

Ref:	NR/SIN117
Issue:	1
Date:	Jan 2013
Compliance date:	31 Mar 2013

Special Inspection Notice

Special Inspection of Arthur Flury Skidless Single Rod Neutral Sections

Endorsement and Authorisation

Endorsed by:



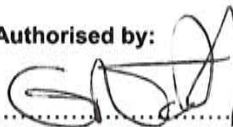
John Hayes, Senior Technology Engineer (Contact
Systems)

Authorised by:



Richard Stainton, Professional Head Electrical Power

Authorised by:



Mac Andrade, Director Maintenance Services

This document is the property of Network Rail. It shall not be reproduced in whole or part nor disclosed to a third party without the written permission of Network Rail.
© Copyright 2013 Network Rail.

Uncontrolled copy once printed from its electronic source.

Published and Issued by Network Rail, Kings Place, 90 York Way, London. N1 9AG.



Ref:	NR/SIN/117
Issue:	1
Date:	Jan 2013
Compliance date:	31 Mar 2013

Issue record

Issue	Date	Comments
1	January 2013	First Issue

Compliance

This Special Inspection Notice (SIN) is mandatory and shall be complied with by Network Rail (and its contractors if applicable) by 31st March 2013.

Reference documentation

[NR/L2/SIG/10072](#) Special Inspection Notices (SINS)

Disclaimer

In issuing this document for its stated purpose, Network Rail makes no warranties, express or implied, that compliance with all or any documents it issues is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

Supply

Copies of documents are available electronically, within Network Rail's organisation. Hard copies of this document may be available to Network Rail people on request to the relevant controlled publication distributor. Other organisations may obtain copies of this from an approved distributor.

Ref:	NR/SIN/117
Issue:	1
Date:	Jan 2013
Compliance date:	31 Mar 2013

Contents

1 Purpose	4
2 Scope	4
This Special Inspection Notice applies to those Delivery Units with AF single rod neutral sections within their overhead line equipment (OLE).	4
3 Background	4
4 Work planning	5
5 Method of inspection	5
6 Recording Neutral Section Serial Numbers in Ellipse	6
7 Timescales for completing inspections and plans etc	6
8 Responsibilities	7
9 Monitoring & Reporting	7
10 Contact details	7
Appendix A Identification of serial numbers and defective splices	8
Appendix B Serial numbers	11
Appendix C Special Inspection Notice Action Completion Form	12

Ref:	NR/SIN/117
Issue:	1
Date:	Jan 2013
Compliance date:	31 Mar 2013

1 Purpose

This Special Inspection Notice applies to Arthur Flury (AF) single rod skidless neutral sections installed in overhead line equipment. It is issued because of safety concerns and requires Maintenance Delivery Units:

- to check the neutral section contact wire splices
- to identify the neutral section serial numbers so that the design type of the neutral section can be established
- to record the the neutral section serial numbers in Ellipse and to
- plan the replacement of Yellow Label neutral sections in high speed lines

2 Scope

This Special Inspection Notice applies to those Delivery Units with AF single rod neutral sections within their overhead line equipment (OLE).

3 Background

A number of issues have previously been identified with Arthur Flury skidless neutral sections since they were originally introduced onto the network.

These include the planned replacement of units with internal stainless steel bolts by units with titanium bolts and campaign change CC76 from NR/L2/ELP/27009 (installation of lever arms)/ SIN111.

Two additional issues have recently been identified that require additional inspections and information about units that have been installed in the line, so that the risk associated with these issues can be properly understood and managed:

1. A manufacturing batch defect with certain batches of contact wire splices.
2. The potential early fatigue of original design titanium bolts ('yellow label') in areas subject to high line speeds and numbers of pantograph passages.

Contact wire splice manufacturing batch defect

This issue affects neutral section splices supplied both as part of a complete neutral section or separately. The affected splices are prone to fracture on installation and are at risk of premature failure if installed in the line. This issue was previously communicated in safety bulletin IGS 263.

The affected splices were supplied to Network Rail between September 2011 and June 2012. Most of these were supplied as part of a complete neutral section but some were supplied as separate components.

Network Rail and Arthur Flury know the order history of all neutral sections supplied in this time. However, inspections are needed of all neutral sections held in stores and any neutral sections in the line that were supplied after September 2011 to be sure that all splices are accounted for.