



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

June 20, 2016

# **AIRWORTHINESS**

## **Group Chairman's Factual Report**

**ANC15MA041**

**Attachment 1 – N270PA Maintenance Records  
(62 pages)**

# MAINTENANCE MANUAL

## LIST OF EFFECTIVE PAGES

<b>Section 0.000</b>	<b>Rev</b>	<b>Rev. Date</b>				
0.000	1-16	6	02-01-13	3.700	1-2	ORIGINAL 10-21-05
				3.800	1-2	1 04-01-07
				3.900	1-4	3 04-01-09
<b>Section 1.000</b>				3.1000	1-2	ORIGINAL 10-21-05
1.000	1-10	5	02-01-12	3.1100	1-2	ORIGINAL 10-21-05
				3.1200	1-6	ORIGINAL 10-21-05
<b>Section 2.000</b>				3.1300	1-2	ORIGINAL 10-21-05
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2.200	1-4	3	04-01-09	3.1600	1-6	5 02-01-12
2.300	1-2	3	04-01-09	3.1700	1-4	3 04-01-09
2.400	1-4	ORIGINAL	10-21-05	3.1800	1-2	3 04-01-09
2.500	1-2	3	04-01-09			
2.600	1-2	3	04-01-09	<b>Section 4.000</b>		
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2.800	1-2	3	04-01-09	4.100	1-2	4 02-01-10
2.900	1-2	ORIGINAL	10-21-05	4.200	1-2	4 02-01-10
2.1000	1-2	ORIGINAL	10-21-05	4.300	1-2	4 02-01-10
2.1100	1-2	2	04-01-08	4.400	1-2	4 02-01-10
<b>Section 3.000</b>				<b>Section 5.000</b>		
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3.200	1-6	3	04-01-09	5.200	1-54	6 02-01-13
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3.400	1-4	3	04-01-09	5.400	1-6	4 02-01-10
3.500	1-2	1	04-01-07	5.500	1-24	5 02-01-12
3.600	1-2	3	04-01-09			

ACCEPTED 6/19/13  
 (DATE)  
 [Signature]  
 AVIATION SAFETY INSPECTOR

SECTION: ANNEX A, DHC-3T, AAIP-General  
EFFECTIVE: 02/01/13

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LIST OF EFFECTIVE PAGES

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DHC-3T-M125.	1-10	5	02/01/13
DHC-3T-A.	1-12	5	02/01/13
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DHC-3T-Limitations	1-6	5	02/01/13

ACCEPTED 6/19/13  
(Date)  
EPA/AAIP/ESD/PS  
AVIATION SAFETY INSPECTOR

# PM Air - NON-ROUTINE

270PA                      HOBBS: 6827.8    ETSO: 10361.8    PTSO: 793.6  
 DATE: 10-Jun-15        TTAF: 24395.8    ETT: 14532.2    PTT: 3656.7    PAGE: 1 OF  
 AREA:                  General                  STARTS:                  FLIGHTS:

MAINTENANCE DISCREPANCY				CORRECTIVE ACTION			
ITEM				I certify that this Aircraft has been inspected IAW a PM Air llc. AAIP-MM inspection, was determined to be in airworthy condition, and is approved for return to service.			
1	C/W AAIP-MM Inspection						
INIT							
RG							
		R/I	Y:	N:	SIGN:	DATE:	INSP
					CERT TYPE:	#	
ITEM				C/W AD 83-04-05, control column			
2	C/W AD 83-04-05, Control column						
INIT							
RG							
		R/I	Y:	N:	SIGN:	DATE: 6/10/15	INSP
					CERT TYPE:	#	
ITEM				C/W AD 2011-18-11, Elevator tabs			
3	C/W AD 2011-18-11, Elevator tabs						
INIT							
RG							
		R/I	Y:	N:	SIGN:	DATE: 6/10/16	INSP
					CERT TYPE:	#	
ITEM	stroke light is insp.			Replaced stroke light			
4							
INIT							
RG							
		R/I	Y:	N:	SIGN:	DATE: 6/10/15	INSP
					CERT TYPE:	#	
ITEM							
INIT							
RG							
		R/I	Y:				
					CERT TYPE:	#	
ITEM							
INIT							
RG							
		R/I	Y:				
					CERT TYPE:	#	

SECTION: ANNEX A, DHC-3T, AAIP-General  
EFFECTIVE: 02/01/12

PAGE: 9  
REVISION: 4

## INSPECTION COVER SHEET (Form MF04)

N#: 2707ADATE: 6/10/15TAT: 24395.8Total Engine Flights: 14532.2

Type of inspection and/or scheduled maintenance (AAIP, PI, WS, AD, etc.):

AAIP-MM



AD 83-04-05, Control Column

AD 2011-18-11, Trim Tabs Free play Inspection

## INSPECTION COMPLETED:

I certify that:

1. All work was performed in accordance with the requirements of PROMECH Air's manual.
2. All RII items were inspected by a designated inspector who determined that the work was satisfactorily completed.
3. No known condition exists that would make the aircraft un-airworthy.
4. So far as the work performed is concerned, the aircraft is in condition for safe operation.
5. All scheduled items of work have been transferred from the planning reports to the discrepancy forms and cleared.
6. All worksheets and parts tags are complete and have been accounted for.
7. All equipment, panels, cowlings, covers, fairing, etc., removed to accomplish this inspection have been reinstalled.
8. All AD's that are due have been inspected and the applicable AD01 forms have been completed.

Mechanic's Signature: Rating & No.: Date: 6/10/15

SECTION: ANNEX A, DHC-3T, AAIP-MM.  
EFFECTIVE: 02/01/13

PAGE: 1  
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## INSPECTION DHC-3T-MM.

Page 1 of 4

## Inspection Checklist for de Havilland DHC-3 Turbine Otter

N: 270 PA

Date: 6/10/15

Engine Make/Model: P&amp;WC PT6A-135A/34

Hobbs: 6827.8 ETSO: 10361.8 PTSO: 793.6

TTAF: 24395.8 ETT: 14532.2 PTT: 3656.7

GENERAL PRE-INSPECTION (GEN)		INITIALS
1) Check Maintenance log for squawks.		KM   GA
2) Clean all used documents from maintenance folder:		
a) Ensure there is a W&B form and an Equipment List in the folder.		KM   GA
b) Ensure there are sufficient MF 31 & MF 32 forms in the folder.		KM   GA
c) Ensure the MF31 and MF32 forms have the proper N# on them.		KM   GA
3) Test the Landing Gear Position Advisory System:		
a) After 30 seconds of continuous electrical power the enunciator light will flash once signifying that the unit has powered up.		N/A
b) To test the system, push and hold the amber enunciator light for 4 - 5 seconds and release.		N/A
c) Check to see that the amber enunciator begins to flash and the aural announcements "GEAR IS UP FOR WATER LANDING" and "GEAR IS DOWN FOR RUNWAY LANDING" are each heard one time each.		N/A
4) Check CO detector:		
a. Replace if it is 90 days since "DATE OPENED" recorded on face. Ensure the new CO detector is not out of "USE BY/Shelf life date" on front of package and write the date the detector is opened in the space provided on the face of the CO detector.		KM   GA
b. If the CO detector has turned dark make a discrepancy to investigate cause and repair.		N/A   GA
4) Select AHRS Battery switch on, verify green light illuminates.		KM   GA
5) Check Instrument lights and Aircraft interior lighting for operation.		KM   GA
6) Check all exterior lights; Navigation, Strobes and Beacon for operation.		KM   GA
7) Check Pulselite/landing light system for proper operation.		KM   GA
• Select Pulselites on; confirm both landing lights are flashing.		KM   GA
• Select landing lights on; confirm both landing lights are on steady.		KM   GA
• Turn both switches off.		KM   GA

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27, Anti-Size, or equivalent.

INSPECTION DHC-3T-MM.

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N: 27091A

Date: 6/10/15

COCKPIT, CABIN & CARGO	INITIALS	
<b>Only the control column lower sock is removed for the Cockpit, Cabin &amp; Cargo area inspection. Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
<b>NOTE: THE FOLLOWING CHECKS ARE ON THE ENTIRE RANGE OF TRAVEL</b>		
1) Operate Aileron, Elevator, and Rudder control systems. Check for smoothness of operation	KM	CA
2) Operate Aileron, Elevator, and Rudder trim systems. Check for smoothness of operation.	KM	CA
<b>WARNING: ENSURE FLAPS WILL NOT HIT CABIN DOORS BEFORE OPERATING FLAPS.</b>		
3) Operate flap system through full range of travel. Check for smoothness of operation and movement.	KM	CA
4) Operate water rudder retract; check for ease of operation, security of handle & lube (Pledge).	EP	KM
5) Operate fuel selector; lube (2) selector while operating the handle through its full range of travel check for smoothness of operation, and proper indexing of handle.	CA	KM
6) Operate the heater controls; check for ease of operation.	CA	KM
7) Operate rudder controls through full range of travel. Check for freedom of movement and condition. Inspect rudder pedals for condition security and lube (2).	EP	KM
8) Check Control Column IAW Para (a) of AD 83-04-05 and complete recurring AD log.	EP	KM
9) Inspect seats for general condition, full and smooth travel, ease of operation & Lube (2).	EP	KM
10) Inspect seat belts & shoulder harnesses for presence of TSO tags, proper operation and security of attachment.	CA	KM
11) Check all interior panels, window molding and door trim for loose or missing screws. Replace all missing screws.	CA	KM
12) Insure the control column lower sock is secured.	CA	KM

FUSELAGE	INITIALS	
<b>No inspection panels are removed for the Fuselage inspection. Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
1) Inspect fuselage for loose rivets, cracks, corrosion and overall condition.	CA	
2) Inspect lower wing strut fuselage fitting for overall condition, corrosion and Lube (3).	CA	
3) Check door latch mechanisms by applying pressure on each latch and comparing it to the others, if one latch is weaker than the rest – a spring is broke and needs replaced. Check for lube (2) and proper and legible placards.	CA	
4) Inspect fuel caps for seal condition, proper latching, chains for condition, security, legibility of placard and lubrication on threads of all 3 caps. Lube (3).	CA	

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27, Anti-Size, or equivalent.

SECTION: ANNEX A, DHC-3T, AAIP-MM.  
EFFECTIVE: 02/01/13

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## INSPECTION DHC-3T-MM.

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N: 270 PA

Date: 6/10/15

FUSELAGE LOWER	INITIALS
<b>No inspection panels are removed for the Fuselage Lower inspection unless the fuel selector is not accessible.</b>	
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>	
1) Inspect fuel system area for signs of leakage and general condition.	CA
2) Inspect fuel drains for operation, security and leaks. Lube (2)	CA
3) Inspect fuel selector for signs of leakage, excessive corrosion on diaphragm cover, exfoliation of fuel fittings and lubrication (2).	CA

TAIL	INITIALS
<b>1 inspection panels under horizontal is removed for the Tail inspection.</b>	
<b>Additional inspection panels may need to be removed to investigate/repair discrepancies.</b>	
1) Inspect Nav light assembly Lube (2).	CA
2) Inspect horizontal stabilizer screw jack for condition, security and lube (plastilube) top Zerk, lube (2) exterior, check bearings for evidence of wear and attach points for security..	CA
3) From the ground check horizontal stabilizer for overall condition and corrosion.	CA
4) Inspect flap interconnect tab and servo tabs for delamination, inspect pushrods, rod ends and hardware for condition, security and lube (2); inspect end caps, lever and hinge for condition, wear, lube and fasteners for security. Check free play of tab; Max allowable 1 degree/0.070 inches at elevator TE, IAW AD par (f) (1), PSM 1-3-2 Part 2 & Appendix 4, TR 18, 19 & 20, and complete recurring AD log.	CA

WINGS	INITIALS	
	LEFT	RIGHT
<b>No inspection panels are removed for the Wing inspection.</b>		
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
1) From the ground check the wings, fairings, and flight controls for overall condition, cracks, dents, and missing fasteners.	GA	CA
2) From the ground check all flight controls for condition and corrosion	GA	CA
3) Lube all bearings and rod ends. lube (2).	CA	CA
4) From the ground check wing tip and Nav light assembly for general condition.	CA	CA
5) From the ground check landing lamp and lens for overall condition.	GA	GA

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27, Anti-Size, or equivalent.



SECTION: ANNEX A, DHC-3T, AAIP-MM.  
EFFECTIVE: 02/01/13

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INSPECTION DHC-3T-MM.

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N: 270 PA

Date: 6/10/15

FLOATS	INT
<b>No inspection panels are removed for the Float inspection.</b>	
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>	
1) Check exterior for cracks, oil canning, loose rivets and damage.	KM GA
2) Check float attach struts for overall condition, security, corrosion and Lube (3).	KM GA
3) Check flying wires, tram wires, fork ends, and wire pulls for proper tautness, presence of separation blocks, overall condition and Lube (3)..	KM GA
4) Check access steps for overall condition, presence of anti-skid and Lube (3).	KM GA
5) Check water rudder control and retract system for overall condition, and lube (3).	KM GA
6) Check water rudder posts, blades, attach brackets and hardware for overall condition and lube (3).	KM GA

PROPELLER	
<b>No inspection panels are removed for the Propeller inspection.</b>	
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>	
1) Inspect spinner and bulkhead for overall condition and cleanliness.	GA
2) Inspect propeller blades for nicks, cracks, corrosion and overall condition.	GA
3) Inspect propeller blades for proper alignment with slippage marks.	GA
4) File out leading edge erosion so the original blade profile is maintained. Blended minor nicks and damage in the leading or trailing edges to a diameter 10 X the depth of damage. Blended minor nicks and damage in the face, back and cuff of the blade to a diameter 20 X the depth of damage. Ref Hartzell Manual 139 61-00-39 sec 6 4.	GA
<b>Note: NEVER EVER file the Aft. (black) surface of the blade to remove normal leading edge erosion. Only file the Aft. (black) surface of the blade to remove minor nicks and damage.</b>	

ENGINE	
1) If the aircraft has flown since the last AAIP O; complete an AAIP O checklist..	KM GA

POST INSPECTION	
1) Enter next maintenance due hobbs time on the first MF31 and MF32 form. This will be: An AD or a task if due before the next AAIP M125, A, B, or C OR The AAIP M125 if more than 125 hours remaining to the next AAIP A, B, or C. This entry is only made after the last phase of the inspection if the inspection is phased.	GA
2) Enter next maintenance due date on the first MF31 and MF32 form. This will be: An AD or a task if due before the next AAIP MM This entry is only made after the last phase of the inspection if the inspection is phased.	GA
3) Install HOBBS sticker with:	
a) The next maintenance due time.	GA
b) The next maintenance due date.	GA
4) Make entry on MF32 for completing the inspection.	GA

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27, Anti-Size, or equivalent.

Date: 23-Jul-14 Hobbs: 6562.9 ETSO: 10096.9 PTSO: 528.7  
N: ~~N959PA~~ 270PA TTAF: 24130.9 ETT: 14267.3 PTT: 3391.8  
Inspection started at Hobbs Time of: N/A Date: N/A  
Total Starts: 35487 Total Flights: 20333

I certify that this **Airframe** has been inspected IAW a PM Air **AAIP A** Inspection, as per Promech Air GMM, Annex A, Rev.5, dated 2/1/2013 and was determined to be in airworthy condition.

Approved for return to service.

Signature: [Redacted], Certificate, Type: AP No.: [Redacted]

Date: 25-Jul-14 Hobbs: 6568.7 ETSO: 10102.7 PTSO: 534.5  
N: 270PA TTAF: 24138.7 ETT: 14273.1 PTT: 3397.6  
Total Starts: \_\_\_\_\_ Total Flights: \_\_\_\_\_

Installed STC SA4345NM, Kenmore Air Harbor, one to nine passenger configuration. See 227 form dated July 25, 2014 for details.

Signature: [Redacted], Certificate, Type: A&P No.: [Redacted]

Started - Date: 8/11/15 Hobbs: 6766.3 ETSO: 10300.3 PTSO: 732.1  
N: 270PA TTAF: 24334.3 ETT: 14470.7 PTT: 3595.2  
Total Starts: 35969 Total Flights: 30529

Last Phase Completed: Hobbs NA Date: NA

I certify that this **Airframe** has been inspected IAW a PM Air **AAIP-** Inspection, as per Promech Air GMM, Annex A, Rev.5, dated 2/1/2013 and was determined to be in airworthy condition.

Approved for return to service.

Signature: [Redacted], Certificate, Type: AP No.: [Redacted]

Date: 23-Jul-14 Hobbs 6562.9 ETSO: 10096.9 PTSO: 528.7  
N: 270PA TTAF: 24130.9 ETT: 14267.3 PTT: 3391.8  
Inspection started at Hobbs Time of: N/A Date: N/A  
Total Starts: 35497 Total Flights: 30333

LICENCE  
NUMBER

I certify that this **Engine** has been inspected IAW a PM Air **AAIP A**  
Inspection, as per Promech Air GMM, Annex A, Rev.5, dated 2/1/2013  
and was determined to be in airworthy condition.

Approved for return to service.

Signature: \_\_\_\_\_, Certificate, Type A-1 No. \_\_\_\_\_

Started - Date: 5/11/15 Hobbs 6766.3 ETSO: 10300.3 PTSO: 732.1  
N: 270PA TTAF: 24334.3 ETT: 14470.7 PTT: 3595.2  
Total Starts: 5935969 Total Flights: 4230829

Last Phase Completed: Hobbs NA Date: NA

I certify that this **Engine** has been inspected IAW a PM Air **AAIP-**  
Inspection, as per Promech Air GMM, Annex A, Rev.5, dated 2/1/2013  
and was determined to be in airworthy condition.

Approved for return to service.

Signature: \_\_\_\_\_, Certificate, Type A-1 No. \_\_\_\_\_

MAXIMUM HOURS BETWEEN OVERHAULS \_\_\_\_\_ HOURS.

# MAINTENANCE RECORD

ENTRI

Started - Date: 5/11/15 Hobbs 2766.3 ETSO: 10300.3 PTSO: 7321  
N: 270PA TTAF: 243343 ETT: 14470.7 PTT: 3595.2  
Total Starts: 35969 Total Flights: 30829

Last Phase Completed: Hobbs NA Date: NA

I certify that this **Propeller** has been inspected IAW a PM Air **AAIP**-  
Inspection, as per Promech Air GMM, Annex A, Rev.5, dated 2/1/2013  
and was determined to be in airworthy condition.

Approved for return to service.

Signature: [Redacted], Certificate, Type: A-P No.: [Redacted]

MAXIMUM HOURS BETWEEN OVERHAULS \_\_\_\_\_ HOURS.  
OR LIFE

# PM Air - NON-ROUTINE

270PA HOBBS: 6766.3 ETSO: 10300.3 PTSO: 732.1  
 DATE: 26-Feb-15 TTAF: 24334.3 ETT: 14470.7 PTT: 3595.2 PAGE: 1 OF  
 AREA: General STARTS: 35969 FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
1	C/W AAIP-125 <sup>4</sup> inspection <i>B</i>	I certify that this Aircraft has been inspected IAW a PM Air I/c. AAIP-125 <sup>4</sup> inspection, was determined to be in airworthy condition, and is approved for return to service.
INIT		
RG		
	SIGN: [redacted] DATE: 5/11/15 INSP	
	RII Y: N:RG CERT TYPE: A-1 # [redacted]	
2	C/W AD 83-02-01, Wing Strut Lugs & Tie Bar CW per AD Par a), SB3/37 par 5	inspected IAW AD an SB no Corrosion at this time, Painted LH Wing strut leading edge
INIT	CW per AD Par b), SB3/37 par 9	
RG		
	SIGN: [redacted] DATE: 3-5-15 INSP	
	RII Y: N:RG CERT TYPE: AP # [redacted]	
3	C/W AD 83-04-05, Control Column by visual inspection IAW par.	Removed Control Sock on lower inspection panel no cracks or Damage noted at this time
INIT	(a) of AD.	
RG		
	SIGN: [redacted] DATE: 3-5-15 INSP	
	RII Y: N:RG CERT TYPE: AP # [redacted]	
4	C/W AD 2011-18-11, Elevator Control Tabs inspect by measuring IAW	<del>by AD 2011-18-11. by visual and                      dimensional insp.</del>
INIT	Compliance (iii) and Viking MM	
RG	TR # 18, 19 and 20 per AD	
	SIGN: [redacted] DATE: 3-5-15 INSP	
	RII Y: N:RG CERT TYPE: AP # [redacted]	
5	PI 05-20-01A, Symmetry PI 05-20-01B, Rigging	Complied with All PI inspections
INIT	PI 05-20-01C, Cable Tension	
RG	PI 05-20-03, CPCP Inspection	
	SIGN: [redacted] DATE: 3-7-15 INSP	
	RII Y: N:RG CERT TYPE: AP # [redacted]	
6	PI 25-60-04, First Aid Kit PI 25-60-01, Life Jackets Inspection	Complete the same month aircraft is returned to service
INIT	PI 25-60-02, Life Jackets Re-Cert	
RG	PI 25-60-03, ELT inspect	
	SIGN: [redacted] DATE: 5/7/15 INSP	
	RII Y: N:RG CERT TYPE: A-1 # [redacted]	

# PM Air - NON-ROUTINE

270PA                      HOBBS: 6766.3    ETSO: 10300.3    PTO: 732.1  
 DATE: 26-Feb-15        TTAF: 24334.3    ETT: 14470.7    PTT: 3595.2    PAGE: 2 OF  
 AREA: General                      STARTS: 35969                      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
7	PI 25-60-07, Fire Extinguisher - cockpit PI 25-60-07, Fire Extinguisher - cabin	<i>C/W QS listed</i>
INIT		
RG		SIGN: [REDACTED]    DATE: <i>5-9-15</i> INSP
	RII Y:    N:RG	CERT TYPE: <i>AP</i> # [REDACTED]
8	27-05-01, Replace Elevator & Rudder Cables.	<i>Removed old cables/one Rudder Cable Brokers Pulled, Rigged on Testioned new cables, ops ck ok</i>
INIT		
RG		SIGN: [REDACTED]    DATE: <i>3-5-15</i> INSP
	RII Y:RG N:	CERT TYPE: <i>AP</i> # [REDACTED] <i>M</i>
9	PI 57-20-01, Wing Strut Fittings, Link & etc	<i>Removed Both struts, Remoad Links from struts + inspected no Damage @ this time</i>
INIT		
RG		SIGN: [REDACTED]    DATE: <i>3-5-15</i> INSP
	RII Y:RG N:	CERT TYPE: <i>AP</i> # [REDACTED] <i>M</i>
10	PI 61-05-01, Prop Balance/Vibration	
INIT		
RG		SIGN: [REDACTED]    DATE: [REDACTED]    INSP
	RII Y:    N:RG	CERT TYPE: [REDACTED] # [REDACTED]
11	PI 73-13-01 Fuel Nozzles & Borescope	<i>Yes PI 73-13-01</i>
INIT		
RG		SIGN: [REDACTED]    DATE: <i>5-5-15</i> INSP
	RII Y:RG N:	CERT TYPE: <i>AP</i> # [REDACTED] <i>M</i>
12	Replace Vacuum Filter	<i>removed and replaced with new</i>
INIT		
RG		SIGN: [REDACTED]    DATE: <i>5-7-14</i> INSP
	RII Y:    N:RG	CERT TYPE: <i>ADD</i> # [REDACTED]

# PM Air - NON-ROUTINE

270PA      HOBBS: 6766.3    ETSO: 10300.3    PTO: 732.1  
 DATE: 26-Feb-15    TTAF: 24334.3    ETT: 14470.7    PTT: 3595.2    PAGE: 3 OF  
 AREA: General      STARTS: 35969      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
13	Remove all antennas, clean all paint and corrosion, re install with DC-4	Removed antennas Repaired or Replaced Doubler's, cleaned Painted and Resealed with DC-4 on 5200
INIT		
RG	RII Y:    N:RG	SIGN: [redacted]    DATE: 3-5-15    INSP
		CERT TYPE: AP    # [redacted]
14	Horizontal stab trim drum is seized.	CW PI 27-40-01
INIT		
JD	RII Y: JD    N:	SIGN: [redacted]    DATE: 5/11/15    INSP
		CERT TYPE: AP    # [redacted]
15	CW PI 37-20-02 AOG Start Cuff	PI Completed
INIT		
m	RII Y:    N: m	SIGN: [redacted]    DATE: 8/8/15    INSP
		CERT TYPE: AP    # [redacted]
16	Replace CO Detector	Installed new CO Detector
INIT		
m	RII Y:    N: m	SIGN: [redacted]    DATE: 5/8/15    INSP
		CERT TYPE: AP    # [redacted]
17	CW AD 2014-17-01	CW Per AD - SB accomplishment instructions
INIT		
h	RII Y:    N: h	SIGN: [redacted]    DATE: 5/8/15    INSP
		CERT TYPE: A-1    # [redacted]
INIT		
	RII Y:    N:	SIGN:      DATE:      INSP
		CERT TYPE      #

# PM Air - NON-ROUTINE

270PA      HOBBS: 6766.3    ETSO: 10300.3    PTSO: 732.1  
 DATE: 26-Feb-15    TTAF: 24334.3    ETT: 14470.7    PTT: 3595.2    PAGE: 1 OF  
 AREA: Cockpit      STARTS: 35969      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
1	Remove windshields if they are scratched fix the scratches or replace the windshield.	<i>Non Airworthy will Reschedule</i>
INIT	If windshields are crazed replace them.	
RG	re-seal & re-install.	
	SIGN: [REDACTED]      DATE: 4/28/15      INSP	
	R/I   Y:      N:RG      CERT TYPE: A-P # [REDACTED]	
2	Install new starter switch	<i>Non Airworthy will Reschedule</i>
INIT		
RG		
	SIGN: [REDACTED]      DATE: 4/28/15      INSP	
	R/I   Y:      N:RG      CERT TYPE: A-P # [REDACTED]	
3	Remove nav flasher unit and change switch	<i>Non Airworthy will Reschedule</i>
INIT		
RG		
	SIGN: [REDACTED]      DATE: 4/27/15      INSP	
	R/I   Y:      N:RG      CERT TYPE: A-P # [REDACTED]	
4	Flap pump leaking	<i>Removed pump Replaced O Rings/ using kit # 1650-708- 2170, Reinstalled ops OK OK</i>
INIT		
RG		
	SIGN: [REDACTED]      DATE: 3-5-15      INSP	
	R/I   Y:RG   N:      CERT TYPE: AP # [REDACTED] <i>wa</i>	
5	Paint glair shield	<i>Non Airworthy will Reschedule When convenient</i>
INIT		
RG		
	SIGN: [REDACTED]      DATE: 4/28/15      INSP	
	R/I   Y:      N:RG      CERT TYPE: A-P # [REDACTED]	
6	Install arm rest	<i>Non Airworthy will Reschedule</i>
INIT		
RG		
	SIGN: [REDACTED]      DATE: 4/28/15      INSP	
	R/I   Y:      N:RG      CERT TYPE: A-P # [REDACTED]	



# PM Air - NON-ROUTINE

270PA                      HOBBS: 6766.3    ETSO: 10300.3    PTSO: 732.1  
 DATE: 26-Feb-15        TTAF: 24334.3    ETT: 14470.7    PTT: 3595.2    PAGE: 2 OF  
 AREA: Cockpit                      STARTS: 35969                      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
7	Misc seat upholstery Make all in cockpit fabric or vynal not mix & match.	<i>Inspected OK</i>
INIT		
RG	R II Y:    N:RG	SIGN: [REDACTED]    DATE: 5/7/15    INSP
		CERT TYPE: A-1    # [REDACTED]
8	If WR retract catch catch is not original replace with original.	<i>Demold old Replaced with new M C3F 452-7</i>
INIT		
RG	R II Y:    N:RG	SIGN: [REDACTED]    DATE: 5-5-12    INSP
		CERT TYPE: AP    # [REDACTED]
ITEM		
INIT		
RG	R II Y:    N:	SIGN:                      DATE:                      INSP
		CERT TYPE:                      #:
ITEM		
INIT		
RG	R II Y:    N:	SIGN:                      DATE:                      INSP
		CERT TYPE:                      #:
ITEM		
INIT		
RG	R II Y:    N:	SIGN:                      DATE:                      INSP
		CERT TYPE:                      #:
ITEM		
INIT		
RG	R II Y:    N:	SIGN:                      DATE:                      INSP
		CERT TYPE:                      #:

# PM Air - NON-ROUTINE

270PA                      HOBBS: 6766.3    ETSO: 10300.3    PTO: 732.1  
 DATE: 26-Feb-15        TTAF: 24334.3    ETT: 14470.7    PTT: 3595.2    PAGE:        OF  
 AREA: Cabin                      STARTS: 35969                      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
1	Roof leaks/Pax get wet Need to spray water at all seams in roof	<i>Sealed leak</i> <hr/>
INIT		
RG		SIGN: [Redacted]      DATE: 5-5-15      INSP RII Y:      N:RG      CERT TYPE: AP # [Redacted]
2	Misc seat upholstery Make all in cabin fabric or vinyl not mix & match.	<i>Inspected OK</i> <hr/>
INIT		
RG		SIGN: [Redacted]      DATE: 5/7/15      INSP RII Y:      N:RG      CERT TYPE: ACP # [Redacted]
3	Install good window bezels on all windows in cabin and door	<i>Parts on order</i> <hr/>
INIT		
RG		SIGN: [Redacted]      DATE: 5/6/15      INSP RII Y:      N:RG      CERT TYPE: ACP # [Redacted]
4	Fix headset jack angles	<i>New Airworthy will Reschedule</i> <hr/>
INIT		
RG		SIGN: [Redacted]      DATE: 5/7/15      INSP RII Y:      N:RG      CERT TYPE: ACP # [Redacted]
5		
INIT		
RG		SIGN: [Redacted]      DATE:              INSP RII Y:      N:      CERT TYPE:      #
6		
INIT		
RG		SIGN: [Redacted]      DATE:              INSP RII Y:      N:      CERT TYPE:      #

# PM Air - NON-ROUTINE

270PA

HOBBS: 6766.3

ETSO: 10300.3

PTSO: 732.1

DATE: 26-Feb-15

TTAF: 24334.3

ETT: 14470.7

PTT: 3595.2

PAGE: 1 OF

AREA: Paint

STARTS: 35969

FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
1	Paint RH wing strut	Removed strut. Sanded, primed + Painted + Re installed
INIT		
RG		SIGN: [Redacted] DATE: 3-7-15 INSP
	RII Y: N:RG	CERT TYPE: AP # [Redacted]
2	Paint seat legs?	OK at this time
INIT		
RG		SIGN: [Redacted] DATE: 5/7/15 INSP
	RII Y: N:RG	CERT TYPE: A-P # [Redacted]
3	Paint floors & floor rails?	Completed
INIT		
RG		SIGN: [Redacted] DATE: 5/7/15 INSP
	RII Y: N:RG	CERT TYPE: A-P # [Redacted]
4	Paint baggage comp floor & walls?	Inspected OK at this time
INIT		
RG		SIGN: [Redacted] DATE: 5/7/15 INSP
	RII Y: N:RG	CERT TYPE: A-P # [Redacted]
5	Clock removed from needs Reinstalled	clock reinstalled
INIT		
RG		SIGN: [Redacted] DATE: 5/6/15 INSP
	RII Y: N:RG	CERT TYPE: AP # [Redacted]
6		
INIT		
RG		SIGN: [Redacted] DATE: [Redacted] INSP
	RII Y: N:RG	CERT TYPE: [Redacted] # [Redacted]

# PM Air - NON-ROUTINE

270PA      HOBBS: 6766.3      ETSO: 10300.3      PTSO: 732.1  
 DATE: 26-Feb-15      TTAF: 24334.3      ETT: 14470.7      PTT: 3595.2      PAGE: 1 OF  
 AREA: Floats      STARTS: 35969      FLIGHTS: 30829

## MAINTENANCE DISCREPANCY

## CORRECTIVE ACTION

ITEM	MAINTENANCE DISCREPANCY	CORRECTIVE ACTION
1	Fix LH Bow	<i>Repaired YH Bow</i>
INIT		
RG	SIGN: _____ DATE: <i>5-5-15</i> INSP	
	R/I   Y:   N:RG	CERT TYPE: <i>AP #</i> _____
2	Install cleats	<i>Installed Cleats</i>
INIT		
RG	SIGN: _____ DATE: <i>5-5-15</i> INSP	
	R/I   Y:   N:RG	CERT TYPE: <i>AP #</i> _____
3	Strip & paint decks silver install Antiskid & Edge Sealer	<i>Touch-up existing Paint</i>
INIT		
RG	SIGN: _____ DATE: <i>5/7/15</i> INSP	
	R/I   Y:   N:RG	CERT TYPE: <i>A.P #</i> _____
4	Repair any damaged stringers, hatches, gang-nut rails, Etc	<i>Repair as needed</i>
INIT		
RG	SIGN: _____ DATE: <i>5/7/15</i> INSP	
	R/I   Y:   N:RG	CERT TYPE: <i>A.P #</i> _____
ITEM		
INIT		
RG	SIGN: _____ DATE: _____ INSP	
	R/I   Y:   N:	CERT TYPE: _____ # _____
ITEM		
INIT		
RG	SIGN: _____ DATE: _____ INSP	
	R/I   Y:   N:	CERT TYPE: _____ # _____

**MAINTENANCE MANUAL****5.200 ADDITIONAL INSPECTIONS AND PROCEDURES****5200-05 SCHEDULED INSPECTION ITEMS****PI 05-20-01A DHC-3 YEARLY SYMMETRY INSPECTION**N# 270 PA DATE 3-3-15 TAT 24334.3**INITIALS**

Inspect the aircraft for symmetry; record the following measurements taken from the same points on both sides of the aircraft and record:

- |   |           |
|---|-----------|
| 1) Measure from OB wing control arm to the horizontal stabilizer forward attach points;<br>Left <u>28'2"</u> , Right <u>28'2.25"</u>  | <u>JB</u> |
| 2) Measure from OB wing control arm to the prop hub nut;<br>Left <u>34'3"</u> , Right <u>34'3.25"</u>   | <u>JB</u> |
| 3) Measure from the horizontal stabilizer OB extremity (leading edge) to the Vertical Stabilizer top extremity (forward leading edge); Left <u>10'3"</u> , Right <u>10'3"</u> | <u>JB</u> |
| 4) Measure from the horizontal stabilizer OB extremity (leading edge) to the forward extremity of dorsal fin (forward leading edge); Left <u>13'1"</u> , Right <u>13'0.5"</u> | <u>JB</u> |
| 5) Measure the forward flying wires; Right <u>4'5.5"</u> , Left <u>4'5.5"</u>   | <u>JB</u> |
| 6) Measure the aft flying wires; Right <u>4'8.25"</u> , Left <u>4'8.25"</u>   | <u>JB</u> |
| 7) Measure the tram wires; Top <u>10'6.75"</u> , Bottom <u>10'6.75"</u>   | <u>JB</u> |
| 8) Compare these measurements to the last recorded symmetry measurements recorded   | <u>JB</u> |

Ref. PSM 1-3-2 Section 2.3

## MAINTENANCE MANUAL

PI 05-20-01B DHC-3 YEARLY RIGGING INSPECTION page 1 of 2

N# 270 P DATE 2-26-11 TAT 24334.3

Check and record the rigging of the:

INITIALS

- |  |                                |
|--|--------------------------------|
| <p>1) When checking or adjusting rigging only use factory made control locks.</p>  | <p><u>BH</u></p>               |
| <p>2) Aileron (with flaps up): Up <math>26.5^\circ \pm 1^\circ</math>, down <math>18.5^\circ \pm 1^\circ</math>, or up 5.2 – 5.6 inches, down 3.54 – 3.95 inches. Reference point, trailing edge of IB flap.<br/>                 a) RH: Up <u>26</u>, Down <u>19</u><br/>                 b) LH: Up <u>26</u>, Down <u>19</u></p> | <p><u>BH</u><br/><u>94</u></p> |
| <p>3) Elevators: Up <math>23^\circ + 2^\circ</math> to <math>-1^\circ</math>, down <math>15^\circ + 2^\circ</math> to <math>-1^\circ</math> or up 9.68 – 10.98 inches, down 6.18 – 7.5 inches. Reference point, top IB corner of elevator skin.<br/>                 a) Up <u>25</u>, Down <u>14</u></p>                           | <p><u>BH</u></p>               |
| <p>4) Rudder: Left &amp; right <math>25^\circ \pm 1^\circ</math>, or 13.6 – 14.75 inches. Reference point, trailing edge at top of tab.<br/>                 a) Left <u>25.5</u>, Right <u>25</u></p>  | <p><u>W</u></p>                |
| <p>5) Stabilizer; nose up <math>4.5^\circ \pm 0.5^\circ</math>, nose down <math>3.5^\circ \pm 0.5^\circ</math>.<br/>                 a) Up <u>4.5</u>, Down <u>3</u></p>   | <p><u>BH</u></p>               |
| <p>6) Elevator trim: Up (flaps down) <math>5^\circ \pm 1^\circ</math>, down (flaps up) <math>5^\circ \pm 0.5^\circ</math>, or up (flaps down) 0.54 – 0.81 inches, down (flaps up) 0.61 – 0.74 inches. Reference point, trailing edge of tab.<br/>                 a) Up <u>6</u>, Down <u>6</u></p>                                | <p><u>BH</u></p>               |
| <p>7) Elevator servo: Up (elevators down) <math>10^\circ \pm 1^\circ</math>, down (elevators up) <math>23^\circ \pm 1^\circ</math>, or up (elevators down) 0.63 – 0.77 inches, down (elevators up) 1.54 – 1.67 inches. Reference point, trailing edge of tab.<br/>                 a) Up <u>10</u>, Down <u>22</u></p>             | <p><u>BH</u></p>               |
| <p>8) Rudder trim: Left &amp; right <math>19^\circ \pm 1^\circ</math>, or 1.14 – 1.23 inches. Reference point, trailing edge, top of tab.<br/>                 a) Left <u>1.2</u>, Right <u>1.2</u></p>  | <p><u>W</u></p>                |

# MAINTENANCE MANUAL

## PI 05-20-01B DHC-3 YEARLY RIGGING INSPECTION page 2 of 2

N# 270 PA DATE 2-26-15 TAT 24334.3

### INITIALS

9) IB nose flap, select 1:

- ◆ Factory de Havilland - down  $35^\circ \pm 2^\circ$ .
- ◆ For PT6 Otters without Harbour Air 9000 Lb STC - down  $24^\circ \pm 2^\circ$ .
- ◆ For PT6 Otters with Harbour Air 9000 Lb STC - down  $29^\circ \pm 2^\circ$ .

a) Down 23.

BH

10) IB Trailing flap, select 1:

- ◆ Factory de Havilland - down  $60^\circ \pm 2^\circ$  or 15.87 - 17.25 Reference point, inboard trailing edge.
- ◆ For PT6 Otters without Harbour Air 9000 Lb STC - down  $45^\circ \pm 2^\circ$ .
- ◆ For PT6 Otters with Harbour Air 9000 Lb STC - down  $52^\circ \pm 2^\circ$ .

a) Down 45.

BH

11) OB nose flap, select 1:

- ◆ Factory de Havilland - down  $26^\circ \pm 2^\circ$ .
- ◆ For PT6 Otters without Harbour Air 9000 Lb STC - down  $18^\circ \pm 2^\circ$ .
- ◆ For PT6 Otters with Harbour Air 9000 Lb STC - down  $20.5^\circ \pm 2^\circ$ .

a) Down 19.

BH

12) Flap position measured on IB nose flap:

a) Factory de Havilland & Harbour Air 9000 Lb STC - Cruise  $0^\circ$   
Cruise 0.

~~NA BH~~

b) Factory de Havilland & Harbour Air 9000 Lb STC - Climb  $15^\circ$   
Climb 15.

~~NA BH~~

c) Factory de Havilland & Harbour Air 9000 Lb STC - Take-off  $30^\circ$   
Take-off 30.

~~NA BH~~

d) Factory de Havilland & Harbour Air 9000 Lb STC - Land  $35^\circ$   
Land 35.

~~NA BH~~

e) Factory de Havilland - Full (No flaps past Landing for 9000 Lb STC)  
Full OK.

~~NA BH~~

# MAINTENANCE MANUAL

## PI 05-20-01C DHC-3 YEARLY CABLE TENSION INSPECTION

N# 270PA DATE 2-26-15 TAT 24334.3

INITIALS

- |   |                     |
|---|---------------------|
| <p>1) Because cable tension varies due to temperate and the temperature the aircraft will be operated in. See PSM 1-3-2, part 2.18, 2.19, &amp; 2.20 for correct tensions at the time the cables are checked. Enter tensions from PSM 1-3-2, part 2.20 in space marked target for each cable below.</p> | <p><u>BH</u></p>    |
| <p>2) Elevators; target <u>35</u> Lbs, actual tension <u>83</u> Lbs.</p>  | <p><u>BH</u></p>    |
| <p>3) Rudder; target <u>85</u> Lbs, actual tension <u>83</u> Lbs.</p>   | <p><u>BH</u></p>    |
| <p>4) Ailerons operating cable in wings;<br/>target <u>56</u> Lbs, actual tension <u>51</u> Lbs.</p>  | <p><u>BH</u></p>    |
| <p>5) Ailerons balance cable in wings;<br/>target <u>38</u> Lbs, actual tension <u>35</u> Lbs.</p>  | <p><u>BH</u></p>    |
| <p>6) Ailerons operating cable in fuselage;<br/>target <u>38</u> Lbs, actual tension <u>40</u> Lbs.</p>   | <p><u>BH</u></p>    |
| <p>7) Rudder trim; target <u>22</u> Lbs, actual tension <u>18</u> Lbs.</p>  | <p><u>BH</u></p>    |
| <p>8) Stabilizer; target <u>22</u> Lbs, actual tension <u>18</u> Lbs.</p>   | <p><u>BH</u></p>    |
| <p>9) Flap Interconnect tab (use 4, 1/16 DIA 7X7),<br/>target <u>22</u> Lbs, actual tension <u>20</u> Lbs.</p>  | <p><u>BH</u></p>    |
| <p>10) If there are any discrepancies, record on MF02 for correction.</p>   | <p><u>NA BH</u></p> |



## MAINTENANCE MANUAL

PI 05-20-03 DHC-3 12 MONTH CPCP AND STRUCTUR INSPECTION page 1 of 3

N# 270PA DATE 2-26-15 TAT 24334.3

Pre inspection		INT.
1.	Fold up side seats and remove the bulkhead seats; inspect for general condition, security paint condition and lube (2) and note any fasteners that need repaired.	BH -
2.	Remove the aft baggage compartment access panel and note any fasteners that need repaired.	BH -
3.	Remove all tail access panels and note any fasteners that need repaired.	BH -
4.	Remove the wing root-panels, wingtips, landing light cover(s) and all wing inspection and access panels and note any fasteners that need repaired.	BH -
5.	Remove the belly and fuel bay panels and note any fasteners that need repaired.	BH -
Inspection		
Cockpit		
6.	Inspect all accessible wiring and electrical components. Check for wear, corrosion, general condition, and chafe protection.	BH -
7.	Inspect all accessible plumbing. Check for wear, corrosion, general condition, and chafe protection.	BH -
8.	Inspect all accessible engine and heater controls. Inspect all push/pull controls, rods, rodends, and bearings for wear, corrosion and general condition.	BH -
9.	Inspect all accessible structure. Check for corrosion, general condition, damage, loose rivets, and fasteners.	BH -
10.	Inspect fuel shutoff system for proper operation, wear, corrosion, general condition, and chafe protection.	BH -
Cabin		
11.	Inspect all accessible structure. Check for corrosion, general condition, damage, loose rivets, and fasteners.	BH -
12.	Inspect all accessible wiring and electrical. Check for corrosion, general condition, damage, loose rivets, and fasteners.	BH -
13.	Remove the bulkhead seat posts and separate the steel end from the aluminum post; inspect for general condition, security paint condition and lube (3).	BH -
14.	Remove all 4 floor rails; inspect for corrosion, general condition, security paint condition, and lube (3).	BH -
15.	Remove all 6 floor sections; inspect for general condition, security paint condition, dents, and soft spots.	BH -
16.	Remove the mat in the baggage compartment; inspect for general condition, security paint condition.	BH -
17.	Inspect all exposed areas for corrosion, general condition, paint condition and corrosion inhibitor.	BH -
18.	Re-apply any missing paint and apply a good coat of Corrosion Block or equivalent corrosion inhibitor.	BH -

Reference: Lubricant types

(1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.

(2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.

(3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

## MAINTENANCE MANUAL

PI 05-20-03 DHC-3 12 MONTH CPCP AND STRUCTUR INSPECTION page 2 of 3

N# 270PA DATE 2-26-15 TAT 24334.3

	INT.
<b>Cockpit exterior</b>	
19. Inspect all wiring and electrical components, check for wear, corrosion, general condition, chafe protection and lube (2).	BH
20. Inspect all plumbing, check for wear, corrosion, general condition, and chafe protection.	BH
21. Inspect all engine and heater controls. Inspect all push/pull controls, rods rodends, and bearings for wear, corrosion and general condition.	BH
22. Inspect all structure, Check for corrosion, general condition, damage, loose rivets, and fasteners.	BH
23. Inspect fuel shutoff system for proper operation, wear, corrosion, general condition, and chafe protection.	BH
<b>Cabin exterior</b>	
24. Inspect all wiring and electrical components, check for wear, corrosion, general condition, and chafe protection.	BH
25. Inspect all plumbing, check for wear, corrosion, general condition, and chafe protection.	BH
26. Inspect all structure, Check for corrosion, general condition, damage, loose rivets, and fasteners.	BH
27. Inspect the fuel gallery area – fuel quantity X-mitters, cannon plugs, all wiring, fuel selector, check valve, quick drains, and all plumbing for wear, corrosion, general condition and leaks.	BH
<b>Empennage &amp; Tail</b>	
28. Wing internal – inspect spars, ribs, stringers, and corrugations, all through every opening with light and mirror for loose rivets, fasteners, cracks, corrosion, general condition and lube (2).	BH
29. Wing attach fittings – inspect internal and external front and rear spar IB end fitting area with light and mirror for loose rivets, fasteners, cracks, corrosion, general condition and attach points for security by vigorously shaking the wing and lube (2).	BH
30. Wing spar attach – inspect internal and external fitting area with light and mirror for loose rivets, fasteners, cracks, corrosion, general condition, and attach points for security by vigorously shaking the wing and lube (2).	BH
31. Wing struts – inspect struts, and attach fittings, for loose rivets, fasteners, cracks, corrosion, general condition and attach points for security by vigorously shaking the wing and lube (2).	BH
32. Inspect pitot/ststic system and lighting wiring throughout its entire length for general condition and wear.	BH
<b>Wings &amp; Struts</b>	
33. Wing internal – inspect spars, ribs, stringers, through every opening with light and mirror for loose rivets, fasteners, cracks, corrosion, general condition and lube (2).	BH
34. Wing spar ends, and spar and strut attach fittings – inspect internal and external front spar, rear spar IB end fitting area and strut fitting area with light and mirror for loose rivets, fasteners, cracks, corrosion, general condition. Check attach points for security by vigorously shaking the wing with someone feeling the fittings for movement and lube (2).	BH
35. Wing srtruts – inspect strut, attach fittings, and hardware for cracks, corrosion, general condition and lube (2).	BH
36. Inspect pitot/ststic system and lighting wiring throughout its entire length for general condition and wear.	BH

## MAINTENANCE MANUAL

PI 05-20-03 DHC-3 12 MONTH CPCP AND STRUCTUR INSPECTION page 3 of 3

N# 270PA DATE 2-25-15

## Corrosion protection application

## Cockpit &amp; Cabin

37. Fog accessible cockpit surfaces. JD

38. Fog accessible cabin surfaces. JD

39. Fog entire area under cockpit. JD

40. Fog entire fuel bay area under cabin. JD

## Empennage &amp; Tail

41. Fog entire vertical stabilizer and tail from inside working your way out through the cabin. JD

42. Fog entire vertical stabilizer from any and all openings. JD

43. Fog entire Horizontal stabilizer from any and all openings. JD

44. Fog entire empennage and tail from any and all openings. JD

45. Fog entire rudder, elevators and trim tabs from any and all openings. JD

## Wings &amp; Struts

46. Fog entire RH &amp; LH wing from any and all openings. BH

47. Fog entire RH &amp; LH flap and IB nose flap from any and all openings. BH

48. Fog entire RH &amp; LH aileron and OB nose flap from any and all openings. BH

49. Fog entire RH &amp; LH strut from any and all openings. BH

## Post inspection re-assembly

**Note: Put all hardware in a container of Corrosion Block and install wet.**

50. Replace every screw, bolt, washer and nut in the floor assemblies with SS equivalents. JB

51. Re-apply a good coat of Corrosion Block or equivalent corrosion inhibitor or lube (2) to all fasteners and entire nutplate. JD

**Note: Put all hardware in a container of Corrosion Block or equivalent and install wet.  
Apply a coat of Corrosion Block or equivalent to all surfaces of all under floor hardware and all nut plates.**

52. Re-install the belly and fuel bay panels. JB

53. Re-install the wing root-panels, wingtips, landing light cover(s) and all wing inspection and access panels. JD

54. Re-install dorsal fairing and all tail access panels. JB

55. Re-install the aft baggage compartment access panel. JD

56. Re-install the floor rails, floor panels and bulkhead posts with plastilube on both ends of the post where it slides into the ceiling and lower steel fitting. JD

57. Re-install (if installed) the mat in the baggage compartment. JB

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-3purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

## MAINTENANCE MANUAL

## PI 05-20-05 DHC-3 CONTROL SYSTEM AND CABLE INSPECTION 1 OF 4

N# 270PA DATE 2-26-15 TAT 24334.3

Pre inspection	INIT
Remove the following inspection panels or fairings to inspect cables, pulleys, fairings, & system components:	
1. Cockpit - aft & OB of both crew seats and control yoke covers for aileron systems, aft & RH of pilot seat for elevator system, & headliner to access to rudder system.	BH
2. Cabin headliner - center and loosen side & aft panels to access wing root area to inspect aileron, flap, & trim systems.	BH
3. Aft baggage compartment panel.	BH
4. Under cockpit panel & forward belly fairing over the fuel selector.	BH
5. Cabin outside on lower RH side of fuselage; 1 behind strut & 1 behind cabin door.	BH
6. RH & LH Wing - wing root inspection panel on top of aircraft, all 4 under wing, mid aileron, and in trailing edge cove mid aileron.	BH
7. Tail - RH lower hinged rudder quadrant, RH upper elevator quadrant, LH horizontal stabilizer actuator, LH rudder trim actuator.	BH
<b>For every cable at every pulley and fairing WITH SOMEONE MOVING THE CONTROLS FULL TRAVEL</b>	
a) Inspect cable throughout the full area the cable can come in contact with the pulley or fairlead, (or anything else that could cause wear) and especially where cable contacts the pulley or fairlead when the control locks are in place or the aircraft is in straight an level flight:	
b) Inspect both sides (when possible) of every pulley and fairlead with a paper type towel for frayed strands or jiggers.	
AND	
c) Clean the cable with solvent or light oil and visually inspect them for blended, worn or shiny areas.	
AND	
d) If there is more than 40 to 50 % blending of any 1 or more individual strands of any cable in any area the cable must be replaced prior to flight.	
AND	
e) If there is blending of less than 40 to 50 % but more than 20 % of any strand of cable in any area the cable must be put on the follow up items list for repeat inspection until it is replaced.	

## MAINTENANCE MANUAL

## PI 05-20-05 DHC-3 CONTROL SYSTEM AND CABLE INSPECTION 2 OF 4

N# 270PA DATE 2-26-15 TAT 24334.3

Cockpit Internal	
1. Inspect all engine controls in cockpit through their entire range of travel. Check all push/pull rods, cables/housings, rodends, bearings/pivot bushings, and where the housings and levers are secured to the structure. Check for smooth operation, wear, chafing, all rivets for any signs of looseness or wear, fasteners for security and <b>lube everything as applicable</b> .	BH
➤ Check: throttle/ power lever, propeller, fuel condition, and emergency fuel controls.	
➤ Check: emergency fuel shutoff, inertial separator, and cabin heater controls	BH
2. Yoke – check ailerons and elevators for full, free, and smooth operation throughout its full range of travel.	BH
3. Ruder – check for full, free, and smooth operation throughout its full range of travel.	BH
4. Rudder, elevator and aileron trim – check for full, free, and smooth operation throughout its full range of travel.	BH
5. Yoke – inspect welds at bottom of upright and casting at top of upright especially the fasteners that hold the casting to the yoke	BH
6. Ailerons – cables, chains, sprockets, pulleys, and fairleads: in the yoke, going up both side walls, into the cabin, and lube (2) chins, sprockets, pulleys and fairleads.	BH
7. Rudder - pedals, levers, push/pull rods, rodends, linkages; adjusting mechanism, and attaching hardware for condition, corrosion, wear, security and lube (2).	BH
8. Flap system – check the pump, selector, and all plumbing for leakage, security, properly smooth operation throughout its full range of travel, wear and lube (2).	BH
9. Rudder trim box – check cables, spools/drums, guides, pulleys, and fairleads for condition, security, evidence of wear, lube (2).	BH
10. Elevator trim system – check cables, spools/drums, guides, pulleys, and fairleads in cockpit area for condition, security, evidence of wear, lube (2).	BH
11. Aileron trim mechanism – check the bungee, gears, and levers for excessive wear, and lube (2)	BH
12. Fuel selector – from the forward drum in cockpit, down through the floor, lube (2) all pulleys, fairleads, drum, and mechanism.	BH
Cabin Internal	
13. Ailerons – check directional cables and pulleys from the forward (cabin) circuit bellcrank, to/through the cabin at the wing root, lube (2) all pulleys, fairleads, drum, and mechanism.	BH
14. Ailerons – check balance cables and pulleys from the cabin wall at the wing root to the other cabin wall at the wing root, lube (2) all pulleys, fairleads, drum, and mechanism.	BH
15. Flap system – check actuator, ratchet valve, thermal relief valve, bell cranks, push/pull rods, rodends, linkages, and all plumbing for leakage, condition, security, wear and lube (2).	BH
16. Rudder and elevator trim – check from cockpit sealing, through cabin and baggage compartment and lube (2).	BH
17. Flap interconnect - cables from flap belcrank in cabin ceiling through cabin and baggage compartment and lube (2).	BH

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil: LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

## MAINTENANCE MANUAL

## PI 05-20-05 DHC-3 CONTROL SYSTEM AND CABLE INSPECTION 3 OF 4

N# 270 PA DATE 2-26-15 TAT 24334.3

## Cabin Exterior

18. Flap system outside (both sides) – push/pull rods and rodends; inspect for condition, security, evidence of wear. Pay extra attention to the rods and rollers; make sure the rollers roll freely, are not worn and are adjusted snug so the rod will not vibrate and lube (2).	BH
19. Rudder and elevator control cables RH 2 inspection panels lube (2).	BH
20. Yoke – inspect welds at bottom of upright for cracks, any sign of bending or deformation and corrosion.	BH
21. Yoke – inspect hardware and surrounding area where yoke is secured to the structure.	BH
22. Aileron – yoke cables, chains, sprockets, pulleys, and fairleads in the yoke, and going into the walls and lube (2) chins, sprockets, pulleys and fairleads.	BH
23. Aileron – cables to the side walls cables and all pulleys, lube (2) all pulleys and fairleads.	BH
24. Elevator – lower yoke lever assembly, Elevator Push/Pull rod, rodends, triangle bellcrank, bearings and pivot areas, and lube (2).	BH
25. Elevator – cables to the side walls cables and all pulleys, lube (2) all pulleys and fairleads.	BH
26. Ruder – torque tube/bar, bellcranks, bearings system for corrosion, condition, security, evidence of wear and lube (2).	BH
27. Rudder – cables to the side walls cables and all pulleys, lube (2) all pulleys and fairleads.	BH
28. Water rudders – check control cables and all pulleys, lube (2) all pulleys and fairleads.	BH
29. Fuel selector cables and all pulleys, from the cockpit floor to the selector & drum, lube (2) all pulleys, fairleads, drum, and mechanism.	BH
30. Inspect the fuel shutoff, and cabin heater systems and plumbing for corrosion, condition, security, evidence of wear and lube (2).	BH

## Wing

31. Flap controls – inspect internal and external pushrods, rodends, both bellcranks, both pivot brackets, and roller guides at IB wing root, from wing root all the way to the middle of the aileron for security, general condition and lube (2).	BH
32. Aileron controls – inspect cables, pulleys, wheel pulley, bellcrank, pushrods, and rodends from wing root all the way to the aileron, for security, general condition and lube (2).	BH

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

## MAINTENANCE MANUAL

## PI 05-20-05 DHC-3 CONTROL SYSTEM AND CABLE INSPECTION 4 OF 4

N# 270PA DATE 2-26-15 TAT 24334.3

Empennage Internal	
33. Rudder – check control cables, bellcrank/quadrant, push/pull rods, rodends, and supports to the fuselage and area of fuselage that supports it, and lube (2) all pulleys and fairleads.	BH
34. Elevator - check control cables bellcrank/quadrant, push/pull rods, rodends, and supports to the fuselage and area of fuselage that supports it, and lube (2) all pulleys and fairleads.	BH
35. Elevator and rudder – check all pulleys in cluster just aft of baggage compartment BH for bearing or grove wear.	BH
36. Rudder trim – check cables from baggage compartment to end of tail, lube (2) all pulleys and fairleads.	BH
37. Elevator trim – check cables from baggage compartment to end of tail, lube (2) all pulleys and fairleads.	BH
38. Elevator and rudder trim – check all pulleys and adjuster in cluster just aft of baggage compartment BH for bearing or grove wear.	BH
39. Flap inter connect cables from baggage compartment to end of tail, lube (2) all pulleys and fairleads.	BH
Tail External	
40. Rudder – check push/pull rod, rod end, hardware, and lube (2).	BH
41. Elevator – check push/pull rod, rod end, hardware, and lube (2).	BH
42. Rudder trim – check tab for delamination, push rods, rodends hardware, cables, screw jack and pulleys in tail, lube (2) all pulleys, fairleads, drum, and mechanism.	BH
43. Elevator trim m- check cables, screw jack, pulleys, push/pull rods, and rodends in tail, and lube (2).	BH
44. Flap interconnect – check cables, levers and pulleys, push/pull rods, and rodends in tail, lube (2).	BH

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

# MAINTENANCE MANUAL

## PI 25-60-04 FIRST AID KIT INSPECTION WORKSHEET

N# 270PA DATE 2-25-15 TAT 24334.3

After inspecting and if needed restocking a First Aid Kit, place a self-adhesive tamper seal across the edge of the lid so that if the kit is opened the seal will be broken. When the seal is broken, or the annual inspection is due, the First Aid Kit is inventoried, inspected, and resealed with a new label. Write the date the seal is installed on the First Aid Kit and clear the discrepancy.

### For First Aid Kit That Have A Inventory List Inside The Box

INITIALS

1. Inspect First Aid Kit per checklist inside First Aid Kit.
2. Record expiration date (if applicable) NA

BH  
BH

### For first aid kit that do not have a inventory list inside the box Ensure The Following Are In The First Aid Kit.

Description of item (or equivalent)	Otters		Beavers	
	Per Kit	Initials	Per Kit	Initials
1. Adhesive Bandage compresses, 1-inch	1	<u>BH</u>	2	<u>NA</u>
2. Antiseptic swabs Exp Date: <u>01/14</u>	2	<u>BH</u>	2	
3. Ammonia Inhalants Exp Date: <u>11/13</u>	1	<u>BH</u>	1	
4. Bandage compresses, 4-inch	8	<u>BH</u>	1	
5. Triangular bandage compresses, 40-inch	5	<u>BH</u>	1	
6. Arm splint, non-inflatable	1	<u>BH</u>	0	
7. Leg splint, non-inflatable	1	<u>BH</u>	0	
8. Roller bandage, 4-inch	4	<u>BH</u>	0	
9. Adhesive tape, roll	1	<u>BH</u>	1	
10. Bandage scissors	1	<u>BH</u>	0	
11. Protective gloves	1	<u>BH</u>	0	
12. Scissors & Forceps	0	<u>NA</u>	1	

### All aircraft

1. All contents in the kit are in good condition, dry and sealed.
2. The tamper seal has been installed per above instructions.
3. Enter Date on Tamper seal 2-26-15.

BH  
BH  
BH

Ref. FAR 121.309, 135.177, and Appendix A to Part 121



**MAINTENANCE MANUAL****5.200 27 FLIGHT CONTROLS****PI 27-05-01 REPLACE ELEVATOR AND RUDDER CABLES**N# 270PA DATE 2-26-15 TAT 24334.3

1) For the DHC-3 &amp; -2 change both forward rudder control cables.

INITIALSNA BH

2) For the DHC-3 only change both forward elevator control cables.

BH**Rig the control travel**

3) Rig the rudder:

For the Otter - left & right  $25^\circ \pm 1^\circ$ , or 13.6 - 14.75 inches. Measured from trailing edge at top of tab.BHFor the Beaver - left & right  $25^\circ \pm 2^\circ$ , or 11.4 inches  $\pm$  0.9 inches. Measured from bottom aft end or bottom of trim tab in neutral.NA BH4) For the Otter - up  $23^\circ + 2^\circ$  to  $-1^\circ$ , down  $15^\circ + 2^\circ$  to  $-1^\circ$  or up 9.68 - 10.98 inches, down 6.18 - 7.5 inches. Reference point, top IB corner of elevator skin.BH**Adjust the cable tension:**

Because the cable tension varies due to temperate the aircraft will be operated in. For the DHC-2 See PSM 1-2-2, part 2.40.2A and for the DHC-3 See PSM 1-3-2, part 2.20 correct tensions at the time the cables are checked. Enter tensions from PSM in space marked target for each cable below.

5) Elevators; target 55 Lbs, actual tension 85 Lbs.BH6) Rudder; target 55 Lbs, actual tension 83 Lbs.BH

## MAINTENANCE MANUAL

### 5.200-57 WING STRUTS

#### PI 57-20-01 WING STRUT, END FITTINGS, LINKS, AND LUG INSPECTION

Aircraft: 270 Date: 3-7-15 TAT: 2433+3 Page 1 of 2

WING STRUT	INITIALS		
	LH	RH	Insp
1) Support the wing under the main/front spar OB of the wing strut.	BH	BH	N/A
2) Remove the cotter pins and nuts from the upper and lower strut bolts.	BH	BH	N/A
3) Adjust the wing up and down slightly by hand to remove the bottom bolt.	BH	BH	N/A
4) Lift/work the wing sufficiently to remove the upper strut from the fuselage fitting.	BH	BH	N/A
5) Remove the lower strut bolt and strut.	BH	BH	N/A
6) DHC-3 only – remove the cotter pins and nuts from the upper and lower strut link bolts.	BH	BH	N/A
7) DHC-3 only – remove the strut link bolts and links remember the orientation of the link in the strut for reassembly.	BH	BH	N/A
8) Thoroughly clean the strut ends, links (DHC-3 only), fuselage and wing fittings.	BH	BH	N/A
9) Inspect the strut ends and links (DHC-3 only) for any signs of corrosion or damage.	BH	BH	N/A
10) Inspect the fuselage lugs and wing lugs for any signs of corrosion or damage.	BH	BH	N/A
11) Inspect bolts for cracks, bending, corrosion, thread damage or any other signs of damage, if damaged replace with the proper part # bolt.	BH	BH	N/A
12) Inspect all nuts and washers for cracks, corrosion, thread damage or any other signs of damage, if damaged replace with the proper part # nut or washer. Self locking nuts must be replaced if they can be threaded onto a bolt past the locking device without the use of tools.	BH	BH	N/A
13) If there is any surface corrosion, a little corrosion can be blended out with fine sand paper.	BH	BH	N/A
14) DHC-3 – the minimum thickness of the fuselage lug after all corrosion is removed is 0.955 inches in any one location (Per AD 83-02-01, ref SB 3/37RA).	BH	BH	m
15) All other fittings and lugs are allowed to have very little thickness reduction.	BH	BH	m
16) After all corrosion has been removed and the thickness reduction if any has been determined to be acceptable, etch and alodine all aluminum parts, prime and paint all strut ends and links (DHC-3 only) and fuselage lugs and wing lugs.	BH	BH	m
<b>NOTE: During assembly ensure everything is adequately coated with Cor-Ban 27.</b>			
17) DHC-3 only – orientate and install strut links into strut ends and insert bolts (with washer for Harbour Air struts only) from the top down through the strut. ➤ DHC-3 struts – bolt C3W114-3 ➤ Harbour Air DHC-3 struts – bolt NAS6212-58D & washer AN960D1216L.	BH	BH	m
18) DHC-3 only – install washer and nut finger tight. ➤ DHC-3 struts – washer AN960-916 and nut AN320-9 ➤ Harbour Air DHC-3 struts – washer AN960D1216L & nut AN320-12.	BH	BH	m

**MAINTENANCE MANUAL****PI 57-20-01 WING STRUT, END FITTINGS, LINKS, AND LUG INSPECTION**Aircraft: 270 PA Date: 2-25-19 TAT: 2 + 3343

Page 2 of 2

WING STRUT	INITIALS		
	LH	RH	Insp
19) Slide the strut on the lower (fuselage) fitting, align the bolt holes and install the bolt with washer under head. ➤ DHC-3 struts – bolt C3W129-3 & washer AN960D1216 ➤ Harbour Air DHC-3 struts – bolt NAS6212-38D & washer AN960D1216. ➤ DHC-2 bolt AN180C26 (SB 2/4) & washer AN960-1016.	BH	BH	N/A
20) Lift/work the wing sufficiently to slide the upper strut end over the (wing) fitting and align the bolt holes and install the bolt with washer under head ➤ DHC-3 struts – bolt C3W128-3 & washer AN960D1216L ➤ Harbour Air DHC-3 strut – bolt or NAS6612-38D & washer AN960D1216. ➤ DHC-2 bolt C2W497 & washer AN960-1016.	BH	BH	N/A
21) Ensure that the strut is orientated properly and install the upper washer and nut finger tight ➤ DHC-3 struts – washer AN960D1216 & nut AN320-12. ➤ Harbour Air DHC-3 struts – washer AN960D1216 & nut AN320-12. ➤ DHC-2 washer AN960-816 & nut AN320-8.	BH	BH	N/A
22) Install the lower washer and nut finger tight. DHC-3 will require 2 washers due to the tie down ring being removed to prevent corrosion. ➤ DHC-3 strut – 2 Ea. washer AN960D1216 & nut AN320-12 ➤ Harbour Air DHC-3 strut – washer AN960D1216 & nut AN320-12. ➤ DHC-2 washer AN960-1016 & nut AN320-10.	BH	BH	N/A
23) Tighten each nuts so both washers are snug and do not rotate, tighten to align next cotter pin hole and install cotter pin. a) Upper cotter pin: ➤ DHC-3 strut – MS24665-376. ➤ Harbour Air DHC-3 strut – MS24665-376. ➤ DHC-2 struts – MS24665-372.	BH	BH	u
b) Lower cotter pin: ➤ DHC-3 strut – MS24665-376. ➤ Harbour Air DHC-3 – strut MS24665-376. ➤ DHC-2 struts – MS24665-372.	BH	BH	u
c) DHC-3 only – 2 strut link bolt cotter pins: ➤ DHC-3 struts – MS24665-374. ➤ Harbour Air DHC-3 strut – MS24665-376.	BH	BH	u
24) Apply corrosion protection, spread a thin even coat of Cor-Ban 27 to all bare areas, fasteners and pack in all castle nut castellations.	BH	BH	N/A

Ref. PSM 1-2-3, PSM1-3-2, and Harbour Air - 9000 lb STC SA02735NY

## MAINTENANCE MANUAL

**PI 57-20-02 AOG GROSS WEIGHT KIT STRUT CUFF INSPECTION**

N# 270PA DATE 2/25/15 TAT 24334.3

	INITIALS
1) Familiarize yourself with AOG STC SA00438NY & MMS-191-95-001,	
2) Remove RH & LH wing strut cuff Per AOG instructions.	M M
3) Inspect RH & LH wing strut and wing strut cuffs Per AOG instructions.	M
4) Protect RH & LH struts Per AOG instructions.	M M
5) Re- install RH & LH strut cuffs Per AOG instructions.	M M
6) Inspect Wing Strut and Cuff IAW STC instructions.	M

Ref. AOG STC SA00438NY and AOG MMS-191-95-001

# MAINTENANCE MANUAL

## 5.200-61 PROPELLER

### PI 61-05-01 PROP BALANCE, VIBRATION ANALYSIS & POWER RUN WORKSHEET

N#: 270PA DATE: 2/25/15 TAT: 29334.3 Page 1 of 3

SET-UP:	INT
1. File blades and Grease hub.	JD
2. Check Blade slippage marks for proper alignment.	JD
3. Check BETA Block for condition.	JD
4. If non scheduled Prop balance i.e. Pilot discrepancy check Beta Ring for proper and uniform adjustment.	JD
5. Place Photocell and Velocimeter on engine at top of OSG.	JD
6. If the reflective tape came off, replace reflective tape.	JD
7. Rout cables in lower cowl and out along cowl and fuselage, secure with duct tape and rout into co-pilot door window.	JD
8. Attach wiring to Channel No. 1A and turn power on for self test.	JB
PROP BALANCE CHECK:	
9. Select <b>PROPELLER BALANCE</b> from Main Menu and Select <b>New Job</b> .	JB
10. Set N#; move cursor after each entry and press <b>START</b> .	JB
11. Select IDC & Press <b>START</b> .	JB
12. Select Horsepower and press <b>START</b> .	JB
13. Leave sensitivity at default setting and press <b>START</b> .	JB
14. Adjust photocell so it aligns with reflector tape and the indicator light on the back of the photocell flashes at its fastest rate, tighten the velocimeter.	JA
15. Start the engine and cycle the prop 2 times to get all the air out of the hub.	JD
16. Using RPM on Vibrex 2000A, adjust PL to 1900 for -34 and 1800 for -135A and allow to stabilized and press <b>START</b> .	JD
17. When the Vibrex unit has finished collecting data press <b>START</b> .	JD
18. If prop balance is within limits; less than .20 IPS (.05 IPS preferred) record IPS: <u>.47</u> , Clock Angle: <u>1211</u> and skip to #41. <span style="float: right;">-19</span>	JD
FIRST PROP BALANCE RUN:	
19. If the results are not acceptable shut down engine and remove all existing balance weights on the spinner bulkhead and re-do steps 9 to 17.	Mw
20. Observe display note and press <b>START</b> .	
21. Record the solution IPS: _____, Clock Angle: _____ and power <b>off</b> the Vibrex unit.	
22. Place clock angle card on spinner dome with the red writing facing forward and the arrow pointing in the wrong direction.	
23. Place as close to the recommended weight to the spinner screw as close to the recommended clock angle as possible.	↓

119 @ 1:58

# MAINTENANCE MANUAL

## PI 61-05-01 PROP BALANCE, VIBRATION ANALYSIS & POWER RUN WORKSHEET

N#: 2701A DATE: 2/25/13 TAT: 2+334.3 Page 2 of 3

SECOND PROP BALANCE RUN:	INT.
24. Turn on the Vibrex unit.	✓
25. Select <b>PROPELLER BALANCE</b> from the Main Menu screen.	✓
26. Select <b>CONTINUE CURRENT SESSION</b> .	
27. Edit the exact weight and the exact clock angle into the Vibrex 2000P and press <b>START</b> .	
28. Verify changes and press YES.	
29. Using RPM on Vibrex 2000A, adjust PL to 1900 for -34 and 1800 for -135A and allow to stabilized and press <b>START</b> .	
30. When the Vibrex unit has finished collecting data press <b>START</b> .	
31. Observe display note and press <b>START</b> . Observe note on unit.	
32. Record the solution IPS: _____, Clock Angle: _____ and power <b>off</b> the Vibrex unit.	
33. Place clock angle card on spinner dome with the red writing facing forward and the arrow pointing in the wrong direction.	
34. Place as close to the recommended weight to the spinner screw as close to the recommended clock angle as possible.	
<b>THIRD AND SUBSEQUENT PROPELLER BALANCE RUNS</b>	
35. Repeat steps 25 to 34 until the prop balance is satisfactory. 3 <sup>rd</sup> solution IPS: _____, Clock Angle: _____ and power <b>off</b> the Vibrex unit. 4 <sup>th</sup> solution IPS: _____, Clock Angle: _____ and power <b>off</b> the Vibrex unit. 5 <sup>th</sup> solution IPS: _____, Clock Angle: _____ and power <b>off</b> the Vibrex unit.	
36. Press the <b>INSTALL PERMANENTLY</b> key and Input the exact distance the weights will be moved for permanent installation into the Vibrex 2000P and press <b>START</b> .	
37. The solution is the correct amount of weight to add to a single point for proper balance. If the weight cannot be placed at the exact location or needs to be divided between 2 fasteners; press the <b>AT [XX:XX]</b> key and if needed press the <b>SPLIT WEIGHT KEY</b> .	
38. Enter the angle or angles available for the weights and press <b>START</b> .	
39. add the weight recommended to the new location(s).	
40. Re-do step 25, 26, 27, 29, 30, 31 & 32 as a confirmation run.	
41. Record the solution IPS: _____ and Clock Angle: _____ and press <b>DONE</b> from the Prop Balance Quality screen.	NA ✓
<b>Do not shut down save the prop balance and select spectrum analyses</b>	
<b>VIBRATION ANALYSIS</b>	
42. Press the <b>SPECTRUM ANALYSIS</b> key from the Main Menu screen.	✓
43. Confirm/select #1, A and 0-<600,000 RPM and push Start if OK.	✓
44. Using RPM on Vibrex 2000A, adjust Prop to 1900 for -34 and 1800 for -135A and Torque to 45, allow to stabilize and press <b>START</b> .	✓
45. It will take around 5 seconds to complete, record the Ng speed <u>90</u> , press <b>START</b> to save.	✓
46. Perform power run and record base line data on next page:	✓

**MAINTENANCE MANUAL**

PI 61-05-01 PROP BALANCE, VIBRATION ANALYSIS &amp; POWER RUN WORKSHEET

N#: 270PA DATE: 2/25/13 TAT: 2+33+3 Page 3 of 3**NOTE: Take All Readings With Starter Generator off and Bleeds off**

PRES. ALTITUDE			
START TEMP:	700	OAT:	68
	IDLE	CRUISE PT6A-135(A): Torque 40, Np 1800 PT6A-34(A): Torque 40, Np 1900	TAKE-OFF PT6A-135(A): Torque 59, Np 1900 PT6A-34(A): Torque 58.7, Np 2200
TORQUE	3	25	<del>30</del> 50
PROP RPM(Np/N2)	860	1800	1900
ITT/T5	480	510	<del>440</del> 600
GG % RPM (Ng/N1)	52	90	<del>92</del> 100
FUEL FLOW GPH	15.6	43.1	<del>46</del> 62.5
OIL TEMP	50	50	50
OIL PRESSURE	95	95	95
After recording all readings turn Generator back on, let the system charge at 65% and record:			
VOLTS/AMPS	28/10		

Ref. Propeller Balance:

More Program Appendix C Rev. 2

Hartzell Installation and Operation Manual 139 Maintenance Practices 6.

Ref. Engine Vibrational Analysis:

Chadwick-Helmuth, User Guide No. 13841-6

More Program Appendix C Rev. 2

## MAINTENANCE MANUAL

5.200-73 ENGINE FUEL & CONTROLSPI 73-13-01 FUEL NOZZLE REPLACEMENT AND BORESCOPE INSPECTION  
WORKSHEET

Page 1 of 2

N#: 270PA DATE: 2/25/15 TAT: 24334.3

	INITIALS
1. Perform Power Recovery Wash	BH
<b>Remove Fuel Nozzles</b>	
2. Remove cowling.	BH
3. Remove safety wire, bolts and lock-plates reinstall bolts finger tight.	BH
<b>CAUTION:</b> If bolts have not been removed for a long time, the ends may have a corrosion buildup on them. If the bolt is not easy to turn when taking out it must be worked in and out and removed slowly to prevent the bolt from braking of in the burner can. If this happens the bad bolts should be replaced with the shortest bolt in the IPC	
4. Slide all fuel transfer tubes all the way onto a fuel nozzle.	BH
<b>CAUTION:</b> some inlet adapters only allow transfer tubes to go in part way on 1 side do not use excessive force the transfer tubes will bend.	
<b>CAUTION:</b> Never remove the fuel nozzles and the igniters at the same time.	
<b>CAUTION:</b> Never touch the tip of the new or removed fuel nozzles. Acid and oil from your skin can cause corrosion resulting in a poor spray pattern and requiring tip replacement.	
5. Remove fuel nozzle assembly, transfer tube and sheath as a unit.	BH
6. Remove the transfer tubes from the nozzle assembly and remove O-rings (soak o-rings in MEK and they will be easier to remove).	BH
7. Clean transfer tubes and inspect for corrosion, wear, and damage. Discard any bent or otherwise unserviceable transfer tubes.	BH
8. Fuel Manifold Inlet Nozzle:	
<ul style="list-style-type: none"> <li>• <b>For Engines with a Start Flow Control:</b> Note the position of the fittings in the inlet adapter and remove the fittings. Replace the o-rings and install the fittings in the new adapter pointing in the proper direction.</li> </ul>	NA BH
<b>OR</b>	
<ul style="list-style-type: none"> <li>• <b>For Engines without a Start Flow Control:</b> Remove the inlet adapter from the fuel nozzle assembly removed from the 6 o'clock position and attach the old inlet adapter with new o-rings to the new fuel nozzle for the 6 o'clock position.</li> </ul>	BH
9. Install new o-rings on both ends of all fuel transfer tubes use engine oil to lube all o-rings.	BT
10. Position the sheath over the fuel nozzle assembly, make sure the pin lines up and the sheath makes true and full contact with the fuel nozzle assembly mating surface.	BH
11. Insert 2 transfer tubes into 1 side of each fuel nozzle assembly.	JD
<b>Perform Borescope inspection:</b>	
12. Inspect Compressor Turbine blades for condition	M
13. Inspect Compressor Turbine Vane Ring, Shroud Segments etc. for condition	M
14. Inspect Combustion Chamber Liner for condition	M



# MAINTENANCE MANUAL

**PI 73-13-01 FUEL NOZZLE REPLACEMENT AND BORESCOPE INSPECTION WORKSHEET**

Page 2 of 2

N#: 270PA      DATE: 2/25/15

INITIALS  
 Mech/Insp

<b>Installation</b>	
15. Starting with the bottom fuel nozzle install all fuel nozzles, sheaths, gaskets and bolts in the burner can only tighten bolts finger tight. Viewed from the pilots seat the secondary fuel nozzles go in the 6, 7, 8 and 14 positions.	JD, M
NOTE: The raised bead on the gasket goes to the burner can.	
CAUTION: To avoid possible failure of the stainless steel gasket It is best to line up the sheath and gasket and insert the bolts into the holes before inserting the fuel nozzle assembly into the burner can, this will prevent the gasket from being miss-aligned and getting damaged during installation.	
16. With all bolts finger tight, slide fuel transfer tubes into position. If bolts are not to loose and nozzles are positioned perfectly the tubes should slide in with little force, to much force will damage the SS gasket and could damage the o-ring and bend the transfer tube.	JD, M
17. After all transfer tubes are properly positioned and everyone is confident that no o-rings or gaskets are damaged, remove the bolts from 1 fuel nozzle at a time and insert locking plate, reinstall bolts finger tight.	JD, M
18. Pre-torque all bolts to 15 – 20 inch-pounds.	JD / M
19. Final torque all bolts to 32 – 36 inch-pounds.	JD / M
20. Connect fuel inlet lines to inlet adapter and tighten.	JD / M
21. Safety wire all fuel nozzle bolts, inlet line coupling nuts and jam nuts.	JD / M
22. Run engine and check for fuel leaks.	JD / M
23. Reinstall cowling.	JD

Ref. Fuel Nozzles

- PWC MM 73-10-05
- PWC IPC 73-10-04
- PWC IPC 73-10-05

Ref. Borescope

- Borescope Inspection Manual, PWC 34989
- PWC MM 72-00-00 Engine Inspection 8.

# MAINTENANCE MANUAL

## 5.200-25 EQUIPMENT AND FURNISHINGS

### PI 25-60-01 LIFE JACKET INSPECTION/REPLACEMENT WORKSHEET

N# 270PA DATE 2/25/15 TAT 24334.3

MECHANIC  
INITIALS

me

1. Install or confirm that there is one Life Jacket for each seat in the Aircraft.
2. Record inspection due dates of Life Jackets installed.

Life Jacket Model No.:	<u>GA-12</u>	No. of Life Jackets:	<u>11</u>	Due date:	<u>May 2016</u>
Life Jacket Model No.:	_____	No. of Life Jackets:	_____	Due date:	_____
Life Jacket Model No.:	_____	No. of Life Jackets:	_____	Due date:	_____
Life Jacket Model No.:	_____	No. of Life Jackets:	_____	Due date:	_____
Life Jacket Model No.:	_____	No. of Life Jackets:	_____	Due date:	_____

w

## MAINTENANCE MANUAL

### PI 25-60-02B SINGLE CELL PERSONAL FLOTATION DEVICE INSPECTION WORKSHEET

MODEL No.: GA-12  
 SERIAL No(s): B56903, A74810, A18062, C55253,  
A94435, C55311, A98876, C33760, A74521,  
B48740, B22737, \_\_\_\_\_, \_\_\_\_\_,  
 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Promech Air will do the following inspection on TSO C72\* (GA-12 and AV-8or similar) Individual Flotation Devices:

- Yearly from the date of manufacture.
- Any time a life preserver is removed from its pouch or bag.
- For New life preservers only item 11 needs to be completed.

	INITIALS
1. Unfold the life preserver and check its general condition. Visually check for rips, tears, holes, punctures, broken parts, damaged parts, missing parts, or evidence of being inflated using the CO2 cartridge(s). If any of these are present see item 13 below.	M
2. Visually inspect all straps. Check all stitching and the web material for wear and general condition.	M
3. Inspect inflators for general condition, and presence of safety pin or wire.	M
4. If cleaning is required; use mild laundry soap and water. Rub gently. Do not scrub or use abrasive cleaners. Rinse thoroughly with fresh water, let air dry, when thoroughly dry lightly coat with talc.	M
5. Inflate the life preserver from a clean and dry air source. Let the life jacket set for 4 to 24 hours; ensure that the life jacket has not lost an excessive amount of air for the time it has been inflated. If the life jacket loses an excessive amount of air see item 13 below.	M
6. Remove all air with a vacuum source (an air operated sprayer using the pick-up hose for vacuum works well) to suck air out of the oral tube. Smooth the fabric during deflation to remove creases and any trapped air. Insure the oral inflator valves close (did not get stuck open during deflation).	M
7. Inspect oral inflator: ensure the check valve opens and closes properly, tube for splitting and general condition.	M
8. Remove the CO2 cartridge and weigh it. The allowable minimum weight is the gross weight marked on the cartridge. Replace if under weight.	M
9. Inspect the pin that punctures the CO2 cartridge for a condition and full and free movement when the inflator pulls are operated.	M
10. Secure the inflator pulls with copper breakaway wire and install the CO2 cartridge.	M
11. Use life Preserver Inspection Record tag MF16 to document the inspection date, date next inspection is due, and initials of mechanic completing this PI 25-60-02B.	M
12. Re-fold life preserver and place it in a Zip top bag.	M
13. Any life preserver with rips, tears, holes, punctures, broken parts, damaged parts, missing parts, after being inflated using the CO2 cartridge(s), requiring a leakage test, or that loses air in step 5; must be destroyed or sent to a manufacturer approved facility prior to return to service.	M M

Ref. Eastern Aero Marine SIL-25-104, and Operator Care and Maintenance Inspection Instructions.

# MAINTENANCE MANUAL

## PI 25-60-03 ELT INSPECTION/TEST OR BATTERY REPLACEMENT WORKSHEET

N#: 270PA      DATE: 2/25/15      TAT: 24334.3  
 ELT M/N: E-01    ELT Battery M/N: MN1300    & Exp Date: Mar 2017  
 ELT S/N: 022619    Remote Batt. M/N: NA    & Exp Date: NA  
    Horn Batt. M/N: NA    & Exp Date: NA

ELT Batteries are life limited, the life limit is established by the ELT or battery manufacturer. Promech will track the battery by its due date and not worry about the "Calendar life limit" of a new battery. If an ELT is on for one or more known period(s) of time, it will be tracked and changed if it approaches 1 hour of operation. If an ELT is on for an unknown amount of time it will be removed from service until the battery is changed.

**MECHANIC  
INITIALS**

1. Inspect ELT for proper installation.
  - a. Remove all interconnections to the ELT unit and ELT antenna. Visually inspect and confirm proper seating of all connector pins. Special attention should be given to coaxial center conductor pins, which are prone to retracting into the connector housing.
  - b. Remove the ELT from the mount and inspect the mounting hardware for proper installation and security.
  - c. Reinstall the ELT into its mount and verify the proper direction for crash activation. Reconnect all cables. They should have some slack at each end and should be properly secured to the airplane structure for support and protection.
2. Gain access to the ELT, horn, and remote batteries and inspect for corrosion. Record the battery part #'s or model #'s & expiration dates above.

BH  
BH  
DH  
NA BH

**Operation of the Controls and Crash Sensor.**

3. Steps 4 through 6 may not apply to the 406 ELT. For a 406 ELT use the manufacturers' instructions and note: Manual/document number NA and section (s), page(s), or paragraph(s) M
4. Activate the ELT using an applied force.

NA BH

**Consult the ELT manufacturer's instructions before activation** (some ELT's require pins to be jumpered for the test). The direction for mounting and force activation is indicated on the ELT. A TSO-C91 ELT can be activated by using a quick rap with the palm. **A TSO-C91a ELT will be damaged if you activate by using a quick rap with the palm.** A TSO-C91a ELT can be activated by using a rapid forward (throwing) motion coupled by a rapid reversing action. Insure that the "G" switch has been reset if applicable.

BH

5. Check for a Sufficient Signal Radiated From its Antenna: Activate the ELT using the ON or ELT TEST switch. A low-quality AM broadcast radio receiver should be used to determine if energy is being transmitted from the antenna. When the antenna of the AM broadcast radio receiver (tuning dial on any setting) is held about 6 inches from the activated ELT antenna, the ELT aural tone will be heard.
6. Verify that All Switches are Properly Labeled and Positioned.

BH  
BH

Ref. FAR 91.207(d), and AC 43.13 1B, Chapter 12 Section 2, Item 12-22

Record department will enter the date the Inspection Package (MF04) was signed off and use that date for the inspection date, the next inspection/test is due 1 year from this date.      Date: 5/11/15

# MAINTENANCE MANUAL

## PI 25-60-07 PORTABLE FIRE EXTINGUISHER INSPECTION WORKSHEET

N# 270PA DATE 26-Feb-15 TAT 24334.3

POSITION Cockpit P/N B-385 S/N X-~~394499~~ JB

Date Yearly Inspection Done	Month/Year
Date and month new/of manufacture	<u>4 / 15</u>
Date 6 Year Maintenance Done	<u>1 / 2007</u>
Date Hydrostatic Test Done	<u>9 / 2012</u> (if applicable, due every 6 years)
	<u>9 / 2012</u> (if applicable, due every 12 years)

MECHANIC

INITIALS

R.W

R.W

R.W

R.W

R.W

1. Inspect the pressure gauge is in the green range.
2. Inspect the pin and retaining tie condition.
3. Inspect the nozzle for obstructions.
4. Shake the Extinguisher, confirm the contents move in the bottle and have not solidified.
5. Check the bottle and mounting bracket for damage, corrosion and security.

Ref. NFPA 10, Placarded instructions, and manufacturers instructions.

# MAINTENANCE MANUAL

## PI 25-60-07 PORTABLE FIRE EXTINGUISHER INSPECTION WORKSHEET

N# 270PA DATE 26 Feb 15 TAT 24334.3

POSITION Cabin P/N B-385 S/N X-272907

	Month/Year
Date Yearly Inspection Done	<u>8/2014</u>
Date and month new/of manufacture	<u>1/2012</u>
Date 6 Year Maintenance Done	<u>NA</u> R.W. (if applicable, due every 6 years)
Date Hydrostatic Test Done	<u>NA</u> R.W. (if applicable, due every 12 years)

**MECHANIC  
INITIALS**

1. Inspect the pressure gauge is in the green range.
2. Inspect the pin and retaining tie condition.
3. Inspect the nozzle for obstructions.
4. Shake the Extinguisher, confirm the contents move in the bottle and have not solidified.
5. Check the bottle and mounting bracket for damage, corrosion and security.

R.W.  
R.W.  
R.W.  
R.W.  
R.W.

Ref. NFPA 10, Placarded instructions, and manufacturers instructions.

## MAINTENANCE MANUAL

PI 27-40-01 ELEVATOR SCREW JACK REBUILD page 1 of 4

N# 2709A DATE 2/25/15 TAT 243543

REMOVAL	INITIALS	
1) Remove fairings and inspection covers to gain access to horizontal stabilizer screw jack.	MA	
2) Fully extend the screw jack, full nose up trim and back off 1/4 turn.	}	
3) Aft of baggage compartment, overhead, remove safety wire and relieve cable tension.		
4) Place a cable lock on the actuator cables where they come out of the empennage just forward of the screw jack.		
5) Remove the top bolts from screw jack.		
6) Raise the horizontal stabilizer and place a support under it.		
7) Remove the bottom bolts from screw jack.		
8) Remove the screw jack from the attach fittings.		
9) If the attach lug bushings in the top and bottom of the screw jack are loose, remove them so they do not fall out.		
<b>NOTE:</b> When the trim cables are out of the aircraft, take care to keep out of any dirt or debris.		
10) Remove cables from the screw jack.	MA	
<b>DISASSEMBLY</b>		
11) Place on a level, clean and dry work surface.	JD	
12) If not done mark/index the upper & lower housings for alignment during assembly.	}	
13) Remove the safety wire and 5 bolts securing the lower housing to the upper housing.		
14) Remove the cotter pin, nut, washers and bolt that secure the screw block in the upper housing.		
15) Separate the upper and lower housings.		
16) From the shaft in the lower housing, remove; the lock ring, adjuster nut and screw.		
17) From lower housing, remove; the C-ring, spacer and the shaft.		
18) From lower housing, remove; the top and bottom C-rings.		
19) From lower housing, remove; the bottom bearing by tapping the stop ring downward.		
20) From lower housing, remove; the stop ring, upper bearing and spacer tube by tapping the spacer tube upward.		
21) From upper housing, remove; lock ring, grease zerk and clamp nut.		
22) From upper housing, remove; Eye-end assembly (with bearings washer nut and cotter pin).		
23) From the top eye end assembly, remove the cotter pin, nut, spacer and bearings.		
24) From upper housing, remove; C-ring.		
25) Clean everything very well with solvent.		
<b>INSPECTION</b>		
26) Inspect bolts for cracks, bending, corrosion, thread damage or any other signs of damage, if damaged replace with the proper part # bolt.		}
27) Inspect all nuts for cracks, corrosion, thread damage or any other signs of damage, if damaged replace with the proper part # nut. Self locking nuts must be replaced if they can be threaded onto a bolt plate past the locking device without the use of tools.		
28) Inspect all small parts for cracks, corrosion, thread damage or any other signs of damage, if damaged replace with the proper part # part.		

## MAINTENANCE MANUAL

PI 27-40-01 ELEVATOR SCREW JACK REBUILD page 2 of 4

N# 270PA DATE 2/25/15 TAT 24334.3

INSPECTION (continued)	INITIALS	
29) Inspect for wear, scoring, general condition, cracks, nicks and corrosion.	JD	
30) Inspect the screw for general condition, cracks, nicks and corrosion.		
31) Inspect the shaft for general condition, cracks, nicks and corrosion.		
32) Visually inspect the internal threads of the shaft for wear and scoring.		
33) Re-assemble the screw and the shaft without lubrication and without adjusting nut.		
34) Measure the axial backlash by measuring how far the screw moves in and out of the shaft. If backlash exceeds 0.010 inch, discard shaft.		
<b>RE-ASSEMBLY</b>		
<b>NOTE:</b> Lube everything before assembling it and if needed during and after with Plastilube #3.		
<b>NOTE:</b> Part names in IPC PSM 1-3-4 and MM PSM1-3-2 are not the exact the same, all part names used in these procedures are from the IPC.		
<b>UPPER HOUSING</b>		
35) Install ring retaining (NAS50-137) in upper housing.		
36) Pack 2 bearings (7202W-DB) with Plastilube #3.		
37) On the top eye-end, install bearings (7202W-DB) so thrust faces (face with "THRUST" stamped or etched in it) of bearings are together (facing each other), washer (C3CF279-3) and nut (AN320-9).		
38) Tighten the nut so the spacer is snug, tighten until the next cotter pin hole lines up, install cotter pin (MS24665-304).		
39) Install the eye-end assembly in the upper housing, tapping it in until it touches the C-ring.		
40) Install the nut-clamp (C3CF277-3) until snug; tighten until a hole in the upper housing lines up with a hole in the nut-clamp. If the holes do not line up without using excessive force, find a nut-clamp that will line up or drill a new hole in a nut-clamp that is not to close to another hole.		
41) Install ring-lock (AN996-28) through the housing and into the nut-clamp and install 90° fitting-lubricating (zerk AN944-301).		
<b>LOWER HOUSING</b>		
42) Pack 2 bearings (B541) unless they are sealed bearing with Plastilube #3.		
43) From the top of the housing install the spacer tube (C3CF297-3) bearing (B541) ring-stop (C3CF296-3) and ring-retaining (NAS50-150).		
44) From the bottom of the housing install the bearing (B541) and ring-retaining (NAS50-150).		
45) A new shaft needs to have a clevis fork and a ring-stop (spacer C3CF590-3) secured against the clevis fork.		
46) Slide the shaft through the lower housing from the bottom and, slide ring-stop (C3CF346-5) on the shaft and install ring-retaining (NAS51-106) in groove in shaft.		
47) On lower housing and shaft assembly; thread the nut-adjuster (C3CF295-3) on the shaft, do not apply any tension at this time.		
48) Screw the screw into the shaft and tighten the nut-adjuster just sufficiently to remove end play between the screw and the shaft.		
49) Run the screw all the way in and out of the shaft, check for any binding or resistance, and ensure smooth operation over entire travel.	JD	



## MAINTENANCE MANUAL

PI 27-40-01 ELEVATOR SCREW JACK REBUILD page 3 of 4

N# 270PA DATE 2/25/15 TAT \_\_\_\_\_

LOWER HOUSING continued	INITIALS
50) Install ring-locking through a hole in the nut adjuster and into a split in the top of the shaft. If the holes do not line up without tightening the nut-adjuster so it prevents the screw and shaft from operating smoothly, find a nut-clamp that will line up or drill a new hole in a nut-clamp that is not to close to another hole that will allow smooth operation with no end play between the screw and the shaft.	JD
51) Again run the screw all the way in and out of the shaft, check for any binding or resistance, and ensure smooth operation over entire travel.	
<b>ASSEMBLE UPPER AND LOWER HOUSING</b>	
52) Insert the screw block from the lower housing into the upper housing and align the screw block hole with the holes near the top of the upper housing.	
53) Insert bolt (AN175-22) through upper housing and screw block, insert washer (AN960-516) and nut (AN320-5) finger tight.	
54) Install lower housing into upper housing and align 5 bolt holes in lower housing with threaded holes in upper housing.	
55) Thread 5 bolts (AN3H5A) with washers (AN960-10) through lower housing into upper housing.	
56) Torque 5 bolts connecting upper and lower housings to 20 in-lbs, torque bolt through upper housing and screw block to 60 in-lbs and tighten slightly to aligned the cotter pin.	
57) Check that the screw jack assembly; operate the actuator through its full range of travel, ensure that there is no binding, roughness and the actuator works smoothly through its full range of travel. Fully extended 14.5 inches, fully retracted 12.4 inches.	
58) If the screw jack dose not run smoothly through its full travel, remove the nut, washer and bolt through the upper housing and the screw block and rotate the screw block 180°. You will probably have to remove the 5 bolts holding the upper and lower housing together and repeat steps 50 through 55.	
59) Once the assembly operates nice and smoothly; cotter pin (MS24665-153) the upper nut and safety wire the bottom 5 bolts.	JD
<b>INSTALLATION</b>	
60) Stretch the cables out to full length and insure that there are no kinks or twists in the cables.	GNA
61) Ensure that the lugs at the ends of the cables fit in the slots on the drum easily, and the cable lays down nice on the ramps coming out of the slots on the drum, if necessary remove any excess solder material from the lugs and cables with a very fine file.	GNA
62) Run a clean rag over the entire length of the cables, repeat until no more grit or debris comes off the cables or can be felt on the cables.	GNA

## MAINTENANCE MANUAL

PI 27-40-01 ELEVATOR SCREW JACK REBUILD page 4 of 4

N# 270PA DATE 2/25/15 TAT \_\_\_\_\_

INSTALLATION continued	INITIALS
<b>NOTE: DO NOT hold the drum stationary and wind or coil the cable on the drum.</b>	
63) Insert the upper (long) cable lug into the top slot in the drum and keeping the cable between the drum and the aircraft <b>tight</b> roll the drum so the cable spools <b>tightly</b> down the groove in the drum <b>with no kinks or twists</b> until the screw jack is against the access panel.	GPA
64) Take the lower (short) cable and twist it so the cable winds up on itself. <b>Do not kink.</b>	GPA
65) Insert the short cable lug into the bottom slot in the drum and coil the cable onto the drum. If the cable twists worse undo the short cable, un-twist the twists from step 64 and twist the other way and repeat step 65.	GPA
66) Making sure the cables do not uncoil, put the screw jack assembly into the tail of the aircraft.	GPA
67) Making sure the cables do not uncoil, guide the top of the screw jack up and out the opening under the horizontal stabilizer.	GPA
68) If needed wind the lower cable on the last groove(s) in the drum.	GPA
<b>NOTE: The only part of a groove without cable should be between the cables that go forward into the empennage.</b>	
69) Secure the lower end of the screw jack first (if possible) with bushing (C3T10-3) if removed, bolt (AN175-14A), washer (AN960-516) and nut (AN365-524).	GPA
70) Secure the upper end of the screw jack with bushing (C3T12-3) if removed, bolt (AN175-16A), washer (AN960-516) and nut (AN365-524).	GPA
<b>NOTE: If a new cable or even better, both cables are new, they have not relaxed or stretched and it can be very difficult to get the screw jack in. If you have to install the top screw jack bolt first make sure that any time the screw jack is turned the bottom is secured or held back, be very careful when the screw jack turns that the cables do not come out of the grooves in the drum.</b>	
<b>NOTE: If the screw jack will not reach it's attach points:</b>	
I. Make sure the cable tension adjustment is as short as possible (maybe even removed).	GPA
II. Make sure the screw jack top and bottom attaches are securely held aft.	GPA
III. With someone watching to make sure the screw jack stays in position, tension is maintained on the cables and the cables do not come out of the grooves, have someone turn the trim wheel in the cockpit from stop to stop several times to get the cables to stretch or relax and seat them better in the drum grooves.	GPA
IV. Repeat this procedure until 67 and 68 can be accomplished.	
71) Remove the cable locks just forward of the screw jack where the cables go into the empennage, and insure that the cables are in the pulleys.	GPA
72) Reset trim indicator if needed and run the trim wheel several times full travel, ensure that the trim/stabilizer actuator system works smoothly.	GPA
73) Adjust the cable tension per PSM 1-3-2. 2.20 and safety the adjuster.	GPA
74) Re-check the trim indicator and if needed re-adjust.	GPA
75) Re install all fairings and inspection covers removed to gain access to horizontal stabilizer screw jack and tension arm turnbuckle.	GPA

SECTION: ANNEX C, DHC-2, AAIP-General  
EFFECTIVE: 02/01/12PAGE: 9  
REVISION: 2

## INSPECTION COVER SHEET (Form MF04)

N#: 270PA DATE: 2/25/15TAT: 243343 Total Engine Flights: 30829

Type of inspection and/or scheduled maintenance (AAIP, PI, WS, AD, etc.):

AAIP-B; AD 83-02-01, Tie Bar; PI 57-20-01, Strut Fittings; PI 57-20-02, AOG Cuff Insp;  
 AD 83-04-05, Control Column; AD 2011-18-11, Elevator Tabs; Replace CO Detector;  
 PI 05-20-01A, Symmetry; B, Rigging; & C, Cable Tension;  
 PI 05-20-03, CPCP & Structures; PI 05-20-05 Control System & Cables;  
 PI 25-60-01/25-60-02, Life Jackets; PI 25-60-03, First Aid Kit; PI 25-60-03, ELT Insp & Test;  
 PI 25-60-07, Fwd & Aft Fire Extinguisher;  
 PI 27-05-001 Fwd Cables; PI 27-40-01, Elevator Screw Jack;  
 PI 61-05-01, Prop Balance/Vibration Analysis;  
 PI 73-13-01, Fuel Nozzles & Borescope;

## INSPECTION COMPLETED:

I certify that:

1. All work was performed in accordance with the requirements of PROMECH Air's manual.
2. All RII items were inspected by a designated inspector who determined that the work was satisfactorily completed.
3. No known condition exists that would make the aircraft un-airworthy.
4. So far as the work performed is concerned, the aircraft is in condition for safe operation.
5. All scheduled items of work have been transferred from the planning reports to the discrepancy forms and cleared.
6. All worksheets and parts tags are complete and have been accounted for.
7. All equipment, panels, cowlings, covers, fairing, etc., removed to accomplish this inspection have been reinstalled.
8. All AD's that are due have been inspected and the applicable AD01 forms have been completed.

Mechanic's Signature: [Redacted] Rating & No.: 7-1 Date: 5/11/15

SECTION: ANNEX A, DHC-3T, AAIP-B.  
EFFECTIVE: 02/01/13

PAGE: 1  
REVISION: 5

INSPECTION DHC-3T-B. (Annex A Form AAIP-B)

Page 1 of 12

Inspection Checklist for de Havilland DHC-3 Turbine Otter

N: 2701A

Date: 2/25/15

Engine Make/Model: P&amp;WC PT6A-

Hobbs: 67663

ETSO: 10300.3

PTSO: 732.1

TTAF: 243343

ETT: 14470.7

PTT: 3595.2

GENERAL PRE-INSPECTION 1 OF 1	INT.
1) Check Maintenance log for squawks.	m
2) Check for Registration, Airworthiness Certificate, Aircraft Flight Manual and GOM.	IB
3) Clean all used documents from maintenance folder:	
a) Ensure there is a W&B form and an Equipment List in the folder.	IB
b) Ensure there are sufficient MF 31 & MF 32 forms in the folder.	IB
c) Ensure the MF31 and MF32 forms have the proper N# on them.	JD
5) Check CO detector:	
a. Replace if it is 90 days since "DATE OPENED" recorded on face. Ensure the new CO detector is not out of "USE BY/Shelf life date" on front of package and write the date the detector is opened in the space provided on the face of the CO detector.	m
b. If the CO detector has turned dark make a discrepancy to investigate cause and repair.	m
4) Test the Landing Gear Position Advisory System:	M M
a) After 30 seconds of continuous electrical power the annunciator light will flash once signifying that the unit has powered up.	}
b) To test the system, push and hold the amber annunciator light for 4 - 5 seconds and release.	
c) Check to see that the amber annunciator begins to flash and the aural announcements "GEAR IS UP FOR WATER LANDING" and "GEAR IS DOWN FOR RUNWAY LANDING" are each heard one time each.	
5) Check entire panel for loose or damaged equipment. Including Radios, Instruments, Knobs, Switches, Circuit Breakers, Lights, Placards, and Interior Trim parts.	m
6) Inspect instrument panel for presence of proper placards and legibility, (normal category..., Wheelen strobe..., switches, circuit breakers, lights, etcetera) and instruments for proper range markings.	m
7) Select AHRS Battery switch on, verify green light illuminates.	m
8) Inspect instrument panel for presence of proper placards and legibility, (normal category..., Wheelen strobe..., switches, circuit breakers, lights, etcetera) and instruments for proper range markings.	m
9) Check Instrument lights and Aircraft interior lighting for operation.	m
10) Check all exterior lights; Landing, Pulse, Navigation, Strokes and Beacon for operation.	m
11) Check Pulselite/landing light system for proper operation.	
a) Select Pulselites on; confirm both landing lights are flashing.	m
b) Select landing lights on; confirm both landing lights are on steady.	m
c) Turn both switches off.	m

SECTION: ANNEX A, DHC-3T, AAIP-B.  
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INSPECTION DHC-3T-B. (Annex A Form AAIP-B)

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AREA 1) COCKPIT AREA INSPECTION 1 OF 2	INT.
<b>INTERIOR</b>	
<b>Only the control column lower sock is removed for the Cockpit Interior inspection.</b>	
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>	
1) Check Compass Card installation and legibility.	u
2) Inspect Windshield, and Door windows for cracks, hazing, leaks, operation and security.	u
3) Check Control Column and lock plunger for condition, operation, and security and lube (2).	AA u
4) Check Control Column IAW Para (a) of AD 83-04-05 and complete recurring AD log.	u
<b>NOTE: THE FOLLOWING CHECKS ARE ON THE ENTIRE RANGE OF TRAVEL</b>	
5) Check Engine Controls, Levers, Brackets, Rod ends and hardware for condition, operation, and security.	u
6) Operate Aileron, Elevator, and Rudder control systems. Check for smoothness of operation.	u
7) Operate Aileron, Elevator, and Rudder trim systems. Check for smoothness of operation.	u
<b>WARNING: CLOSE CABIN DOORS BEFORE OPERATING FLAPS</b>	
8) Operate Flap system and check for smoothness of operation. Check Flap position indicator for indicating correct flap angle, check flap Hydraulic Reservoir for quantity and cap for seal condition and security. Only service with 5606 if needed.	u
9) Operate fuel selector; lube (2) selector while operating the handle through its full range of travel check for smoothness of operation, and proper indexing of handle.	u
10) Check Water Rudder Retract system, check for smoothness of operation and lube (Pledge).	u
11) Operate the heater controls; check for ease of operation.	u
12) Check both Boost Pumps individually for warning light when off and for indication in the Green range, on the gauge and the warning light goes out when on.	u
13) Depress the brakes check for soft or spongy breaks, and evidence of problems, check the E-brake "T" handle for proper operation.	u
14) Check Rudder Pedals (upper) for condition, operation, security and lube (2).	u
15) Check the brake pedals linkage for proper adjustment, wear, general condition and lube (2).	u
16) Check the float gear hydraulic reservoir for fluid level and security.	u
17) Inspect the hydraulic components and lines for corrosion, leaks, condition and lube (3).	u
18) Inspect accessible Electrical components panel area for condition, security and general condition.	u
19) Check Fire Extinguishers per placarded instructions and NAFPA 10, for condition, security, charge, and current inspection tags.	u
20) Inspect seats for general condition, full and smooth travel, ease of operation & Lube (2).	u
21) Inspect Safety Belts and Shoulder Harnesses for security of attachment, corrosion, cuts, fraying, legible TSO tags, freedom of operation, cleanliness, and overall condition.	u
22) Inspect UAT and tray behind Pilot seat, Check for security, evidence of overheating and wiring chafing, proper routing and general condition.	u
23) Inspect doors for condition, hinges for excessive wear and cracks, and proper lubrication.	u
24) Check door latch mechanisms by applying pressure on each latch and comparing it to the others, if one latch is weaker than the rest - a spring is broke and needs replaced. Check hinges for lube (2) and proper and legible placards.	u
25) Heating and ventilation ducts for condition and security.	u
26) Insure the control column lower sock is secured.	u

SECTION: ANNEX A, DHC-3T, AAIP-B.  
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INSPECTION DHC-3T-B. (Annex A Form AAIP-B)

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AREA 1) COCKPIT AREA INSPECTION 2 OF 2	INT.
<b>EXTERIOR</b>	
<b>1 inspection panels under cockpit is removed for the Cockpit Exterior inspection. Additional inspection panels may need to be removed to investigate/repair discrepancies.</b>	
27) Check Rudder control system (lower) for condition, operation, security, and lube (2).	AC
28) Check elevator control system (lower) for condition, operation, security, and lube (2).	AC
29) Check Aileron control systems (lower) for condition, operation, security, and lube (2).	AC
30) Check Water Rudder control system including Disconnect for condition, operation, security and lube (2).	AC
31) Check the hydraulic motor and pump assembly for leaks, security.	AC
32) Inspect the hydraulic components and lines for corrosion, leaks, condition and lube (3).	AC
33) Check Boost Pumps for leaks, and security.	AC
34) Inspect Exterior for loose or missing Rivets and fasteners and skins for general condition.	AC
35) Check drain holes for obstructions.	AC
36) Check all fairings and panels for general condition & security.	AC
37) Secure inspection panel under cockpit.	AC

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

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INSPECTION DHC-3T-B. (Annex A Form AAIP-B)

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AEREA 2) CABIN / CARGO AREA INSPECTION		INT.
<b>INTERIOR</b>		
<b>The center cabin headliner needs to be removed for the Cabin Interior inspection.</b>		
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
1) Check Life Jackets for condition, placement and earliest due date.		u
2) Inspect Cabin and Door Windows for cracks, crazing, hazing, leaks, and security.		u
3) Check seat pouches for adequate Number of Briefing cards.		u
4) Inspect Safety Belts for security of attachment, corrosion, cuts, fraying, legible TSO tags, freedom of operation, cleanliness, and overall condition.		u
5) Check Seats, Rails and Locking mechanisms for ease of operation, overall condition, security and lube (2).		u
6) Inspect the Cabin Floors for condition and buckling.		u
7) Check Baggage compartment and Survival kit for general condition and security.		u
8) Check Fire Extinguishers for condition, security, charge, and inspection tag date.		u
9) Check First Aid kit for condition, security, and tamper seal date.		u
10) Check all interior panels, window molding and door trim for loose or missing screws. Replace all missing screws.		u
<b>EXTERIOR</b>		
<b>No inspection panels are removed for the Cabin Exterior inspection.</b>		
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
11) Inspect doors for overall condition, hinges for excessive wear, cracks, and lubrication.		u
12) Check door latch mechanisms by applying pressure on each latch and comparing it to the others, if one latch is weaker than the rest - a spring is broke and needs replaced. Check hinges for lube (2) and proper and legible placards. Confirm LH Aft Door upper and lower pins properly draw door tight and safety strap functions properly.		u
13) Check Radio Antennas for condition and security. If corroded clean corrosion and paint.		u
14) Inspect fuel caps for seal condition, proper latching, chains for condition, security, legibility of placard and lubrication on threads of all 3 caps. Lube (3).		u
15) Check Fuel Bay area; check Drains (belly) for operation, security, corrosion, leaking, water contamination and Lube (3).		u
16) Inspect fuel selector for signs of leakage, excessive corrosion on diaphragm cover, exfoliation of fuel fittings and lubrication (2).		u
17) Inspect Exterior for loose or missing Rivets and fasteners and skins for general condition.		u
18) Inspect external placards, Cert. No., logo, and non-flammable ID tag.		u
19) Inspect lower wing strut fuselage fitting for overall condition, corrosion and Lube (3).		u
20) Check drain holes for obstructions.		u
21) Inspect fairings and panels for general condition.		u

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27, Anti-Size, or equivalent.

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AREA 3) EMPENAGE INSPECTION 1 of 2	INT.
<b>Remove aft baggage panel &amp; 1 inspection panels under each side of the horizontal for this area. Additional inspection panels may need to be removed to investigate/repair discrepancies.</b>	
1) Check ELT for security and general condition.	✓
2) Check navigation equipment in tail: inspect wiring, plumbing, connectors, diodes and batteries; Inspect for security, corrosion, cracking, deformation, evidence of leakage, water damage, and overheating. Check mounting trays for condition & security check wiring for condition, chafing & security. Drain lines if needed.	✓
<b>Note: Clean batteries with damp cloth to release static electricity never use any chemicals</b>	
3) Check Horizontal Stabilizer for condition and security, inspect forward attach brackets and hardware for condition, security and lube (2).	✓
4) Inspect Right Elevator, bearings and attach fittings for condition, security, wear and lube (2). Visually check for full and free travel.	✓
5) Inspect Servo Tab for delamination, inspect pushrods, rod ends and hardware for condition, security and lube (2); inspect end caps, lever and hinge for condition, wear, lube and fasteners for security. Check free play of tab; Max allowable 1 degree/0.070 inches at elevator TE, IAW AD par (f) (1), PSM 1-3-2 Part 2 & Appendix 4, TR 18, 19 & 20, and complete recurring AD log.	✓
6) Inspect Rudder, bearings and attach fittings for condition, security, wear and lube (2). Visually & physically check for full and free travel.	✓
7) Inspect Rudder trim tab for delamination for condition, security and lube (2); Inspect End caps, Lever and Hinge for condition, wear, lube and fasteners for security. Visually check for full and free travel.	✓
8) Tail Nav. Light for security and condition.	✓
9) Check bottom rudder bracket for cracks, corrosion, condition and lube (3), particularly the area adjacent to the limit stops and pivot bolts.	✓
10) Check fuselage skin adjacent to rudder stops and rudder stops for cracks, condition security, corrosion and lube (2).	✓

## Reference:

## Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.



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AREA 3) EMPENAGE INSPECTION 2 of 2	INT.
11) Inspect horizontal stabilizer screw jack for condition, security and lube (plastilube) top Zerk, lube (2) exterior, check bearings for evidence of wear and attach points for security.	<i>me</i>
12) Inspect elevator torque tube for overall condition, security and lube (2).	<i>me</i>
13) Inspect left Elevator, bearings and attach fittings for condition, security, wear and lube (2). Visually check for full and free travel.	<i>me</i>
14) Inspect flap interconnect tab for delamination, inspect pushrods, rod ends and hardware for condition, security and lube (2); inspect end caps, lever and hinge for condition, wear, lube and fasteners for security. Check free play of tab; Max allowable 1 degree/0.070 inches at elevator TE, IAW AD par (f) (1), PSM 1-3-2 Part 2 & Appendix 4, TR 18, 19 & 20, and complete recurring AD log.	<i>me</i>
15) Check sea fin and attach fittings for condition, security and lube (3).	<i>me</i>
16) Inspect Exterior for loose or missing Rivets and fasteners and skins for general condition.	<i>me</i>
17) Check drain holes for obstructions.	<i>me</i>
18) Inspect fairings and panels for general condition.	<i>me</i>
19) Secure all inspection panels.	<i>me</i>

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

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AREA 4) WING INSPECTION 1 OF 1	INITIALS	
	LH	RH
<b>No inspection panels are removed for the Wing inspection.</b>		
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
1) Inspect wing for overall condition, cracks, dents, missing fasteners.	me	me
2) Inspect inboard nose flap and attach fittings, bearings and hardware for cracks, wrinkles, corrosion, general condition, security and lube (2).	me	me
3) Inspect inboard trailing flap and attach fittings, bearings and hardware for cracks, wrinkles, corrosion, general condition, security and lube (2).	me	me
4) Inspect Outboard nose flap and attach fittings, bearings and hardware for cracks, wrinkles, corrosion, general condition, security and lube (2).	me	me
5) Inspect Aileron and attach fittings, bearings and hardware for cracks, wrinkles, corrosion, general condition, security and lube (2).	me	me
6) Inspect aileron mass balance attach fitting, for cracks, corrosion, general condition, security and lube (2).	me	me
7) Inspect wing struts for cracks and hardware for corrosion, general condition and attach points for security by vigorously shaking the wing and lube (3).	me	me
8) Inspect Flap external pushrods, rodends and Bellcrank for security, general condition and lube (2).	me	me
9) Check Fuel vents for blockage.	me	me
10) Landing light for security.	me	me
11) Check stall warning for operation, Lift Detector Vane for condition free movement security and lube (LPS 1). Check Heater for operation.	me	N/A
12) Inspect externally visible wing attach corrosion, general condition and attach points for security by vigorously shaking the wing and lube (3).	me	
13) Check pitot/static mast assembly for general condition and security. Check Heater for operation.	me	N/A
14) Inspect 2 wing mirror attachment and hardware for cracks, corrosion, general condition, security and lube (3).	me	N/A
15) Inspect exterior for loose or missing rivets/fasteners and skins for general condition.	me	me
16) Inspect stall fences and bars for security and condition.	me	me
17) Inspect wing tips for condition and security.	me	me
18) Inspect NAV lights for security.	me	me
19) Inspect Wing ropes for condition and attachment ensure the tip rope is 3/8 and has no knot.	me	me
20) Check drain holes for obstructions.	me	me
21) Inspect fairings and panels for general condition.	me	me
22) Secure all inspection panels.	me	me

## Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paraketone, Cor-Ban 27L, Anti-Size, or equivalent.

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AREA 5) FLOAT INSPECTION GEN 1 of 1	INT.
<b>No inspection panels are removed for the Float inspection.</b>	
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>	
1) Check support struts, fittings and bolts for cracks, corrosion, security and Lube (3).	W
2) Check steps for cracks, corrosion and security.	W
3) Check water rudder retract system for full travel, sticking, rough or uneven action, lost motion and check cables for adequate tension.	W
4) Check water rudder Steering system for full travel, sticking, rough or uneven action, lost motion and check cables for adequate tension.	W
5) Check all cable, pulleys and fairleads for operation, fraying, and security. Lube (3) all moving parts.	W
6) Check water rudders and posts for cracks, corrosion, security and lube (3).	W
7) Check bracing wires for tightness, security of lock nuts, fiber separators and fork ends for general condition, wear, security and Lube (3).	W
8) Check spreader bars and fittings for cracks, corrosion, security and Lube (3).	W
9) Check exterior for cracks, dents, oil canning, loose rivets and corrosion.	W
10) Check zinc blocks on both water rudders and float skag areas for condition and security.	W
11) Check float ropes for condition, attachment and fraying.	W
12) Check float pump out tubes and balls for security broken lanyards and deterioration.	W
13) Check oar for attachment security and condition.	W
14) Check nose bumpers for cuts, damage and security.	W

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

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AREA 6) PROPELLER INSPECTION 1 OF 1		INT.
<b>Only the spinner is removed for the Propeller inspection.</b>		
<b>Additional inspection panels may need to be removed to investigate &amp; repair discrepancies.</b>		
1) Remove spinner and inspect propeller hub, piston and cylinder for cleanliness, condition and leakage.		OK
2) Inspect counterweights and cuffs for slight free rotary movement, cleanliness, condition, leakage, safety and security.		OK
3) Grease prop, use grease specified on placard, replace grease Zerks and caps. <b>Warning: Remove one grease zerk from each cuff prior to inserting grease!</b>		OK
4) Inspect propeller blades for nicks, cracks, corrosion and overall condition.		OK
5) File out leading edge erosion so the original blade profile is maintained. Blended minor nicks and damage in the leading or trailing edges to a diameter 10 X the depth of damage. Blended minor nicks and damage in the face, back and cuff of the blade to a diameter 20 X the depth of damage. Ref Hartzell Manual 139 61-00-39 sec 6 4.		OK
<b>Note: NEVER EVER file the Aft. (back) surface of the blade to remove normal leading edge erosion. Only file the Aft. (back) surface of the blade to remove minor nicks and damage.</b>		
6) Inspect Zero pitch stops plates and pin housings for condition and security, inspect stop pins for freedom of movement and lube (1).		OK
7) Inspect propeller blades for proper alignment with slippage marks.		OK
8) Inspect low pitch stop rods and guides for condition and lube (1).		OK
9) Check Beta Ring for wear, warping and track. <b>"DO NOT LUBE"</b> Ref PT6A MM 61-10-00 2.		OK
10) Check carbon block for wear. <b>"DO NOT LUBE"</b> Ref Hartzell Manual 139 61-00-39 sec 6 3.		OK
11) Inspect spinner and bulkhead for condition and cracks.		OK
12) Reinstall spinner		OK

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

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AREA 7) ENGINE INSPECTION 1 OF 2		INT.
<b>GENERAL</b>		
Remove all 10 cowlings and 1 intake area cover for the Engine inspection. Additional inspection panels may need to be removed to investigate & repair discrepancies.		
1) Inspect cowling intake for cleanliness and damage		JB
2) Inspect turbine wash access door and hinge for condition security and lube (2).		JB
3) Remove inner air Box around Intake area and inspect for cracks, damage or missing fasteners.		JB
4) Inspect all Tubing, Hoses and attach brackets for leakage, chafing, security and condition.		JB
5) Inspect all electrical wiring, connections and brackets for; security, chafing and proper routing.		JB
6) Clean entire engine especially the aluminum case sections and fittings with water and Salt-X, Salt-Away or similar.		JB
7) Coat all aluminum case sections and cast aluminum parts and fittings with corrosion inhibitor: Corrosion X, Corrosion Block, AV-8 or similar.		JB
<b>FILTERS</b>		
8) Inspect fuel outlet filter, install new filter & new "O-Rings". Ref P&W C MM 73-40-02 8. B.		JB
9) Inspect fuel pump inlet filter for damage and foreign matter. Clean and reinstall with new "O-Rings". Ref P&W C MM 73-40-02 8. B.		JB
10) Inspect oil filter for foreign matter, drain and package for analysis, install fresh filter with new "O-Rings". Ref GMM 2.400 S/N Off: PA-195, S/N On: PA 155		JB
11) Inspect P3 Air Filter and clean, inspect Drain Valve and reinstall with new "O Rings". Ref P&W C MM 73-10-07 7, A.		JB
12) Inspect magnetic chip detector for contamination and cleanliness. Confirm operation of complete assembled system by attaching removed chip detector and with aircraft power on, short detector polls and confirm cockpit light illuminates. Reinstall with new "O-Rings".		JB
13) Inspect RGB Screen for Contamination, clean, reinstall with new "O-Rings".		JB
14) Remove fuel screen by Oil Cooler; inspect and install new filter, check overboard drains for condition and security.		JB
15) Drain EPA Reservoir if installed.		JB
16) Remove fuel screen by Fuel Boost pumps; inspect and install new filter, check overboard drains for condition and security.		JB
<b>AGB</b>		
15) Inspect Oil-To-Fuel heater for security and leakage.		JB
16) Inspect accessory section and all accessories for security and oil leakage.		JB
17) Check Starter Generator starter generator and wiring for security and leakage.		JB
<b>LINKAGES</b>		
18) Check controls and linkages of FCU, Cam Box and Manual/Emergency FCU Override for condition, and security; rodends, attach points and hardware for security, safety, chafing, and general condition.		JB
19) Check Cam box for excessive wear, evidence of binding and lubricate with plastilube.		JB
20) Check FCU, fuel pump and lines for security and linkages for proper lubrication (2).		JB
21) Check heater and Ice Deflector Door controls.		JB

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AREA 7) ENGINE INSPECTION 2 OF 2		INT.
<b>GG &amp; INLET AREA</b>		
27) Inspect engine mount, vibration isolators and mount structure for condition, cracks and security.		JB
28) Check inlet stage compressor blades for F.O.D. damage. Ref P&W C MM 72-30-05		JB
29) Check inlet air screen for condition, cleanliness and security.		JO
30) Check gas generator for cracks, distortion, and security.		JO
31) Inspect fire seals for cracks, and security of brackets and seals.		JO
32) Inspect Intake Duct, Snow/Ice Deflector, Screen & Linkage for condition, security and lube (2).		JO
<b>CT AREA</b>		
33) Inspect flow divider and fuel nozzle assemblies for leakage and security.		JO
34) Inspect spark igniters for cleanliness, erosion, and operation (Ref. 74-20-00)		JO
35) Inspect ignition cable igniter connector for condition and arcing. Inspect cables through their entire length for general condition, abrasions, kinks, and fire seal pass-through for chafing into cables.		JO
<b>POWER SECTION</b>		
36) Inspect propeller shaft for oil leaks.		M
37) Inspect CSU, OSG linkage and propeller reversing lever for proper attachment, security, oil leakage and lube (2).		JO
38) Inspect torque transmitter and Tach. Gen., for condition, safety, leakage and security.		JB
39) Inspect exhaust duct and stacks for cracks and security.		JB
<b>AFT OF ENGINE</b>		
40) Inspect firewall and seals for condition and security.		JB
41) Inspect the hydraulic components and lines for corrosion, leaks, condition and lube (3).		JB
42) Inspect oil cooler for leaks and security.		JO
43) Inspect cabin heater can and ventilation blower for security, condition of wiring and ducting.		JO
44) Inspect condition of batteries, mounting tray and Vent tubes; for proper fluid level, service as needed with clean fresh water, and check Battery Quick Disconnect and plug for evidence of arcing and security.		JO
45) Perform compressor wash with RMC cleaner or equivalent. Check solution draining from the case drains for amount of discoloration and if necessary let soak 20 minutes and wash again.		JO

Reference: Lubricant types

- (1) Lightweight/Penetrating lube/oil; LPS 1, Kroil, Marvel Mystery oil, or equivalent.
- (2) General-purpose lightweight protectant/lube; LPS 2, ACF 50, or equivalent.
- (3) Heavyweight protectant/lube; LPS 3, Paralketone, Cor-Ban 27L, Anti-Size, or equivalent.

SECTION: ANNEX A, DHC-3T, AAIP-B.  
EFFECTIVE: 02/01/13

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INSPECTION DHC-3T-B. (Annex A Form AAIP-B)

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Date: 2/25/15

POST INSPECTION RUN 1 OF 1	INT.
1) Inspect engine and engine area for FOD, tools, rags etc... Install inner air box around intake.	
2) Check oil level, ensure prop is clear and start engine in accordance with the start checklist and warm up at idle until oil temp has stabilized.	10
3) Allow engine to idle until the corrosion inhibitor applied on page 10 has dried and will not smell or smoke with passengers on board.	10
4) Check Generator output, confirm Generator Warning light goes out and check low idle speed 51% + 2% or - 0%.	10
Note - Watch all the engine parameters especially Ng and ITT during the next check.	
5) Carefully and for a short time advance throttle to TAKE-OFF power do not exceed 101.5 Ng or ITT limits: Record Torque: _____, Ng: _____, WF: _____, and ITT: _____.	10
6) Check Manual/Emergency FCU Override Control for proper operation.	10
<b>AFTER RUN UP</b>	
7) Check oil level within 10 minutes of shut down. Only service with Mobil Jet II if needed. <b>INSURE OIL CAP IS PROPERLY LOCKED</b>	10
8) Check fuel filters and screen for leaks and proper safety; one under cockpit floor, one on engine mount fwd of oil cooler, and two in fuel pump	10
9) Check Main Oil Filter, RGB screen And Chip Detector, for leaks and proper safety.	10
10) Check fuel oil Heater for proper operation. P&W C MM Ref. 71-00-00	10
11) Check area for FOD, tools, rags etc... Install Cowl and connect De-Ice Boot Wiring.	10
12) Re-Safety Manual/Emergency FCU Override Control	10
13) Enter next maintenance due hobbs time on the first MF31 and MF32 form. This will be: An AD or a task if due before the next AAIP M125, A, B, or C OR The AAIP M125 if more than 125 hours remaining to the next AAIP A, B, or C. This entry is only made after the last phase of the inspection if the inspection is phased.	cm
14) Enter next maintenance due date on the first MF31 and MF32 form. This will be: An AD or a task if due before the next AAIP MM This entry is only made after the last phase of the inspection if the inspection is phased.	cm
15) Install HOBBS sticker after last phase with:	
a) The next maintenance due time.	cm
b) The next maintenance due date.	cm
16) Make entry on MF32 for completing the inspection.	cm