



A LEAR SIEGLER COMPANY

Piper Aircraft Corporation

Vero Beach, Florida, U.S.A.

SERVICE No 836

BULLETIN

 * PIPER CONSIDERS *
 * COMPLIANCE MANDATORY *

FAA Approved

Date

May 21, 1986

S/M

SUBJECT:

Aluminum Wire Inspection/Replacement

MODELS AFFECTED:

SERIAL NUMBERS AFFECTED:

- E-2/J-2 Series Cub
- J-3, NE-1, L-4 Series Cub
- J-4 Series Coupe
- J-5, J-5C, L-14, AE-1, HE-1 Series
Cub Cruiser
- PA-11 Cub Special
- PA-12 Super Cruiser
- PA-14 Family Cruiser
- PA-15 Vagabond
- PA-16 Clipper
- PA-17 Vagabond
- PA-18 Super Cub
- PA-19 Pacer
- PA-20 Pacer
- PA-22 Tripacer/Colt
- PA-23-150/160 Apache
- PA-23-235 Aztec
- PA-23-250 Aztec
- PA-24-180/250 Comanche
- PA-24-260 Comanche
- PA-24-400 Comanche
- PA-25-150 Pawnee
- PA-25-235 Pawnee
- PA-25-260 Pawnee
- PA-28-140 Cherokee
- PA-28-150/160 Cherokee
- PA-28-151 Warrior
- PA-28-161 Warrior II
- PA-28-180 Cherokee
- PA-28R-180 Arrow
- PA-28-181 Archer II
- PA-28R-200 Arrow II
- PA-28R-201 Arrow III
- PA-28-201T Turbo Dakota
- PA-28R-201T Turbo Arrow III
- PA-28RT-201 Arrow IV
- PA-28RT-201T Turbo Arrow IV
- PA-28-235 Cherokee
- PA-28-236 Dakota

- All
- All
- All
- 5-01 through 5-1389
- 11-01 through 11-1678
- 12-02 through 12-4036
- 14-01 through 14-523
- 15-01 through 15-388
- 16-01 through 16-736
- 17-01 through 17-215
- 18-01 through 18-8309025
- 19-01 through 19-03
- 20-01 through 20-1121
- 22-01 through 22-9848
- 23-01 through 23-2046
- 27-505 through 27-622
- 27-01 through 27-7954121
- 24-01 through 24-3687
- 24-3642 through 24-6000
- 24-01 through 24-148
- 25-01 through 25-731
- 25-20000 through 25-8056038
- 25-4415 through 25-8156024
- 28-20001 through 28-7725290
- 28-01 through 28-4377
- 28-7415001 through 28-7715314
- 28-7716001 through 28-8216226
- 28-671 through 28-7505259 and 28-E13
- 28R-30001 through 28R-7130013
- 28-7690001 through 28-8290061
- 28R-35001 through 28R-7635545
- 28R-7737001 through 28R-7837317
- 28-7921001 through 28-7921091
- 28R-7703001 through 28R-7803372
- 28R-7918001 through 28R-8118082
- 28R-7931001 through 28R-8131192
- 28-10001 through 28-7710089 and 28-E11
- 28-7911001 through 28-8211013

(over)

ATA: 2400

MODELS AFFECTED: (Cont'd.)

PA-30 Comanche
 PA-31-300 Navajo
 PA-31-310 Navajo
 PA-31-325 Navajo
 PA-31-350 Navajo
 PA-31P Pressurized Navajo
 PA-31T Cheyenne/Cheyenne II
 PA-31-TI Cheyenne I
 PA-32-301T Turbo Saratoga
 PA-34-200 Seneca I
 PA-34-200T Seneca II
 PA-34-220T Seneca III
 PA-36-285 Brave
 PA-36-300 Brave
 PA-36-375 Brave
 PA-38-112 Tomahawk
 PA-39 Twin Comanche
 PA-44-180 Seminole
 PA-44-180T Turbo Seminole

SERIAL NUMBERS AFFECTED: (Cont'd.)

30-02 through 30-2000
 31-228 through 31-511
 31-05 through 31-8012070
 31-7400990 through 31-8012070
 31-5001 through 31-8052153
 31P-03 through 31P-7730012
 31-7400001 through 31-7920094
 31-7804002 through 31-7904057
 32-8024001 only
 34-7250001 through 34-7450220
 34-7570001 through 34-8170092
 34-8133001 through 34-8233205
 36-7360001 through 36-7660135
 36-7760001 through 36-7960078
 36-7802001 through 36-7902051
 38-78A0001 through 38-82A0122
 39-01 through 39-155
 44-7995001 through 44-8195026
 44-8107001 through 44-8207020

COMPLIANCE TIME: At the next regularly scheduled inspection event but not to exceed fifty (50) hours of operation.

PURPOSE: Field reports have been received of corrosion between the aluminum terminal and aluminum wire at the battery positive post, resulting in overheating of the wire due to high electrical resistance. If this condition exists and is left uncorrected, excessive heat build up could result in an electrical fire. Corrosion and resulting high resistance can also occur in the battery to ground, battery to master relay, master relay to starter solenoid, starter solenoid to starter and engine return ground cables.

INSTRUCTIONS:

1. On each affected aircraft locate and identify the following cables:
 - A. Battery to ground
 - B. Battery to master relay
 - C. Master relay to starter solenoid
 - D. Starter solenoid to starter
 - E. Engine return ground cable (engine to airframe)
2. Inspect the cables listed above for the presence of aluminum wire.
3. If aluminum wire is found, replace the affected cable(s) with copper cable(s).

NOTE: Replacement cables for AL-1 wire shall be fabricated of AN-4 copper wire Mil-W-22759/41 and the appropriate terminals listed below. Replacement cables for AL-00 wire shall be fabricated of AN-2 copper wire Mil-W-22759/41 and appropriate terminals listed below.

<u>Stud Size</u>	<u>For AN 4: Copper Terminal</u>	<u>For AN 2: Copper Terminal</u>	<u>Note</u>
1/4	Amp 321671	Amp 51982	
1/4	-	Amp 324034	90°
5/16	Amp 322010	Amp 51982-1	
3/8	Amp 322011	Amp 51982-2	
3/8	Amp 322898	Amp 35249	90°
3/8	Amp 322011	-	60° bend on installation

MATERIAL REQUIRED:

To be determined by inspection.

AVAILABILITY OF PARTS:

Local procurement.

EFFECTIVITY DATE:

This Service Bulletin is effective upon receipt.

SUMMARY:

Please contact your Piper Field Service Facility to arrange for compliance with this Service Release in accordance with compliance time above.

NOTE: If you are no longer in possession of this aircraft, please forward this information to the present owner.