

BRITISH RAILWAYS BOARD
DIRECTOR OF SIGNAL & TELECOMMUNICATIONS ENGINEERING
AUTOMATIC WARNING SYSTEM

SPECIFICATION NO 10
STANDARD AND EXTRA STRENGTH PERMANENT MAGNETS
FOR
AWS AND TEMPORARY SPEED RESTRICTIONS

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FOREWORD

This specification supersedes all previous issues. It is issued by the:-

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For the purpose of this specification the Engineer is the Director of Signal and Telecommunications Engineering, British Railways Board, or his appointed representative. It is the responsibility of the Manufacturer, Supplier or User to ensure that the latest issue of this specification and other relevant specifications and drawings are obtained and complied with.

2 Scope

- 2.1 This specification relates to permanent magnets, both standard strength and extra strength types, that are used for the AWS at signals, permanent speed restrictions and temporary speed restrictions.
- 2.2 Only the new pattern magnets are covered by this specification in detail but, because of the large numbers still in service the magnetic performance details of the original pattern standard strength magnet is also quoted.

3 Original Standard Strength Permanent Magnet

- 3.1 These magnets were manufactured to drawing No ATC/T/114 and they used an Alcomax permanent magnet assembly as opposed to the Feroba magnet packs used in all of the current magnets.
- 3.2 The required magnetic performance for these magnets is given in Appendix A.

The field strength of the original magnet is considerably lower than the new pattern standard strength magnet, as can be seen by comparing Appendices A and B.

On lines equipped with standards strength magnets all that is required for satisfactory operation the system is a magnet which is both correctly installed and complies with Appendix A. The main reason for specifying the increased performance of Appendix B for the new pattern (Feroba) magnets is to assist with quality control.

- 3.3 For identification purposes the case of these magnets is coloured golden yellow.

4 New Pattern Standard Strength Permanent Magnet BR Cat No 62/6738

- 4.1 This magnet shall comply with drawing number ATC/T/885 and related drawings and specifications.
- 4.2 The magnet shall be supplied in a fully magnetised condition.

The magnetic performance of the magnet shall comply with the requirements of Appendix B.
- 4.3 For identification purposes the case of the magnet shall be coloured golden yellow.

5 New Pattern Extra Strength Permanent Magnet BR Cat No 62/6739

- 5.1 This magnet shall comply with drawing number ATC/T/902 and related drawings and specifications.
- 5.2 The magnet shall be supplied in a fully magnetised condition.

The magnetic performance of the magnet shall comply with the requirements of Appendix C.
- 5.3 For identification purposes the case of the magnet shall be coloured green.