



AUSTRALIAN RAIL TRACK CORPORATION

INFRASTRUCTURE, STRATEGY AND PERFORMANCE

Engineering Standards and Documents

The following recommendation, together with attached supporting documentation, has been considered by the Manager Standards & Systems on 2nd February 2007.

Documents:

Ref No:	08-08-10-051 - Systems & Equipment Approval
Subject:	'ERICO' Track Bonding Components
Dated:	18 th December 2006.

Prepared By: Arthur Haberlin, Signal Engineer - Equipment
Endorsed by: Trevor Moore, Signal Standards Engineer

Items Considered for Approval:

Manufacturer:	ERICO Rail Electrical Products
Product:	Mechanical and Exo-thermic welded track bonding products.
Item Identification:	See list 06-0611-036a

The items in the form they were presented at the review date were approved for System & Equipment Approval to be used on all ARTC jurisdictions in accordance with the manufacturers published performance criteria and subject to the following.

Relevant ARTC Specifications:

Ref. No.	Title	Status	Date
SCSP 02	Environmental Conditions	Issue 1 Revision 2	May '05
SC 02 01	Installation of Equipment Racks & Termination of Cables and Wiring	Issue 1 Revision 3	October '06

Specific Conditions of Approval:

No conditions of approval.

Certificate Issued to:

ERICO Products Australia
6 Chilvers Road
Thornleigh
New South Wales 2120

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Approved for use in the ARTC.



John Cowie

APPROVAL No: 08-08-10-051

Manager Standards & Systems

Approval Date: **2nd February 2007**



AUSTRALIAN RAIL TRACK CORPORATION LTD

Ref No: 08-0611-036a

Date: 18th December 2006

**System & Equipment Approval
Subject: 'ERICO' Track bonding components**

The following lists the individual items (by catalogue number) of Track circuit bonding components manufactured by ERICO which are approved for use in signalling circuits on ARTC infrastructure under System & Equipment Approval Certificate 08-08-10-051 subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual items.

Part No.	Kit Q'ty	Description	Conditions of Use
Mechanical Bonding			
Track Circuit Bonding			
A1215		Channel Pin	For stainless steel Hypalon and 7/1.40 steel signal wire only.
A1197		6mm S/S tapered bolt, M6 S/S "Nylock" nut & 2 x S/S star washers	For copper Hypalon only.
<i>ERICONTACT system</i>			
715072		SK 8/14 (6mm bolt single rail-web contact)	Web thickness 14.0mm to 16.5mm.
Signal/Traction Bonding			
A1234		12mm S/S tapered bolt, copper bush, flat washer, spring washer, standard nut & ½ Locknut	
<i>ERICONTACT system</i>			
715050		SK 19/14 (12mm bolt single rail-web contact)	Web thickness 14.0mm to 16.9mm.
715070		SK 22/20 (12mm bolt single rail-web contact)	Web thickness 18.0mm to 22.0mm.



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Part No.	Kit Q'ty	Description	Conditions of Use
Stud-Weld Bonding			
<i>CADWELD system</i>			
Track Circuit Bonding			
KIT6		6mm stud weld kit	
	100	6mm S/S stud, S/S flat washer, S/S spring washer, S/S hex locknut & 2 x S/S star washers	
SB32	100	Weld-metal cartridge	
PBHVT20P120A1M	1	Rail web mould	
T320	1	Flint ignitor	
B136B	1	Mould cleaning tool	
T317	500gm	Duxseal compound	
KIT6PLUS		6mm stud weld kit. As KIT6 with electrically ignited cartridge	For use with CADWELD Plus PB32PLUSF80 electrically ignited weld-metal cartridge.
PB32PLUSF80		Electrical ignited weld-metal cartridge	May substitute for SB32 flint ignited cartridge using same moulds.
Signal/Traction Bonding			
KIT12		12mm stud weld kit	
	100	12mm S/S stud, S/S flat washer, S/S spring washer, S/S hex nut & S/S hex locknut	
PB90	100	Weld-metal cartridge	
PBHVT20P120A1M HV M12	1	Rail web mould	
T320	1	Flint ignitor	
B136B	1	Mould cleaning tool	
T317	500gm	Duxseal compound	
FS0016		12mm stud weld kit. As KIT12 without PB90 cartridge	For use with CADWELD Plus PB90PLUSF80 electrically ignited weld-metal charge.



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Part No.	Kit Q'ty	Description	Conditions of Use
KIT12PLUS		12mm stud weld kit. As KIT12 with electrically ignited cartridge	
PB90PLUSF80		Electrical ignited weld-metal cartridge	May substitute for PB90 flint ignited cartridge using same moulds.
Cable Securing Clips			
SBA252S0		Clip for 19mm o/d cable	¶ Cables parallel to rail axis.
SBA252S1		Clip for 25mm o/d cable	
SBA252S2		Clip for 31mm o/d cable	
SBA251		Clip for 3/8" cable	
SBA248B		Clip for 3/8" cable	¶ Cables perpendicular to rail axis.
GCHSC89		4 x Clips for 3/8" cable	Mounts to concrete or steel sleeper using adhesive.
GCHSC1924		3 x Clips for 19-24mm o/d cable	
GCHSC2530		2 x Clips for 25-30 mm o/d cable	
n/a		Flexible Glue	Adhesive for GCHSC range of clips

¶: Mounts to base of AS 53 & 60 kg rail.