ASSET DATA DICTIONARY DEFINITION DOCUMENT (AD4) L21723 - PIPE COUPLINGS/CONNECTORS

Learning Legacy Document

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3.0	17-Dec-2014	Kemi Olawale	[redacted]	[redacted]	New Attribute Added Attribute Updated
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9.0	20-Apr-2017	[redacted]	[redacted]	[redacted]	Attribute Replaced
10.0	25-Apr-2017	[redacted]	[redacted]	[redacted]	LRS Codes Updated

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1 Introduction

1.1 Asset Details

Class Code: L21723

Class Name: Couplings/Connectors

Class Lineage: Construction Products>Complete construction entities and components>Civil engineering works products>Public health and environmental engineering products>Sewerage and drainage system products, large scale-municipal-mains>Couplings/Connectors

1.2 Description

A pipe coupling or connector is a very short length of pipe or tube, with a socket each end to allow two or more pipes or tubes to be joined. The method of join will depend on the pipe material and usage. The couplings or connectors can also allow pipes of different sizes/shapes to be joined. Pipe Couplings are required to be recorded only if from a maintenance perspective, they would benefit from being recorded individually. For example, where different size pipes are connected, they have gasketed fittings, or for the following safety reasons:

- The coupling/connector joins pipes of differing materials (varying expansion or compression rates)
- The coupling/connector joins complex sections of bonded or welded pipework which may be subject to differential expansion or loading
- The coupling/connector joins pipework carrying pressurised gas/liquids (greater than 5 bar pressure) or gas/liquids potentially hazardous to health
- Where failure of the coupling/Connector has the potential of effecting the safe operation of the railway

They are not required for small diameter pipework (<50mm)

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. C125-BRS-12345

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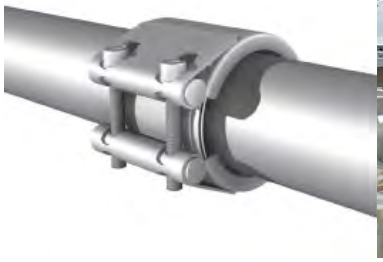
2.1 Example Images



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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
Coupling type		PD		Straight Elbow Tee Cross	The Coupling type
Coupling Material		PD		Steel Carbon steel Alloy steel MDPE	The Coupling material
Connection method		PD		Push fit Glued Welded Brazed Soldered Threaded Groove Clamped	How the pipes fit into the coupling.
Thread Type		PD		NPT Plain Threaded	If it is a threaded coupling type, the list type

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Attribute Name	**Base Unit or Formula**	**Value Type** (See Below)	**Decimal Places** (nu Only)	**Defined Values List** (pd only)	**Description**
Number of connections (#)	#	NU	0		The number of connections that can be made to pipes
Gender of Connector		PD		Male Female	Male connectors fit inside the main pipe, female outside the main pipes
Internal Diameter (Millimetres)	Millimetres	NU	0		Internal diameter of largest socket
External Diameter (Millimetres)	Millimetres	NU	0		External diameter of coupling
Gasket Type		CH			Description of the Gasket type
Gasket Material		CH			Description of the Gasket material
Angle (Degrees)	Degrees	NU	0		Angle for elbow
Thickness (Millimetres)	Millimetres	NU	0		Wall thickness of sockets.
Length (Millimetres)	Millimetres	NU	0		Length of coupling
Weight (Kilograms)	Kilograms	NU	2		Weight of coupling
Insulated		PD		Yes No	Does the asset have insulation material attached to the outer parts of the coupling/connector?
Meterage (Metres)	Metres	NU	0		Meterage (Chainage) location of asset. To be populated only when 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 - Crossover between C15 and C16 Points Non Track - Non Track Assets

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 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 - CRL1-XRL-Z3-ADDSD-CR001-50186
- Asset Identification Standard - CRL1-XRL-O6-STD-CR001-00031
- AD4 – Generic Attributes - CRL1-XRL-Z3-ADDSD-CR001-50069

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8 Crossrail Technical Approvals

Name	Role	Date
[redacted]	Systemwide Mechanical & Electrical Lead Engineer	19-Sep-2014

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