

**TO: HOLDERS OF SA227 COMMUTER CATEGORY SERVICE INFORMATION
MANUALS**

Attached is SA227 Commuter Category Service Letter CC7-SL-053, **Inspect Aileron Spar Outboard Fittings for Cracking**, Issued: June 10, 2013.

There have been limited reports of the RH aileron spar web cracking adjacent to the outboard hinge fitting. M7 Aerospace is requesting operators to do a one-time inspection of the LH and RH aileron spar webs for any cracks in the area of the outboard fitting. Operators are requested to contact M7 Aerospace LLC if any discrepancies are noted.

Please insert the attached revised Service Letter Index pages.





SERVICE LETTER

FLIGHT CONTROLS

SUBJECT: INSPECT AILERON SPAR WEB AT OUTBOARD HINGE FOR CRACKING.

1. EFFECTIVITY:

All SA227-CC/-DC Airplanes.

2. REASON:

There have been limited reports of the RH aileron spar web cracking adjacent to the outboard hinge fitting. M7 Aerospace is requesting operators to do a one-time inspection of the LH and RH aileron spar webs for any cracks in the area of the outboard fitting. Operators are requested to contact M7 Aerospace LLC if any discrepancies are noted.

3. ACTION:

- A. Detail Visual Inspect (DVI*) a 5.0 inch square area on the upper and lower skins adjacent to the outboard aileron hinge fitting location. Look for signs of cracking of the skin, or pulled skin at fastener heads along both internal rib rivet attachment row, and spar rivet attachment rows.
- B. Detail Visual Inspect (DVI*) the aileron spar web immediately either side of the outboard hinge fitting by rotating the aileron to increase visibility of the spar web. Look for cracks emanating out from under the fitting, particularly in the upper and lower spar web radius. (See Figure 1).
- C. If any cracking is found in steps 1 and 2 above, check the same locations at the center and inboard hinge locations..
- D. Report all findings to M7 Aerospace Engineering at MetroTech@M7Aerospace.com or fax to 210-820-8609.

Include photos, or sketch showing crack details, aircraft model and serial number, Total Aircraft Time (TAT), and any known history on the particular aileron.

* NOTE: DVI - Detail Visual Inspection is defined as the following for this inspection.

Inspect using an illumination device (such as circular fluorescent inspection luminaire) which produces a minimum of 100 fc of light intensity at the part surface, and a magnification device (such as the integral magnifier of the aforementioned inspection luminaire) producing approximately 1.5X magnification or greater, examine all surface details of the part, noting any obvious defects.

SERVICE LETTER

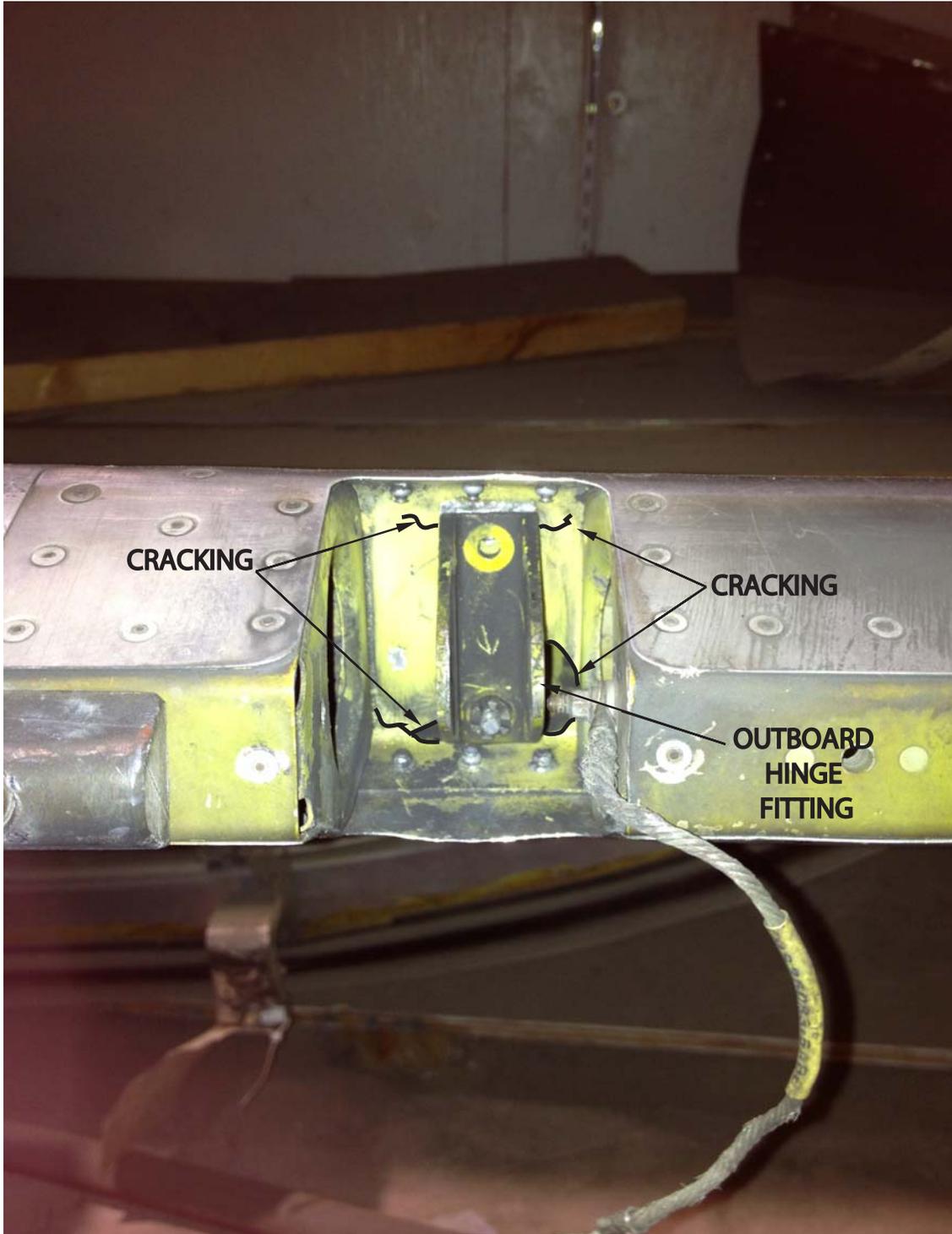


FIGURE 1
EXAMPLE OF SPAR WEB CRACKING



SA227 SERIES COMMUTER CATEGORY SERVICE LETTER INDEX
SA227 SERIES COMMUTER CATEGORY SERVICE LETTER

<u>NO.</u>	<u>DESCRIPTION</u>	<u>DATE</u>
001	TERMINAL STRIP (TS) 14 JUMPER WIRE IMPROVEMENT	(R) 02 03 93
002	ADD DRAIN HOLES TO VERTICAL STABILIZER	10 28 92
003	MODIFICATION OF 27-19308 CABIN SEAT WITH THE COMPLIANCE OF PTC SERVICE BULLETIN 25-1230	10 23 92
004	RELOCATE WIRE NUMBER 206052-10	02 03 93
005	ARM REST RELEASE BUTTON.....	01 15 93
006	CARGO DOOR GAS SPRING ATTACH POINT (FUSELAGE FRAME)	05 12 93
007	27-62085-043 BRACKET	08 30 93
008	ENLARGE WING AFT BELLY SKIN ACCESS DOOR DRAIN HOLES	08 18 93
009	LOW FUEL FLOAT SWITCH SPLICE REPLACEMENT	10 07 93
010	REPLACEMENT OF P/N J416-8SS-5 OR MS24593-8 BLEED AIR CHECK VALVE ..	10 26 93
011	RESCINDED (NOT APPLICABLE TO COMMUTER CATEGORY AIRPLANES).. (R)	01 09 95
012	RETURN PORT, NOSE WHEEL STEERING ACTUATOR	11 08 93
013	REPLACEMENT OF ENGINE OIL INSPECTION DOOR CAMLOCK STUDS	01 27 94
014	ABSC 5007397-1 WHEEL INSTALLATION	08 23 94
015	DE-ICER BOOT MOISTURE REMOVAL	11 23 94
016	NOT ISSUED.....	00 00 00
017	NOT ISSUED.....	00 00 00
018	STARTER/GENERATOR BEARING REPLACEMENT	12 23 94
019	EXTERIOR EXIT MARKINGS	01 29 97
020	EXTERIOR ESCAPE ROUTE	02 21 97
021	BARBER COLMAN PITCH TRIM ACTUATOR - PERFORM ADJUSTMENT - MECHANICAL/ELECTRICAL STOPS FUNCTIONAL CHECK AND NO-BACK FUNCTIONAL CHECK	(R) 02 01 99
022	PILOT SEAT BACK POCKET INTERFERES WITH JUNCTION BOX	04 02 98
023	BARBER COLMAN PITCH TRIM ACTUATOR - AIRSPEED LIMITATION	(R) 09 02 98
024	INSPECTION OF PITCH TRIM ACTUATOR FOR CORRECT INSTALLATION AND FREEDOM OF OPERATION	09 09 98
025	INSPECTION/REPLACEMENT OF (31PSI) PNEUMATIC PRESSURE REGULATOR FOR INCORRECT INLET/OUTLET PORT ORIENTATION	11 24 98
026	LIFE PRESERVER WITH LOCATOR LIGHT FOR FAR, PART 121.2 AND 121.340 REQUIREMENT	12 04 98
027	CANCELLED	(R) 07 06 11
028	DL5040M8 PITCH TRIM ACTUATOR FREEPLAY MEASUREMENT	08 12 99
029	OVERHAUL TIME LIMIT FOR P/N 27-81009 HYDRAULIC POWER PACK	(R) 11 03 99
030	BFGOODRICH P/N 74-451-AC EROSION REPAIR KIT, FOR WING AND TAIL DE-ICE BOOTS	08 25 99
031	INSPECTION/REPLACEMENT/PROTECTION OF FUEL BOOST PUMP WIRE HARNESS FOR CHAFFING CONDITION	(R) 09 25 00
032	NOT ISSUED.....	00 00 00



SA227 SERIES COMMUTER CATEGORY SERVICE LETTER INDEX
SA227 SERIES COMMUTER CATEGORY SERVICE LETTER

<u>NO.</u>	<u>DESCRIPTION</u>	<u>DATE</u>
033	INSPECTION OF PRIMARY FLIGHT CONTROL CABLE TERMINALS FOR CRACKS/PITTING CORROSION	05 29 01
034	INSPECT CARGO DOOR, FORE AND AFT "CLICK-CLACK" RECEPTACLES	03 24 03
035	INSPECTION OF MAIN LANDING GEAR (MLG) TRUNNION BUSHING, P/N 27-51009, ATTACHING HARDWARE FOR LOOSENESS.....	03 27 03
036	INSPECT FOR POSSIBLE CRACKS IN LH/RH FUSELAGE STATION (F.S.) 272 AND 276 FOR MAIN SPAR, F.S. 308 AND 311 FOR AFT SPAR ON CC/DC MODEL AIRPLANES, LOWER BELT FRAMES AND NESTED CHANNELS AT LH/RH STRINGER 10A FEEDTHROUGH.....	06 10 03
037	INSPECTION OF AFT SPAR, AT LOWER AFT STEEL ANGLE FOR CORROSION.....	06 10 03
038	INSPECT FOR CRACKS AND/OR BULGES OF LEFT HAND/RIGHT HAND, INBOARD/OUTBOARD, KEELSON WEB SKIN AT NACELLE STATION (N.S.) 141.69	06 10 03
039	ONE TIME INSPECTION OF UPPER, PITCH TRIM ACTUATOR (PTA) ATTACH FITTING/HARDWARE, FOR CORRECT INSTALLATION.....	02 25 04
040	RELIEF FOR RECENT CHANGE OF SA227 COMMUTER CATEGORY MM, CHAPTER 5, HYDROSTATIC TEST INTERVAL (HTI), FOR P/N 30301100 AND 30300020 FIRE EXTINGUISHER BOTTLES	04 16 04
041	SPECIAL INSPECTION OF FUSELAGE DRAINS AND INSTALLATION OF ADDITIONAL FUSELAGE DRAINS IN ACCORDANCE WITH M7 ENGINEERING DRAWING, 27K22011	12 07 04
042	NOT ISSUED	00 00 00
043	FUEL LEAK CLICK-PATCH REPAIR	03 20 06
044	USE OF THE NAME FAIRCHILD OR M7 AEROSPACE LP	02 20 07
045	INSPECTION AND REPLACEMENT OF FLIGHT CONTROL CABLE, PULLEY GUARD PIN.....	02 06 08
046	INSPECTION OF UPPER AND LOWER ENGINE MOUNT ATTACH FITTING BOLTS FOR CORRECT TORQUE	11 14 08
047	NOT ISSUED.....	00 00 00
048	COCKPIT HEATED WINDSHIELD (P/N 26-21126 AND 27-19442) DAMAGE REPORT.....	(R) 08 31 12
049	INSPECTION OF 16K MAIN LANDING GEAR UPPER SCISSOR LINK LUG BORE.	06 28 11
050	APPH SOLENOID VALVES AND HYDRAULIC POWER PACKS ALERT	(R) 10 08 12
051	DEFECTIVE STANDARD HARDWARE - MS21042 SELF-LOCKING NUTS.....	08 03 12
052	NOT ISSUED.....	00 00 00
053	INSPECT AILERON SPAR WEB AT OUTBOARD HINGE FOR CRACKING.....	06 10 13