- 2) Notify the Network Rail Technology Introduction Group:
 - Within 48 hours, of any deficiencies affecting the product quality, functionality and safety, integrity of the product (including corrective action undertaken or proposed)
 - Of any intended change to the accepted product. Changes include:
 - a change to the product configuration (to the actual product or its application)
 - a variation to or addition of manufacturing locations or processes and a change in the name or ownership of the manufacturing company
- 3) Provide all documentation in the English (UK) language
- 4) Provide operating and maintenance manuals to purchasers/users of the product

User

- 1) Welding shall be carried out in accordance with the procedures specified in the process suppliers' manual
- 2) All equipment for preheating shall be in accordance with the process suppliers' manual and shall be assembled accordingly
- 3) Only those operators trained, deemed to be competent and in possession of a current Sentinel competency card with the relevant competencies displayed, shall be permitted to install the above welds into network Rail's Infrastructure
- 4) Users of the product are responsible for ensuring compliance with the certificate conditions. If a condition is not understood, guidance must be sought from Network Rail Technology Introduction Group
- 5) Users are responsible for ensuring that the product is fit for purpose and that the application of use complies with the scope of acceptance. Any product defect should be taken up immediately with the supplier. If the defect is a design or manufacturing fault likely to affect performance and/or safe operation of the railway, this shall be reported in writing to Network Rail Technology Introduction Group
- 6) Anyone becoming aware of a change to the product configuration (to the actual product or its application) should inform Network Rail Technology Introduction Group in writing
- 7) All staff required to use the equipment shall be suitably trained and, where appropriate, qualified and competent to use it
- 8) Products shall be maintained in accordance with the manufacturer's recommendations
- 9) Products shall be repaired/serviced by the manufacturer or its nominated agent only
- 10) Where the product is to be used in areas where Network Rail is not the Duty Holder (eg Leased Stations), the sponsor shall obtain formal consent from the Duty Holder for the locality where the equipment is to be installed in compliance with Railway Group Standard GE/RT8270 to deploy that equipment on, or about, or as part of that party's infrastructure. The decision of that party is absolute and cannot be overridden except through the escalation processes established in the ROGS regulations

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Specific User Conditions

Rail Profile & Steel Grade:

- 11) **CEN 56E1 (BS 113A)**, For welding of R220 (Normal Grade), R260 (Wear-resisting Grade 'A'), R350HT (Mill heat-treated), 400MHH (Micro-alloyed Head-Hardened) and HP (High Performance); new to new and new to worn with up to 3mm of dissimilar wear (Hybrid A type moulds).
CEN 56E1 and BS 110A, new to worn and worn to worn all with up to 7mm of head wear (Hybrid B type moulds)
CEN 56E1 and BS 110A, up to 15mm of head wear and 7mm of dissimilar wear (Hybrid C type moulds).
- 12) **CEN 60 profiles**, (R220, R260, 400MHH and HP) new to new and new to worn with up to 7mm of dissimilar wear.
- 13) **95RBH** (bullhead rail), (R220 and R260), new to new, new to worn and worn to worn, (Hybrid B type moulds), up to 15mm of head wear and 7mm of dissimilar wear (Hybrid C type moulds).
- 14) **S49** rail profile, (R220 and R260) new to new and new to worn, with up to 3mm of dissimilar wear, (Hybrid A type moulds).
- 15) **PLA Gap 68** (wide gap) process for;
CEN 56E1 and CEN 60 profiles with up to 3mm of wear in rail grades R220, R260 and HP.
CEN 56E1 welded to CEN 60 rail profiles using the PLA Gap 68 Composite (wide gap) process in rail grades R220 and R260.

Preheating methods:

- 16) Oxy-propane and Oxy-acetylene for standard and wide gap processes for all rail steel grades. (S49 rail profiles to be welded using oxy-propane preheating only).

Preparation of the rail end

- 17) For R220 and R260 grade rails either flame cutting or disc cutting may be carried out.
Note: R350HT, 400MHH and HP grade rails are to be prepared by disc cutting only, in accordance with the requirements of the Process Manual.

Product Configuration

System or Complete Assembly

Part No.	Description	Catalogue No.
	KITS	
71147012	Kit for MRS51	046/014949
72705001	Kit for 110A rail, type C (4-7)	046/014186
72705002	Kit for 113A rail, type C (4-7)	046/014189
72709001	Kit for 110A rail, type B (0-7)	046/014191
72709002	Kit for 113A rail, type B (0-7)	046/014190
72770001	Kit for BS95A D40 PLA CJ 25 D for Bull Head rail	046/014950
74310003	Kit for rail 41 GP (SRG 25mm)	046/014951
76200001	Kit for 113A/110A, type A (0-3 with felt)	057/050991
76200003	Kit for UIC 60, type A (0-3 with felt)	046/014180
76200005	Kit for 80A Grade Rail	046/014952
76200014	Kit for 113/110 A PLA HH Grade MHT	046/014953
76600001N	Kit for 113A/110A PLA CJ 68mm felt – Z++	046/014184

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Part No.	Description	Catalogue No.
7660002N	Kit for UIC 60 PLA CJ 68mm felt – Z++	046/014187
78800025	Kit for HY 'C' hybrid mould (1 pair of moulds per kit).	046/014197
78800024	Kit for HY 'B' hybrid mould. (1 pair of moulds per kit)	046/014198
76807002	Kit for 113A/UIC60 PLA/LUCJ68D	046/014199
78800033	Kit – PLAVG2/JSCJ25D-BS95 A HY TYPE B	046/014956
78800034	Kit – PLAVG2/JSCJ25D-BS95 A HY TYPE C	046/014957
78800016	Welding Kit PLA VG2 - 350HT/400MHH/HP - UIC 60	046/035052
78800043	Welding Kit PLA VG2 - 350HT/400MHH/HP - 110/113A	046/035053
78800046	Kit: UIC60 - PLA VG2 - HYB type B	046/035058
78800047	Kit: UIC60 - PLA VG2 - HYB type C	046/035059
78800020	Kit: S49 - PLA VG2 - type A	046/035070
HARDWARE		
11234003	Pre-heater holder	046/014138
S0000136	Mould clamp CJ complete UK	046/014139
S0000253	3-level preheater support clamp	046/014140
81250902	Mould C clamp for tight areas	046/014141
83200001	Pair of mould shoes – no. 7	046/014142
83100002	Base plate no. 3	046/014143
81532010	Slag bowl	046/014144
S0000137	Plug holder	046/014146
83461110	Large luting paste distributor	046/014147
11319003	Metal tray for hot waste	046/014148
81422530	Fume extractor unit	046/014149
81422631	Filter felt	046/014150
82620500	Cooling retarder cap	046/014151
11234004	Torch support for grooved rail	046/014820
14411001	Rail ends preheating burner float	046/014821
24221017	Electrical safety device	046/014822
31910027	Roller	046/014823
31910028	Pump lever	046/014824
33210001	Holding handle	046/014825
47340001	Shock absorber	046/014826
82631410	Fork for One Shot crucible	046/014827
82631411	Fork for One Shot crucible with attached square bar	046/014828
83100001	Pair of mould shoes for A.P.R. for crane rail	046/014829
83100003	Bottom plate PLA 68mm	046/014830
83100004	Bottom plate for SRG for grooved rail	046/014831
83100010	Bottom plate with screw for A.P.R.	046/014832
83200002	Pair mould shoes PLA 68mm	046/014833
83250004	Mould clamp CJ with "c" clamp for grooved rail	046/014834
S0000135	Mobile part with screw	046/014835
S0000150	Gap gauge	046/014836
S0000182	One Shot crucible support for A.P.R.	046/014837
ACCESSORIES		
35910229	Pre-heater RT 22 hole	046/014152
48302003	Mixer F43 (Propane)	046/014153
48302004	Model K : 3-2 shank	046/014154
H4018	Flashguard 883-FGR 9/16" UNF	046/014155

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Part No.	Description	Catalogue No.
H4017	Flashguard 883-FGL 9/16" UNF	046/014156
H2231	10 mm x 20 mtr oxygen 3/8" BSP to 9/16" UNF nut R/H	046/014157
H2232	8 mm x 20 mtr propane 3/8" BSP to 9/16" UNF nut L/H	046/014158
H2221	"T" piece in line 3/8" BSP R/H	046/014159
H2222	"T" piece in line 3/8" BSP L/H	046/014160
H5200	Gauge only 8E661 0 – 6.0 bar oxygen	046/014161
H2223	Gauge only 8E686 0 – 2.5 bar	046/014162
H5232	Rubber cover for gauge	046/014163
H5228	Gasket 84139A	046/014164
H1131	Flash back arrestor 188-2TRGB oxygen	046/014165
H1132	Flash back arrestor 188-2TLGB	046/014166
H1043	Regulator model 996 10.0 bar oxygen	046/014167
H1029	Regulator model 829 3.5 bar propane	046/014168
H2124	Cutting attachment 49.2 propane	046/014169
H3083	Nozzles propane	046/014170
35910247	Pre-heater RT 8 hole acetylene	046/014838
H1041	Regulator 896 acetylene	046/014839
H1307	Flash back arrestor 188-3TR oxygen FBA	046/014840
H1308	Flash back arrestor 188-3TL fuel gas	046/014841
H2086	Mixer F43 (propane)	046/014842
H2087	Mixer acetylene E243	046/014843
H2116	Circle cutting attachment	046/014844
H2122	Shank 43.2 GB	046/014845
H2123	Cutting attachment 49.2 acetylene	046/014846
H2125	Shank 43.2 (UNF)	046/014847
H2226	"T" piece 9/16 R/h acetylene	046/014848
H2236	Gauge only oxygen 0-2.5 BAR	046/014850
H2227	"T" piece 9/16 L/h acetylene	046/014849
H3035	Nozzles acetylene	046/014851
H4001	Adaptor propane 382-GBL	046/014852
H4002	Adaptor propane 382-GBR	046/014853
H4009	Adaptor PFP 3/8 female UNF male (386GL) LH	046/014854
H4010	Adaptor PFP 3/8 female UNF male (386GL) RH	046/014855
H4125	Oxy hose 8mm x 10 metres	046/014856
H4126	Acetylene hose 8mm x 10 metres	046/014857
H4129	Propane hose 8mm x 10 metres	046/014858
H4184	Hose blue 8mm x 18 metres 3/8" BSP x 9/16 UNF nuts	046/014859
H4185	Hose red 8mm x 18 metres 3/8" BSP x 9/16 UNF nuts	046/014860
H5008	"O" ring 21108 for regulator stems	046/014861
H5199	Gauge only acetylene 0-2.5 BAR	046/014862
H5332	"O" ring for mixer	046/014863
S 0000 297	Complete Gas Box	046/035055
S 0000 338	Digital preheating box	046/035056
S 0000 339	Self-centering burner	046/035057
PLANT & EQUIPMENT		
14221022	Abrasive disc saw HC 355 with Husqvarna engine	046/014171
11334008	EPM3 rail shearing machine – wide gap (Normal rails)	046/014172
11335022	Pair profile shear blades – lengthened – rep.45 HT	046/014173
21121021	Hydraulic rail stretcher TR75	046/014174

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Part No.	Description	Catalogue No.
11131009	Rail alignment beam DX BA240	046/014175
11111005	A frame aligner CR57 (vignole rail)	046/014176
14331019	Rail profile grinder MR150, new 2 stroke minsel	046/014177
11111002	Rail aligner CR 61	046/014885
11114004	Aluminium wedges	046/014886
11115002	Pair of devices for peak adjustment of rails	046/014887
11332002	Weld shear head wide gap type	046/014888
11335023	Pair profile shear blades – lengthened – rep.48 (UIC60)	046/014889
11335024	Pair shear blades (rep.40) for 80A	046/014890
14391003	DR 40 rail descaler with Honda engine	046/014891
19511007	Hydraulic group with Honda machine	046/014892
21111001	Shunting nut set	046/014893
21111003	Adjusting screw set	046/014894
21111004	Inclining screw set	046/014895
21111011	Anti shifting screw	046/014896
21130010	Mobile adjusting clamp for rail alignment beam	046/014897
21131001	Crucible stand supports	046/014898
21131003	Frame supports	046/014899
21131004	Twisting correction device	046/014900
21332012	Hydraulic fitting kit for weld shear type EPM2	046/014901
21332016	Roller with bearings	046/014902
21332018	Hydraulic pipe + fittings A + B	046/014903
31110020	Disc axis	046/014904
31110133	Shouldered axle	046/014905
31110184	Operating rod	046/014906
31210024	Brush tightening nut	046/014907
31210025	Inner driving flange dia 25.4	046/014908
31210026	Squeezing outer flange	046/014909
31210103	Brush supporting washer	046/014910
31210142	Roller	046/014911
31210143	Ring	046/014912
31210149	Pulley – for rail saw HC 355	046/014913
31210194	Driving pulley clutch – Husqvarna	046/014914
31210384	Pulley	046/014915
31230014	Adjusting nuts	046/014916
31910002	Wrench/spanner	046/014917
32930030	Pump support cross piece	046/014918
32930045	Fixed crossed piece for vignole weld shear EPM2	046/014919
32930048	Frame aligner body	046/014920
35910025	Jointed flange / foot for A frame aligner	046/014921
35910052	Roller hook handle	046/014922
35910054	Oil tank with cap	046/014923
35910063	Support arm Husqvarna 14"	046/014924
35910064	Belt housing	046/014925
35910279	Cylindrical oil tank	046/014926
39920001	ATOS pump for weld shear EPM2	046/014927
40914004	HM M 14 nut	046/014928
41014001	HM 14 x 60 screw	046/014929
41301012	Elastic pin E5x30	046/014930
41301013	Mecanindus pin Ex 40	046/014931

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Part No.	Description	Catalogue No.
41401010	Key 5x5x6	046/014932
41802001	Circlips	046/014933
44020001	Bearing stud A XZ 80x20x35.4	046/014934
45201012	MR 150 clutch	046/014935
45302002	Bearings	046/014936
47103001	Hydraulic pump HP1 with litre tank	046/014937
47203002	Fastening clip No 8	046/014938
47330001	Plot elastique paulstra radiaflex	046/014939
47330002	Plot elastique paulstra radiaflex 520026	046/014940
47401002	Weld shear handle grip	046/014941
47701028	Oil filter piece	046/014942
47701029	Oil cap	046/014943
47702005	Distributor with pressure relief valve	046/014944
47901011	Grinding wheel with 4 nuts M8 diameter 150 72 x 55	046/014945
48401001	Flex head socket wrench	046/014946
48401002	Catch spanner	046/014947
48601132	Air filter for Husqvarna eng type 3120 XP	046/014948
CONSUMABLES		
82632410	Ignitors – box of 100 (minimum order quantity 10 boxes)	046/014145
82662100	Tube of bottom plate cement (box 12 tubes)	046/014183
83450120	Sand cover for One Shot Crucible	046/014192
83450123	One Shot crucible CJ2 filtered lid (CCF)	046/014181
83450124	One Shot crucible CJ2 F1 shrink wrapped	046/014196
83450125	CJ1 F1 shrink wrapped	046/014185
83661112	Spare blue tube of luting paste each	046/014182
83661115	Felt for step moulds (box 30 pieces)	046/014178
83661130	Bucket luting paste	046/014188
BR000003	PLAJS sand bottom plate for new rail	046/014179
BR000014	Sand bottom plate PLA B4 lusted	046/014954
BR000019N	Sand bottom plate B5 PLA 68JS for 113A/110A	046/014955
TOOLS		
LT0001	Welders 1 metre straight edge c/w storage box & COF	046/014864
LT0002	Welders “GO” taper gauge	046/014865
LT0003	LT/RG/37 wide gap gauge	046/014866
MMTK0000	Mould mod tool box complete	046/014867
MMTK0001	Tool box	046/014868
MMTK0002	File	046/014869
MMTK0003	Engineers square	046/014870
MMTK0004	Wire brush	046/014871
MMTK0006	Verticality square	046/014872
MMTK0009	French chalk	046/014873
MMTK0010	Rail wear gauge	046/014874
MMTK0011	12” wilco steel rule	046/014875
MMTK0012	Labels for tool box	046/014876
MMTK005/	Mould mod templates (new)	046/014877
MMTK005A	Modification gauge A 1mm thick	046/014878
MMTK005B	Modification gauge A 2mm thick	046/014879
MMTK005C	Modification gauge A 3mm thick	046/014880

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Part No.	Description	Catalogue No.
MMTK005D	Heel	046/014881
MMTK008/	Carbide scribe	046/014883
MMTK9999	Scribe/chalk/label for tool box	046/014884
S 0000 290	Adjustment tool	046/035054
STARTWEL SPARK IGNITION SYSTEM		
82632509	Startwel handle	046/014962
82632503	Complete handle: Starter + Charger	046/014963
82632504	Rechargeable battery	046/014964
82632501	Thermic starter x10	046/014965
82632502	Thermic starter x100	046/014966
82632505	Charger on mains – 220V FR charger	046/014967
82632506	Empty metal case	046/014968
82632507	Complete case	046/014969
82632508	Complete case without charger	046/014970

Assessed Documentation

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
-	Railtech letter		08/03/2001	1
-	Faxed Letter from J K Milne, Welding Development Manager.		29/08/2001	1
TR/UK/PLA/113A/OA Fx sim/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process on the 113A new rail grade 260 (similar wear) using luting paste and acetylene gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		21/03/2002	2
TR/UK/PLA/113A OA W7W7 HX/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process on the 113A rail worn 7 grade 260 (similar wear) using luting paste and acetylene gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		14/10/2002	2
TR/UK/PLA/113A OA OW7 HX/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process on the 113A new rail grade 260 and the 113A rail worn 7 (dissimilar wear) using luting paste and acetylene gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		14/10/2002	2

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
TR/UK/PLA/UIC60 OA HX/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process on the UIC60 new rail grade 260 using luting paste and acetylene gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		19/11/2002	2
TR/UK/PLA/ WIDE GAP/BS113A OA HX/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process Wide Gap on the BS113A new rail grade 220 (similar wear) using luting paste and acetylene gas and oxygen, and propane gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		08/04/2003	3
TR/UK/PLA/ WIDE GAP/UIC60 OA+OP HX/00/DD	Railtech test report 'Report regarding the welds performed for the approval of the PLA CJ Process Wide Gap on the UIC60 new rail grade 260 (similar wear) using luting paste and acetylene gas and oxygen, and propane gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process'.		08/04/2003	3
P0173/10.TL/03	University of Ghent report 'Determination of the fatigue strength at an endurance of 5 million cycles of thermit welded rail coupons (Type UIC60) by means of the staircase method.		31/03/2003	3
TR/UK/PLA/MHT/00/CK	Railtech Test Report 'Report regarding 3 welds performed with the PLA CJ process on the MHT rail, in accordance with the CEN draft.		26/06/2000	3
-	Geismar (UK) Ltd letter "Rectiway Gauge – Trials At Euston"		15/04/2003	3
TR/UK/PLA/BS95OP/00/CK	Railtech Test Report 'Report regarding the welds performed for the approval of the PLA CJ process Oxy-Propane on the BS95 RBH rail using luting paste, in accordance with the CEN Draft about the approval of an aluminothermic process.		26/12/2001	4
TR/UK/PLA/BS95A fatigue Tests/OO/DD	Railtech Test Report "Fatigue tests report regarding the welds performed performed for the approval of the PLA CJ process on the BS95A new rail grade 220 using luting paste and acetylene gas and oxygen for pre-heating, in accordance with the CEN/T256/SCI/WG4 October 2000 final draft about the approval of an aluminothermic process.		15/10/2004	4
TR/UK/PLA/113A oxy gas cutting flame/00/FDx	Railtech Test Report "Report regarding the welds performed after an oxy gas cutting flame with the PLA CJ Process on the 113A rail"		23/08/2005	5

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
TR/UK/PLA WIDE GAP/UIC60-BS113A OP HX/00/DD	Railtech Test report "Report regarding the welds performed for the approval of the PLA CJ Process Wide Gap on the UIC60 new rail grade 260 and BS113A new rail grade 260 using luting past and propane gas and oxygen for the preheating, in accordance with the CEN T256/SCI/WG4 October 2000 Final Draft about the approval of an aluminothermic process".		22/06/2004	7
TR/UK/PLA/113A PED and UIC60 Hybride/00/DD	Railtech Test report "Report regarding the first tests performed for the new project on worn rails".		28/02/2005	7
-	Railtech PLA Mould Selection Matrix Hybrid Felt Moulds for 110A/113A and CEN60 Rails.		-	7
-	Railtech PLA Hybrid Mould Installation – LNW (trial results).		-	7
-	Railtech PLA Hybrid Mould Installation – LNE (trial results).		-	7
TR/UK/PLA/BS95A RBH PLA HY-B W0-7/00/DD	Railtech Test report "Report regarding the tests performed on the BS95A RBH new rail grade 260 and the BS95A RBH rail worn 7 grade 260 (dissimilar wear) with the Hybrid moulds Type B PLA VG2".		17/07/2006	8
TR/UK/PLA/UIC 60 400MHH/00/DD	Report regarding tests performed for the approval of the PLA25 CJ Process on the 60E1 Rail 400MHH grade using the 350 HT grade portion		Jan 2009	9
TR/UK/PLA/BS113A 400MHH/00/DD	Report regarding tests performed for the approval of the PLA25 CJ Process on the BS113A Rail 400MHH grade using the 350 HT grade portion		Jan 2009	9
Letter	"Gas Box – Balfour Beatty Testimony"		04/03/2010	10
Letter	Network Rail Testimony		-	10
Letter	Homologation of Railtech Gas Box		18/03/2010	10
Report	"Approval of the welding process on aluminothermic welding of rails according to DIN EN 14730-1 on behalf of the company Railtech International"		Mar 2008	11
Test Report	Report regarding the tests performed for the approval of the PLA 25 CJ Process on the 60E1 new rail and the 60E1 rail worn 7mm (dissimilar wear) using the Hybrid mould Type B		Apr 2010	11
Email	Trial update from Tony Murphy (Wessex Route) regarding use of Startwel system.		14/02/2012	13
Email	Trial update from Dan Smith (Kent & Sussex Route) regarding use of Startwel system.		06/02/2012	13
TS 11-11	Railtech Safety Data Sheet - Thermic Starter		22/11/2011	13
DCE-10-115754-11051A	INERIS classification certificate for explosive status of consumables.		12/10/2010	13
N/A	Railtech user instructions and parts list for Startwel system.		-	13

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
TR/UK/PLA/BS113A PLA25 -STARTWEL/00/DD	Welding results comparison between igniter and STARTWEL ignitions onto BS113A PLAVG2 JS CJ 25 Type A grade R260 process.		06/02/2012	13
TR/UK/PLA/BS113A PLA68 -STARTWEL/00/DD	Welding results comparison between igniter and STARTWEL ignitions onto BS113A PLAVG2 JS CJ 68 Type A grade R260 process.		06/02/2012	13
TR/UK/PLA/60E1PL A25 -STARTWEL/00/DD	Welding results comparison between igniter and STARTWEL ignitions onto UIC60 PLAVG2 JS CJ 25 Type A grade R260 process.		06/02/2012	13
TR/UK/PLA/60E1PL A68 -STARTWEL/00/DD	Welding results comparison between igniter and STARTWEL ignitions onto UIC60 PLAVG2 JS CJ 68 Type A grade R260 process.		06/02/2012	13

Manuals and Training Materials

Reference	Title	Doc. Rev.	Date and Applies to Cert. issue No.	
TR/UK/PLA/56 E1 HP 25 OA/00/DD	Report regarding tests performed for the approval of the PLA25 CJ Process on the 56E1 Rail HP grade using the 350 HT grade portion		Apr 2013	14
TR/UK/PLA/56 E1 HP 68 OA/00/DD	Report regarding tests performed for the approval of the PLA68 CJ Process on the 56E1 Rail HP grade using the 350 HT grade portion		Apr 2013	14
TR/UK/PLA/60 E1 HP 25 OA/00/DD	Report regarding tests performed for the approval of the PLA25 CJ Process on the 60E1 Rail HP grade using the 350 HT grade portion		Apr 2013	14
TR/UK/PLA/60 E1 HP 68 OA/00/DD	Report regarding tests performed for the approval of the PLA68 CJ Process on the 60E1 Rail HP grade using the 350 HT grade portion		Apr 2013	14

Certificate History

Issue	Date	Issue History
1	04/09/2001	First accepted for use
2	12/02/2003	Accepted use of both oxy-propane and oxy-acetylene.
3	11/06/2003	Incorporates welding of MHT rail and the PLA GAP 68 (wide gap) process.
4	08/12/2004	Extends use to 95lb BH rail.
5	27/09/2005	Allows for preparation of rail ends by either disc cutting or flame cutting.
6	17/10/2005	Certificate revised to show full product configuration.
7	09/03/2006	Extends use to Hybrid B and C type moulds; also composite moulds.

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

8	12/09/2006	Extends use to Hybrid B and C type moulds for welding of 95R BH rail profiles.
9	27/07/2009	Extended certification to include the use of Hybrid A type moulds with HH portion for the welding of 400MHH grade rails in both 56E1 (113A) and UIC 60 rail profiles
10	09/04/2010	Amended scope and add items to the product configuration.
11	18/06/2010	Included the use of Hybrid B type moulds for the welding of CEN 60 profiles with up to 7mm of dissimilar wear and Hybrid Type A moulds for the welding of S49 profile rail with up to 3mm of dissimilar wear.
12	19/08/2011	Updated to remove the previous requirement to only permit wide gap composite welds in plain line to remain in track for a maximum period of 4 weeks. Include the use of oxy-acetylene preheating for welding 400MHH rails.
13	13/03/2012	Added the Startwel Spark Ignition System
14	30/04/2013	Updated to add Oxy-Acetylene preheating for welding of 400MHH rail; addition of HP (High Performance) rail grade in both PLA25 and PLA68 processes, using both Oxy-Propane and Oxy-Acetylene for preheating

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

Contact Details

Manufacturer

Railtech (UK) Ltd
Catesby Park
Kings Norton
Birmingham
B38 8SE

FAO: Baptiste Destailleurs
Tel: 0121 486 4444
Mob: 07989 603 977
baptiste.destailleurs@railtech-uk.com

For Information

John Hempshall
john.hempshall@networkrail.co.uk

Sponsor

Bill Mosley
Senior Technology Engineer (Welding)
Asset Management – Track & Civils
Tel: 07786-338778
bill.mosley@networkrail.co.uk

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

General Terms & Conditions

1) General

- 1) This certificate can only be amended by Network Rail Technology Introduction Group. Any alterations made by a different person will invalidate the entire certificate.
- 2) Failure to abide by the requirements in this Certificate of Acceptance may invalidate the certificate, thereby restricting the right to operate the product and / or limiting the future supply and deployment of the product on the infrastructure.
- 3) Upon the review date this certificate and the product it relates to is invalid and not accepted for use. Manufacturers are to make an application for a review prior to the review date.

2) Manufacturer

The Manufacturer shall:

- 1) Ensure that all products supplied comply with the standards defined in the Acceptance Requirements or otherwise documented as part of the assessment, including meeting the reliability requirements included in the Acceptance Requirements and in any deed of warranty for the relevant certificate number.
- 2) Notify Network Rail Technology Introduction Group:
 - a. Within 48 hours, of any deficiencies affecting the quality, functionality or safety integrity of the product (including corrective action undertaken or proposed).
 - b. Of any intended change to the accepted product; changes include:
 - i. a change to the product configuration (to the actual product or its application);
 - ii. a variation to or addition of manufacturing locations or processes;
 - iii. a change in the name or ownership of the manufacturing company;
 - iv. any changes to the ability or intention to support with technical services, spares or repairs.
- 3) The Manufacturer shall provide Network Rail Technology Introduction Group at least 12 (twelve) months notice of its intention to discontinue supply or to provide such notice as is reasonable if such discontinuance is outside its control and will offer the opportunity of a Last Time Buy to Network Rail together with date for last order placement and supply of the parts affected. The introduction of proposed alternative products shall be communicated to the Network Rail Technology Introduction Group.
- 4) Provide further copies of operating and maintenance manuals to purchasers / users of the product as necessary (including certificates of conformance, calibration etc).
- 5) Provide further copies of training manuals and an appropriate level of training to purchasers or users of the product as necessary.
- 6) Where applicable, specialist technical support, repairs and servicing of the product shall be carried out by the Original Equipment Manufacturer (OEM) or authorised agent only.
- 7) Network Rail may request information from the manufacturer to prove product compliance with clauses 1 and 2 above and reserve the right to suspend and/or withdraw any application where information is not forthcoming within a reasonable timeframe.
- 8) In accordance with Network Rail's Quality Assurance Policy Statement 2011, where the specification and/or Product Acceptance Certificates specify quality assurance classifications (QA1 to QA5) for the products, the manufacturer shall comply with the specified level of quality assurance for each product and allow Network Rail access to carry out its quality assurance checks.
- 9) The manufacturer shall give Network Rail's representatives access at all reasonable times to its premises and allow them to inspect its quality systems and production methods and, if requested, to inspect, examine and test the products both during and after their manufacture and the materials being used in their manufacture.

3) Conditions of Use

Specifiers, installers, operators, maintainers, etc. using the product shall:

- 1) Comply with the certificate conditions. If a condition is not understood guidance must be sought from Network Rail Technology Introduction Group.
- 2) Check that the application of use complies with the relevant certificate's scope of acceptance.
- 3) Report any defect if it is a design or manufacturing fault likely to affect performance and/or the safe operation of the railway in writing to Network Rail Technology Introduction Group.
- 4) Inform Network Rail Technology Introduction Group in writing of a change to the product configuration (or to the actual product or its application).
- 5) Operate, maintain and service the product in accordance with Network Rail standards and Operation and Maintenance manuals as appropriate.
- 6) Be appropriately trained and authorised for the installation, maintenance and use of the product.
- 7) Only send products for repair or reconditioning to the Original Equipment Manufacturer (OEM) or authorised agent.
- 8) Users are to be aware that Product Acceptance is not a substitute for design approval.

Manufacturer:
Railtech (UK) Ltd

Issue : 14
Valid From : 30-04-2013

4) Compliance

Railways and Other Guided Systems (ROGS) Regulations

1) Where the product is to be used in areas where Network Rail is not the Infrastructure Manager (e.g. leased stations), the sponsor shall additionally obtain formal consent from the Infrastructure Manager for the locality where the equipment is to be installed. This may include a requirement for additional safety verification. The decision of that Infrastructure Manager is binding, and cannot be overridden by Network Rail except by the escalation processes established in the ROGS regulations

2) As required in Railway Group Standard GE/RT8270, at each use of this product the project or group responsible for installation and commissioning shall be required to demonstrate compatibility with:

- a. All rail vehicle types that have access rights over the area affected by the change
- b. Infrastructure managed by others
- c. Neighbours.

Railway Interoperability Regulations

3) For interoperable constituents of systems the project or group responsible for installation and commissioning shall be required to demonstrate compliance with the relevant Technical Specifications for Interoperability (TSI) where appropriate.

4) An authorisation from the national safety authority (i.e. the Railway Safety Directorate of the Office of Rail Regulation) is required before the equipment is to be used in revenue earning service.

5) Supply Chain Arrangements

1) Certificates of acceptance do not imply any particular quantity of supply nor any exclusivity of supply.

2) Products may be purchased by Network Rail or its agents, suppliers or contractors.

3) Manufacturers should note that it is not necessary to enter into any exclusive supply arrangements with resellers or other suppliers.