

NEW EQUIPMENT & SYSTEM APPROVAL PROFORMA

Ref: 10/4339

1 Equipment or System to be approved

Dual gauge derail (Left & Right Throw) (Broad & Standard gauge) – Appleton Dock precinct only

Dual Gauge Derail (Left & Right Throw) (Broad and Standard Gauge)

2 Originator

Name: Eric Brown

Company: South Improvement Alliance

3 Introduction *

Additional modifications have been required to the previously approved modified Hayes retractable derail. This previous approval of 10/7/09 related to drawings 21534-R-0001 to 21534-R-0028.

The drawings outlining these latest minor variations are; 21534-5-0001, 21534-R-0002, 21534-R-0003, 21534-R-0004, 21534-R-0005, 21534-R-0006, 21534-R-0007, 21534-R-0008, 21534-R-0009, 21534-R-0010, 21534-R-0011, 21534-R-0012, 21534-R-0013, 21534-R-0014, 21534-R-0015, 21534-R-0016, 21534-R-0017, 21534-R-0018, 21534-R-0019, 21534-R-0020, 21534-R-0023, 21534-R-0024, 21534-R-0025, 21534-R-0026, 21534-R-0027, 21534-R-0028.

4 Determination of Need *

A previous type approval request for the Dual Gauge Derail (ARTC ref: **09/12802**) was submitted and approved on 10th July 2009.

Since this type approval, minor changes have been made to the Crank Operating rod (short), Crank stand offset Left and Right, Reversing crank, Reversing crank housing, Reversing crank housing lid, universal joint.

The changes have been made with the consultation of both ARTC and their Maintenance company (EDI).

This new design is considered to be applicable in conjunction with the newly modified drawings as attached

5 Significant Change or Not

This change in equipment or system is assessed as MINOR

6 Review Panel

- John Furness - Manager Standards
- Rod Warren, Project Manager, Victoria
- Abbie Thomas, Track Standards Engineer

7 Safety

The minor modifications to the already type approved derail are considered to further enhance safety.

8 Performance and Suitability

The Dual Gauge Derail design already type approved is considered to be suitable for use. These further minor enhancements based on maintainers comments as well as further design considerations are considered to further enhance the in track requirements of this dual gauge derail system. The additional documentation is attached titled Derail Dual Gauge Left Throw and Derail Dual Gauge Right Throw

(i) Use in other rail networks

N/A

(ii) Use in the ARTC network

A different design of a dual gauge derail (previous AN design) is currently in use at Birkenhead. This design is considered to be superior, and especially with the enhancements incorporated in this type approval application.

(iii) Issues arising from usage of the equipment/system

N/A

(iv) Changes required to infrastructure or systems for use of the equipment

N/A

9 Reliability

The Dual Gauge Derail design maximises the use of standard propriety products or modified products. Given the existing derail at South Dynon has been in service for approx 10 years, and no derailment is known to have occurred at this location, it is difficult to demonstrate the reliability of the product.

However, the in-situ testing carried out on 25 February 2009 demonstrated that multiple uses of the product were possible without any damage or reliability issues.

This additional enhancement is another improvement.

10	Maintainability	There are no specific maintenance requirements for the Dual Gauge Derail. Normal maintenance practice for the standard D150 derail shall apply.					
11	Approval *	This approval covers the Dual Gauge Derail design as originally documented in the drawings 21534-R-0001 to 21534-R-0028 and with enhancements as per attached drawings 21535-5-0001, 21535-R-0002, 21535-R-0003, 21535-R-0009, 21535-R-0016, 21535-R-0017, 21535-R-0018, 21535-R-0019, 21535-R-0020, 21535-R-0023, 21535-R-0024, 21535-R-0025, 21535-R-0026, 21535-R-0027, 21535-R-0028					
12	Conditions of Approval *	<ol style="list-style-type: none"> 1. Not to allow vehicles to derail to the inside of a curve with a radius less than 130 metres. 2. Permitted for use on tangent track or derail to outside of curve on any radius. 3. Limited to Appleton dock precinct where there are check rails on both legs 					
13	Does the Originator accept the additional Conditions of Approval as set by the Review Panel:	Yes	x	No	<input type="checkbox"/>	N/A	<input type="checkbox"/>

14	Sign off	ARTC office use only
	Review Panel:	
	J Furness	Date: 10/2/10
	R Warren	Date: 10/2/10
	A Thomas	Date: 10/2/10

See email attached 8/2/10

Thomas