Ref. AMM Pilatus Porter PC6 Chapter 05-24-01, P&WC Maintenance Manual Model PT6A-27 Manual Part No. 3013242 Chapter 72-00-00, Propeller Owner's Manual Hartzell (Manual 149)

7000 HOURS / COMPLETE OVERHAUL INSPECTION

Reg. Mark : PK - _____ Date : _____

MSN : _____ Station : _____

TSN / CSN : _____ WO No. : _____

NO	TASK	SIGNATURE	
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A. AIRFRAME			
AIRCRAFT - GENERAL			
1	External surfaces Examine for fuel and oil leaks.		
2	Landing gear shock struts Examine for leaks.		
3	Brake system Examine for hydraulic leaks		
4	Fuel system Defuel.		
5	Aircraft - external Wash.		
6	Aircraft - preparation Position aircraft in maintenance hangar. Remove and examine the protective covers, blanks and restraints. Replace if damaged, torn or is not properly installed.		
7	Placards and Markings Examine and replace as necessary.		
8	Aircraft Raise on jacks.		
9	Fuselage Remove access panels and fairings.		
10	Empennage Remove access panels and fairings.		
11	Wings Remove access panels and fairings.		

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12	Main fuel tank access panels Remove.		
13	Underwing fuel tanks (If Installed) Remove.		
Chapter 21 - Air Conditioning			
1	Air inlet screen and hoses Examine.		
2	Engine bleed air line and hoses Examine.		
3	Mixer unit Examine.		
4	Emergency shut-off valve Examine.		
5	System components and pipes Examine.		
6	Butterfly vents - passenger cabin Examine.		
7	System controls Examine. Lubricate moving parts (Material No. P04-037)		
8	Air conditioning system and emergency shut-off control Check during engine ground run checks. Reset valve and replace indicator thread (Material No. P09-006)		
Chapter 25 - Equipment and Furnishings			
1	Pilot and Co-pilot seats Examine. Adjustment mechanism - Operational test. Lubricate (Material No. P04-011)		
2	Pilot and Co-pilot seat harnesses Examine. Check inertial reel system operates correctly.		
3	Seat attachments Examine.		
4	Passenger seats Examine seats, seat attachments and seat harnesses. If seats with Torso Restraint System are installed, make sure the backrest release mechanism operates correctly. Lubricate moving parts (Material No. P04- 028)		

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5	Seat attachments Examine.		
6	Linings and curtains Examine.		
7	Fire extinguisher Examine.		
8	First aid kit Examine.		
9	Crash axe Make sure it is stored correctly.		
10	Stretchers (If Installed) Examine.		
11	Stretcher mounts (If Installed) Examine.		
Chapter 27 - Flight Controls - General			
1	Aileron control rods Remove		
2	Controls Control column Examine. Check for excessive play at Teflon bearing at base of column by pulling up and pushing down on column. Maximum play is 0,2 mm (0,008 in.).		
3	Control lock Examine.		
4	Rudder pedal assembly torque tube (Up to MSN 623) Remove. Examine. Do a crack detection test with dye penetrant. Lubricate (Material No. P04-002). Install.		
5	Rudder pedal assembly torque tube (From MSN 624) Examine for excessive wear. Lubricate (Material No. P04-002)		
6	Rudder pedal bar Examine.		
7	Bellcranks and levers Examine.		

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8	Flight control cables Examine. Check tension.		
9	Aileron control rods Examine.		
10	Elevator control rods Examine.		
11	Flap control rods (Electrical system only) Examine.		
12	Horizontal stabilizer actuator Examine.		
13	Control rod bearings Lubricate. (Material No. P04-002)		
14	Control cable pulleys Examine.		
15	Aileron to rudder interconnect spring Examine. Check cable tension (Ref. 27-14-11, Page Block 501)		
Chapter 28 - Fuel System			
1	Fuel filter bypass Do a functional test with a dummy filter.		
2	Fuel shut-off valve Examine. Lubricate moving parts (Material No. P04-037)		
3	Main fuel tanks Clean. Examine internal seals. Repair sealing if required.		
4	Fuel tank inward vent-valves Examine. Replace floats		
5	Underwing fuel system vent-valves (if underwing tanks are installed) Examine Replace floats		
6	Fuel tank vents Examine		
7	Tank filler caps Examine		

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8	Fuel collector tank Examine		
9	Water collector tank Examine.		
10	Fuel pipes and hoses Examine.		
11	Engine driven fuel pump Examine.		
12	Fuel flow transmitter Examine. Check fuel flow indication.		
13	Fuel system Do a Functional test.		
14	Underwing tanks, filler caps, seals, hoses and pylons. (If Installed) Examine.		
15	Transfer pump Examine and clean filters.		
16	Underwing tank system (If Installed) Do a Functional test.		
Chapter 32 – Landing Gear and Brakes			
1	Brake linings Check brake lining wear,		
2	Brake system Drain		
3	Brake discs Check for wear. (Ref. MC-STC-002, page 5)		
4	Brake system Examine pipes and hoses		
5	V-struts Do the partial overhaul inspection procedure.		
6	Main wheels Remove		

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7	Main wheels and tires Examine. Partial overhaul.		
8	Main gear shock struts Examine. Check fluid level.		
9	Tail landing gear Remove.		
10	Tail wheel and tire Remove. Check inflation pressure 47 psi		
11	Tail shock strut Examine. Check fluid level. Note: Check Shock Strut Pressure 24 bar / 348 psi		
12	Tail landing gear Examine.		
13	Tail landing gear Examine fuselage attachment points and adjacent structure.		
14	Debris guard. Examine.		
15	Tail wheel steering Examine cables and springs. Lubricate (Material No. P04-002)		
16	Brake system Lubricate moving parts of controls. (Material Nc. P04-037)		
17	Brake system Flush system, fill with new fluid and bleed the system. Check brake fluid level.		
18	Brake system Apply the brakes and look for leaks.		
19	Main wheels Install serviceable main wheels.		
20	Tail landing gear Install.		
21	Steering system With a spring balance, check the system spring box assemblies are pre-loaded to 37 Kg ± 2 Kg (81 lb ±4.5 lb). Check cable tension and the rudder system range of movement. Lubricate moving parts of controls (Material No. P04-002)		

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Chapter 35 - Oxygen System			
1	Oxygen bottle(s) and attachment brackets (if installed) Examine.		
2	Oxygen system pipes, flexible tubes and fittings (if installed) Examine.		
3	Oxygen regulators (if installed) Examine.		
Chapter 52 - Doors			
1	Pilot, Co-pilot doors Examine. Latching handles - Do an Operational test. Remove safety wire. Emergency release mechanism - Do an Operational test. Lubricate mechanism (Material No. P04-011). Install safety wire (Material No. P02-021)		
2	Cabin sliding door Remove. Examine rollers, rails and door. Examine seals and stops. Latching mechanism - Do an Operational test. Install door. Lubricate mechanism (Material No. P04-037) Note: Latching Mechanism should spring back freely when the door handle is released		
3	Cabin trap-door. (If Installed) Remove trap-door hatch cover. Examine doors, hinges, seal, and structural damage. Latching and release mechanism - Do an Operational test. Lubricate mechanism (Material No. P04-037)		
4	Access door - RH rear fuselage Latching mechanism - Do an Operational test. Lubricate mechanism (Material No. P04-037)		
Chapter 53 - Fuselage			
1	Fuselage - external Examine.		
2	Fuselage - internal Examine.		
3	Fuselage Make sure that the drain holes are not blocked.		
4	Wing attachment brackets and adjacent structure Examine. Use a light magnifying glass.		
5	Fuselage - wing strut attachment brackets and structure internal and external Examine (Using Fluorescent Dye penetrant Inspection).		

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6	V-strut attachment brackets Examine.			
7	Access panels Examine panels, fairings and fasteners.			
8	Stabilizer Trim Attachment Components FR12A Support Brackets Examine.			
9	Stabilizer Trim Attachment Components FR12A Where the Horizontal Trim Actuator Support is Installed. Examine.			
Chapter 55 - Stabilizers				
1	Elevators Remove.	**RII:** Sign & Stamp		
2	Rudder Remove.	**RII:** Sign & Stamp		
3	Empennage - internal Examine as far as possible. Make sure that the water drain holes are not blocked.			
4	Dorsal fin and attachments Examine.			
5	Vertical stabilizer Examine.			
6	Rudder hinge bearings Replace			
7	Rudder torque shaft upper and lower bearing Replace (Ref., Page Block 401)			
8	Empennage Examine panels, fairings and fasteners.			
9	Torque tube Examine.			
10	Rudder and trim tab Examine.			
11	Horizontal stabilizer Check for excessive play at attachment points by rocking stabilizer ends and listening for movement at attachment points. Maximum play is 1,5 mm (0.06 in.).			

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12	Horizontal stabilizer Remove.			
13	Horizontal stabilizer Examine.			
14	Elevator and trim tab Examine.			
15	Elevator control bellcrank Examine.			
16	Elevator hinge bearings Replace.			
17	Horizontal stabilizer Install.	**RII:** Sign & Stamp		
18	Rudder Install.	**RII:** Sign & Stamp		
19	Elevators Install.	**RII:** Sign & Stamp		
Chapter 56 - Windows				
1	Windscreens Examine.			
2	Cabin - two round windows Examine.			
3	Door windows Examine.			
4	Emergency window Examine seals.			
Chapter 57 - Wings				
1	Ailerons Remove.	**RII:** Sign & Stamp		
2	Flaps Remove.	**RII:** Sign & Stamp		

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3	Wing - external Examine skin and structure, particularly in area of fuel tanks, all access hole and external component or equipment attaching points. Look for loose rivets along the main spar (this can indicate advanced corrosion of the spar cap).			
4	Wing - internal Examine internal skin and structure, particularly in the area of fuel tank, as far as possible. Look for signs of corrosion on the upper and lower main spar caps			
5	Wing - fuselage attachments Examine.			
6	Wing - strut attachment brackets Examine.			
7	External stores attachments Examine.			
8	Access panels Examine panels, fairings and fasteners.			
9	Wing tips Examine.			
10	Aileron support structure Examine aileron support brackets, hinge bearings, control rod attachment points and attaching parts.			
11	Ailerons Remove balance arms. Examine. Install balance arms. Examine mountings for the static discharge wicks. Lubricate bearings (Material No. P04-002).			
12	Aileron - tabs Examine tabs, tab control rods, support brackets, hinges and attaching parts.			
13	Flap support structure control rod attachments, actuator support bracket and attaching parts Examine support brackets and hinge bearings.			
14	Flaps Examine.			
15	Wing struts Examine.			
16	Ailerons Install.	**RII:** Sign & Stamp		

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17	Flaps Install.	**RII:** Sign & Stamp		
Aircraft - General **NOTE: Do these steps when the engine, electrical and avionic inspections are complete**				
1	Aileron controls Do a functional test.			
2	Elevator controls Do a functional test.			
3	Rudder controls Do a functional test.			
4	Flaps Do a functional test.			
5	Aileron trim Do a functional test.			
6	Horizontal stabilizer trim Do a functional test.			
7	Rudder trim Do a functional test.			
8	Aircraft Make sure that the work area is clean and clear of tools and other items.			
9	Main fuel tank access panels Install.			
10	Main fuel tank access panels Install.			
11	Fuselage Install access panels and fairings.			
12	Empennage Install access panels and fairings.			
13	Wings Install access panels and fairings.			
14	Underwing fuel tanks (If required) Install.			

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15	Aircraft Lower off jacks.		
B. PARTIAL OVERHAUL - ENGINE **Chapter 61 - Propeller**			
1	Spinner Remove		
2	Propeller de-icer boots Examine		
3	Slip-ring (Beta) Examine. Check gap between slip-ring and carbon block is no more than 0,50 mm (0.02 in.)		
4	Blades Examine. Disconnect the pitch change mechanism and make sure the blades are free to turn. Connect the pitch change mechanism and safety with lockwire.		
5	Spinner body and backplate Examine.		
6	Propeller control system Examine. Check for full and free range of movement.		
Chapter 71 - Powerplant			
1	Engine Do a compressor wash. (Ref. 71 -00-00, Page Block 701)		
2	Engine and engine compartment Clean engine, engine compartment and cowlings.		
3	Engine Examine as far as accessible, all tubes, electrical wiring, control linkages, hoses and cowlings. Lubricate ball-end fitting of starting control rod, FCU rod and propeller interconnect rod with grease (Material No. P04-002).		
4	Engine compartment Examine all hoses and pipes. Examine compartment structure. Make sure that the drain holes are not blocked.		
5	Engine shockmounts Examine.		
6	Support ring Examine.		

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7	Support struts Examine.		
8	Sand filters Clean.		
9	Engine cowlings and seals Examine.		
10	Fire shields and seals Examine.		
11	Electrical harnesses Examine.		
12	Fuel drain collector tank Examine.		
Chapter 72 - Engine			
1	Compressor inlet screen Remove. Examine.		
2	Compressor Examine as far as possible.		
3	Compressor inlet screen Install.		
4	Exhaust duct Examine.		
5	Gas generator case Examine.		
6	Propeller shaft oil seal Examine, look for oil leaks.		
7	Accessories Examine.		
Chapter 73 - Engine Fuel and Control			
1	HP fuel pump Examine. Clean filters.		
2	Fuel control unit Examine. Check for leaks from vent.		

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3	Starting flow control unit Examine.		
4	Gas generator case drain valves Examine.		
Chapter 74 - Ignition			
1	Spark igniters Examine.		
2	Glow plugs Examine.		
3	Igniter exciter Examine.		
4	Ignition cables Examine.		
Chapter 76 - Engine Controls			
1	Engine control system Examine. Check for full and free range of movement.		
Chapter 78 - Exhaust			
1	Exhaust stubs Examine. Note: Exhaust duct check for cracking along the weld on the leading edge.		
Chapter 79 - Oil			
1	Oil filter Clean.		
2	Chip detector Remove. Clean. Examine. Check operation as follows: Connect detector, short across detector poles, energize aircraft electrical system and check that CHIP warning is activated. Install and connect chip detector		
General			
1	Powerplant Make sure that the work area is clean and clear of tools and other items		
2	Powerplant Do a functional test		

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D. ELECTRICS AND INSTRUMENTS **General**			
1	Battery mounts Examine attachments, ventilation hoses, cable connectors and wiring.		
2	Battery compartment Examine.		
3	External power receptacle Examine.		
4	Starter/Generator Examine brushes, commutator, exterior surfaces.		
5	Starter and power generation relays Examine. Functionally test.		
6	Voltage regulator Examine. Functionally test during engine ground run.		
7	Cockpit - switches, circuit breakers Examine. Make sure that placards are readable.		
8	Cables looms, plugs, connectors relays, terminal blocks Examine in: - engine compartment - cockpit - fuselage - empennage - wings		
9	Bonding leads Examine in: - engine compartment - cockpit - fuselage - empennage - wings - landing gear		
Chapter 21 - Air Conditioning			
1	Cockpit blower motor Examine. Operational test		
2	Passenger cabin blower motor Examine. Operational test		

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Chapter 23 - Communications			
1	Static discharge wicks Examine		
Chapter 27 - Flight Controls			
1	Aileron trim actuator Examine. Operational test.		
2	Rudder trim actuator Examine. Operational test.		
3	Flap actuator Examine. Operational test.		
4	Horizontal stabilizer actuator (Main and Alternate systems) Examine. Operational test.		
Chapter 28 - Fuel			
1	Auxiliary pump Operational test.		
Chapter 30 - Ice and Rain Protection			
1	Pitot and static port heaters Operational test.		
Chapter 33 - Lights			
1	Navigation Lights Examine. Operational test.		
2	Anti-collision strobe lights Examine. Operational test.		
3	Landing Lights Examine. Operational test.		
4	Cockpit lights Examine. Operational test.		
5	Instrument lights Examine. Operational test.		
6	Warning lights Examine. Operational test.		
7	Passenger cabin lights Examine. Operational test.		

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Chapter 34 - Navigation			
1	Pitot tube Examine.		
2	Static ports Examine.		
3	Pitot and static systems Functionally test system for leaks.		
4	Pitot and static pipes and connectors Examine.		
5	Vertical speed indicator Reset to zero.		
6	Altimeter Check barometric scale for accuracy. Calibrate if necessary.		
7	Airspeed indicator Check for accuracy, calibrate if necessary.		
8	Gyro operated instruments Operational test.		
9	Instruments Examine.		
10	Magnetic compass Check the correction card date is valid.		
11	Pitot tube Make sure that the tube has cooled Install the cover.		
Chapter 37 – Vacuum			
1	Vacuum suction regulator Clean the filter.		
2	Vacuum system air filter Examine. Replace if contaminated.		
3	Vacuum system pressure regulator valve Examine.		

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4	Vacuum system ejector Examine.		
5	Vacuum pipes and connectors Examine.		
D. AVIONICS **General**			
1	Antenna Examine.		
2	Headsets and microphones Examine.		
3	Avionic equipment Examine. Examine cables and connectors as far as possible.		
4	Avionic equipment shockmounts Examine.		
5	Avionic equipment racks Examine.		
6	Switches and circuit breakers Examine.		
7	Avionic systems Operational test.		

PERSONNEL PARTICIPATING IN THIS INSPECTION			
NAME	POSITION	SIGNATURE	LICENSE NUMBER

RETURN TO SERVICE

The work recorded above has been carried out in accordance with the requirements of the Civil Aviation Safety Regulation for the time being in force and in that respect the aircraft is consider fit for Release to Service.

Name	:	_____	Name of RII	:	_____
Signature	:	_____	Signature	:	_____
Stamp	:	_____	Stamp	:	_____
Place/Date	:	_____	Place/Date	:	_____