2Grid compass

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Data de publicació: 03-10-2016

El compàs de marcacions o compás de demores, és un instrument nàutic utilitzat per determinar demores d'objectes observats. (Demora: angle format pel nord i la visual a un objecte determinat en el mar). S'utilitza en la navegació per determinar l'angle entre la direcció d'un objecte i el nord o un altre punt de referència. Proporciona el rumb absolut, que és l'angle en sentit horari entre el nord magnètic o nord veritable i l'objecte. Per exemple, un objecte cap a l'est tindria una orientació absoluta de 90 graus és veritable es diu demora veritable, si el nord és el magnètic es diu demora magnètica. És utilitzat habitualment per geòlegs, agrimensors i navegants per obtenir orientacions precises sobre el terreny.[1]

A grid compass[1] known as well as grid steering compass, is a navigating instrument. It is a design of magnetic compass that facilitates steering a steady course without the risk of parallax error.

The grid compass is the simplest steering compass from the pilot's or helmsman's point of view, because he doesn't need to watch the number (or the division mark) of the wanted course. He has only to steer the craft so that the N/S compass needle lies parallel between the lines of the overlay disc. The principle is similar to the compass-controlled autopilot.[2] Although sophisticated electronics have taken over for commercial navigation, light aircraft, gliders and yachtsmen still use the grid compass because of its simplicity and ease of use.

Description
The compass card is in the form of a bold parallel sided arrow which indicates magnetic north. Some models have an east/west cross bar as well. Overlaying this but in the same gimbal or suspension is a transparent plate which can be rotated around the same axis as the compass card but has sufficient friction (or a mechanical clamp) to stay fixed relative to the gimbal system once set to a course. Across this disk are engraved a series of parallel lines. The outer edge of this disk is marked in clockwise in degrees, the radial line meeting 0º being parallel to the engraved lines, so that a course can be laid for any bearing from 0º to 359º. By keeping the arrow on the card and the lines on the overlay parallel, the pilot or helmsman can keep the course set. The frequency of the degree markings depend upon the size of the compass.

To set a course the rotating ring is (unlocked and) turned so that the heading in degrees on the ring alines with the centre line of the craft. The craft comes on to the required course when the arrow on the compass card is parallel with the lines on the ring.978-1-4081-4628-6."},"attrs":{"name":"Fair2013"}}" class="mw-ref reference" data-ve-attributes="{"typeof":"mw:Extension/ref"}">[3]

The grid steering compasses (Type P8 to Type P11) were fitted in World War II Spitfire aeroplanes, replacing the old P4 series of instruments. They were used for course setting and reading, and as a check compass on aircraft fitted with a remote indicating compass.[2]

See also

Astrocompass
Compass
Silva Compass
Solar compass
Marine sandglass

References

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CAA Advisory circular

1 2

Grid compass description

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David Fairhall; Mike Peyton (17 May 2013). Pass Your Yachtmaster. Bloomsbury Publishing. pp. 10–. ISBN 978-1-4081-4628-6.

Bibliography

Aircraft Instruments
Mike Harris (1 January 2010). The Compass Book: Maintain, Repair and Adjust Your Own Compass. Paradise Cay Publications. pp. 30–. ISBN 978-0-939837-27-4.

External links

A Compass for ‘Sandpiper’
"A Job Thought Impossible" Archived 2020-08-01 at the Wayback Machine, the story of Chrysler Corporation's mass-production of previously hand-made compasses for World War II naval requirements.