



# Technical Circular

No.: 044/2016

Date: 21<sup>st</sup> November 2016

## To Whomsoever it may concern

### **Subject: Maintenance and Adjustment of Magnetic Compasses.**

- The magnetic compasses are a very important tool for the safety of navigation. Vessel owners and masters must ensure that magnetic compasses are maintained in good working order, adjusted and a table or curve of residual deviation is available.
- The Australian Maritime Safety Authority has issued Marine Notice No.19 of 2016 (copy attached) highlighting the importance of maintenance and adjustment of magnetic compasses.
- Salient points from the notice are mentioned below.
  - The performance of the magnetic compass should be monitored and deviations to be recorded in a compass deviation book at regular intervals (Ref: IMO Resolution A.382(X)), ideally at least once every watch and also shortly after a large alteration of course.
  - If the observations for a magnetic compass on a vessel show a deviation of the compass on any heading of more than 5 degrees, the compass must be adjusted by a qualified compass adjuster or the master of the vessel to correct the deviation.
  - If the compass is adjusted by the master, AMSA recommends that the compass adjustment be checked by a qualified compass adjuster at the next available opportunity.
  - The rules for testing and certification of magnetic compasses as contained in ISO 25862:2009 recommends that a compass should be adjusted when:
    1. They are first installed;
    2. They become unreliable;
    3. Repairs or structural alterations have been made to the vessel that could affect the permanent or induced magnetism;
    4. Electrical or magnetic equipment close to the compass is added, removed or altered;



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5. They show any physical defects;
  6. If a record of compass deviations has not been maintained, or the recorded deviations are excessive; or
  7. Deemed necessary by the master for the safety of navigation, and no less often than every two years; every dry docking or other significant structural work.
- To ensure a compass is in good working condition, it is important to check performance of magnetic compasses particularly after:
1. Carrying cargoes which have magnetic properties;
  2. Using electromagnetic lifting appliances to load or discharge cargo;
  3. A vessel has been in a casualty where it has been subject to severe contact or electrical charges;
  4. A vessel has been operating on short voyages for a long period of time then relocates, which results in a large change in magnetic latitude; or
  5. A vessel has been laid up or has been lying idle. Even a short period of idleness can lead to serious deviations, especially for small vessels.
- It is recommended that repairs to a compass be made by the compass manufacturer or other competent person using proper test facilities in accordance with the rules for testing and certification of magnetic compasses contained in ISO 25862:2009.
- Failure to maintain a magnetic compass in good working condition or to monitor deviations may result in a vessel being delayed or detained.
- Ship owners/ operators and masters are advised to be guided by above.

**Enclosure:**

1. AMSA Marine Notice No.19/2016 Reg Maintenance and Adjustment of Magnetic Compasses.

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