

TECHNICAL INSTRUCTION

TI 143
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NETWORK RAIL - SIGNAL ENGINEERING Point Operating Equipment – NR/L2/SIG/19809

Purpose

The purpose of this Technical Instruction is to define Network Rail's preferred options and generic requirements for point operating equipment NR/L2/SIG/19809 when operating points with the following nomenclature:

- NR60
- RT60
- CEN56/54 Shallow Depth
- 113A Full Depth

Scope

The selection of point operating equipment type that shall be used for the associated rail section for:

- Preferred option where both Half-Sets are being renewed
- Preferred options where no rails or only one Half-Set are being renewed
- Preferred options when complete renewal are undertaken
- Point mechanism specific requirements

Compliance requirements

The TI shall be applied where it is economic to do so or for projects that have not yet passed GRIP stage 4.

Background

Further to the transformation project for the joint S&C work stream, a review of rail section and point operating equipment has been undertaken to determine the optimum medium term configuration. The outputs of project have defined the type of rail section and point operating equipment to be used within Signal and Track asset policies.

General

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

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Preferred Options where No Rails or only One Half-Set being renewed

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

- HPSS
- HW
- Hy-Drive
- Standard Rail Clamp Point Lock (RCPL)
- Style 63

If the mechanism is a different type then the choice shall where possible be one of the above dependent on the compatibility with the signalling system and rail section & drilling. Where this is not possible, the technical group in S&C Engineering will specify on a case-by-case basis.

Preferred Options where Both Half-Sets are being renewed

If the existing machine is a Standard RCPL, an In-bearer Clamp Lock (IBCL) should be considered as its replacement if concrete bearers are used. For all other machines, if replacement is necessary, the preferred option shall be like for like.

Preferred Options when Complete renewal undertaken

Complete Renewal is defined in this TI as the replacement of at least both half-sets, fixings and bearers. Where options are given in tables 1 to 4 below, the option highest in the appropriate part of the table shall be chosen unless there is a site-specific business, safety or technical justification for choosing otherwise. Where an option from the tables is not chosen this shall be the subject of a derogation against this TI agreed with the Head of S&C Engineering.

Point Mechanism Specific Requirements

HW Point Machines

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

Style 63 Point Machines

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