ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4) L21335 - CROSSING

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2.0	03-Jun-2014	[redacted]	[redacted]	[redacted]	Corrected Attribute Names Asset Tag Identification Section Updated
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6.0	20-Apr-2017	[redacted]	[redacted]	[redacted]	Attribute Replaced
7.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

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1 Introduction

1.1 Asset Details

Class Code:	L21335
Class Name:	Crossing
Class Lineage:	Construction Products>Complete construction entities and components>Civil engineering works products>Railway products>Rails>Crossing

1.2 Description

The crossing is either an assembly or a single cast asset that allows the wheels of a rail vehicle to cross over a rail as that vehicle is being routed onto a different line.

There are two different categories of crossing, a fixed nose crossing where there are no moving parts and a swing nose crossing where the nose of the crossing is moved in co-ordination with the switches to eliminate the gap at the crossing nose reducing noise and impact forces.

The crossing also incorporates other components such as wing rails and cover check rails, these help guide the rail vehicles on to the right lines and minimise the risk of derailments.

1.3 Related Functions

All information on the configuration of asset classes (L-Class) to functions is contained within the latest revision of the Asset Data Dictionary Master Configuration document (eB ref: CRL1-XRL-Z3-ADDSD-CR001-50186)

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2 Asset Tag Identification Rules

Assets will be identified as required by the Asset Identification Standard (CRL1-XRL-O6-STD-CR001-00031) in the following format:

<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

e.g. CR076-BAF-12345

Information and guidance on the standard naming convention for all asset classes is contained within the latest revision of the Asset Naming Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

2.1 Example Images

Figure 1 - Fixed nose crossing

Figure 2 – Swing nose crossing

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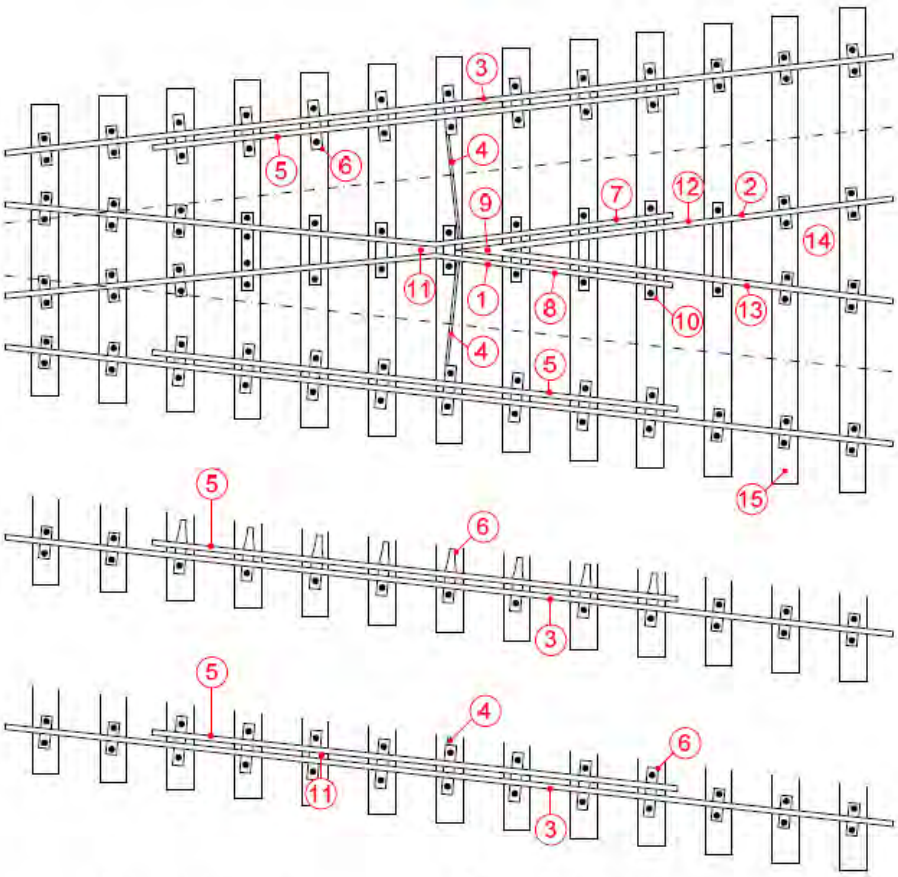

1	Common crossing	9	Crossing vee
2	Crossing nose	10	Crossing baseplate
3	Outside rail	11	Block
4	Check rail strut	12	Point rail
5	Check rail	13	Splice rail
6	Check rail support	14	Heel of crossing
7	Left hand wing (rail)	15	Bearers
8	Right hand wing (rail)		

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3 Attributes

3.1 Generic Attributes

All Classes of assets will have a set of Generic Attributes for which data is collected without exception. Full details relating to these assets can be found at:

AD4 – Generic Attributes CRL1-XRL-Z3-ADDSD-CR001-50069

3.2 Class Specific Attributes

Below is a table of the further specific attributes which are associated with this asset class.

Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Crossing Category		PD		Fixed Swing Nose	Whether the crossing is a fixed nose or a swing nose crossing
Crossing Radius		PD		Straight Curve	Whether the crossing is on a straight or a curve
Crossing Type		PD		Acute Obtuse	The type of crossing
Crossing Angle		CH			This angle of the crossing can be defined in many ways . For example, it can be a ratio e.g. 1:6, including non-standard types, often dependent on the manufacturer.
Crossing Fabrication		PD		Assembly (Welded) Cast Monoblock	The Crossing fabrication
Crossing Material		PD		Manganese Steel	Crossing Material Type
Crossing POE Type		CH			Type of Points Operating Equipment associated with the Swing Nose Crossing
Wing Rail Reach Length (Metres)	Metres	NU	2		Length of wing rails (see drawing above)

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Wing Rail Front Length (Metres)	Metres	NU	2		The Wing rail front length
Crossing Baseplate Type		CH			Baseplate types
Cover Check Rail Section		CH			The type of rail used for the cover check rail
Cover Check Rail Support Type		CH			Description of the Cover Check rail support type
Cover Check Rail Working Length (Metres)	Metres	NU	2		The length of check rail before the crossing nose
Cover Check Rail Extension Length (Metres)	Metres	NU	2		The length of check rail after the crossing nose
Flangeway Gap (Millimetres)	Millimetres	NU	0		The gap between the running rail and the check rail
Flangeway End Gap (Millimetres)	Millimetres	NU	0		Gap between running rail and the check rail at the end of the flare
Cover Check Rail Flare Length (Metres)	Metres	NU	2		The length of the flare at the end of the check rail
Clip Type		PD		Pandrol Heyback PVT Schwihag Unknown	Description of the clip type
Clip Toe Load (Kilograms/Metre)	Kilograms/Metre	NU	2		The maximum clip loading
Pad Type		CH			Description of the pad type
Pad Material		CH			What material is the pad made of

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
Pad Thickness (Millimetres)	Millimetres	NU	0		What is the pad thickness
LRS Code		PD		C.EB C.EB.CRW5 C.EB.CR1 C.EB.CR7 C.EB.TBC C.WB C.WB.CRW9 C.WB.CRW6 C.WB.CR2 C.WB.CR5 C.WB.TBA C.WB.TBB CNE.EB CNE.WB CSE.EB CSE.EB.CR11 CSE.WB CSE.EB.CR13 CSE.WB.CR15 Non Track	The Crossrail Linear Referencing Standard code (CRL1-XRL-O6-STD-CR001-00026) where the asset is located. When the asset is not located on track then non track should be selected. The LRS codes are as follows: C.EB - Central Section Eastbound C.EB.CRW5 - Crossover between W5 and W4 Points C.EB.CR1 - Crossover between C1 and C4 Points C.EB.CR7 - Crossover between C7 and C8 Points C.EB.TBC - Turnback C C.WB - Central Section Westbound C.WB.CRW9 - Crossover between W9 and W8 Points C.WB.CRW6 - Crossover between W6 and W3 Points C.WB.CR2 - Crossover between C2 and C3 Points C.WB.CR5 - Crossover between C5 and C6 Points C.WB.TBA - Turnback A C.WB.TBB - Turnback B CNE.EB - Central Section North East Spur Eastbound CNE.WB - Central Section North East Spur Westbound CSE.EB - Central Section South East Spur Eastbound CSE.EB.CR11 - Crossover between C11 and C12 Points CSE.WB - Central Section South East Spur Westbound CSE.EB.CR13 - Crossover between C13 and C14 Points CSE.WB.CR15 - Crossover between C15 and C16 Points Non Track - Non Track Assets
From Meterage (Metres)	Metres	NU	2		The location of the start of the asset based on overall meterage
To Meterage (Metres)	Metres	NU	2		The location of the start of the asset based on overall meterage

pd = Predefined List (Listed Values Only)
nu = Numeric (dp and number format can be stipulated)
ch = Free text (Max 255 Characters)
da = Date (dd-mm-yyyy)
me = Memo (Free text 1GB Limit)

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4 Performance Data

This section is to be used to specify the performance data gathered from this Class of asset when in operation. This section will be populated once performance measures have been agreed with Infrastructure Managers.

5 Labelling

Information and guidance on the standard labelling convention for all asset classes is contained within the latest revision of the Asset Naming and Labelling Convention Document (eB ref: CRL1-XR1-Z3-ADDSD-CR001-50413).

6 Other Information

Not Applicable

7 Reference Material

- Asset Data Dictionary Master Configuration - CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes - CRL1-XRL-Z3-ADDSD-CR001-50069
- Asset Naming Convention Document - CRL1-XR1-Z3-ADDSD-CR001-50413

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8 Crossrail Technical Approvals

Name	Role	Date
Mark Maher	Track	19-Sep-2014

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