

DIS126

Axle Counter Preparatory Reset Restoration Data (Vale of Glamorgan)

Issue 4

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Approved by:

Chairman, SSI Signalling Principles Group

This document contains 9 pages and was approved (subject to minor amendments now incorporated) by SSISPG at the meeting of 19/01/2005. This document is an "Approved Site-Specific Document" and does not imply approval for use on other signalling schemes.

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1 Document Status

This document was prepared for the SSI Signalling Principles Group ("SSISPG"). Issue 3 was approved at the SSISPG on 19th January 2005, subject to minor changes. Issue 4 has been updated in accordance with recommendations from the meeting, which have been checked and approved by the Chairman.

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3 Purpose

The Vale of Glamorgan line upgrade will use AZLM axle counters. This document explores the 'preparatory reset' form of restoring the axle counter to traffic using SSI logic and a conventional form of signalling control panel.

4 Requirements

The data has been constructed to meet the requirements of GK/RT/0217 and Alcatel documents:-

01800 ABAA GAAFQ – AZLM Engineering.

01800 ABAA DAEFQ – AZLM Product description.

The Vale of Glamorgan scheme is a relatively simple resignalling and upgrade to passenger use of an existing freight only line. Additional signal sections

are being introduced to improve line capacity. Eleven axle counter sections are being introduced co-located with each other but remote from the SSI Central Interlocking. The resets are divided between two TFM's that are, conveniently, not used for anything else and it is recommended that consideration should be given to the line availability when allocating them. The existing line of route is plain line only and no additional switch and crossing work is introduced by the scheme.

The axle counter track section inputs will use an ordinary track circuit input special so that the data valid for the telegram is tested. There is no need for the extra debounce provided by the del version.

Although sub route release with axle counters should not require the 15 second time out, using it does facilitate a subsequent change to track circuits, and as all SSI track tests include a test on the timer, even where not explicit so that it defaults to zero, this adds neither data volume nor processing time, just extra typing.

5 Glossary of Terms and Abbreviations

Aspect Restriction Following Restoration	The restriction of the aspect of a signal due to the restoration of an axle counter section protected by that signal.
Engineer's Possession Reminder (EPR)	The Reminder applied as the background to a track section, indicating that a pre-planned possession is in place over that track section. When an axle counter is restored, with the EPR in place, aspect restriction will not be invoked.
Replaced	A signal is set to show its most restrictive aspect.
Restoration	The action of connecting the reset section clear function to the interlocking. A successful restoration will change the status of the section, in the interlocking to clear, and allow the signaller's display system to indicate section clear. Throughout this paper, "Restoration" is used as a short form of "Reset/Restoration".
Reset	The action to clear the axle counter section memory. A successful reset will cause the evaluator to output a section clear function.
Special Train Reminder (STR)	The Reminder applied as the background to a track section, indicating that a pre-planned train movement is to occur over the section. The train movement is likely to leave the axle counter section disturbed. When an axle counter is restored, with the STR in place, aspect restriction will not be invoked.
ACE	Axle Counter Evaluator
LRR	Lloyds Register Rail
NR	Network Rail
SSI	Solid State Interlocking
TFM	Trackside Functional Module

6 Principles

In the preparatory reset form of axle counter reset and restoration the axle counter system is configured to attempt to reset itself upon failure. The axle