FAIRCHILD

43-7-1 Fairchild (Was Service Note 2 of AD-724-2.) Applies to M-62 Series Aircraft.

At each periodic inspection, examine the wing center-section front and rear spars for wood deterioration and weakened glue joints due to moisture accumulation. (Method of inspection and repair, if necessary, are covered in Fairchild Service Maintenance Bulletin 45-62-1, dated March 10, 1945.)

46-6-3 *See* Gladden Engines.

46-14-1 Fairchild (Was Mandatory Note 5 of AD-724-2.) Applies to Model M-62C Aircraft.

Inspect indexing of fixed pitch wood propeller on engine crankshaft. To reduce possibility of crankshaft failure, fixed pitch wood propeller must be installed in the 90° position (blades at right angles to the crankthrow.)

46-14-2 Fairchild (Was Mandatory Note 4 of AD-724-2.) Applies to Models M-62A3 and M-62A4 Aircraft.

Compliance required immediately.

The aluminum alloy cockpit heat control valve box and valve must be replaced with a valve and box made of ferrous metal at least 0.018-inch thick. If ordinary steel is used, it should be suitably protected against corrosion. In lieu of the foregoing it will be satisfactory to remove the valve box to seal the opening in the firewall with an overlapping sheet of ferrous metal secured with the present bolts and nuts.

(Fairchild Service Bulletin No. 45-62-10 dated July 9, 1945, covers this same subject.)

46-21-1 Fairchild (Was Mandatory Note 6 of AD-702-2; 2 of AD-706-1; 4 of AD-517-2; 5 of AD-535-2; 4 of AD-564-2; 5 of AD-633-2; 5 of AD-600-2; 4 of AD-667-2.) Applies to Model 24 Series Aircraft.

Compliance required at next periodic inspection.

To correct the freezing of the upper and lower universal joints on the landing gear oleo shock struts, install new universal joints, Fairchild P/N 3330 and 3328.

(Fairchild Service Bulletin 46-24-1-A, revised December 23, 1946, covers this same subject.)

46-40-1 Fairchild (Was Mandatory Note 4 of AD-707-2; 3 of AD-706-1; 3 of AD-667-2; 4 of AD-600-2; 4 of AD-633-2; 4 of AD-535-2.) Applies to All Model 24 Series Aircraft.

To eliminate the possibility of engine failure due to air-lock in the fuel system, the fuel tank selector valve should be placarded immediately to specify that fuel be fed from only one tank at a time. This placard should read: "CAUTION. Operate on One Tank at a Time Only."

(Fairchild Service Bulletin No. 44-7-C dated February 10, 1944, covers this same subject.)

46-40-2 Fairchild (Was Mandatory Note 2 of AD-667-2; 3 of AD-633-2; 3 of AD-535-2; 3 of AD-564-2; 3 of AD-600-2.) Applicable to Models 22 and 24 Series Aircraft Serial Numbers 3300 to 3319, Inclusive, and 3350 to 3358, Inclusive, Except Seaplanes.

Compliance required at next 100-hour inspection.

Unless previously accomplished, reinforce the oleo tubes at the piston end by installing sleeve. Fairchild part SK-1636. Sleeve may be attached by using two AN 435-5-4 rivets or by welding through four 5/16-inch holes drilled in the piston tube. All damaged parts should be replaced.

(Fairchild Service Bulletin 40-5, revised July 3, 1945, and 44-6-C dated May 8, 1944, cover this same subject.)

47-7-2 Fairchild (Was Service Note 3 of AD-724-2.) Applies to M-62 Series Aircraft.

At each periodic inspection, determine if any looseness exists in elevator hinge attachments to rear spar of stabilizer. All loose hinges should be tightened. This will necessitate cutting oval shaped openings in the

lower surface of the stabilizer just forward of the rear spar. After nuts are drawn up and safetied the openings should be covered with fabric patches.

(Fairchild Service Bulletin 44-2-C dated January 14, 1944, covers this same subject.)

47-7-3 Fairchild (Was Service Note 4 of AD-724-2.) Applies to M-62 Series Aircraft.

Prior to original certification and at each periodic inspection thereafter, and as otherwise noted, make the following inspections:

(1) Inspect the wing center section bottom surface for cracks. This inspection should be made after each severe landing. Cracks extending into the spar flange area indicate cracked spar flanges and should be investigated very thoroughly.

(2) Inspect the butt ends of the spars to assure that the butt plates are in place and properly attached.

(3) Inspect the strap hinge fittings for looseness. Clearance between the spar webs and hinge plates is not critical as long as the plates are bolted tight to the bushings if the bushings protrude. If bushings are loose, replace.

(4) Inspect the plywood spar webs for checks or cracks. This inspection should always be made after any damage to the landing gear. Cracks other than those parallel to the face grain generally indicate serious damage to the spar web.

(5) Inspect the trailing edge of the wing center section and outer panel over flap area for deterioration due to accumulated moisture.

(6) Inspect the forward face of front spar and belly skin at engine cutout in wing center section for oil soaking and skin separation.

(These inspections and methods of repair are covered in greater detail in Fairchild Service Bulletin 47-62-1 dated January 24, 1947. Owners may obtain copies from Fairchild Personal Planes Division of Fairchild Engine and Airplane Corp., Hagerstown, Md.)

47-7-4 Fairchild (Was Mandatory Note 6 of AD-724-2.) Applies to M-62 Series Aircraft.

Complance required at next periodic inspection.

In order to eliminate the possibility of the control sticks becoming disengaged, both front and rear control sticks should be reworked by drilling through stick and socket, and installing and safetying an AN 393-51 clevis pin. Washer AN 960-10L and cotter AN 380-2-2.

(Fairchild Service Bulletin 44-62-2 dated October 31, 1944, covers this same subject.)

47-7-5 Fairchild (Was Mandatory Note 7 of AD-724-2.) Applies to M-62 Series Aircraft.

Compliance required at next periodic inspection.

In order to eliminate the possibility of foreign objects entering the torque tube, install a boot at the point where the elevator control enters the torque tube in the front cockpit, and where the control stick enters the torque tube bracket in the rear cockpit. Also install cover plates on the sides of the torque tube bracket in the rear cockpit.

(Fairchild Service Bulletin 44-62-5 dated October 10, 1944, covers this same subject.)

47-7-6 Fairchild (Was Mandatory Note 8 of AD-724-2.) Applies to M-62 Series Aircraft.

Compliance required at next periodic inspection.

In order to reinforce the forward attachment of the vertical fin, trim the leading edge as required and install bracket, Fairchild P/N 66317 and either maple filler block, Fairchild P/N SK-2089-1, or blocks, Fairchild P/N 66300-22 and 66300-23.

(Fairchild Service Bulletin 44-62-1 dated October 31, 1944, covers this same subject.)

47-21-1 Fairchild (Was Mandatory Note 7 of AD-707-2 and Mandatory Note 4 of AD-706-1.) Applicable to All Models 24R-46 and -46S, and 24W-46 and -46S Airplanes Not Equipped With Number 3 Terminal Wire.

Compliance required prior to August 1, 1947.

Replace the terminal wire which runs from starter relay to buss bar with a No. 8 wire, AN Spec. AN-J-C-48a, Fairchild P/N FS6108-26.

(Fairchild Service Bulletin 47-24-1 dated January 8, 1947, covers this same subject.)

47-21-2 Fairchild (Was Mandatory Note 8 of AD-707-2 and Mandatory Note 5 of AD-706-1.) Applies to 24R-46 and -46S, and 24W-46 and -46S Aircraft.

Compliance required prior to July 1, 1947.

Replace the landing light fuse with one of 20-ampere capacity.

(Fairchild Service Bulletin 47-24-1 dated January 8, 1947, covers this same subject.)

47-21-3 Fairchild (Was Mandatory Note 9 of AD-707-2 and Mandatory Note 6 of AD-706-1.) Applicable to Models F24W-41A. Serial 373 and Up, and All Models F24W46, F24W46S, F24R46, F24R46A and F24R46S Aircraft.

Compliance required before August 1, 1947.

Inspect forward rudder cable turnbuckles which attach to idler brackets located in lower fuselage truss aft of baggage compartment. Turnbuckles should swivel freely. Turnbuckle eyes with shank bent or filed down or which are otherwise damaged should be replaced. Select an eye which swivels freely in idler bracket and use a clevis bolt of sufficient length to prevent binding. If shank of eye is bent, check alinement of rudder cable.

(Fairchild Service Bulletin No. 47-24-2 dated April 22, 1947, covers this same subject.)

47-50-9 Fairchild Applies to 24R and 24W Series Aircraft.

Inspection required each 100 hours of operation.

Inspect the landing gear fittings near the lower longeron attachment and also the fuselage fittings for cracks. Cracks in the strut not exceeding ⅛ inch in length may be repaired by electric arc welding. Cracks in excess of ⅛ inch in length should be stop drilled and oxyacetylene welded, and the landing gear strut should be re-heat-treated to 180,000 pounds per square inch.

(Fairchild Service Bulletin No. 41-8 dated June 23, 1941, covers this subject.)

48-45-1 Fairchild Applies to All M-62 Series Aircraft.

Compliance required at each annual inspection.

(1) Inspect plywood butt plates for separation from wing spar ends. Remove only if loose and inspect spar end for rot which requires repair or replacement. Separation of spar laminations does not require replacement if the glue joints between spar webs and caps are sound. Glue new butt plates to spar ends working glue into any cracks between laminations.

(2) Cut a total of sixteen ½-inch diameter inspection holes in wing lower skin. These should be centered at the front edges of both spars at four approximately equally spaced sparwise stations in each outer panel. Use caution to avoid cutting the spars and ribs. Inspect spars for rot and separation of the plywood webs from the caps. Deteriorated parts should be scrapped or repaired. Dope fabric patches over holes.

(3) Provides ¼-inch drain holes in lower skin with centers not more than ¼ inch from front face of spars and from outer edge of each rib wherever holes are missing or have greater spacing. Clean out all dirt built up above edges of holes to insure complete drainage. Install seaplane grommets at all drain holes in areas splashed by water from landing wheels.

This supersedes AD 48-7-4.

54-12-2 *See* McCauley Propellers.

58-25-3 Fairchild Applies to All Model F-27 Aircraft.

Compliance required as indicated.

Due to recent report of loss of wing-to-fuselage fairing P/N 27-100102-1 and 27-100103-1 on Fairchild F-27 in flight, a daily inspection of wing-to-fuselage fairing both right and left should be made pending investigation for permanent fix. Inspect for evidence of cracks or looseness around screws and grommets. If either evident, install AN970-3 washer and use washer head screw P/N AN525-10R9 in place of AN509-10R9. Caution should be used not to overtighten screws as cracks may develop.

58-26-3 Fairchild Applies to All F-27 Aircraft.

Compliance required as indicated.

A number of failures of the Westinghouse P/N 903J826, 903J826-2, 903J826-3 a.c. deicing generators have occurred in service. These generators have been replaced by an improved generator, J/N 903J826-4.

Inspect Westinghouse P/N 903J826-4 at the first removal or by 500 hours, whichever comes first, to determine that the bearing support in the mounting bracket is secure with no evidence of looseness or failed rivets.

(Fairchild Service Bulletin 24-1 cover this same subject.)

59-5-3 Fairchild Applies to F-27 Aircraft Serial Numbers 1 Through 11, 14 Through 23, and 27 Through 35.

Compliance required as indicated.

A number of malfunctions of Bendix 38E09-3B, 38E09-3C and 38E09-3D deicer shutoff and regulating valves have occurred. These malfunctions have been traced to corrosion of the pilot valve assembly. New valves Bendix P/N 38E09-4E have been designed to eliminate this malfunction, however, until new valves are available, the following must be accomplished:

(1) A functional performance check of the pneumatic wing deicing system must be performed prior to each flight into known or suspected icing conditions to ascertain that the pneumatic deicing system is performing satisfactorily.

(2) At next inspection period, but not to exceed 100 hours, and every 100 hours thereafter remove Bendix shut-off and regulating valves, P/N 38E09-3B, 38E09-3C and 38E09-3D, whichever type is installed, from left and right nacelles. Remove pilot valve cap, valve assembly and push rod and inspect for corrosion. Remove any signs of corrosion and apply a light coat of DC-7 Dow-Corning Compound or equivalent to valve assembly and push rod. Reinstall valves in aircraft.

(3) Not later than June 1, 1959, replace valves P/N 38E09-3B, 38E09-3C and 38E09-3D with valve P/N 38E09-4E. When this has been accomplished, the function check and inspection covered by items (1) and (2) can be discontinued.

(Fairchild F-27 Service Letter F27-93 dated January 20, 1959, and Service Bulletin 30-2 dated January 20, 1959, revision 1 dated March 5, 1959, cover this same subject.)

This supersedes AD 59-3-1.

59-12-1 Fairchild Applies to All F-27 Series Aircraft Equipped With the Heater System.

Compliance required by July 15, 1959, and every 100 hours thereafter until forthcoming permanent fix is incorporated.

(1) An incident has been reported in which a loose "B" nut on the fuel line connection to the combusion heater fuel control unit caused fuel to leak out around the shroud. In order to preclude possibilities of leakage at the heater fuel system fittings, remove and retain shroud assemblies, P/N 27-774575-1, attached to tube assemblies, P/N's 27-683051-151 or -251 and 27-774512-11, connected to fuel control assembly, P/N 43C80. Also remove and retain shroud assembly, P/N 27-774575-1, attached to opposite end of tube assembly, P/N 27-774512-11, connected to heater assembly, P/N 49C65.

(2) At locations where shrouds were removed, inspect and determine that fittings of tube assemblies are torqued to proper values and no evidence of fuel leakage exists. Torque fittings of tube assembly, P/N 27-774512-11 to 135 in. lbs. min.—150 in. lbs. max., and tube assembly P/N 27-683051-151 or −251 to 40 in. lbs. min.—65 in. lbs. max.

(3) Operate heater to determine that no evidence of fuel leakage exists at tube assembly connections to fuel control and heater assemblies and reinstall shroud assemblies.

(Fairchild F-27 Service Bulletin No. 21-48 dated April 22, 1959, covers this same subject.)

59-18-5 Fairchild Applies to All F-27 Series Aircraft Equipped With the Heater System.

Compliance required not later than October 15, 1959.

(a) In order to provide drainage of possible leakage at the heater fuel line fittings, remove three shroud assemblies, P/N 27-774575-1, attached to tube connections at top of heater fuel control, P/N 43C80, and heater P/N 49C65. Modify shroud assemblies by punching one (1) 1/8-inch diameter hole in side of shroud $1\frac{13}{64}$ inches from top.

(b) Remove fuel control drain tube assembly, P/N 27-774554-11 or -51, whichever installed.

(c) On airplanes Nos. 1 to 6 inclusive, drill 5/8-inch diameter hole in bottom fuselage skin between stringers Nos. 102 and 103, 2½ inches aft of Station 731, and install AN 931-6-10 grommet removed from former location of drain line. Install flush skin patch over former drain hole location in accordance with Chapter 51-7 of F-27 Structural Repair Manual.

(d) On all affected airplanes, install new drain tube assembly, P/N 27-774750-11 in place of 27-774554-11 or -51.

(e) Install modified shroud assemblies, using three each new half clamp assemblies, P/N 27-774749-11, half clamp P/N 27-774749-3, bolt P/N AN 3-3A, and nuts P/N MS 20365-1032.

(f) Install one each new hose, P/N 27-774094-3 and -5 between heater fuel control shrouds and drain tube and P/N 27-774094-7 between heater shroud and drain tube, using six new clamps, P/N AN 737RM22.

(g) Install two new plates, P/N 27-774749-9, on the heater fuel control unit, and four new clamps, P/N AN 742-8, two on the plates at the fuel control unit to support 27-774094-3 and -5 hose and two on the flanges of the fuselage former at Stations 730 and 731 to support 27-774094-7 hose. Use four each new screws P/N AN 525-10R6, and nuts P/N MS 20365-1032.

(Fairchild F-27 Service Bulletin No. 21-49 dated June 12, 1959, covers this same subject.)

Compliance with AD 59-12-1 no longer required after compliance with this directive.

59-23-3 Fairchild Applies to F-27 Series Aircraft Serial Numbers 1 To 63 Inclusive.

Compliance required not later than December 1, 1959.

(a) The present cartridge unit in the fire extinguisher system has been found to be unreliable above 20,000 feet. Modified cartridge units must therefore be installed to insure reliability above 20,000 feet.

(b) Remove four Fenwal fire extinguisher cartridge units, P/N 690202-2, attached to main and reserve fire extinguisher bottles located in left and right nacelles, and replace with new Fenwal fire extinguisher cartridge units, P/N 690202-3.

(Fairchild F-27 Service Bulletin No. 26-1 covers this same subject.)

60-1-4 Fairchild Amdt. 81 Part 507 Federal Register January 16, 1960. Applies to All Models F-27, F-27A, and -27B Aircraft.

Compliance required by January 15, 1960.

Cases of "rudder walk" have been experienced on aircraft in service. Such rudder oscillation creates a flight hazard. In order to correct or prevent this condition, unless already accomplished, a beaded angle should be added to the rudder balance tab trailing edge in accordance with Fairchild Service Bulletin 27-14.

60-3-3 Fairchild Amdt. 94 Part 507 Federal Register January 29, 1960. Applies to Models F-27, F-27A, and F-27B, Serial Numbers 1 To 64 Inclusive.

Compliance required by February 15, 1960.

As a result of investigation of loose rivets in the rudder and elevator tension regulator assembly, P/N 0501101-0 or 0501101-1, the following must be accomplished:

Replace "Cherry" rivets attaching the elevator bellcrank to tension regulator assembly with bolts, P/N 27-720003-9.

Assemblies already modified by replacing the "Cherry" rivets with AN 470DD rivets are acceptable. However, further use of AN 470DD rivets in this assembly is prohibited due to the difficulty of installing these rivets without seriously damaging the bellcrank. If AN 470DD rivets are replaced or removed, they shall be replaced with bolts, P/N 27-720003-9. (Fairchild Service Bulletin No. 27-16, revised September 8, 1959, covers this subject.)

60-5-1 Fairchild Amdt. 109 Part 507 Federal Register March 2, 1960. Applies to Models F-27, F-27A, and F-27B, Serial Numbers 1 to 65 Inclusive.

Compliance required by April 15, 1960.

As a result of investigation of loose rivets in the rudder torque tube assembly, the following shall be accomplished:

Replace all "Olympic" rivets with "Huck" lockbolts, P/N BL-8-3, in rudder torque tube assembly, P/N 727413-1, where the ends, P/N 27-727414-3 and 27-727415-3, are secured to the tube, P/N 27-727424-3. (Fairchild Service Bulletin No. 27-15, revised September 8, 1959, covers this subject.)

61-4-3 Fairchild Amdt. 253.

Superseded by AD 62-1-1.

61-10-3 Fairchild Amdt. 284 Part 507 Federal Register May 11, 1961. Applies to All F-27 Series Aircraft With Dowty Main Landing Gear Outer Cylinders P/N 2.00020.609 or E9010Y3, Having 3,500 or More Hours' Time in Service.

Compliance required as indicated.

Due to failures of main landing gear outer cylinder torque link attach lugs, to which the upper torque link Dowty P N C9027Y3 is attached, the following measures are required pending the development and installation of an FAA approved modification of the affected part.

(a) Within the next 25 hours' time in service, unless already accomplished within the last 125 hours' time in service, and every 150 hours' time in service thereafter, inspect for cracks in the vertical radii on the inboard and outboard sides of the main cylinder lug using dye penetrant method or equivalent.

(b) Conduct a daily visual inspection for cracks in the affected area.

(c) If cracks are found the following limitations apply:

(1) A crack that can be removed by sanding with fine emery cloth and not remove more than 0.025 inch in material depth must be removed prior to further flight. Smooth after sanding with crocus cloth being sure not to leave any vertical marks.

(2) If any crack greater than 0.025-inch deep is found that cylinder must be replaced prior to further flight.

(Fairchild Alert Service Bulletin 32–41A dated April 5, 1961, covers this subject.)

This directive effective May 16, 1961.

61–12–3 Fairchild Amdt. 295.
Superseded by AD 62–17–5.

61–15–2 Fairchild Amdt. 308 Part 507 Federal Register July 13, 1961. Applies to All F–27 Series Aircraft.

Compliance required as indicated.

Because of cases of failure of the gimbal nuts in the wing flap actuating screwjacks which render the gimbal nuts unsafe for further use, the following shall be accomplished:

(a) Until such time as the wing flap gimbal support installation is modified and new gimbal nuts are installed in accordance with Fairchild Service Bulletin No. 27–28 or equivalent, the following inspections shall be made within 100 hours' time in service since last inspected per Amendment 66, AD 59–26–4 and every 100 hours' time in service thereafter.

(1) Check flaps for proper rigging in accordance with F–27 Maintenance Manual, Chapter 27, Subject 5, making sure that no preload exists between the inboard and outboard screwjack of each inboard and outboard flap. Lower flaps to approximately 16½ degrees position. Move flap up and down at the trailing edge and measure or sense with fingers for radial or linear play between screwjack and gimbal nut. If relative movement between the screwjack and gimbal nut exceeds 0.010 inch radially or linearly, the gimbal nut must be removed from the screwjack and the threads visually inspected for damage. Any indication of thread extrusion or roll calls for immediate replacement. If relative motion between the screwjack and the gimbal nut exceeds 0.030 inch linear or 0.045 inch radial, the gimbal nut must be replaced.

(2) Conduct visual inspection for freedom of movement and lubricate all inboard and outboard wing flap gimbal nuts P/N 27–165012–3, –4, –5, –6; P/N 27–175023–3, –4; bushings P/N 27–165013–3, and spindles P/N 27–175017–21, 27–175022–3, 27–165011–21, 27–165023–21.

(b) When the wing flap gimbal support installation is modifed and new gimbal nuts are installed in accordance with Fairchild Service Bulletin 27–28 or equivalent, the inspections specified in paragraphs (c) and (d) shall be accomplished.

(c) Either the (c)(1) or (c)(2) inspection and lubrication procedures must be accomplished. The specified time period for compliance shall commence either at the time the modifications specified in paragraph (b) are incorporated or at the time of the last inspection per paragraph (a).

(1) Every 125 hours' time in service, conduct an inspection per (c)(3) and lubricate all inboard and outboard wing flap gimbal nuts and screwjacks with grease, ANDEROL L–736 or equivalent, and lubricate universal joints and spindle gimbal nut bushings with oil, Spec. MIL–L–15016.

(2) Every 150 hours' time in service, conduct an inspection per (c)(3). Every 75 hours' time in service, lubricate all inboard and outboard wing flap gimbal nuts and screwjacks with grease, ANDEROL L–736 or equivalent, and lubricate universal joints and spin-

dle gimbal nut bushings with oil, Spec. MIL–L–15016. (Correction effective August 19, 1961.)

(3) Lower flaps to 16.5° position and move flaps up and down at the trailing edge and check for axial and radial play between the screwjacks and gimbal nuts. If the relative motion betwen the screwjacks and gimbal nut exceeds the values listed below, the gimbal nut must be replaced prior to further flight except ferry flight in accordance with the provisions of CAR 1.76. Also, visually check the gimbal nuts in place on the aircraft for indications of thread extrusion or roll. If thread extrusion or roll is found, the gimbal nut must be replaced prior to further flight except ferry flight in accordance with the provisions of CAR 1.76.

Gimbal Nut	Axial	Radial
	Inch	*Inch*
P/N's 27–165012–9, –10, –13, –14	0.035	0.030
P/N's 27–165012–17, –18	.050	.045
P/N's 27–175023–5, –6	.035	.030

(d) Every 600 hours' time in service after the modifications specified in paragraph (b) have been accomplished, the gimbal nuts must be removed from the screwjacks and visually inspected for damage. If thread extrusion or roll is found, the gimbal nut must be replaced prior to further flight except ferry flight in accordance with the provisions of CAR 1.76.

(e) Upon request of the operator, an FAA maintenance inspector, subject to approval of the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for such operator. (Effective September 6, 1961.)

(Fairchild Service Bulletin 27–18A dated October 27, 1959, partially covers the subject of paragraph (a) and Fairchild Service Bulletin 27–28 Revision No. 2 dated May 3, 1961, covers the subject of paragraphs (b), (c), and (d).)

This supersedes AD 59–26–4.

This directive effective July 13, 1961.

61–15–3 Fairchild Amdt. 312.

Superseded by AD 62–4–1.

62–1–1 Fairchild Amdt. 383 Part 507 Federal Register January 9, 1962. Applies to Walter Kidde Company Chemical Drier Housings, P/N 890395 and P/N 890800–0001, Used on F–27 Series Aircraft.

Compliance required as indicated.

It has been determined that Walter Kidde Company Chemical Drier Housing, P/N 890395, is subject to cycling failure at a time limit lower than originally established by the manufacturer. Accordingly, the following shall be accomplished:

Chemical Drier Housing, P/N 890395, shall be removed from service at each 2,000 hours' time in service, or 2 years, whichever occurs first.

Chemical Drier Housing, P/N 890800–0001, may be installed as a replacement for P/N 890395. This replacement housing shall be removed from service at each 4,300 hours' time in service.

All housings shall be visually inspected at each cartridge change during their service life. If cracking, distortion or corrosion is evidenced, remove the housing for a detail inspection. If cracks or distortion are found in either the housing tube or end caps, or if corrosion is found in the threaded areas, the entire unit shall be replaced prior to further flight. Any surface corrosion, other than in the threaded areas, may be removed provided the wall thickness is not reduced below the following:

P/N 890395: 0.160 inch.

P/N 890800–0001: 0.206 inch.

After the removal of corrosion, clean the surface and apply a corrosive resistant finish.

(Fairchild Aircraft and Missiles Division Service Bulletin No. 36–6, Revision 1, covers this same subject.)

This supersedes AD 61–4–3.

This directive effective January 9, 1962.

62–4–1 Fairchild Amdt. 399 Part 507 Federal Register February 17, 1962. Applies to All F–27 Series Aircraft.

Compliance required as indicated.

Due to the failure of several main landing gear drag strut attaching bolts, the following is required on aircraft having accumulated 300 or more landings. (It will be necessary

for operators to maintain a record of landings in order to ascertain compliance with this AD. If past records are unavailable, the number of landings prior to this AD may be estimated.)

(a) Within the next 50 landings after effective date of this AD unless already accomplished within the past 100 landings:

(1) Remove the bolts, Dowty P/N's 9017Y11 and 9027Y7, and inspect for cracks, using magnetic particle or dye penetrant methods, or FAA approved equivalents. Cracks emanate from the center grease hole and progress around the bolt circumference. Replace cracked bolts prior to further flight either with the original type bolts, nuts, and washers, or the following:

(i) For the upper bolt, P/N 9017Y11, substitute any one of the following or FAA approved equivalent: Dowty bolt, P/N 200021.064; NAS 630–38 bolt with one NAS 143–10C washer under the bolt head, one NAS 143–10 washer under the nut, and an AN310–10 or AN320–10 nut; or Dowty bolt P/N 200021.267, with lock plate P/N 200021.255, washer P/N BS/SP13–Q, and nut P/N A.103–LS. Dowty lock plate P/N 200021.255 must be connected to Fairchild P/N 27–502033–11 with an AN 173–11A bolt and an AN365–1032 nut as shown in Fairchild Service Bulletin 32–44 revised January 23, 1962, or FAA approved equivalent. Where an NAS 630–38 bolt is not available, longer NAS 630 bolt lengths may be used, with NAS 143–10 washers under the nut, provided proper clearances are maintained.

(ii) For the lower bolt, P/N 9027Y7, substitute either of the following, or FAA approved equivalent: Dowty bolt, P/N 200042.627, with washer P/N BS/SP16–Q, nut P/N SP878–2, bushing P/N 200021.347, grease adapter P/N 200021.348, nipple P/N MS15001–1 and split pin P/N BS/SP.9C10 or cotter pin P/N AN381–4–22, installed in accordance with Fairchild Service Bulletin No. 32–44, revised January 23, 1962; or NAS 632–60 bolt with one NAS 143–12C washer under the bolt head and an AN310–12 or AN320–12 nut. Where an NAS 632–60 bolt is not available, longer NAS 632 bolt lengths may be used with NAS 143–12 washers under the nut provided proper clearances are maintained.

(2) Drill a 0.141-inch diameter hole for a cotter pin in the NAS bolts listed in (a)(i) and (ii). Coat each NAS bolt with MIL–G–3278A grease before installing, and tighten nut to fit snug.

(b) Oil NAS bolts daily with SAE 20 motor oil without removing.

(c) If NAS bolts are installed inspect using the magnetic particle or dye penetrant methods or FAA approved equivalents, and regrease every 300 landings from the date of installation. Replace cracked bolts in accordance with (a)(1).

(d) If no cracks are evident in the existing bolts, P/N's 9017Y11 and 9027Y7, they may be reinstalled. Thereafter, remove and inspect the bolts per (a)(1) at intervals of 150 landings from the date of reinstallation.

(e) If Dowty bolts, P/N 200021.064, or new original bolts, Dowty P/N 9017Y11 or 9027Y7 are used, further inspection is not required until the bolts have accumulated 300 landings. Thereafter, remove and inspect the bolts for cracks, using the magnetic particle or dye penetrant methods or FAA approved equivalent at intervals of 150 landings. Replace cracked bolts in accordance with (a)(1).

(f) If Dowty bolts, P/N 200021.267, are used, inspect bushing P/N 27–502046–3 or FS–10381410–77 whichever is installed in the nacelle fitting P/N 27–502033–11, and the drag strut bushing P/N D7761Y7. (Effective March 16, 1962.) If the bushing-bolt clearance does not exceed 0.004 inch, subsequent inspection of the bolts for cracks using the magnetic particle or dye penetrant methods or FAA approved equivalents shall be within 3,000 landings and every 300 landings thereafter. Replace cracked bolts in accordance with (a)(1). The bushings are to be inspected at each bolt inspection. If bolt-bushing clearance is more than 0.004 inch but less than 0.006 inch subsequent inspection of the bolts and bushings shall be within each 300 landings until the bushings are replaced. After replacement of the bushing the next repetitive inspection of the bolts and bushings shall be within 3,000 landings after installation of the bolts and thereafter within each 300 landings. Whenever the bushing-bolt clearance exceeds 0.006 inch replace the bushing prior to further flight except ferry flight in accordance with the provisions of CAR 1.75.

Replace bushings with a bushing of the same part number or FAA approved equivalent.

(g) If Dowty bolts P/N 2.00042.627 are used, inspect bushings P/N 2.00021.347 and D9027Y8 which are installed in the drag strut fitting P/N 2.00021.345 or C9017Y9. (Effective March 16, 1962.) If the bushing-bolt clearance does not exceed 0.0035 inch subsequent inspection of the bolts for cracks using the magnetic particle or dye penetrant methods or FAA approved equivalents shall be within 5,000 landings and every 300 landings thereafter. Replace cracked bolts in accordance with (a) (1). The bushings are to be inspected at each bolt inspection. If bolt-bushing clearance is more than 0.0035 inch but less than 0.006 inch subsequent inspection of the bolts and bushings shall be within each 300 landings until the bushings are replaced. After replacement of the bushing the next repetitive inspection of the bolts and bushings shall be within 5,000 landings after installation of the bolts and thereafter within each 300 landings. Whenever the bushing-bolt clearance exceeds 0.006 inch replace the bushing prior to further flight except ferry flight in accordance with the provisions of CAR 1.75. Replace bushings with a bushing of the same part number or FAA approved equivalent.

Upon request of the operator, an FAA maintenance inspector, subject to prior approval of the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for such operator.

(Fairchild Service Bulletin 32–44, revised January 23, 1962, covers this subject.)

This supersedes AD 61–15–3.

This directive effective February 17, 1962.

62–17–5 Fairchild Amdt. 471 Part 507 Federal Register August 1, 1962. Applies to All F–27 Series Aircraft.

Compliance required prior to the accumulation of 4,000 hours' time in service of the elevators and thereafter at intervals not exceeding 700 hours' time in service from the last inspection.

(a) On elevators incorporating Modification No. 1 in accordance with Fairchild Drawing 27–220001–91, –101, –111, –131, –141, –151, –181, –191, –231, or –241, accomplish the following:

(1) Remove the bottom cover at the outboard hinge, Station 156.65. Using a mirror and light, inspect the structure on the forward side of the middle spar in the area of the outboard hinge bracket for cracks in the spar web, cracks in the upper and lower flange radii of the spar, and cracks in the two adjacent ribs at their attachment to the forward side of the middle spar.

(2) Remove the plugs or buttons from the three holes in the bottom skin adjacent to the outboard hinge. Using a borescope or equivalent, inspect for cracks in the middle spar, cracks in the two ribs adjacent to the hinge at their attachment to the aft side of the middle spar, and for cracks in the channel aft of the hinge.

(b) Replace cracked parts with new parts or repair in accordance with FAA Engineering approved methods.

NOTE: Inspections on elevators with Modification No. 2 in accordance with Fairchild Drawing 27–220001–251, –261, –271, or –281 are not required.

(c) Upon request of an operator, an FAA maintenance inspector, subject to prior approval of the Chief, Engineering and Manufacturing Branch, FAA Eastern Region, may adjust the repetitive inspection intervals specified in this AD to permit compliance at an established inspection period of the operator if the request contains substantiating data to justify the increase for such operator.

(Fairchild Service Bulletin No. 27–21 revised May 26, 1962, covers this subject.)

This supersedes AD 61–12–3.

This directive effective August 1, 1962.

62–27–5 Fairchild Amdt. 524 Part 507 Federal Register December 28, 1962. Applies to Model F–27 Aircraft Serial Numbers 2 to 95 Inclusive.

Compliance required within the next 1,000 hours' time in service after the effective date of this AD.

In order to preclude the loss of DC power to

the primary DC bus in the event of failure of the forward primary bus relay, and the loss of AC power to certain engine instruments in the event of loss of the 115 26V instrument transformer, the following, or an equivalent approved by Chief, Engineering and Manufacturing Branch, FAA Eastern Region, New York, shall be accomplished:

(a) Modify the DC electric distribution system to provide an alternate means of connecting the primary bus to the No. 2 electrical panel battery-generator feeder bus by installing one auxiliary forward primary bus relay, Cutler Hammer P/N 6041H172 in parallel with the existing forward primary bus relay. The control circuit for this auxiliary relay shall be made independent of the control circuit for the existing primary bus relay by connecting it to the flight emergency bus through an added 5-ampere circuit breaker and through a separate pair of contacts in the load monitor switch, P/N MS 35059-22.

(b) Modify the AC electric distribution system to provide an alternate means of supplying 26V electric power to the AC engine instruments by installing one Eclipse-Pioneer instrument transformer type DW-73-A1 and one selector switch P/N MS 35059-23 which will provide for selection of either one of the two instrument transformers.

(Fairchild Service Bulletin 24-9 Revision No. 1, dated June 11, 1962, covers this same subject.)

This directive effective January 29, 1963.

FORNEY

(*See Air Products*)