

Castleberry

Instruments & Avionics, L.L.C.

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May 23, 2007

Subject: Comparison of 510-17() (P/N 504-0017-913 and 504-0017-914) and 900-23EPAR (P/N 504-0027-919) Attitude Gyros for similarity and interchangeability.

TO WHOM IT MAY CONCERN:

Castleberry Instruments & Avionics (CIA) finds after comparison and testing of the two units, that the 900-23EPAR (P/N 504-0027-919) Attitude Gyro is similar to and a direct replacement for the 510-17() (P/N 504-0017-913 and 504-0017-914) Attitude Gyros used in fixed wing aircraft.

I compared for Castleberry Instruments and Avionics the models 510-17() and 900-23EPAR Attitude gyros for similarity and interchangeability.

The CIA Outline Drawings, Master Drawing Lists, Assembly Drawings and Engineering Specifications of the two gyros were used to make the comparisons.

The two gyros are physically similar and mounting requirements are the same. The 900-23EPAR is shorter by 0.423 inches but the panel mounting cutouts of the two gyros are identical. The physical weights of the two are similar.

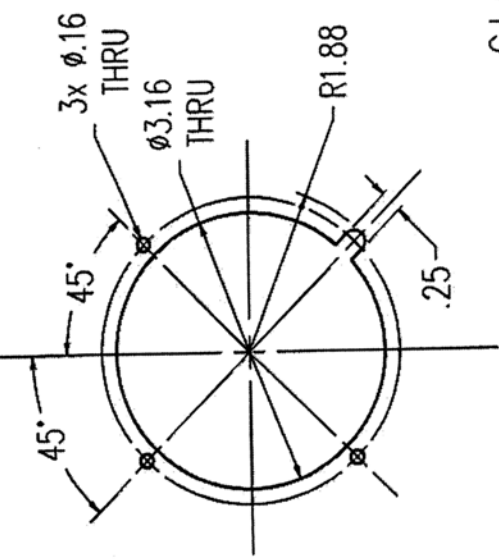
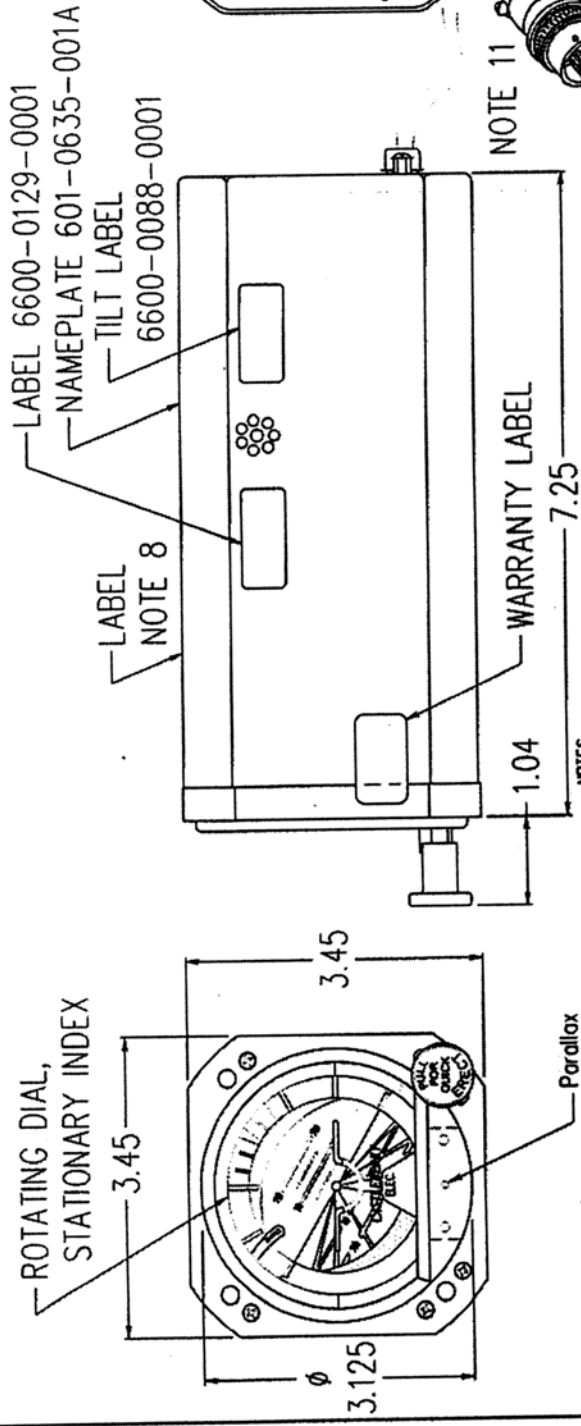
The physical displays of the two units are similar and their functions are identical. The two units were tested and the results compared. The electrical specifications of both units were found to be the same.

Yours Truly,



Loyd M. Higgins
FAA designated
DERT-710123-SW

0041-1054



- NOTES
- CERTIFICATION: UNIT PENDING CERTIFICATION UNDER F.A.A. T.S.D. C.A.C.
 - WEIGHT: 3.5 LB. MAX.
 - POWER REQUIREMENT: 115 V.A.C. 400 Hz., 20 A. STARTING, 18 A. MAX. RUNNING.
 - FINISH: ALL INDICATING GRADUATIONS & NUMERALS MATTE WHITE PER C.I.A. SPEC. 045-0007-021. UPPER HALF OF MASK, DIAL POINTER BAR & "ELECTRIC" BLUE PER 045-0007-008. LOWER HALF BROWN PER 045-0007-029. ROLL INDICATOR & MINIATURE AIRPLANE TIPS BLAZE ORANGE PER 045-0007-023. INDICATOR CENTER DOT ROCKET RED PER 045-0007-004. INDICATOR FLAG ROCKET RED PER 045-0007-004 WITH BLACK LETTERS. SILVER KNOB LETTERS. ALL NON-FUNCTIONAL SURFACES OF BEZEL, DUST COVER & CAGING KNOB MATTE BLACK PER 045-0007-014.
 - LIGHTING: INTEGRAL VEGE LIGHTING. BEZEL GLASS REFLECTION-REDUCING COATING CONFORMS TO MIL-C-14806. Goggles. Specify blue-white lighting when ordering to replace a 510-17A (504-0017-913). Specify red lighting when ordering to replace a 510-17B (504-0017-914).
 - UNIT CONFORMS TO C.I.A. SPEC. 579 FOR HIGH SPEED AIRCRAFT.
 - MOUNTING: REAR-MOUNTED IN SHOCK-MOUNTED PANEL. INSTALLATION SCREWS TO BE 6-32UNC-2A x 1" (4 EACH).
 - LABEL: "CAUTION GYROSCOPE - PLEASE HANDLE WITH EXTREME CARE" P/N 6600-0055-0001.
 - REFERENCE ENGINEERING SPEC. 0043-1047 AND QUALITY ASSURANCE TEST DATA SHEET 0044-1046.
 - INITIAL ERECTION: GYRO SHOULD BE MANUALLY CAGED WITH THE "PULL FOR QUICK ERECTION" KNOB. THE KNOB IS SPRING-LOADED TO PREVENT INADVERTENTLY LOCKING THE GYRO IN THE ERECTION POSITION.
 - HARNES PIGTAIL P/N 8824-1026-0901 IS ATTACHED AS PART OF THE UNIT.
 - Please specify panel tilt and lighting color (blue or red, see note 5) when ordering.
 - Castleberry Instruments & Avionics finds after testing & comparison of 504-0027-919 to the 510-17C that they are similar & a direct replacement for each other. Letter available on-file.

PINOUT	FUNCTION
A	Lighting Ground
B	28v Lighting
C	115v Ground
D	115v 400 Hz.
E	No connection
F	No connection

PROPRIETARY

CASTLEBERRY INSTRUMENTS & AVIONICS, INC. 1000 W. 10TH AVENUE, DENVER, CO 80202

0041-1054		D	
SHOWN DIMENSIONS ARE AS SHOWN		SCALE (APPROX.)	
CASTLEBERRY INSTRUMENTS & AVIONICS		Non-color output	
OUTLINE DRAWING, 900-23EPAR		TYPE	
REV. 1		DATE	
REV. 2		DATE	
REV. 3		DATE	
REV. 4		DATE	
REV. 5		DATE	
REV. 6		DATE	
REV. 7		DATE	
REV. 8		DATE	
REV. 9		DATE	
REV. 10		DATE	
REV. 11		DATE	
REV. 12		DATE	
REV. 13		DATE	
REV. 14		DATE	
REV. 15		DATE	
REV. 16		DATE	
REV. 17		DATE	
REV. 18		DATE	
REV. 19		DATE	
REV. 20		DATE	

C.I.A. LONG PART NUMBER:
504-0027-919

PANEL CUTOUT