Safety Advice

Action required following a serious incident

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Failure of Tensorex C+ upper fitting bracket in OLE

Issued to: **All Network Rail line managers, safety professionals and RISQS registered contractors**

Ref: NRA 17/10

Date of issue: 20/10/2017

Location: Structure MLN/46/424, Great Western Main Line

Contact: David Campbell, Principal Engineer STE

Overview

On the evening of 28 August 2017 the failure of a Tensorex Upper Fitting Bracket (Pfisterer part number 042216) was discovered in the Overhead Line Equipment (OLE).

Investigations indicate that the failure of the bracket was caused by poor quality welding of the stiffening plate during manufacture. This in turn caused a secondary failure of an M14 terminal fork.

The failed component is part of an assembly fitted to the specific assets listed:

PADS	OLE System	NR Allocation Ref Pfisterer Code	Compensation/ Load
0091/070159	SE1	000700687-104	1000/1680
0091/029025	Mk3b - SE2	000700879-102	1000/2250
0091/029030	UK1	000700880-102	1000/2085
0091/029023	Mk1(S)	000700878-102	1000/1985
0091/070132	SE1	000700687-1-104	1000/1680
0091/070157	SE1	000700673-1.104	750/1680
0091/070158	SE1	000701044-1.104	450/1680
0091/029038	GEFF/SSV	000700897-1B 101	1000/1345
0091/029039	GEFF/SSV	000701115-1B 101	750/1345
0091/029040	GEFF/SSV	000701116-1B 101	450/1345

Immediate action required

IP electrification teams who are installing and any maintenance delivery unit which maintains the Tensorex devices listed above should:

1. identify all locations where they are installed;
2. inspect all installed brackets; and
3. check all brackets in stores for poor quality welding.

The inspection should focus on the quality of the welds, damage to the weld and insufficient welding of the stiffening plate.

Inspection can be from low level using a suitable camera device or at high level working from an access platform.

Any unit which has been fitted with the 042216 upper fitting bracket, and has subsequently failed the visual inspection should be retrofitted with a replacement part fully compliant to the design specification at the earliest possible opportunity.

All locations of failed units shall be reported to STE.

Alternatively, Route Asset Managers may wish to schedule replacement of the parts without survey.

To assist with future identification of any Tensorex C+ units which have passed the inspection criteria, or are retrofitted with a replacement upper fitting bracket, shall be clearly identified by way of yellow dots on the underside of the upper fitting, directly below both terminal fork positions.

Copies of Safety Advice are available on Safety Central.