VIKING – Temporary Revision

PSM NO.: 1–6–7 **AIRCRAFT:** DHC-6 **SERIES:** ALL

PUBLICATION: Inspection Requirements Manual **TEMPORARY REVISION NO.:**162

Insert pages 1 and 2 of this TR in Basic Inspection – 27, facing page 3
Insert pages 3 and 4 of this TR in Basic Inspection – 27, after page 19

BASIC INSPECTION 27

This Temporary Revision has been approved under the authority of the Design Approval Organization, DAO #04-V-02.

Date 16 APR 2015 Signed Y. YAN DER 08

REASON FOR ISSUE:
To include inspection for rudder pedal cracking and Figure 2 to show typical cracking on the rudder pedals.

ACTION:
In Basic Inspection 27, ignore existing page 2 and insert revised page, as shown on page 2 of this Temporary Revision.

In Basic Inspection 27, insert Figure 2 after page 19, as shown on page 3 of this Temporary Revision.

— Continued overleaf —

RECORDING INSTRUCTIONS:
Record this Temporary Revision No. and the relevant information in the appropriate columns of the TEMPORARY REVISION INDEX provided at the front of the manual.

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
2.	Rudder Torque Tube and Quadrants	Condition and security; linkage and push rod installations for security. (Card 15–10)					X		X		X		X		X		X
2.a.	Rudder Torque Tube and Quadrants - Gust Lock Control **Airworthiness Directive T.C. CF-90-01**	Condition and proper operation; brackets and connecting rods for cracks, buckling and security. **Note** **Refer to Service Bulletin No. 6/508 and A.D., if applicable.** (Card 15–11)					X		X		X		X		X		X
						or Every 2 years whichever occurs first											
3.(1)	Rudder Pedal Installation	Support assembly, push rods levers and linkages for condition and security; pedals for full and free movement, condition and security; pedals for cracking as shown in Figure 2. Replace if cracked. (Card 16–10)					X		X		X		X		X		X
3.(2)	Rudder Pedal Installation	Remove clevis pin and upper bolts from rudder pedal push rod ends and wheel brake rod ends; inspect pins, bearing and rod ends for wear. Install clevis pins and upper bolts. (Card 30–01)									X						X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS										
						1	2	3	4	5	6	7	8	9	10	11	D or 12
4.(1)	Rudder, Elevator and Aileron Control Cables	Cables (from beneath flight compartment floor to wings and empennage) for fraying corrosion, flattening, proper attachment and security; pulleys for condition and freedom of movement; pulley brackets and guides for condition and security; turnbuckles for security. Detailed visual inspection of cable terminals for signs of corrosion pits or cracks. **Note 1. Refer to Service Bulletin No. 6/523, if applicable.** **Note 2. Ensure adequate clearance with adjacent electrical conduits, structure and other systems, making allowance for vibratory motion of cable when under tension.** **Note 3. In the event of early or abnormal cable wear at pulley(s), replace the worn cable(s) and the corresponding pulley(s).** (Cards 15–15, 18–06, 19–01, 20–11, 21–10, CAL 18–6)					X		X		X		X		X		X
								or Every 12 months whichever occurs first.									
4.(2)	Rudder, Elevator and Aileron Control Cables	Replace control cables. (Landplanes operated outside a marine or saline environment only) (Card SP2–C9)						**Every 60 months**									

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
4.(3)	Rudder, Elevator and Aileron Control Cables	Replace elevator and rudder control cables. (Floatplanes and/or landplanes operated in a marine or saline environment) **Note** **Aileron control cables are 60 months.** (Card SP1–E5)						**Every 12 months**									

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
4.(4)	Rudder, Elevator and Aileron Control Cables	Check cable tension. **Note 1. Inspect cables for fraying, corrosion, flattening, security and deterioration of protective coatings. Special attention on either side of pulley clusters at Stations 267.00, 332.00 and 376.00 for corrosion. Apply external lubricant to carbon steel non-jacketed cables in accordance with Maintenance Manual. Do not lubricate stainless steel or jacketed cables.** **Note 2. It is important to operate controls through full range during inspection so that cables move away from pulleys and all portions of cables are exposed for inspection.** **Note 3. Remove all access panels that are required to get free and clear view of area being inspected. Install all access panels.** (Cards 18–22, CAL 18–22)					X		X		X		X		X		X
							or Every 12 months whichever occurs first.										

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
4.(4)	Rudder, Elevator and Aileron Control Cables	**Note 4. Stainless Steel control cables are available in lieu of Carbon Steel Cables. Refer to Maintenance Manual and Structural Repair Manual and Structural Repair Manual for specific tasks when using stainless steel in lieu of carbon steel cables.**															
5.(1)	Rudder and Elevator Trim Tab Controls (Flight Compartment to Empennage)	Cables for full and free movement; fraying, kinks, flattening, proper attachment and security; turnbuckles for security, pulleys for freedom of operation; pulley brackets for condition and security. Detailed visual inspection of cables terminals for signs of corrosion pits or cracks. (Cards 16–12, 18–18, 19–01)					X		X		X		X		X		X
5.(2)	Rudder and Elevator Trim Tab Controls (Flight Compartment to Empennage)	Check cable tension. (Cards 18–22, CAL 18–22)					X		X		X		X		X		X
							or Every 12 months										
5.a.	Trim Pulley Brackets and Cables	Trim cables for condition, fraying, corrosion, flattening, proper attachment and security. Nylon cable jacket for condition, cracking and necking down in diameter. Pulleys (bulkhead and elevator torque tube) for condition and freedom of movement, pulley brackets for condition and security. Lubricate pulley bracket bushings at elevator torque tube. (Card 12–02)				X	X	X	X	X	X	X	X	X	X	X	X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
6.	Rudder and Elevator Trim Tab Drive Mechanisms																
6.a.	Rudder and Elevator Trim Tab Drive Mechanisms - Screw Jacks	Condition of cable drum grooves, smooth operation and security. Lubricate. (Card 12–01)				X	X	X	X	X	X	X	X	X	X	X	X
6.b.	Rudder and Elevator Trim Tab Drive Mechanisms - Pushrod	Condition and security of attachment. (Card 19–05(b))					X		X		X		X		X		X
7.	Rudder Gear Tab Mechanism																
7.a.(1)	Rudder Gear Tab Mechanism - Rudder Gearbox	Condition and security of mounting plate installation and cover; tab pushrod for security and evidence of irregular operation during rudder movement. (Card 19–05(a))					X		X		X		X		X		X
7.a.(2)	Rudder Gear Tab Mechanism - Rudder Gearbox	Gearbox for play. (Card FUN–G8)									X						X
7.b.	Rudder Gear Tab Mechanism - Gearbox Linkage	Condition and security. (Card 19–05(b))					X		X		X		X		X		X
8.	Aileron System																
8.a.	Aileron Trim Actuator Unit	Condition, smooth operation and security; electrical wiring and connections for security (Power On). Clean as required. (Card 20–04)					X		X		X		X		X		X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
8.b.	Aileron Trim - Linkages	Condition and security. (Card 20–04)					X		X		X		X		X		X
8.c.	Aileron Trim - Position Transmitter	Security of mounting and brackets; wiring and connections for security. Clean as required. (Card 20–04)					X		X		X		X		X		X
8.d.(1)	Aileron Trim - Position Indicator (Pre Mod 6/2047)	Condition and security; wiring and connectors for security. (Card 16–05)					X		X		X		X		X		X
8.d.(2)	Aileron Trim - Position Indicator (Pre Mod 6/2047)	Function test (Power On). (Card FUN–C10)				X	X	X	X	X	X	X	X	X	X	X	X
8.e.	Aileron Trim - Position Indication (Mod 6/2047)	Display indication function test, neutral and full range of travel. (Card FUN–C12)				X	X	X	X	X	X	X	X	X	X	X	X
8.f.	Aileron Position (Mod 6/2047)	Voltage check. (Card 20–20)					X		X		X		X		X		X
8.g.	Aileron Position Transmitter (Mod 6/2047)	Condition and security; cables for security; support structure for condition and security. (Card 20–10)					X		X		X		X		X		X
9.	Flap System																
9.a.(1)	Flap System - Flap Actuator	Condition and security of mounting and leakage. (Card 04–01)			X												

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
9.a.(2)	Flap System - Flap Actuator	Remove for bench (pressure) test. Install serviceable unit. (Card CT–J–B4)															X
9.b.(1)	Flap System - Selector Valve	Condition and security of mounting and leakage; selector pulleys properly secured to spindle. (Card 04–01)			X												
9.b.(2)	Flap System - Selector Valve	Remove for bench (pressure) test. Install serviceable unit. (Card CT–J–B5)															X
9.c.(1)	Flap System - Flap Selector and Follow-up Cables	Cables (flight compartment to fuselage flap actuator drive mechanism) for condition, corrosion, fraying, flattening and security of attachment. Turnbuckles for security; pulleys for condition and freedom of operation. Detailed visual inspection of cable terminals for signs of corrosion pits or cracks. (Card 11–09)				X	X	X	X	X	X	X	X	X	X	X	X	X
9.c.(2)	Flap System - Flap Selector and Follow-up Cables	Check cable tension. (Cards 18–22, CAL 18–22)					X		X		X		X		X		X
							or Every 12 months										
9.d.	Flap System - Selector Lever	Condition, proper detent action movement and security. Lubricate. (Card 23–02)						X			X			X			X
9.e.	Flap System - Drip Trays	Condition and security; fluid content; remove, dry out and install pads as required. (Card 04–01)			X												

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
9.f.	Flap System - Indicator Cable and Spring (Pre Mod 6/2023) (Flight Compartment)	Cable and spring for condition, corrosion, fraying, flattening and security of attachment; spring for condition, tension, security; indicator for smooth operation; dracon cable cord at window frame small pulley locations for conditions. (Card 16–14)					X		X		X		X		X		X
9.g.	Flap System - Position Transmitter (Mod 6/2047)	Security of mounting and brackets; wiring and connections for security. Clean as required. (Card 20–10)					X		X		X		X		X		X
9.h.	Flap System - Position Indication (Mod 6/2047)	Display indication function test, neutral and full range of travel. (Card FUN–C12)				X	X	X	X	X	X	X	X	X	X	X	X
10.	Flap/Elevator Interconnect System																
10.a.	Flap/Elevator Interconnect System - Interconnect Ball Screw Jack	Condition, freedom of operation and security. Lubricate. (Card 11–10)				X	X	X	X	X	X	X	X	X	X	X	X
10.b.	Flap/Elevator Interconnect System - Interconnect Tab Screw Jack	Condition, freedom of operation and security. Lubricate. (Card 12–08)				X	X	X	X	X	X	X	X	X	X	X	X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
10.c.(1)	Flap/Elevator Interconnect System - Interconnect Trim Cables	Condition, corrosion, fraying, flattening and security of attachment. Turnbuckles for security; pulleys for condition, security and freedom of operation. Detailed visual inspection of cable terminals for signs of corrosion pits or cracks. (Cards 18–03, 19–01)					X		X		X		X		X		X
10.c.(2)	Flap/Elevator Interconnect System - Interconnect Trim Cables	Check cable tension. (Cards 18–22, CAL 18–22)					X		X		X		X		X		X
							or Every 12 months										
11.	Flight Control Quadrants (Flight Compartment)	Condition, corrosion and security; bearings for condition and security. Condition of stops. Clean as required. (Card 15–09)					X		X		X		X		X		X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
11.a.	Flight Control Quadrants - Elevator Quadrant (Aft Fuselage) **Airworthiness Directive** **T.C. CF-79-02** **T.C. CF-72-06** **F.A.A. 79-14-01** **F.A.A. 89-24-06**	Condition and freedom of movement; loose torque tube attach bolts, mounting bracket for condition, cracks, and security. **Note 1. Refer to Service Bulletin No. 6/379 and A.D. CF-79-02 and FAA 79-14-01.** **Note 2. Visually inspect elevator quadrant for indication of distortion every 400 flight hours (Refer to SB 6/511 and A.D.s CF-72-06 and FAA 89-24-06). Note that FAA requires repetitive inspections every 200 flight hours.** (Card 12–04) **WARNING INSPECT WITHIN 25 FLIGHT HOURS IF PARKED AIRCRAFT SUBJECTED TO GROUND WINDS WITH MEAN VELOCITY OF 35 MPH OR GREATER. MEAN WIND SPEEDS OF 35 MPH WILL GENERATE WIND GUSTS UP TO 65 MPH.**				X	X	X	X	X	X	X	X	X	X	X	X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
11.b.	Flight Control Quadrants - Overhead Console (Flap) Quadrants (Pre Mod 6/1895) Polycarbonate/Melaine (Flight Compartment) **Airworthiness Directive T.C. CF-73-06 F.A.A. 73-19-06 F.A.A. 93-10-08**	Quadrants for condition, cracks and security; cable attachment for security; smooth movement and complete travel of operation. **Note** **Refer to Service Bulletin No. 6/298, 6/519 and A.D., if applicable, for crack inspection intervals.** (Card SP2–C2)					**Every 100 hours**											
11.c.	Flight Control Quadrants - Overhead Console (Flap) Quadrants (Mod 6/1895) Aluminum (Flight Compartment)	Quadrants for condition and security; cable attachment for security; smooth and freedom of movement. (Card 16–16)					X		X		X		X		X		X
11.d.	Flight Control Quadrants - Aileron Flight Control Cable Quadrants in Cabin Roof	Condition and security, bearings for condition, cable guides for security. Clean as required. (Card 18–07)					X		X		X		X		X		X
12.	Elevator Control Lever and Connecting Rod	Condition, full and free movement, security, attaching brackets for cracks and distortion. (Card 15–14)					X		X		X		X		X		X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS										
						1	2	3	4	5	6	7	8	9	10	11	D or 12
13.	Flight Control Rods with following Fail Safe Mods 6/1703, 6/1718, 6/1721, 6/1734 and 6/1735 (2024T81 material with fail safe sleeves installed) **Airworthiness Directive T.C. CF-80-03 F.A.A. 80-13-11**	Condition, corrosion and security; bearings for corrosion, security and clean as required; draught excluder boots (where applicable) for splitting, deterioration and security. On rods with magneformed (swaged) ends pay particular attention to inspection of the swaged area for condition. Worn or tight rotating bearings must be replaced on all rods immediately. Refer to Figure 1. **Note** **Refer to Service Bulletin No. 6/390 and 6/502, and A.D. if applicable, for inspection interval.** (Card SP2–C5)				**Every 800 hours or 1 year whichever occurs first**										
13.a.	Flight Control Rods Pre Mods 6/1486, 6/1488 and 6/1489 material (2024T3 material with fail safe sleeves installed) (Pre Mods 6/1703, 6/1721, 6/1734 and 6/1735) **Airworthiness Directive T.C. CF 80-03 F.A.A. 80-13-11**	Condition, corrosion and security; bearings for corrosion, security and clean as required; draught excluder boots (where applicable) for splitting, deterioration and security. On rods with magneformed (swaged) ends pay particular attention to inspection of the swaged area for condition. Worn or tight rotating bearings must be replaced on all rods immediately. Refer to Figure 1. **Note** **Refer to Service Bulletin No. 6/390 and 6/502, and A.D. if applicable for inspection interval.** (Card SP2–C3)				**Every 400 hours or 6 months whichever occurs first**										

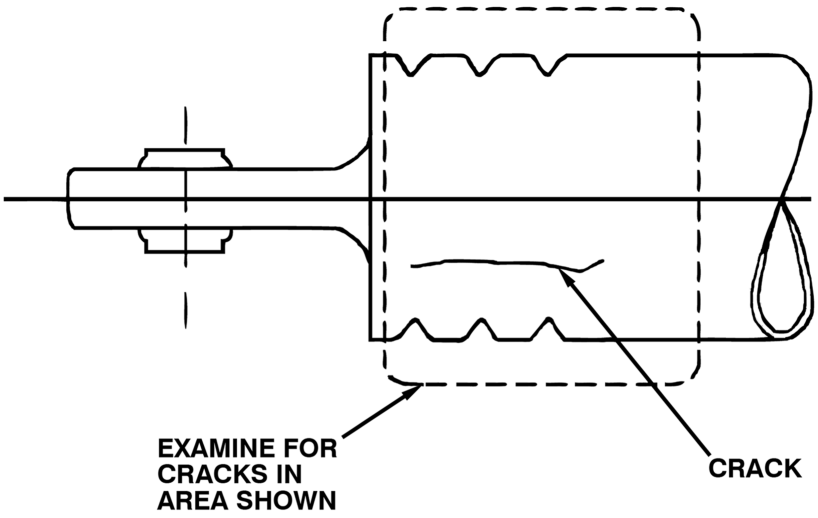
SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS										
						1	2	3	4	5	6	7	8	9	10	11	D or 12
13.b.	Flap Control Mod 6/1487 Rods with Mods 6/1710, 6/1714 (2024T81 material with sleeves) **Airworthiness Directive T.C. CF-79-22 F.A.A. 80-03-08**	Condition, corrosion and security; bearings for corrosion, security and clean as required; draught excluder boots (where applicable) for splitting, deterioration and security. On rods with magneformed (swaged) ends pay particular attention to inspection of the swaged area for condition. Worn or tight rotating bearings must be replaced on all rods immediately. Refer to Figure 1. **Note Refer to Service Bulletin No. 6/388 and 6/381, and A.D. if applicable, for inspection interval.** (Card SP2–C4)				**Every 800 hours or 1 year whichever occurs first**										

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
13.c.	Flight and Flap Control Rods to Mods 6/1781 Fuse/Wing 6/1785 Elevator 6/1791 Aileron 6/1792 Elevator 6/2109 Aileron 6/1802 Rudder 6061 material with Magneformed Fail Safe Sleeves **Airworthiness Directive T.C. CF-80-03 T.C. CF-79-22 F.A.A. 80-03-08**	Condition, corrosion and security; bearings for corrosion, security and clean as required; draught excluder boots (where applicable) for splitting, deterioration and security. On rods with magneformed (swaged) ends pay particular attention to inspection of the swaged area for condition. Worn or tight rotating bearings must be replaced on all rods immediately. Refer to Figure 1. For Post Mod 6061 material rods do not remove the paint and primer from the rod ends to carry out the visual inspection. Deterioration of the inb'd foreflap pushrod draught excluder requires replacement of the draught excluder. Worn or tight rotating bearings must be replaced on all rods immediately. **Note 1. Refer to Service Bulletin No. 6/502.** **Note 2. For aileron control rods C6CW1080–1 machined from 7075 alloy, follow same inspection intervals as for 6061 material (refer to Service Bulletin No. 6/390, Table 2).** (Card SP2–C7)					**Every 2400 hours or 2 years whichever occurs first**								
14.	Wing Root Rib/Flap Pushrod Roller Assembly (Mod 6/1707)	Condition, wear and security; proper clearance between rod surface and roller; freedom of operation. (Cards 20–14a, 21–13a)					X		X		X		X		X		X

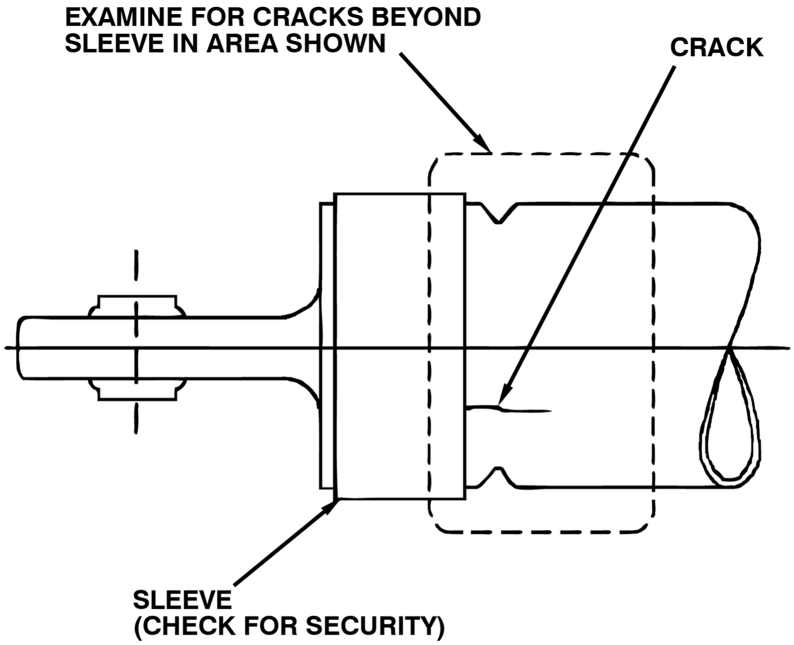
SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
14.a.	Wing Root Rib/Flap Pushrod Roller Assembly	Lubricate inside surface of spacer and bolt. (Cards 20–14b, 21–13b,CAL 20–14b, CAL 21–13b)					X Or Every 12 months whichever occurs first		X		X		X		X		X
15.	Stall Warning System																
15.a.(1)	Stall Light and Horn (Pre Mod 6/2028)	Stall light and horn for condition and security. (Cards 09–09, 09–10)				X	X	X	X	X	X	X	X	X	X	X	X
15.a.(2)	Stall Light and Horn (Pre Mod 6/2028)	Function test. (Power on). (Card FUN–B9)			X												
15.b.(1)	Stall Light (Mod 6/2028)	Stall light for condition and security. (Card 09–09A)				X	X	X	X	X	X	X	X	X	X	X	X
15.b.(2)	Stall Light (Mod 6/2028)	Function test. (Power on). (Card FUN-B9)			X												
15.c.(1)	Lift Detector Vanes (Wing)	Vanes for condition, free movement and security. (Card RA–EXT–05)	X														
15.c.(2)	Lift Detector Vanes (Wing)	Freedom of movement, condition, corrosion and security. Function test. (Power on). (Card FUN–B1)			X												
15.d.	Cam and Limit Switch Mechanism	(Fuselage flap drive mechanism) Cam and limit switch for condition and security. (Card 18–04)					X		X		X		X		X		X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
16.(1)	Flight Control System	Operational test with trim tabs for full and freedom of movement and wing flaps in normal and emergency mode condition. (Cards FUN–B8, FUN–B5)			X												
16.(2)	Flight Control System	Check control surfaces alignment with external rigging marks; for rudder, check dimension "L" (Card FUN–G5)									X						X
16.(3)	Flight Control System	Check all trim and gear tabs for free play. (Card FUN–G6)									X						X
17.	Rudder System																
17.a.	Rudder Position Transmitter (Mod 6/2047)	Condition and security; cables for security, support structure for security and condition. (Card 20–10)					X		X		X		X		X		X
17.b.	Rudder Trim Tab Position Transmitter (Mod 6/2047)	Condition and security; cables for security, support structure for security and condition. (Card 20–10)					X		X		X		X		X		X
17.c.	Rudder Trim Tab Position Indication (Mod 6/2047)	Display indication function test, neutral and full range of travel. (Card FUN–C12)				X	X	X	X	X	X	X	X	X	X	X	X
17.d.	Alignment of Mechanical Rudder Trim Pointer and EFIS Rudder Trim Display (Mod 6/2047)	Operational test. (Card FUN–C13)				X	X	X	X	X	X	X	X	X	X	X	X

SYSTEM AND ITEM		INSPECTION REQUIREMENT	ROUTINE	A	B	C CHECK X 500 HOURS											
						1	2	3	4	5	6	7	8	9	10	11	D or 12
17.e.	Rudder Position (Mod 6/2047)	Voltage check. (Card 20–20)					X		X		X		X		X		X
18.	Elevator System																
18.a.	Elevator Position Transmitter (Mod 6/2047)	Condition and security; cables for security support structure for security and condition. (Card 20–10)					X		X		X		X		X		X
18.b.	Elevator Trim Tab Position Transmitter (Mod 6/2047)	Condition and security; cables for security, support structure for security and condition. (Card 20–10)					X		X		X		X		X		X
18.c.	Elevator Trim Tab Position Indication (Mod 6/2047)	Display indication function test, neutral and full range of travel. (Card FUN–C12)				X	X	X	X	X	X	X	X	X	X	X	X
18.d.	Alignment of Mechanical Pitch Trim Pointer and EFIS Pitch Trim Display (Mod 6/2047)	Operational test. (Card FUN–C14)				X	X	X	X	X	X	X	X	X	X	X	X
18.e.	Elevator Position (Mod 6/2047)	Voltage check. (Card 20–20)					X		X		X		X		X		X

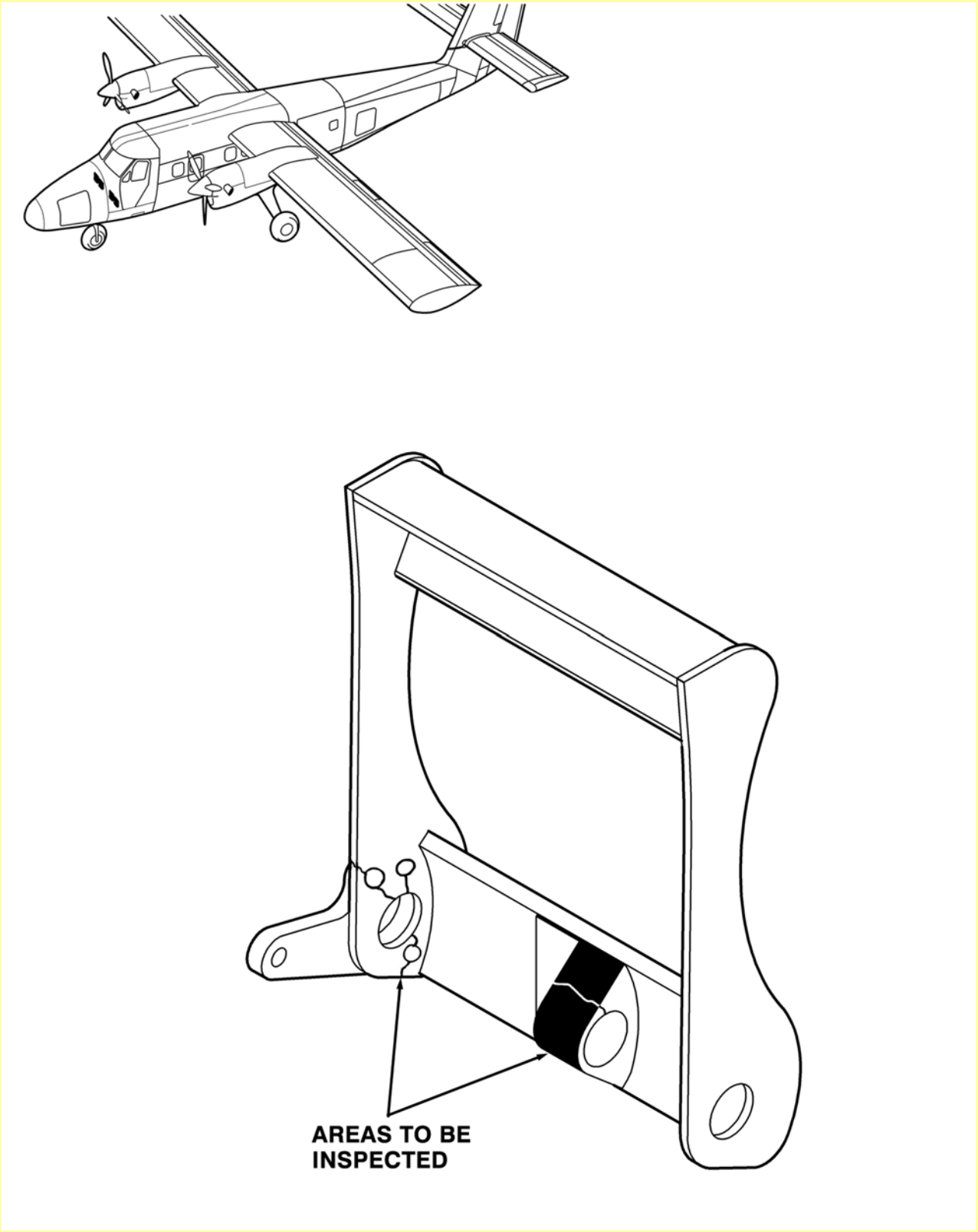


TYPICAL TUBE WITHOUT SLEEVE



TYPICAL TUBE WITH SLEEVE

Inspection of Flight Control Rods with Magneformed (Swaged) Ends
Figure 1



Rudder Pedal Typical Cracking
Figure 2

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