



**THE HERON D.F. AERIAL  
MODEL E**



**BROOKES & GATEHOUSE LTD**

## THE HERON DF AERIAL MODEL E

This version of Heron has been designed for installation in:—

1. Steel-hulled or composite-built vessels where, due to large values of magnetic deviation, the use of the Heron Models A to D inclusive is impracticable.
2. Any vessel for which our Helios radio-compass is specified.

Heron Model E provides for the measurement of radio DF bearings in relation to the fore-and-aft line of the ship (i.e. relative bearings). These are converted to magnetic bearings by observing the ship's heading by compass at the same instant as the DF null-point is obtained. This operation is greatly facilitated by the use of our Helios radio-compass.

It also enables Helios to be used as a steering aid. In this application the azimuth scale of the DF aerial is set to the angle corresponding to the relative bearing of the radio station or beacon which is to be used as the heading reference and the vessel is steered to maintain the pointer of the indicator of Helios in a central position.

It must be pointed out that the Heron Model E, or any type of DF aerial, may not be used below-deck where the deck or the deck-beams, or both, are of metal construction. In all other types of construction, wood, composite and G.R.P., the aerial should be installed below, where it is protected from spray.

### DESCRIPTION

The Heron Model E is electrically identical with all other models in this range. When used with our Homer receiver it enables bearings to be obtained at ranges considerably in excess of those listed for the various beacons and it provides extremely well-defined null-points.

It is mounted on a circular bearing-plate which is calibrated through 360° in 5° intervals and which rotates about a vertical axis. Bearings are read off against an index-mark engraved on the upper disc, which is fixed by means of a support-arm to a bulkhead or the deck-head. The design of the mounting plate and support-arm differs for the two methods of mounting, and the two models are designated EB and ED respectively. The bulkhead arrangement is shown in the illustration. **When ordering please state whether Model EB (bulkhead) or Model ED (deck-head) mounting is required**, and note that only in the bulkhead model is the Heron pivoted to enable the axis of rotation to be kept vertical in spite of heel and so to eliminate the "heeling error". Model EB should therefore always be specified for sailing yachts.

The complete mechanical assembly is machined from brass and is finished in satin chrome.

A friction-pad, lubricated with a special high-viscosity grease, is fitted above the bearing plate. This prevents the DF aerial "creeping" due to the action of engine vibration.

### SPECIFICATION

#### Size :

Max. overall width	9"	(22.9 cm.).
Max. projection from bulkhead (Model EB)	8¼"	(21.0 cm.).
Max. depth below deck-head (Model ED)	8½"	(21.6 cm.).

#### Weight :

5¼ lb. (2.4 kg.).

#### Frequency Range :

150 - 415 kHz.

#### Output Impedance :

3,000 ohms for use with Homer. Other values can be provided.

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