

Fairchild (Swearingen) SA226 and SA227 Series Aeroplanes

AD/SWSA226/47 **Hydraulic, Electrical and Oxygen System** **11/85**
Amdt 3

Applicability: All model SA226T, SA226-T (B) and SA226-AT and SA226-TC.

 All model SA227-AT, SA227-TT and SA227-AC.

- Requirement: Para 1 -
- A. Remove both crew seats and gain access to left and right console areas by removing access panels as required.
 - B. Inspect all circuit breakers, wiring, and wire terminals in each console for security, chafing, foreign matter, support or any other unsatisfactory condition.
 - C. Inspect hydraulic tubing, with system pressurised, in both console areas for leaking, chafing, security and evidence of fatigue. Inspect support assemblies for satisfactory condition. Open the hydraulic fluid containment bag to inspect the hydraulic lines.
 - D. Inspect front pressure bulkhead area particularly the brake reservoir vent area, for signs of hydraulic fluid contamination and clean area as necessary.
 - E. Inspect hydraulic system pressure gauge and tubing for security leaking or chafing. Ensure system pressurised.
 - F. Inspect brake master cylinder flexible hoses for security, leaking or chafing with brake system pressurised.
 - G. Check parking brake valve and cable for correct operation and condition.
 - H. Visually check oxygen lines for separation from moving components and for leakage using MIL-L-2556713 leak detector solution or equivalent as specified in Fairchild Maintenance Manual. Minimum clearance between oxygen lines and all moving parts should be at least 2 inches. Give particular attention to the fittings in the vicinity of the cockpit side panels and instrument panel area and the fittings on the oxygen supply line from the oxygen bottle to the cockpit. If leaks are found, prior to further flight correct as necessary. See Fairchild Maintenance Manual for proper maintenance of lines and fittings.
 - I. Ensure that electrical cable looms near rudder pedals have adequate clearance when pedals operated through full range of travel.
 - J. Remove instrument panel glareshield. Inspect condition of wiring, plumbing and equipment behind panel.

SCHEDULE OF AIRWORTHINESS DIRECTIVES

- K. Check instrument panel and subpanels, instrument plumbing, electrical wiring, and components for condition, security of attachment, chafing, kinks and clearance.
- L. Inspect electrical cables in the vicinity of the cockpit side panels for adequate clearance between cables and adjacent components, especially hydraulic and oxygen system components. It is desirable to maintain a 6-inch clearance between oxygen tubing and electrical wires. If this is not possible, fasten all electrical wires securely so that they are not closer than 2 inches to the oxygen tubing. Add additional support or reroute as necessary to prevent wire contact or chafing, which may damage the wire insulation, and clean any contamination from the bundles.
- M. Before further flight, correct all discrepancies and remove any hydraulic fluid contamination found during inspections.

Para 2. Inspect electrical cables and terminals within and below the generator control junction box (J-box), install phenolic insulator on side of J-box and spiral wrap on cables in accordance with Fairchild Service Bulletin SB No 24-021 (SA226) and SB24-03 (SA227).

Para 3. On aircraft models SA226-T s/nos T201 to T287; SA226-AT s/nos AT001 to AT066; SA226-TC s/nos TC201 to TC247, in which MIL-H-5606 hydraulic fluid is used, drain and purge the main hydraulic fluid. Change the placards on both reservoirs to specify MIL-H-83282.

Para 4. On aircraft models SA226-T (S/Nos. T201 to T275, T277 to T291), SA226-AT (S/Nos AT001 to AT074); SA226-TC (S/Nos. TC201 to TC419); SA226-T (B) (S/Nos T(B)276, T(B)292 to T(B)417) modify the hydraulic system in accordance with Fairchild Service Bulletin SB No. 226-29-005 revised 19 July 1985.

Note: inspect condition of cushion clamps when changing hydraulic lines and replace as necessary.

Para 5. On aircraft models SA226-T (S/Nos. T249 to 275, 277 to 291), SA226-AT (S/Nos. AT001 to AT074), SA226TC (S/Nos. TC201 to 397), SA226-T(B) (S/Nos. T(B)276, T(B)292 to T(B)417) modify the oxygen system in accordance with Fairchild Service Bulletin S.B. No. 226- 35-003 Revised 19 July 1985.

Para 6. Inspect "sceet" hoses in side consoles for condition and security, and re-route, repair or replace hoses as necessary in accordance with Fairchild Service Note 226- SN-145 dated 2 July 1985 for the SA226 and Fairchild Service Note 227-SN-052 dated 2 July 1985 for the SA227.

Note: FAA AD 83-19-02 Amdt 39-4728 and FAA AD 84-05-01 Amdt 39-4822 and FAA AD 85-04-01 Amdt 39-5005 refer.

Compliance: Para 1. Within 65 hours time in service after 31 May 1984, unless already accomplished IAW original AD/SWSA226/47, and thereafter at intervals not exceeding 260 hours time in service.

SCHEDULE OF AIRWORTHINESS DIRECTIVES

- a. For aircraft modified in accordance with paras 4 and 5 of the requirements and equipped with anti-skid brake system, the inspections of Para 1 of the requirements are not applicable.
- b. For aircraft modified in accordance with paras 4 and 5 of the requirements and NOT equipped with an anti-skid brake system, only inspection D of Para 1 of the Requirements applies.

Para 2. Within 65 hours time in service after 31 May 1984 unless already accomplished.

Para 3. Within 30 hours time in service after 12 November 1983.

Para 4. Before further flight after 31 December 1985.

Para 5. Before further flight after 31 December 1985.

Para 6. Within 65 hours time in service after 31 December 1985 and thereafter at intervals not exceeding 260 hours time in service.

Note: Compliance with paragraphs 1 to 4 inclusive of the previous issue of this Directive constitutes compliance with paragraphs 1 to 5 only this issue.

Background: This Directive has been further amended to show the latest revision to the Requirement Documents and introduce changes in the applicability. Repetitive inspections of 'sceet' hoses located in the cockpit side consoles has also been included on the recommendation of the aircraft manufacturer as a further measure to preclude the possibility of cockpit fires.