Compass KI-13K

Purpose

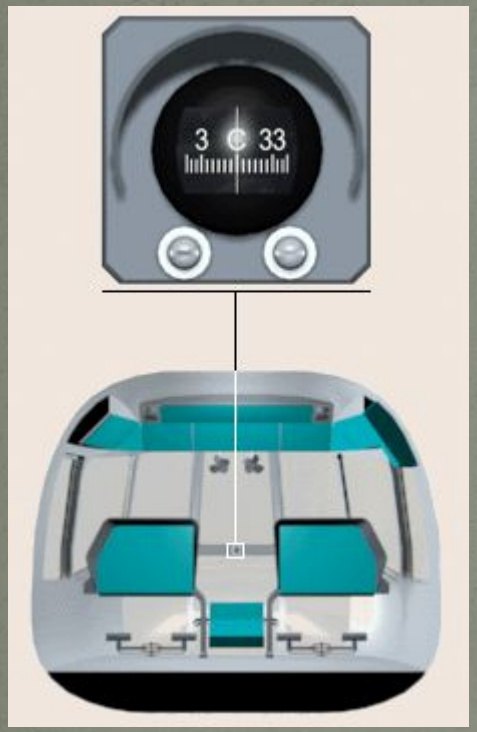
- The KI-13K Magnetic Liquid Aviation Compass is used on the helicopter as a backup device for measuring and maintaining the compass heading.

Operating principle

- The principle of operation of the compass is based on the interaction of the permanent magnets of the compass with the magnetic field of the Earth (the property of a freely suspended system of magnets to be installed in the plane of the magnetic meridian).

- The compass has a sensitive element consisting of two permanent magnets attached to a card. A column with a spring and a thrust bearing is fastened in the case of the compass, against which the core of the card rests. The oscillations of the card are quenched with ligroin embedded in the compass case. Below the compass is mounted a deviation device to eliminate the semicircular deviation.

general information



- The scale of the compass rose is uniform, with a scale of 5 ° and digitization in 30 °. Two main courses "North" and "South" marked respectively, "C" and "U".
- The compass is mounted on the frame of the cockpit lantern. To take into account in-use errors in the readings (residual deviation), a correction table is attached to the compass, which is laid in a cassette attached to the glazing profile of the cockpit.

Basic technical data

- Instrumental scale compass error (without deviating device): ± 1 °
- Stagnation angle of the rose without tapping, no more than: 1 °
- Own compass deviation on courses "C", "90", "South", "270": not more than ± 2.5 °
- The time of complete calming the card in the temperature range: from +50 to -60 ° C is not more than 17 s
- The roll of the helicopter, in which the design of the compass ensures its normal operation: no more than 17 °