

Mechanical Speedometer

Operation

Pitot tube type speedometers operate by pressure from the water being forced into the pitot tube. This pressure is then transmitted through flexible tubing to the bourdon tube movement inside the speedometer head where it is converted into a speed reading by the movement mechanism. See Appendix I for speedometer dimensions. Instrument part numbers are located on a label attached to the outside of the case (i.e. SE0000A).

Troubleshooting

Symptom:

Speedometer does not register or sticks during operation - Slightly loosen the nut(s) holding back clamp and check operation. If the speedometer now operates properly and is not loose in panel, it should now provide suitable service.

If the speedometer continues to stick, follow the tubing from the speedometer head to the pitot tube water pickup, checking for any sharp bends or kinks that may be impeding the air flow to or from the speedometer unit. Also check for blockage at the pitot tube inlet hole.

NOTE: Compressed air at *NOT MORE THAN 20 PSI* may be used to check speedometer movement for free operation. This is equivalent to approximately 40 MPH. Due to variation in air gauges, etc., This is not a valid test for accuracy.

If tubing is free of obstructions, water pickup is not restricted, and unit continues to stick in operation, replace the speedometer.

If unit is not registering at all, check for breaks in the tubing and loosened connections at the pitot tube and the back of the speedometer. If loose connections are apparent, remove tubing from the pitot tube or speedometer head respectively, cut back the tubing approximately 1/2 inch with a sharp knife and reattach. No adhesive is recommended due to the fact that it may be introduced into the speedometer movement and cause a malfunction. If speedometer still does not register, replace the speedometer.