ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4)
L743343 - EARTHWIRE

Learning Legacy Document

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Revision:	Date:	Prepared by:	Checked by:	Authorised by:	Reason for Issue:
11.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

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1 Introduction

1.1 Asset Details

Class Code:	L743343
Class Name:	Earthwire
Class Lineage:	Construction Products>Services>Electric power and lighting services products>Protection devices>Lightning conductors>Traction Earth> Earthwire

1.2 Description

An Earthwire cable provides grounding. The purpose of earthing is to provide a path for the current to flow to the ground in case of an insulation failure. In the absence of an earth wire an electrical fault may cause damage to equipment and/or personnel. In OLE equipment an Earthwire is an uncovered wire forming part of the Catenary System. In electrical installations the Earthwire is sheaved and connected to devices and grounded.

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)

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).

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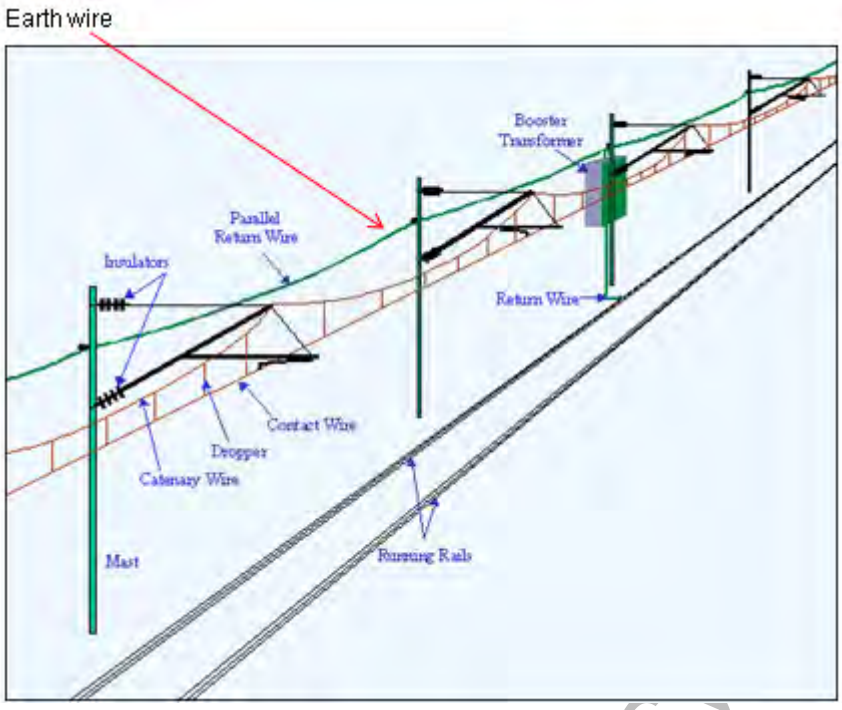
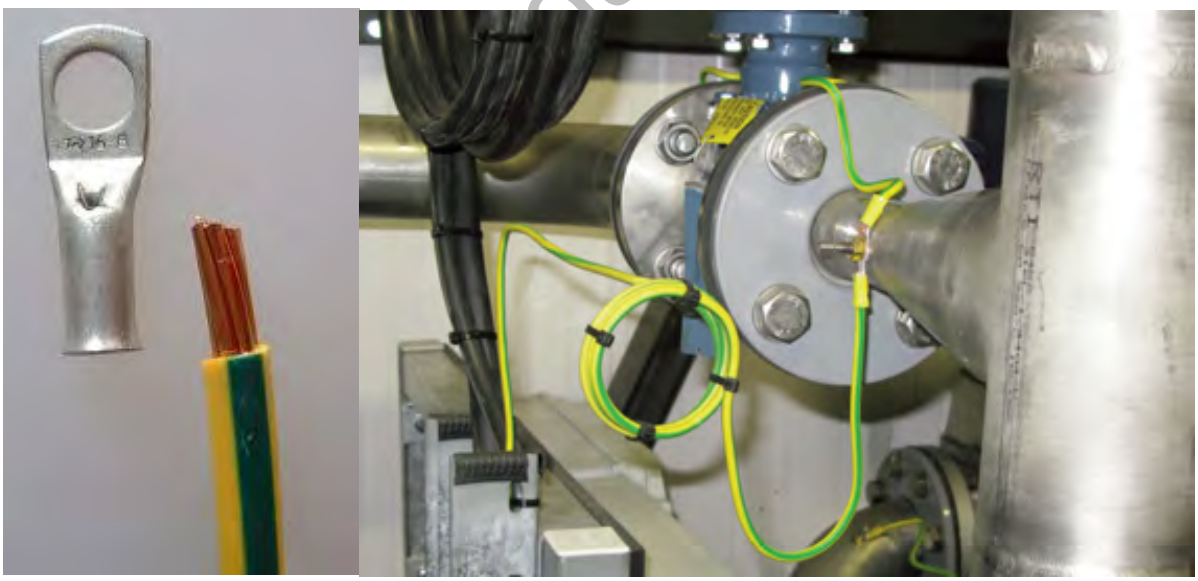
2.1 Example Images



OLE type Earthwires



Typical Earthwires in electrical installations

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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
Cross Sectional Area (Square Millimetres)	Square Millimetres	NU	0		Cross sectional area / Square millimetres of Earthwire
Earthwire Material		PD		Copper Aluminium	Material of the wire
Insulated		PD		Yes No	Mode of insulation
Nominal Diameter (Millimetres)	Millimetres	NU	0		Diameter of wire
Tensile Strength (MPa)	MPa	NU	2		Maximum allowed tension strength by design
Weight (Kilograms/Kilometre)	Kilograms/Kilometre	NU	2		Weight per wire unit length
From Meterage (Metres)	Metres	NU	2		The Meterage (Chainage) of the start point of the asset. To be populated only when the start of the asset is located on track.

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Attribute Name	Base Unit or Formula	Value Type (See Below)	Decimal Places (nu Only)	Defined Values List (pd only)	Description
To Meterage (Metres)	Metres	NU	2		The Meterage (Chainage) of the end point of the asset. To be populated only when the end of the asset is located on track.

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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

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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)

4 Performance Data

This section is to be used to record the performance data to be gathered from this Class of asset when in operation. To be populated once the performance measures have been agreed with the 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 document - 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
[redacted]	Traction Power	19-Sep-2014

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