

Service Bulletin

SB 4300-XXX-03

Electric Attitude Indicator

4300 Series

Modification 3

Improves mechanical reliability

1. PLANNING INFORMATION

A. Effectivity:

This service bulletin is applicable to 4300 Series Electric Attitude Indicators manufactured by Mid-Continent Instrument Co., Inc. It applies to units manufactured prior to May 2, 2005, serial numbers previous to D05-12182.

B. Reason:

Some units had a tendency to precess in environments with excessive vibration.

C. Description:

This service bulletin replaces the stiffening ring on the horizon pointer assembly with counter balance weights, and replaces the horizon pointer assembly bearing pins located on the roll gimbal.

D. Compliance:

Optional.

E. Approval:

FAA and TSO approval not affected.

F. Manpower:

Approximately 30 minutes extra time required if incorporated into normal overhaul.

G. Material – Cost and Availability:

The parts and materials necessary to accomplish this service bulletin are available from Mid-Continent Instruments, Inc. Refer to Section 3, Material Information for part numbers. Check for current pricing.

H. Tooling:

No special tooling required.

I. Weight and Balance:

No change.

J. Electrical load data:

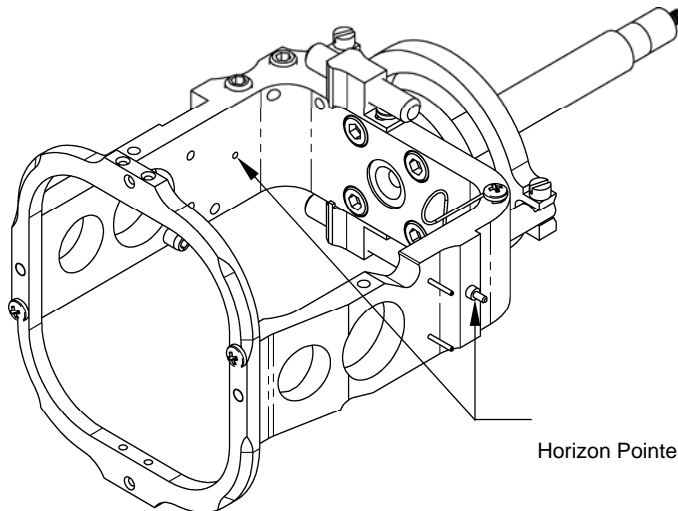
No change.

K. Other Publications affected:

None.

2. ACCOMPLISHMENT INSTRUCTIONS:

- A. Refer to the 4300-XXX Component Maintenance Manual for part locations and disassembly instructions.
- B. Disassemble the unit down to the roll gimbal subassembly. See Figure 1 for identification.
- C. Remove the horizon pointer assembly bearing pins. Heat may be required if the pins are glued in.
- D. Remove any residual glue or foreign debris from the holes.
- E. Apply Loctite 638 to the non-grooved end of the new horizon pointer assembly bearing pins and insert into each side of the gimbal with 0.100" (+.020", -0.0") protruding.
- F. Clean off all excess adhesive and allow the adhesive to cure for 12 hours at room temperature.
- G. Remove the stiffening ring from the horizon pointer assembly and discard.
- H. Assemble the horizon pointer assembly in accordance with the Assembly section of the 4300-XXX Component Maintenance Manual.
- I. Assemble the gyro and perform the tests called out in the 4300-XXX Component Maintenance Manual (page 201, Testing and Fault Isolation).
- J. Using permanent black ink, mark out block 3 on the modification section of the mfg. nameplate.



Horizon Pointer Assembly Bearing Pins

Roll Gimbal Subassembly
Figure 1

3. MATERIAL INFORMATION

Parts:

New P/N	Qty.	Description	Old P/N	Disposition
9016131	2	Pin, grooved	N/A	Discard
9015395	2	Pointer Balance Weight	N/A	Discard
9016135	2	Retaining Ring	N/A	N/A