

Magnetic compasses and binnacles —

Part 4: Glossary of terms

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- British Nautical Instrument Trade Association
- British Shipbuilders
- Department of Transport (Marine Directorate)
- General Council of British Shipping
- Honourable Company of Master Mariners
- Ministry of Defence
- National Union of Seamen
- Coopted member

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Foreword

This revision of BS MA 2-4 has been prepared under the direction of the Shipbuilding and Marine Standards Committee. It forms Part 4 of the BS MA 2 series and deals with the definition of terms used throughout the BS MA 2 series. It is based on ISO 1069:1973. This standard supersedes BS MA 2-4:1969 which is withdrawn.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope

This Part of BS MA 2 defines the terms relating to magnetism, mariner compasses, binnacles, azimuth reading devices and the siting of compasses used in all other Parts of the BS MA 2 series.

NOTE The title of the publication referred to in this standard is given on the inside back cover.

Section 1. Magnetism

11 Theoretical definitions

No.	Term	Definition
11 001	magnetic poles	The two points, near the opposite ends of a magnetized bar, at which the bar's magnetism appears to be concentrated. These two points or poles are conventionally marked in red upon the North seeking end of the bar and in blue upon the South seeking end of the bar.
11 002	permanent magnetism	(a) Magnetism induced in hard iron, which remains constant after the magnetizing field has been removed. (b) That part of the ship's magnetism which remains reasonably constant over a space of years, when magnetic stability of the ship has been attained.
11 003	sub-permanent magnetism	(a) Magnetism induced in intermediate iron, which remains after the magnetizing field has been removed, but subsequently fades away. (b) That part of the ship's magnetism which is induced when the ship remains on one heading for a long time. It will fade in a fairly short time after the heading has changed.
11 004	transient magnetism; induced magnetism	(a) Magnetism which is induced in soft iron when the same is placed in a magnetic field, and that will cease to exist when the magnetic field is removed. The strength and direction of the transient magnetism will depend on the position of the material in the magnetic field. (b) That part of the ship's magnetism which changes with alteration of the ship's heading, heeling and magnetic latitude.
11 005	magnetic receptivity	The physical quantity characterizing the capacity of a material to vary its magnetic moment under the influence of an external magnetic field.

12 Magnetic properties

12 001	permeability	The capacity of magnetic materials to acquire magnetism when placed in a magnetic field.
12 002	coercivity	The capacity of a magnet to retain permanent magnetism when placed in a magnetic field of inverse direction. It is measured by the strength of the reverse field required to reduce the magnetization of a fully magnetized magnet to zero.
12 003	remanence	Permanent magnetism which persists in a fully magnetized ferro-magnetic material after the magnetic field has been removed.
12 004	residual magnetism	Magnetism (induction) retained by ferro-magnetic bodies after the magnetizing force has been removed.

13 Earth's magnetism

13 001	total magnetic force of the earth	The local value of the total magnetic force of the earth.
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