

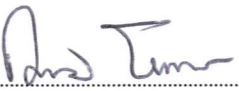
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Issue	E1
Date	April 2007

Specification

Point Operating Equipment

Endorsement & Authorisation

Endorsed by:



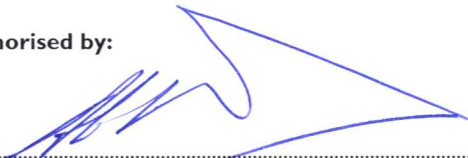
A Simmons, Head of Signal Engineering

Endorsed by:



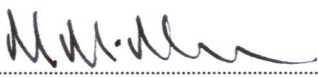
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Issue record

Issue	Date	Comments
1	Jun 2005	Issued as a joint Signalling/Track document (NR/SIG/001)
E1	Feb 2007	First issue as a company standard

Implementation

7th April 2007

Compliance

This Network Rail Specification is mandatory and shall be complied with by Network Rail/Contractors from 7th April 2007.

When this Specification is implemented, it is permissible for all projects, which have formally completed GRIP Level 4, to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Level 4 was reached and not to comply with requirements contained herein unless the Head of Signal Engineering has stipulated otherwise in the accompanying Briefing Note.

Where the Head of Signal Engineering has specified that all projects shall comply with the requirements, specific authority not to comply can be sought in the usual manner using the appropriate non-compliance authority processes described in Network Rail Standard, [NR/SP/STP/045](#) Managing the Process for Non-compliance Authority (formerly RT/LS/P/045).

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1 Purpose

The purpose of this specification is to define the Network Rail preferred options and generic requirements regarding point operating equipment choice when operating points with the following nomenclature:

- NR60
- RT60
- 113A/UIC-54

2 Compliance

The provisions of this document are mandatory for the introduction of all new works associated with projects that have not yet completed GRIP Level 4, defined as form B acceptance and Scheme Plan approval, before 01/04/2007. Where projects have cause to revisit GRIP 4 after this date, consideration shall be given to the reasonable practicability of applying the provisions of this document to the scheme.

Any party deviating from this specification shall ensure that the situation is regularised by formal derogation as a GRIP 4 deliverable.

3 General

Where possible small populations of differing point mechanisms shall be avoided to prevent excessive spares costs and competence development being incurred.

4 Preferred options where rails not being renewed

If the existing machine is one of the following types the preferred option shall be like for like.

- HW
- Style 63
- HPSA
- Standard RCPL (Clamp Lock)

If the mechanism is a different type then the choice shall be dependent on the design compatibility with the above. The technical group in Signal Engineering shall specify on a specific case-by-case basis.

5 Preferred options where both half-sets are being renewed

If the existing machine is a Standard RCPL, an In bearer RCPL shall be its replacement. For all other machines, if replacement is necessary, the preferred option shall be like for like.

6 Preferred options when complete renewal undertaken

Complete Renewal is defined in this document as the replacement of at least both half-sets, fixings and bearers. Where options are given in appendices A to E below, the option highest in the appropriate part of the appendix shall be chosen unless there is a site-specific business, safety or technical justification for choosing otherwise. Where the highest option is

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not chosen this shall be agreed with the Head of Signal Engineering or his nominated representative.

For appendix F no order of preference is implied by the order in which the machines are stated, however for line speeds greater than 60mph the preference is for layouts that can be mechanically tamped. Therefore the HPSA and Powerlink supplementary drive is the preferred combination over all other primary drive and supplementary drive arrangement for line speeds greater than 60mph.

7 Point mechanism specific requirements

7.1 HW Point Machines

- Shall be fitted with plug couplers
- Layouts shall use Conventional Backdrives (BR style design generally to BRS-SM drawings).
- Layouts shall use BR 998 Detectors (where required)
- In bearer HW shall not be used
- Torsional backdrive shall not be used

7.2 Style 63 Point Machines

- Shall be fitted with plug couplers
- Layouts shall use Conventional Backdrives (BR style design generally to BRS-SM drawings).
- Layouts shall use BR 998 Detectors (where required)
- In bearer Style 63 shall not be used
- Torsional backdrive shall not be used

7.3 Rail Clamp Point Lock (Clamp Lock)

- Shall be Mk2
- Shall be fitted with Green Actuators (unless other specific type required due to configuration)
- Shall use ITW microswitches
- 113A/UIC-54 Layouts shall use Conventional Backdrives (BR style design generally to BRS-SM drawings)
- Layouts shall use BR 998 Detectors (where appropriate)
- Torsional backdrive shall not be used
- In bearer shall be used for 113A/UIC-54 (where appropriate switch rails are available).

7.4 HPSA

- Shall use the low lid version of the HPSA for the appropriate configuration as detailed in product acceptance certificate PA05/579.
- Shall use 'PowerLink' torsional backdrive when used on RT60 or NR60.
- Layouts shall use BR 998 Detectors (where appropriate) on 113/UIC-54.