

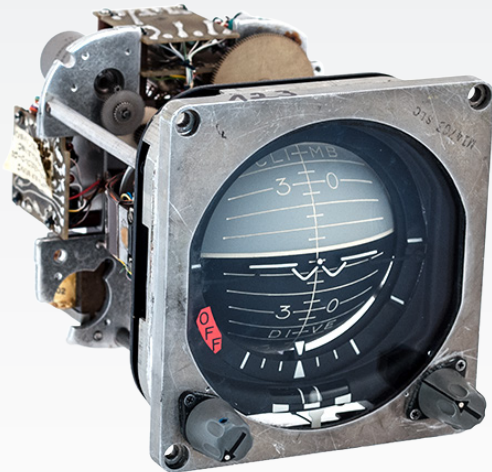
## ARTIFICIAL HORIZON – ALTITUDE DISPLAY

### Intended purpose

The artificial horizon is part of the altitude display system and serves the purpose of displaying the roll and pitch flight position as well as the turning speed of the aircraft. With the turn-and-bank indicator with spirit level which is installed in the artificial horizon, it is possible to complete apparently vertical turns.

### Configuration of the device and technical functionality

The artificial horizon is hermetically sealed and filled with a helium-nitrogen mix. Due to two tracking systems, the attitude indicator is able to move freely on any axis, and displays the roll and pitch position with reference to an aircraft symbol and scale ring. The line of the horizon on the attitude indicator is tracked through electrical signals of the separately installed roll and pitch position gyro with reference to the earth's horizon. To control its attitude indicator, which is able to turn by 360° on both axes, there is a servo amplifier, a synchro and a motor tachometer generator on each axis. The roll and pitch trim switches on the display allow for the compensation of the luggage racks during roll and pitch maneuvers in the normal flight position.



### Services provided by AUTOFLUG

- Servicing and maintenance of the artificial horizon and servo amplifier assembly groups (for example, cleaning and provision of surface protection)
- Repairs (for example, replacement of components in the assembly groups of the attitude indicator and the cradle, the servo amplifier assembly group, the potentiometer R6/R7 or the glass panel)
- Functional checks and tests including evaluation and acknowledgment of test logs
- Planning and purchasing of spare parts
- Obsolescence management

The verification of the device requires the availability of a variety of different testing instruments (note: and facilities such as space, amend description), including:

- Testing instrument
- Digital multimeter
- Analog voltmeter
- Oscilloscope
- Helium filling plant with vacuum bell leak tester
- Heat cabinet
- Climate-controlled and dust-free space