

MAINTENANCE AND REPAIR

Ball bearings must be checked once a year visually and by rotating the sensor shaft. To do this, remove first the cup assembly as instructed below (A1.). The shaft should spin smoothly and should not create any detectable noise.

Replacement of the bearings should be done only by a trained technician. Steps A1 to A15 are for disassembling and steps B1 to B10 are for reassembling. The numbers in parenthesis refer to Figure 3.

- A1.** Loosen the set screw (use allen key) and carefully remove the cup assembly.

CAUTION Be careful with the connector pins, do not bend them.

- A2.** Loosen the hex nut of the green MIL-connector at the bottom of the sensor body (use 22 mm tool).
- A3.** Loosen the three capnuts (1) at the bottom of the sensor body (use 7 mm tool).
- A4.** Remove the body cover and the O-rings (2).
- A5.** Release the connector (3) of two white wires from the power supply board (4).
- A6.** Loosen the three nuts (5) at the bottom of the power supply board (4) and remove it (use 7 mm tool).
- A7.** Loosen the shaft heating foil (6) (use pliers).
- A8.** Loosen the set screw of the rotating transformer assembly (7) (use allen key).
- A9.** Loosen the spacer screws (8) (use 6 mm tool).
- A10.** Remove the sensor board (9) together with the rotating transformer assembly (7).

CAUTION Handle the rotating transformer carefully, do not drop or hit.

- A11.** Remove the retaining ring (10) (use narrow-pointed pliers) and the bushing (11) from the shaft tunnel.
- A12.** Remove the upper bearing (12) after pulling out the shaft.

CAUTION Handle the shaft carefully, do not drop or hit.

- A13.** Remove the retaining ring (13) at the shaft.
- A14.** Remove the lower bearing (14).

For reassembling the sensor:

- B1.** Install the bearings in reverse order.

NOTE Be careful when assembling the bearings.

- B2.** The rotating transformer assembly (7) is reinstalled together with the sensor board (9). Its (7) set screw is not fastened until in step **B7**, when the power supply board has been reinstalled and the gap adjusted.
- B3.** In assembling, push the transformer (7) as far up as possible towards the shaft tunnel.
- B4.** Reassemble the spacer screws (8), the power supply board (4) and tighten the nuts (5).

NOTE Make sure the four pin connector (15) installs properly.

- B5.** For adjusting the gap, place a 1.2 mm feeler gauge between ferrite coils (parts 4 and 7) (preferably use 30 mm wide feeler gauge).
- B6.** Place a screwdriver tip into the slot between the top end of rotating transformer tip assembly (7) and the shaft tunnel, and pry until the air gap between ferrite coils is 1.2 mm (0.047") (use feeler gauge for measuring).

CAUTION The ferrite coils are breakable, do not try to adjust the gap by prising them.

- B7.** When the gap is right, fasten the set screw of the rotating transformer assembly(7).

CAUTION Make sure the rotating transformer assembly rotates freely without touching the lower part at any rotary position of the shaft.

- B8.** Reconnect the shaft heating foil (6) and the connector of two white wires (3).
- B9.** Reassemble the body cover (2) with new O-rings.
- B10.** Tighten the three capnuts (1) and the connector nut.
- B11.** Install the cup assembly as instructed in mechanical section.

Spare parts:

Cup assembly for WAA252
Set of bearings and gasket

Order number:

WA35066
16644WA

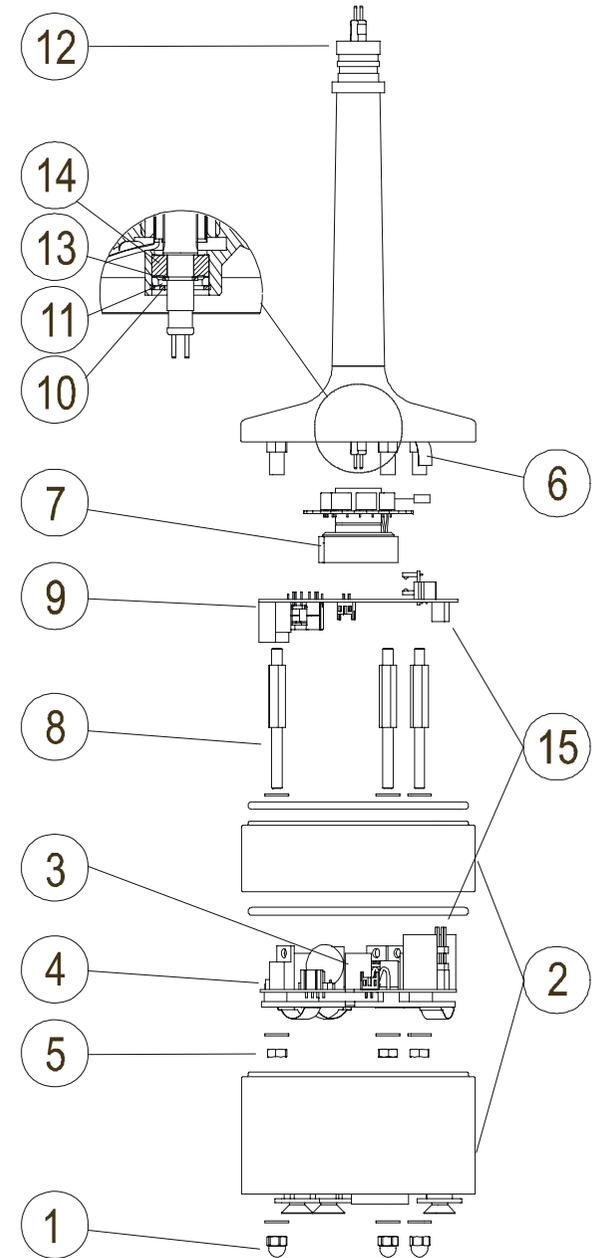


Figure 3 WAA252 Assembly