ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4)
L21334 - SWITCH HALF SET

Document Number: **CRL1-XRL-Z3-ADDSD-CR001-50220**

Document Revision: **8.0**

Learning Legacy Document

Document History:

Revision:	Date:	Prepared by:	Checked by:	Authorised by:	Reason for Issue:
1.0	03-Mar-2014	Mark Sexton	[redacted]	[redacted]	First Issue
2.0	03-Jun-2014	[redacted]	[redacted]	[redacted]	Corrected Attribute Names Corrected Attribute Type Asset Tag Identification Section Updated
3.0	24-Jun-2014	[redacted]	[redacted]	[redacted]	Added Attribute
4.0	19-Sep-2014	[redacted]	[redacted]	[redacted]	Approvals Added Consultations Removed
5.0	21-Aug-2015	[redacted]	[redacted]	[redacted]	Attribute Change
6.0	27-Aug-2015	[redacted]	[redacted]	[redacted]	Labelling Section Updated
7.0	20-Apr-2017	[redacted]	[redacted]	[redacted]	Attribute Replaced
8.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.

Contents

1 Introduction 3
1.1 Asset Details 3
1.2 Description 3
1.3 Related Functions 3
2 Asset Tag Identification Rules 4
2.1 Example Images 4
3 Attributes 5
3.1 Generic Attributes 5
3.2 Class Specific Attributes 5
4 Performance Data 8
5 Labelling 8
6 Other Information 8
7 Reference Material 8
8 Crossrail Technical Approvals 9

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System
© Crossrail Limited RESTRICTED

1 Introduction

1.1 Asset Details

Class Code:	L21334
Class Name:	Switch Half Set
Class Lineage:	Construction Products>Complete construction entities and components>Civil engineering works products>Railway products>Rails>Switch Half Set

1.2 Description

The switch is the mechanism used to divert the rail vehicle between one line and another. The switch is an assembly of two moveable rails (switch blades or switch rails) and two fixed rails (stock rails). One switch rail and stock rail is known as a switch half set.

The switch half sets are differentiated by side based on the facing point direction, i.e. left hand half set or right hand half set.

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)

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

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:

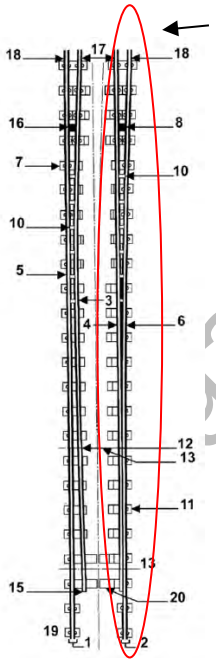
<LCS Code>-<Function Code>-<Incremental number to ensure uniqueness>

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

1	Left-hand half-set of switches
2	Right-hand half-set of switches
3	Left-hand curved switch rail
4	Right-hand straight switch rail
5	Left-hand straight stock rail
6	Right-hand curved stock rail
7	Heel baseplate
8	Block or heel block
9	Fishplate block
10	Stud/distance block
11	Slide baseplate
12	Stretcher bar bracket
13	Stretcher bar
14	Anti-creep device (not shown)
15	Switch toe/tip
16	Switch heel
17	Switch rail joint
18	Stock rail joint
19	Stock front joint
20	Soleplate
21	Bearers (not shown)



Learning Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

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**
Fabrication Method		PD		Welded Bolted	How the layout is constructed
From Meterage (Metres)	Metres	NU	2		The location of the start of the asset based on overall meterage
Heal Block Arrangement		CH			A description of the Heal Arrangement
Rail Grade of Steel		PD		R260 R250 R350HT HPRail B320 B360	The Rail hardness by standard coding
Rail Section Type		PD		113lb CEN60 UIC60 CEN56	The rail section type by standard coding

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
S & C Half Set Side		PD		L/H R/H	Left hand or Right hand half set based on facing point direction
S & C Switch Orientation		PD		Vertical Inclined	Whether the switch rails are inclined or not.
S & C Switch Rail Type		PD		Chamfered Undercut Straight Cut Shallow Depth	Profile of switch rail where it meets the stock rail.
S & C Switch Size		CH			The alphabetic code for the switch size (potentially alpha numeric)
S & C Switch Type		PD		Straight Semi curved Curved	The underlying shape of the switch
Switch POE Type		PD		Surelok Voshloh	Type of Points Operating Equipment associated with the Switch
To Meterage (Metres)	Metres	NU	2		The location of the start of the asset based on overall meterage

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
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
S & C Switch Radius (Metres)	Metres	NU	2		The radius of the switch half-set.

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)

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

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

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited RESTRICTED

8 Crossrail Technical Approvals

Name	Role	Date
Mark Maher	Track	19-Sep-2014

Learning Legacy Document

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System
© Crossrail Limited RESTRICTED