PT. SMART CAKRAWALA AVIATION

WORK ORDER

Form: SCA/MTC/030

Subject : **Engine and Propeller Installation**	No.	WO/012-SNB/XI/2022
	Date	8 Nov 2022
	A/C Reg.	PK-SNB MSN 1015
Reference : MP Pilatus PC-6 AMM Pilatus PC-6	Prepared By	TS
	Checked By	CI
	Approved By	TM

To : Engineer In Charge

Description :

1. Perform Engine and Propeller Installation
2. Make an entry in Maintenance Log.
3. Return the Completed Work Order and Form to PPC.

#If any finding, please close the routine card, and transferred to inspection card.

Additional Work :

Compliance Statement	Sign & Date Company Lic. No.: (Engineer In Charge)	Signature (Technical Manager)

AIRCRAFT CHECK WORK SUMMARY
(Form: SCA/MTC/051)

DATE OF ISSUED	JO/WO #	TYPE OF MAINTENANCE	DATE OF ACCOMPLISHED
8 Nov 2022	WO/012-SNB/XI/2022	Engine and Propeller Installation	

A/C Type	Mfg. Serial Number	A/C Registration
PILATUS PORTER PC-6	1015	PK-SNB

AIRCRAFT DATA

Subject	Pos #	Serial Number (SN)	TTSN/TCSN
Engine	#1	PCE-51153	TSN: 18599:8H CSN: 19230
	#2	-	TSO: 0 CSO: 0
Propeller/Rotor	#1	FY4093	TSN: 739:56H TSO: 0
	#2	-	
Landing Gear	NLG		
	LH MLG		
	RH MLG		

PACKAGE COVERED

No	Subject	Qty	Remark
1	Non-Routine Card	-	
2	Inspection Card	-	
3	Work Order	1	
4	Summary Inspection List	1	
5	Material and Tool List	-	
6	Escalation form	-	
7	CRS (SMI / Unscheduled Maintenance)	1	

INSPECTION CARD (IC) LIST (Finding during maintenance)

No	Taskcard Ref	Subject	Status		Name/ Sign & Stamp
			Open	Close	
IC-001					
IC-002					
IC-003					
IC-004					
IC-005					
IC-006					

IC-007					
IC-008					
IC-009					
IC-010					
IC-011					
IC-012					
IC-013					
IC-014					
IC-015					

Prepared by :	Checked by :	Verified by :	Approved by :
Technical Support	Chief Maintenance	Chief Inspector	Technical Manager
			
.....	.....	.....	.....
Hani	Dodit	Yanuar	Istiono

SUMMARY INSPECTION ITEMS
(Form: SCA/MTC/050)

WO Ref: WO/012-SNB/XI/2022

NO.	TASK CARD NO.	DESCRIPTION	DATE	EST MHR	NAME	STAMP
1	APPENDIX	PROPELLER INSTALLATION				
2	APPENDIX	ENGINE INSTALLATION				

PT. SMART CAKRAWALA AVIATION

CERTIFICATE RETURN TO SERVICE

SCHEDULED MAINTENANCE INSPECTION
(CRS-SMI)

A/C TYPE	: PILATUS PORTER PC-6	TTSN	:
A/C REG	: PK-SNB	TCSN	:
MSN	: 1015	DATE	:

TYPE OF INSPECTION : ENGINE AND PROPELLER INSTALLATION
DUE AT : N/A
REFF : MP PILATUS PC-6

EXCEPTION

AUTHORIZED PERSON

I hereby certify that this aircraft has been maintained accordance with CASR and Maintenance Program. Aircraft safe and airworthy for flight

NAME	CAT	AMEL/OTR NO	SIGN&STAMP	DATE
	AIRFRAME & POWER PLANT			
	EIRA			

THE NEXT DUE TYPE OF INSPECTION :

DUE AT :

Form: SCA/MTC/049

smartaviation	**INSPECTION CARD** **(Form: SCA/MTC/ 048)**	TECHNICAL DEPARTMENT

1. CARD #	2. JO/WO #	3. ORIGINATOR	4. CARD REF	5. DATE
6. A/C REG/MSN	7. A/C TYPE	8. TRADE	12. VENDOR ORDER #	
9. ZONE	10. STA	11. MTC TYPE		

13. DESCRIPTION/DEFECT-IF FINDING OF CPCP INSPECTION, PLEASE COMPLETE SET. 20	14 PPC/ENG	15 DATE

16. CORRECTIVE ACTION		17 MECH	18 ENG. LIC	19 DATE
Performed at A/C TT : ..... A/C TC /LDG :				
20. CORROSION INFORMATION				
LOCATION	CAUSE OF DAMAGE ☐ Environment ☐ Internal Leakage			
CORROSION ☐ Isolated ☐ Widespread	☐ Chemical Spill			
CORROSION LVL ☐ 1 ☐ 2 ☐ 3	☐ LAV/Galley Spill			
PROPOSED ACTION ☐ Doublers	☐ Blocked Drain			
☐ Others	☐ Wet Insulation Blanket			
……..	☐ Other			
21. If the defect is RII, Please Sign this card finally by RII Inspector			INSP	DATE
NOTICE OF INSPECTOR				

22. PARTS REQUIRED						
PART DESCRIPTION	PART NO	QTY	SERIAL NO		STATUS	
			ON	OFF	CLOSE	OPEN

23. TOOLS REQUIRED			
DESCRIPTION	PART NO. / MODEL	NEXT CALIBRATION DATE	STATUS

Ref. AMM Pilatus Porter PC6 Chapter 71-00-00,
P&WC Maintenance Manual Model PT6A-27 Manual Part No. 3013242 Chapter 72-00-00

ENGINE INSTALLATION SHEET

Date	:		**Engine P/N**	:	3015000
Aircraft Registration	:	PK-SNB	**Engine S/N**	:	PCE-51153
Aircraft Type	:	**PILATUS PC6, B2-H4**	**TSN**	:	18599:8H
Aircraft Total Hours	:	476:14H	**TSO**	:	19230
Aircraft Total Cycle	:	580	**CSN**	:	0
Work Order Number	:	WO-012-SNB-XI-2022	**CSO**	:	0

NO	TASK	SIGNATURE	
		SIGN	STAMP
Job Set Up			
A	Make inventory records P/N and S/N of the engine and it's accessories from the engine that removed. Fill out into the form no ASI/MD-50 Engine Change- Major Component Inventory Records.		
Install the following item of Engine Accessories on the Engine before proceeding to install on the airplane:			
A	**CAUTION:** MAKE SURE THAT ALL BLANKS AND COVERS REMOVED FROM THE REPLACEMENT ENGINE ARE INSTALLED TO ALL OPENINGS ON THE REMOVED ENGINE		
	Oil Drain Valve (Ref. Fig. 409)		
	1. Remove the blank from the opening. 2. Install a new O-ring (4) to the oil drain valve (5). 3. Install the drain valve (5) with the lock pin (2). 4. Safety the lockpin (2) with a new cotter pin. 5. Install the bolt (1).		
B	**Oil Temperature Sensor (Ref. Fig. 409)**		
	1. Remove the blank from the opening. 2. Install a new O-ring (11) to the oil temperature sensor. 3. Install the oil temperature sensor (10).		
C	**Engine Breather Elbow (Ref. Fig. 409)**		
	1. Remove the blank from the opening. 2. Install a new O-ring (8) to the elbow (9). 3. Install the elbow (9) with the bolts (6) and washers (7). 4. Torque the bolts (6) to between 3.4 and 3.9 Nm (30 and 35 lbf in.). 5. Safety the bolts (6) with lockwire (Material No. P02-001).		

NO	TASK	SIGNATURE	
		SIGN	STAMP
D	**Control Levers (Ref. Fig. 405)** 1. Idle Control Lever: a) Put the lever (9) in position on the idle control unit. b) Install the washer (10) and nut (11), then tighten the nut (11) with your hand c) Install the bolt (6), control rod end (5), spacers (7) and (4), washer (3) and nut (2). d) Torque the nut (2) to between 1.3 and 2.0 Nm (12 and 18 lbf in.). e) Safety the nut (2) with a new cotter pin (1). f) Torque the nut (11) to between 1.3 and 2.0 Nm (12 and 18 lbf in.). g) Safety the nut (11) with a new cotter pin (8). **2. Power Control Input Lever** **CAUTION:** WHEN YOU INSTALL THE LEVER (18) IT MUST BE IN LINE WITH THE FOLLOWER LEVER ON THE SAME SHAFT OF THE CAM BOX. a) Install the lever (18) to the splined shaft. b) Install the bolt (17), the washer (19) and the nut (20). Safety the nut (20) with a new cotter pin (21).		
E	**Engine Driven Fuel Pump (Ref. Fig. 410)** 1. Remove the blank from the opening. 2. Install a new gasket (8). 3. Install the fuel pump (7), washers (5) and nuts (6). 4. Torque the nuts (6) to between 8,5 and 9,6 Nm (75 and 85 lbf in.).		
F	**Gas Generator and Propeller Tachometer Generators (Ref. Fig. 410)** 1. Remove the blank from the opening. 2. Install a new gasket (2). 3. Install the generator (1), washers (3) and nuts (4). 4. Torque the nuts (4) to between 8,5 and 9,6 Nm (75 and 85 lbf in.).		
G	**Torque Indicating System (Ref. Fig. 411, Sheets 1 and 2)** 1. Install a new O-ring (1). 2. Install the adapter (8). 3. Remove the bottom RH nut (6) from the propeller tachometer generator. 4. Install the P-clip (4) and torque transducer (3). 5. Install the nut (6). 6. Torque the nut (6) to between 8,5 and 9,6 Nm (75 and 85 lbf in.). 7. Install the torque pressure pipe (2). 8. Install the case reference pressure hose (7).		
H	**Propeller Overspeed Governor (Ref. Fig. 412)** 1. Install a new gasket (4) on the replacement engine. 2. Install the governor with the washers (1) and nuts (2). 3. Torque the nuts (2) to between 19,2 and 21,5 Nm (170 and 190 lbf in.).		

NO	TASK	SIGNATURE	
		SIGN	STAMP
	Drain Line Adapter, QAD Adapter (if applicable) and Starter-Generator (Ref. Fig. 413)		
I	1. Install the drain adapter (7). 2. Install a new gasket (1). 3. If applicable, install the QAD adapter (2) with the washers (3) and nuts (4). 4. Install the starter-generator (Ref. 24-31-11) but connect the electrical cables after you install the engine (Ref. Para. 7.H.(1))		
	Harness (Ref. Fig. 414)		
J	1. If applicable, install the propeller de-icer unit (Ref. 30-60-01, Page Block 401). 2. If necessary, replace the heat insulating tape installed on the harness between the engine flanges A and C. 3. Put the harness assembly in position on the engine. 4. Install the P-clips to secure the harness. 5. Remove the identity marks and connect the ITT indication leads to the T5 terminal block. 6. If applicable, remove the identity marks and connect the propeller de- icer leads to the de-icer unit terminal block. 7. Connect the electrical plugs at the: i. chip detector. ii. propeller tachometer generator. iii. torque pressure transducer. 8. Remove the two thrust bearing cover attaching nuts. 9. Install the low pitch warning switch mounting bracket and warning switch on to the mounting studs. 10. Install the warning switch linkage block on to mounting stud on the propeller reversing lever. 11. Install the washer and nut to secure the warning switch linkage block, then tighten the nut with your hand. Make sure that the block is free to turn on the stud. 12. Safety the nut with a new cotter pin.		
	Propeller Governor Maximum Stop Screw (Ref. Fig. 405)		
K	1. Check the maximum stop screw (35) on the propeller governor. If the screw is shorter than the stop screw on the removed engine, move the screws as follows: **NOTE:** The long stop screw is used to give the propeller speed of 2000 rpm used on B2H4 aircraft. a. On the removed engine: i. Loosen the locknut. ii. Remove the stop screw, at the same time count the number of turns necessary to remove the stop screw. iii. Make a record of the number of turns. b. Move the short stop screw from the replacement engine to the removed engine. c. Install the long stop screw on the propeller governor of the replacement engine with the same number of turns as recorded at (a) (iii). d. Tighten the stop screw locknut.		

NO	TASK	SIGNATURE	
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	Inner Bulkheads (Ref. Fig. 415)		
L	1. Put the forward bulkheads (1) and (13) in position. 2. Install the bolts (2), washers (3) and nuts (4). 3. Install the bolts (5), washers (10) and nuts (11). 4. Install the harness slot filler plate on to the engine forward bulkhead. 5. Use caulking putty (Material No. P08-001) to seal the gaps between the harness and the bulkhead. 6. Put the rear bulkheads (6) and (12) in position. 7. Install the bolts (7), washers (8) and nuts (9).		
Installation			
	Engine Mounting Ring (Ref. Fig. 408)		
A	1. Position the mounting ring on the engine to the rear of the attachment points. **NOTE:** Make sure that the support strut attachment lugs on the mounting ring are to the rear. 2. Install the engine lifting sling (Ref. P&WC EMM 72-00-00, SERVICING). **CAUTION:** THE BUSHES THAT ATTACH THE SHOCKMOUNT TO THE MOUNTING FRAME BOLT MUST BE INSTALLED. THE BUSH MUST HAVE THE THICK FLANGE TO THE REAR. IF THE BUSH IS INCORRECTLY INSTALLED, THE ENGINE WILL NOT ALIGN CORRECTLY. 3. Install the gaskets (7), shockmounts (10), washers (6) and bolts (5). 4. Torque the bolts (5) to between 31.0 and 34.0 Nm (275 and 300 lbf in.). 5. Safety the bolts in pairs with lockwire (Material No. P02-001). 6. Lubricate the shanks of the mounting ring attachment bolts (8). 7. Put the mounting ring in position. 8. Install the bolts (8), washers (9) and (12) and nuts (11). 9. Torque the nuts (11) to between 55.0 and 60.0 Nm (486 and 531 lb in.).		
	Install the Engine (Ref. Fig. 408)		
B	1. Lift the engine in position. 2. Install the bolts (16) and washers (13). 3. Torque the bolts (16) to between 46,0 and 51,0 Nm (407 and 450 lb in.). 4. Safety the bolts (16) with locking wire (Material No. P02-001).		

NO	TASK	SIGNATURE	
		SIGN	STAMP
C	**Support Struts (Ref. Fig. 408)** 1. Put the rear bulkhead over the engine. 2. Loosely install 10 bolts (five each side) to attach the upper and lower half of the bulkhead together. 3. Put the support struts in position through the holes in the engine rear bulkhead. 4. Install the bolt (1), washer (2) and nut (3). 5. Torque the nuts (3) to between 10,5 and 12,5 Nm (95 and 110 lb in.). 6. Safety the nuts with new cotter pins (4). 7. Make sure the bonded shim (18) is securely attached to the structure. 8. If the nuts (15) are self-locking nuts: i. Install the bolt (19) washer (17) and nut (15). When you do this measure the rundown torque of the nut (15). ii. Torque the nuts (15) to between 51 and 56 Nm (450 and 500 lb in.) plus the rundown torque. 9. If the nuts (15) are castellated nuts: i. Install the bolt (19), washer (17) and nut (15). ii. Torque the nuts (15) to between 51 and 56 Nm (450 and 500 lb in.). iii. Safety the nuts (15) with new cotter pins (14). 10. Remove the lifting sling from the engine		
D	**Connect the Engine Bulkheads (Ref. Fig. 407)** 1. Install the bolts (6) and washers (7) to attach the upper half of the engine rear bulkhead. 2. Tighten the bolts (4) and washers (3) that attach the support strut seal plates (5) and seals (2).		
E	**Case Drains and P3 Air Bleed (Ref. Fig. 402)** 1. Connect the gas generator case rear drain hose (8) at the rear drain valve. 2. Connect the gas generator case forward drain hose (1) at the engine forward bulkhead. 3. Connect the gas generator case forward drain pipe (7). 4. Install the gasket (6) to the mounting boss on the top of the gas generator case. 5. Put the adapter in position and install the four bolts (4). 6. Connect the P3 bleed air hose (2) to the adapter (5). 7. Install the P-clip (3) on the P3 bleed air hose (2) and engine forward bulkhead. 8. Safety the hose to the lower LH side of the engine mounting ring with a cable tie.		

NO	TASK	SIGNATURE	
		SIGN	STAMP
	Fuel Tubes (Ref. Fig. 404, Sheets 1 and 2)		
F	1. Install a new O-ring (11) on the adapter (12). 2. Install the adapter to the starting flow control unit. 3. Set the adapter to the position noted at 4. E. (10). 4. Hold the adapter and then tighten the adapter locknut. 5. Connect the fuel dump hose (14) to the adapter (12). 6. Install and tighten the worm-drive clamp (13). 7. Connect fuel bleed return hose (10) to starting flow control unit. 8. Install a new O-ring (1) to the adapter (2). 9. Install the adapter (2) to the oil fuel heater. 10. (10) Connect the fuel supply hose (3) to the adapter (2). 11. Connect the drain tube (8) to the LP fuel pump. 12. Install a new O-ring (5) to the adapter (6). 13. Install the adapter (6) to the HP fuel pump. 14. Connect the drain tube (7) to the adapter (6). 15. Connect the inlet hose (4) to the LP fuel pump. 16. Connect outlet hose (9) to the LP fuel pump.		
	Oil Tubes (Ref. Fig. 403)		
G	1. Connect the starter generator drain hose (Ref. Fig. 413): i. Connect the drain hose (5) to the drain adapter (7)below the starter generator drive. ii. Install and tighten the clamp (6). 2. Connect the engine breather hose (3) to the breather elbow. Install and tighten the clamp (2). 3. Connect the oil cooler return hose (1) to the adapter on top of theaccessory gearbox. 4. Connect the engine oil cooler supply hose (7) to the connector on thescavenge pump. 5. Install a new O-ring (4) to the adapter (5) at the RH of the accessorygearbox. 6. Install the adapter (5). 7. Connect the oil pressure transducer hose (6) to the adapter (5).		
	Electrical Connectors (Ref. Fig. 401)		
H	1. Connect the electrical cables (1) to the starter-generator. 2. Connect the electrical plug (8) to the oil temperature sensor. 3. Connect the electrical plug (7) to the FCU sense line heater. 4. Connect the electrical plug (5) to the gas generator tachometergenerator. 5. Connect the electrical plug (2) to the ignition unit. 6. Connect the electrical plug (9) at the RH of the front face of theengine rear bulkhead. 7. If the propeller de-icing system is installed: i. Install electrical plug (10) at the RH front face of the enginerear bulkhead. 8. Install the earth leads (6) to engine bulkhead. Connect bonding lead (3) to engine data plate securing bolt (4).		

NO	TASK	SIGNATURE	
		SIGN	STAMP
I	**Connect the Propeller Control Cable (Ref. Fig. 406)** 1. Insert the cable through the hole in the engine rear bulkhead. 2. Install the two grommets to the cable. 3. Insert the cable through the hole in the forward bulkhead. 4. Position the cable on the engine. 5. Press the grommets in the holes of the bulkhead. 6. Put the support bracket (9) in position. 7. Install the bolts (12), washers (10) and nuts (11). 8. Put the cable in position on the support bracket (9). 9. Install the top plate (15) with the bolts (16), spring washers (14) andnuts (13).		
J	**Connect the Controls (Ref. Fig. 405)** 1. Insert the cable through the hole in the engine rear bulkhead. 2. Install the two grommets to the cable. 3. Insert the cable through the hole in the forward bulkhead. 4. Position the cable on the engine. 5. Press the grommets in the holes of the bulkhead. 6. Put the support bracket (9) in position. 7. Install the bolts (12), washers (10) and nuts (11). 8. Put the cable in position on the support bracket (9). 9. Install the top plate (15) with the bolts (16), spring washers (14) andnuts (13). **RII :** Sign & Stamp		
K	**Connect the Controls (Ref. Fig. 405)** **1. Idle Control:** i. Put the rod (15) in position and then install the bolt (16),washer (14) and nut (13). ii. Torque the nut (13) to between 1,3 and 2,0 Nm (12 and 18 lbfin.). iii. Safety the nut with a new cotter pin. **2. Power Control:** i. Put the rod end (25) in position and then install the bolt (26),washer (24) and nut (23). ii. Torque the nut (23) to between 1,3 and 2,0 Nm (12 and 18 lbfin.). iii. Safety the nut with a new cotter pin (22). **3. Propeller Control:** i. Put the control rod (31) in position and then install the bolt(34), washer (33), spacer (32), washer (29) and nut (26). ii. Torque the nut (26) to between 1,3 and 2,0 Nm (12 and 18 lbfin.). iii. Safety the nut (26) with a new cotter pin (22). **RII :** Sign & Stamp		

NO	TASK		SIGNATURE	
			SIGN	STAMP
Job Close Up				
A	1. Adjust the engine controls.	**RII:**		
	2. Install the exhaust stubs.			
	3. Install the propeller.	**RII:**		
	4. If applicable, install the oil cooler.			
	5. Fill the engine oil system.			
	6. If installed, remove the aircraft tail stand and lower aircraft tail.			
	7. Make sure that the work area is clean and clear of tools and otheritems.			
	8. Do a fuel system de-preservation.			
	9. Remove the engine compressor intake cover.			
	10. Install the engine cowlings.			
	11. Connect the aircraft battery,			
	12. Do an engine ground run and fill out Engine Ground Run Sheet.			
B	Make an appropriate entry in Work Order or Aircraft Flight Maintenance Log (AFML)			

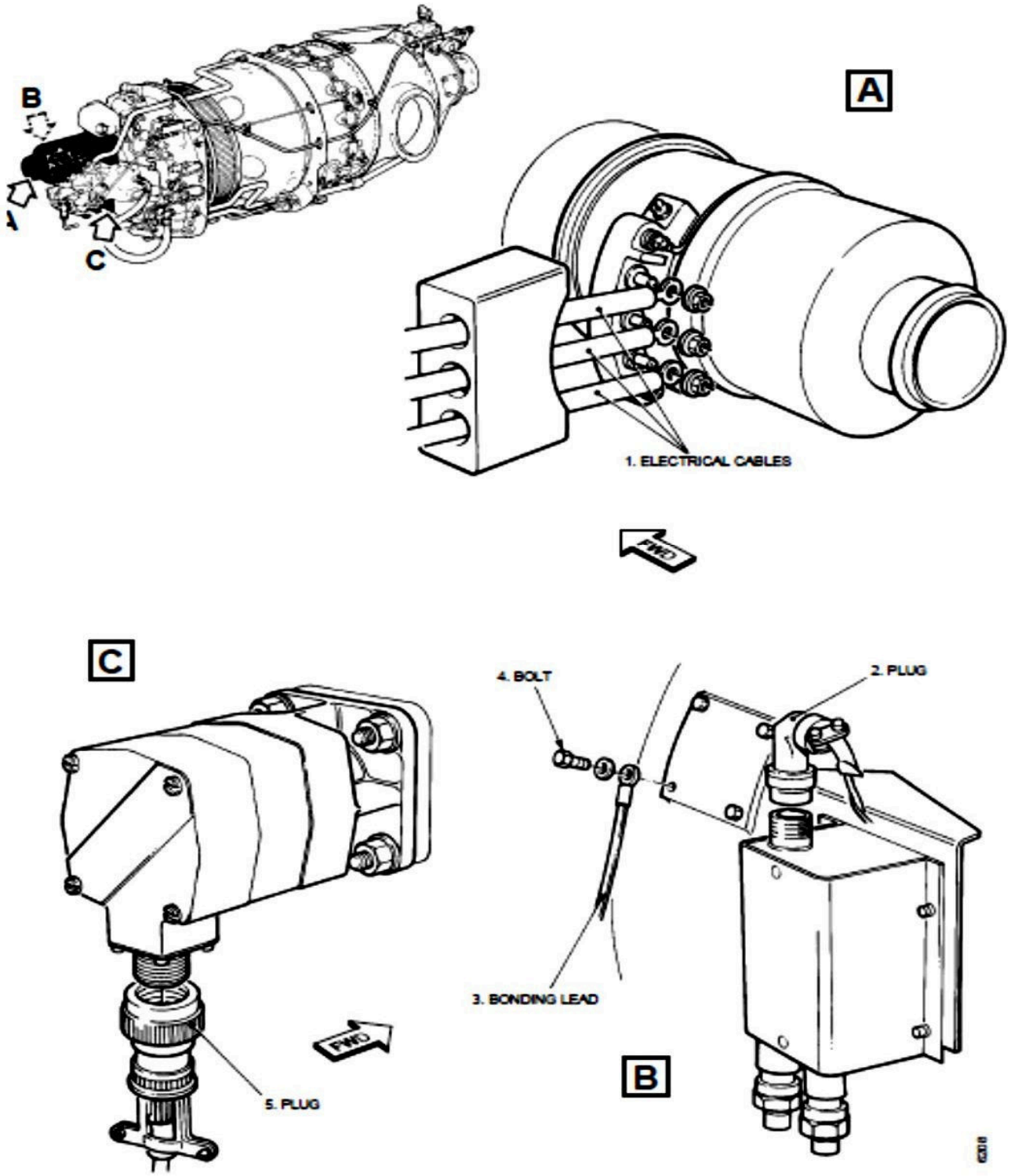
PERSONNEL PARTICIPATING IN THIS INSPECTION			
NAME	POSITION	SIGNATURE	LICENSE NUMBER

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.

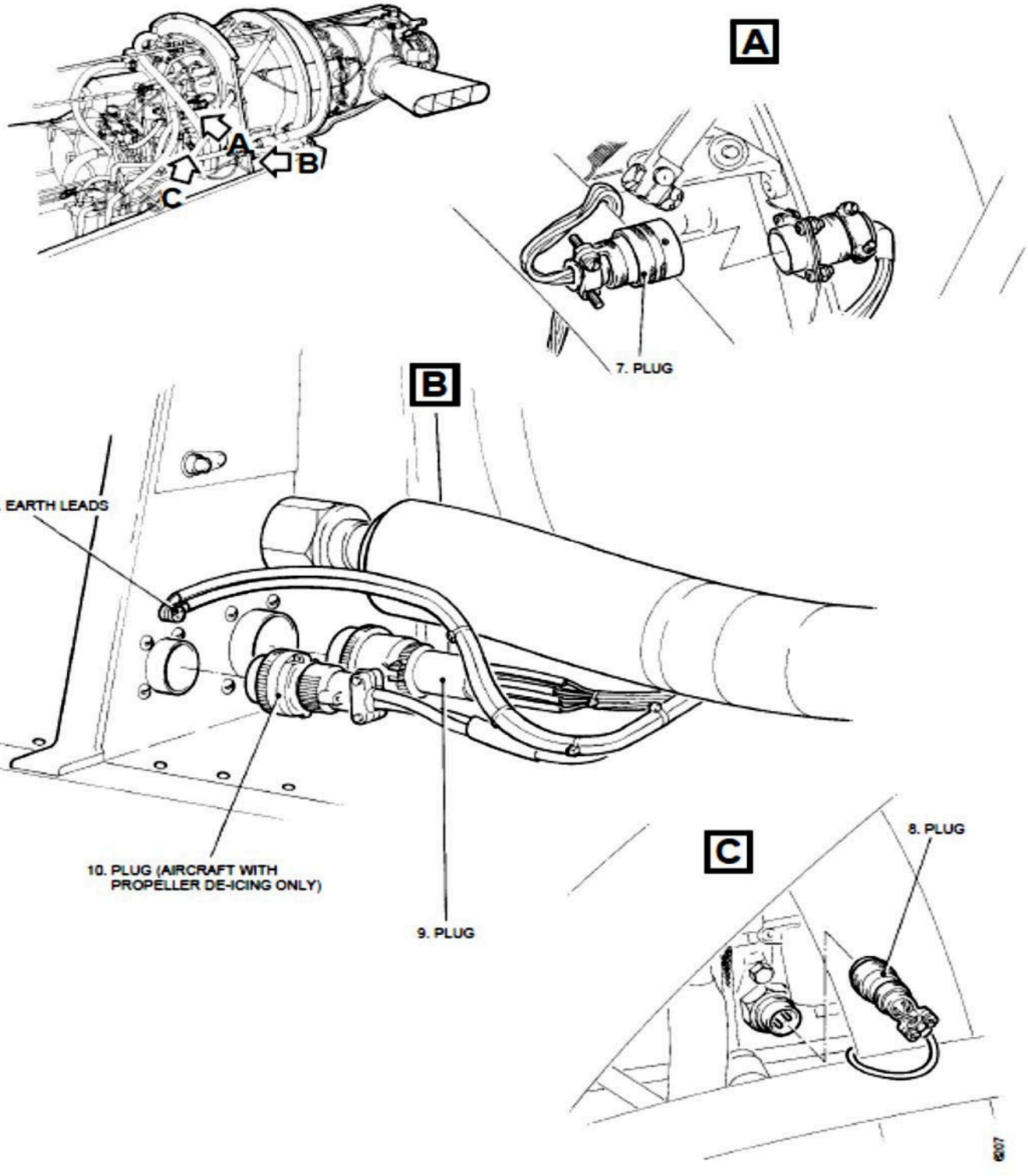
Name	:	_____	Name of RII	:	_____
Signature	:	_____	Signature	:	_____
Stamp	:	_____	Stamp	:	_____
Place/Date	:	_____	Place/Date	:	_____

PILATUS
PC-6
MAINTENANCE MANUAL



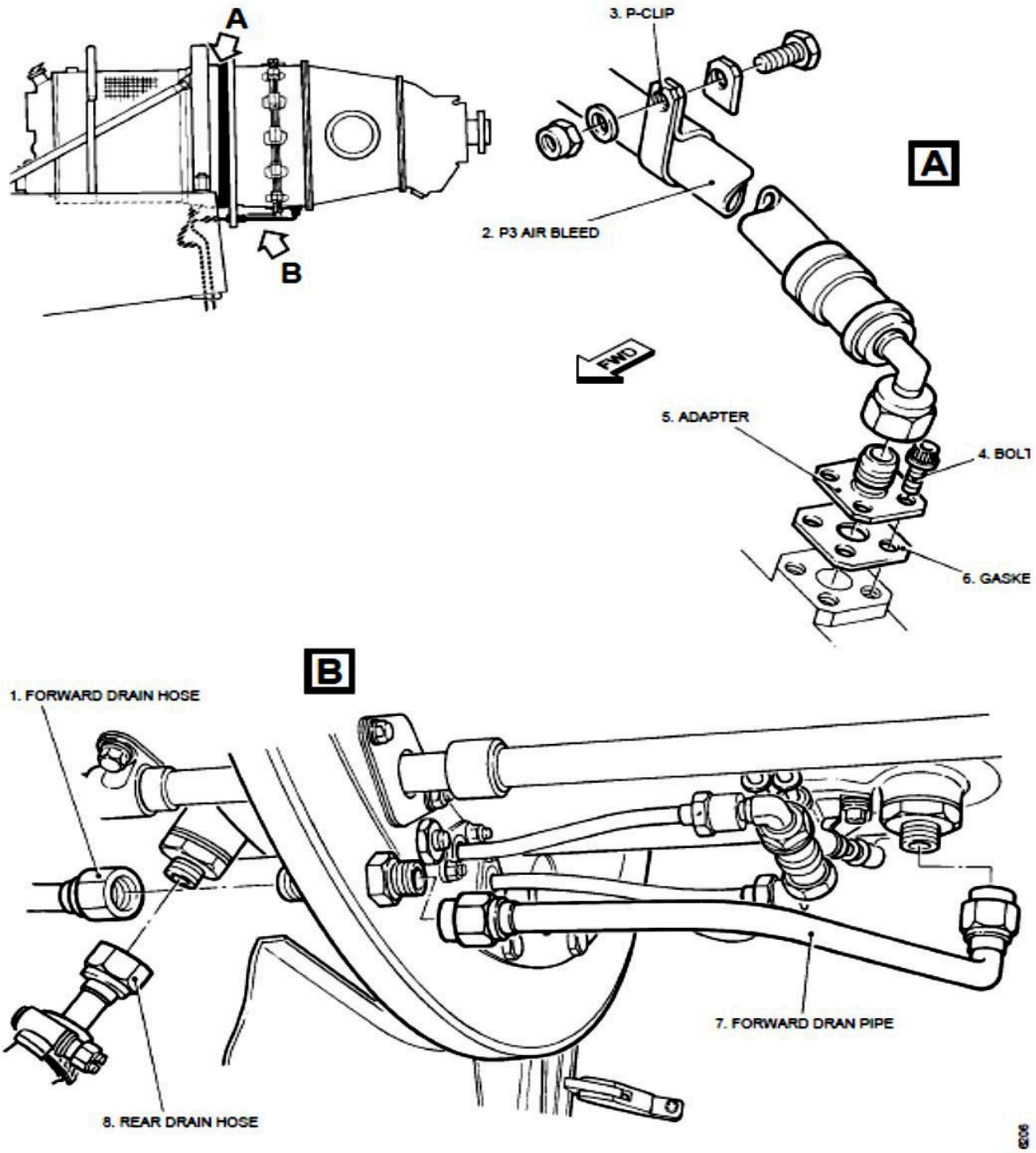
Powerplant - Removal / Installation - Electrical Connections
Figure 401 (Sheet 1 of 2)

PILATUS
PC-6
MAINTENANCE MANUAL



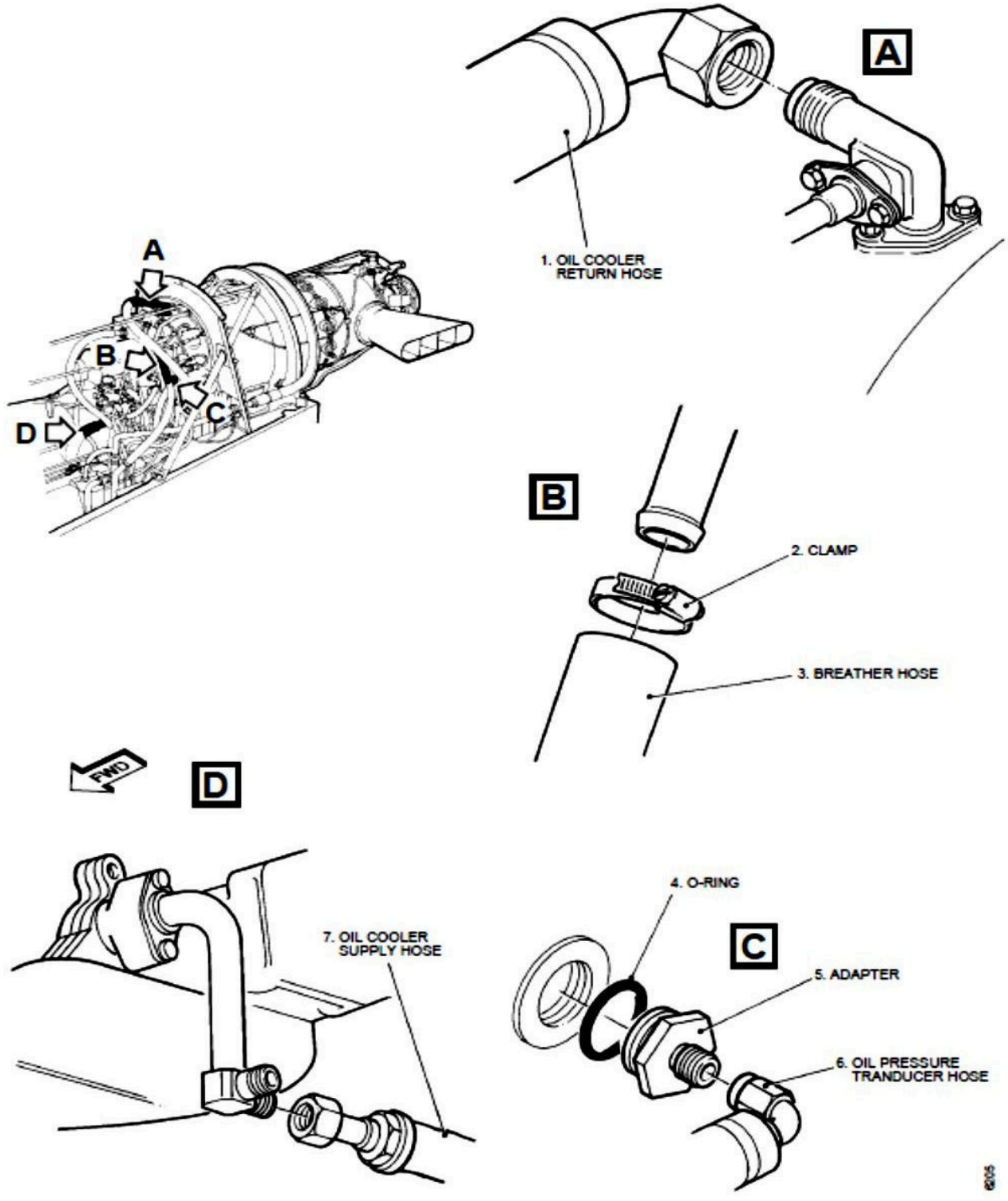
Powerplant - Removal / Installation - Electrical Connections
Figure 401 (Sheet 2 of 2)

PILATUS
PC-6
MAINTENANCE MANUAL



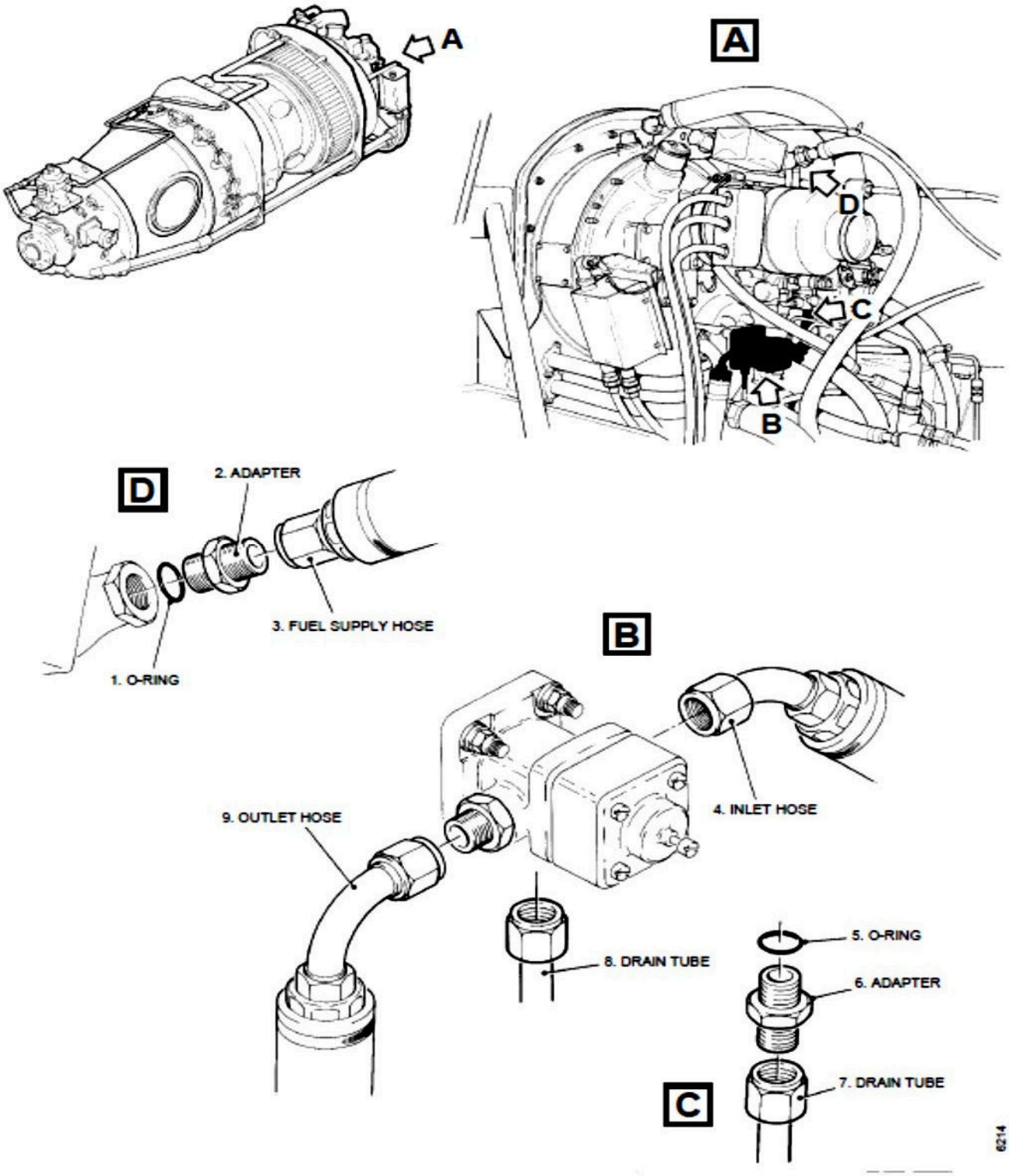
Powerplant - Removal / Installation - Case Drains and P3 Air Bleed
Figure 402

PILATUS
PC-6
MAINTENANCE MANUAL



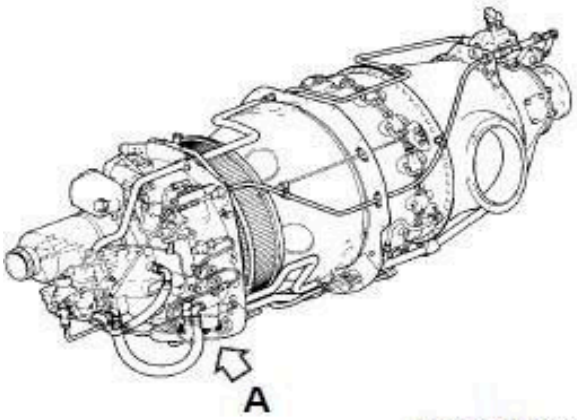
Powerplant - Removal / Installation - Oil Tubes
Figure 403

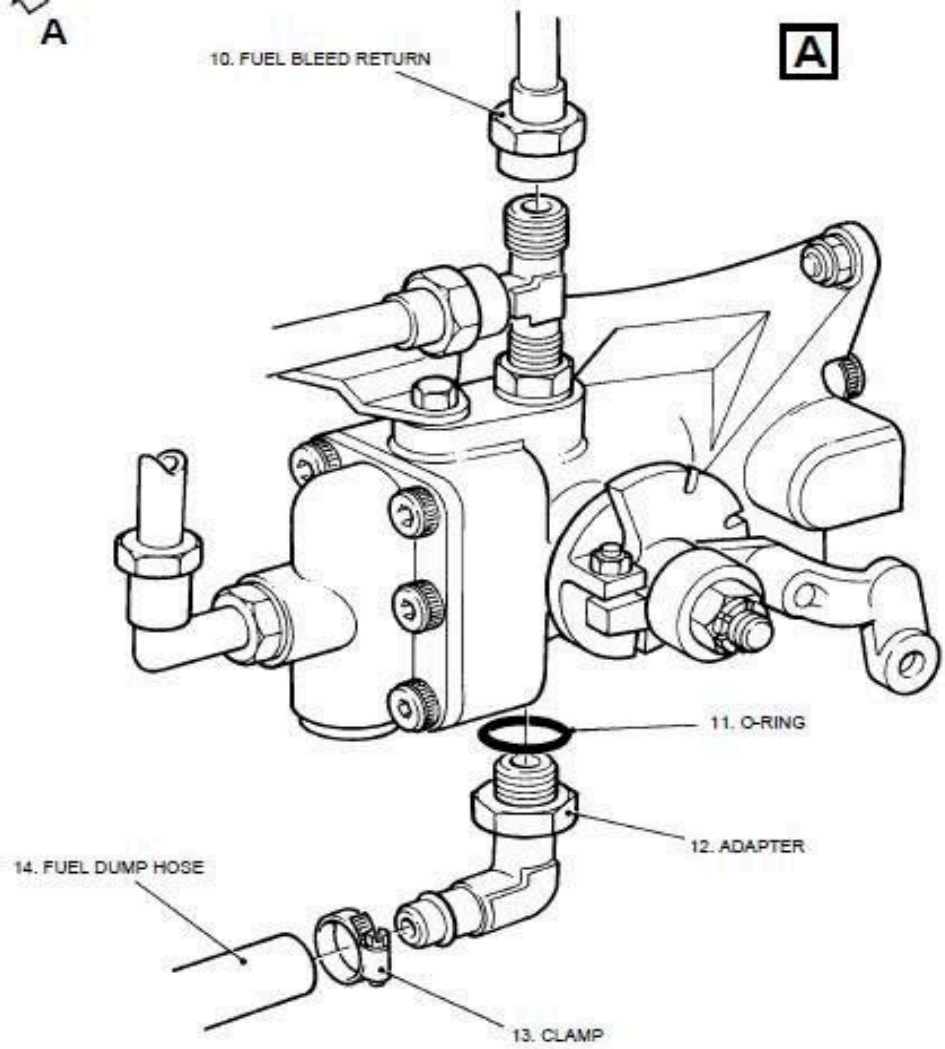
PILATUS
PC-6
MAINTENANCE MANUAL



Powerplant - Removal / Installation - Fuel Tubes
Figure 404 (Sheet 1 of 2)

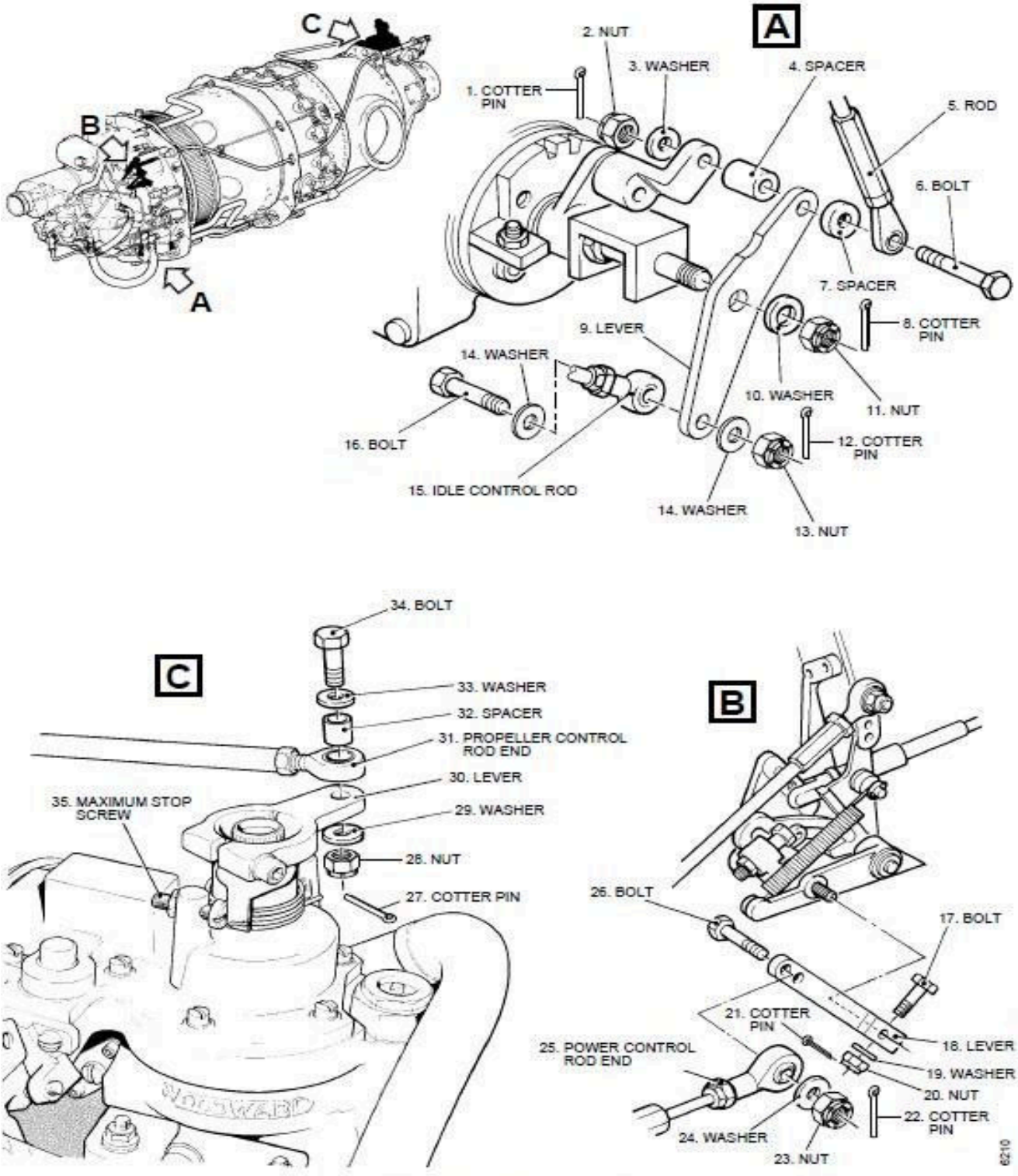
PILATUS
PC-6
MAINTENANCE MANUAL





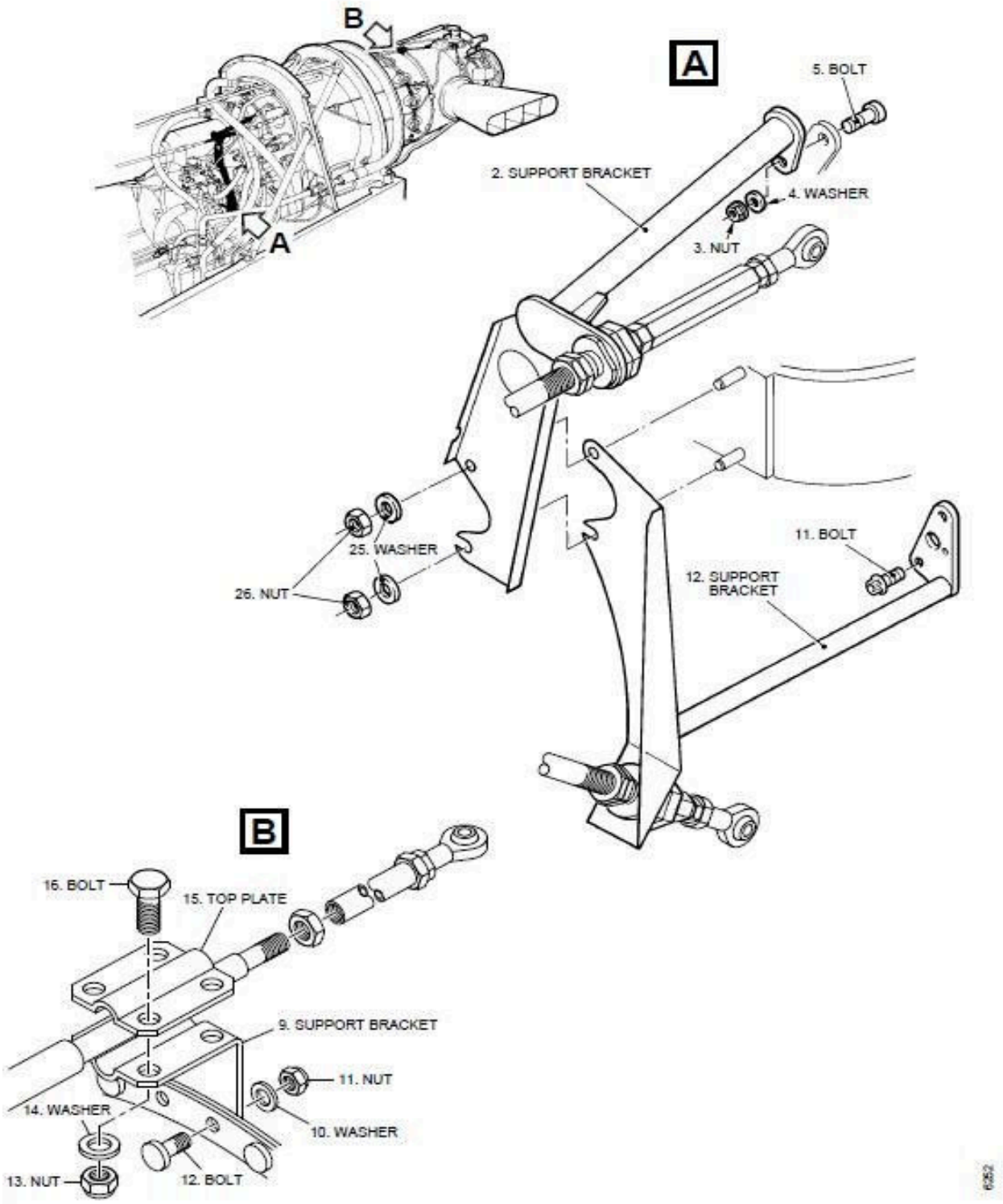
Powerplant - Removal / Installation - Fuel Tubes
Figure 404 (Sheet 2 of 2)

PILATUS
PC-6
MAINTENANCE MANUAL



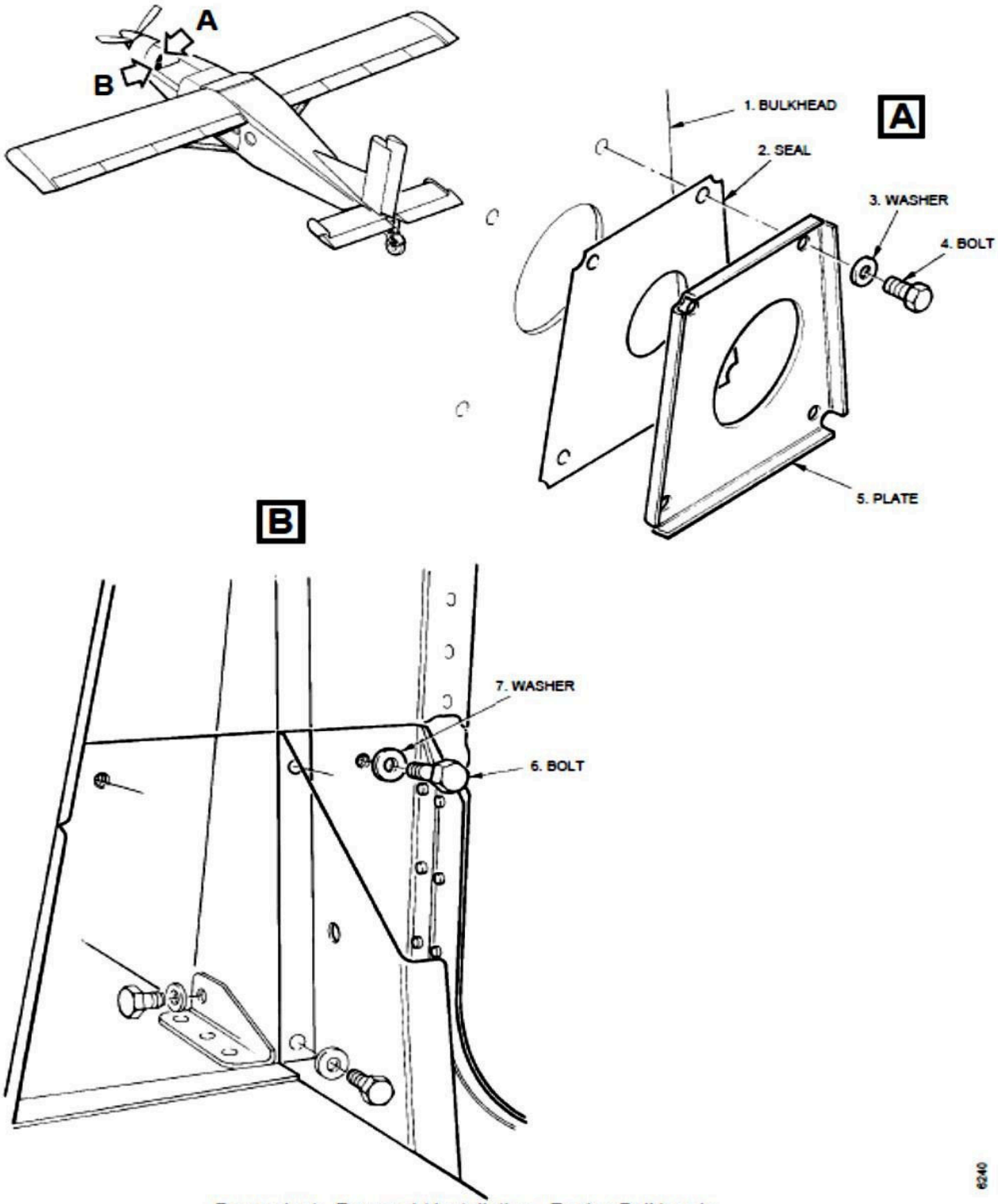
Powerplant - Removal / Installation - Control Connections and Levers
Figure 405

PILATUS
PC-6
MAINTENANCE MANUAL



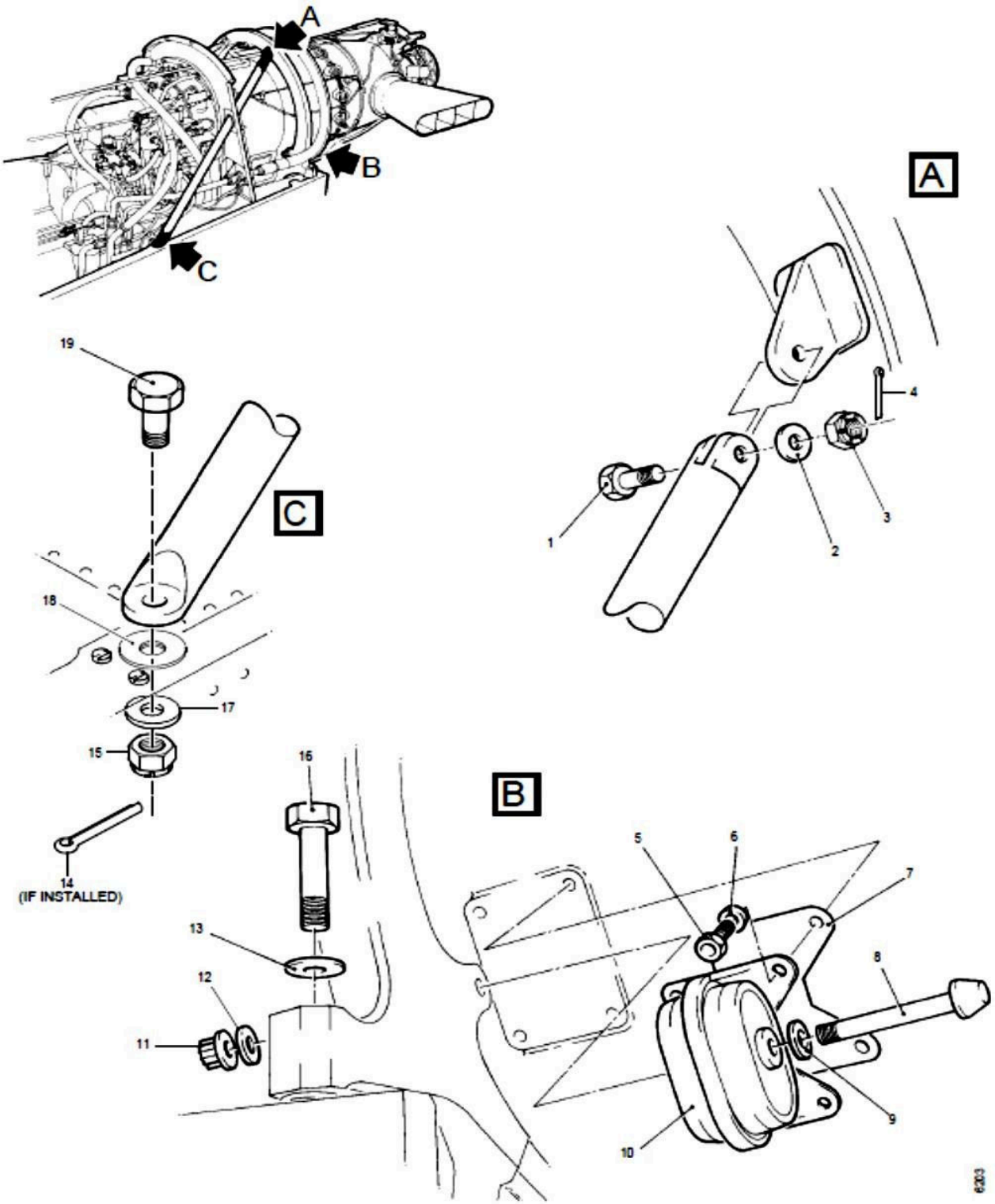
Powerplant - Removal / Installation - Control Cable Connections and Support Brackets
Figure 406

PILATUS
PC-6
MAINTENANCE MANUAL



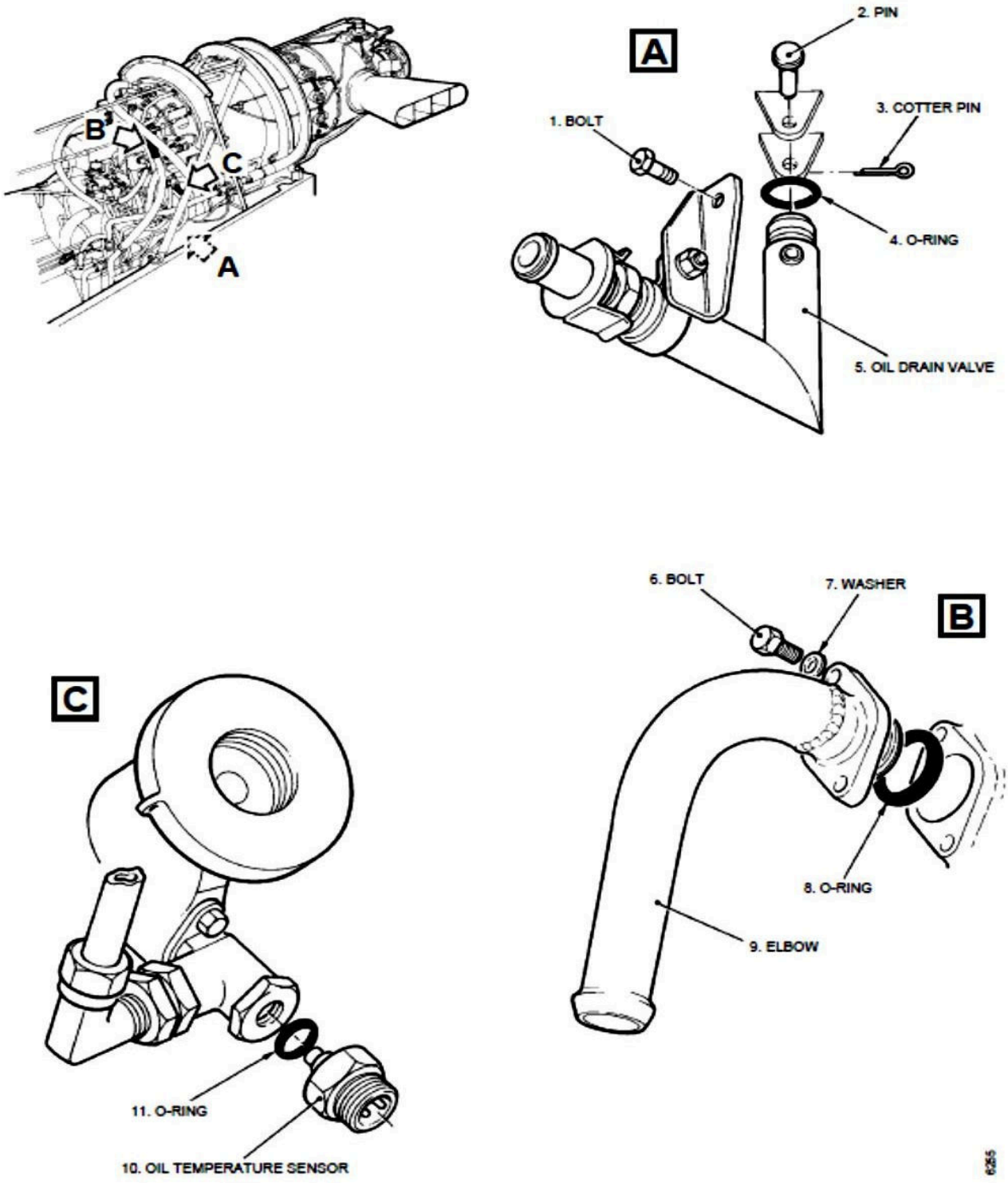
Powerplant - Removal / Installation - Engine Bulkheads
Figure 407

PILATUS
PC-6
MAINTENANCE MANUAL



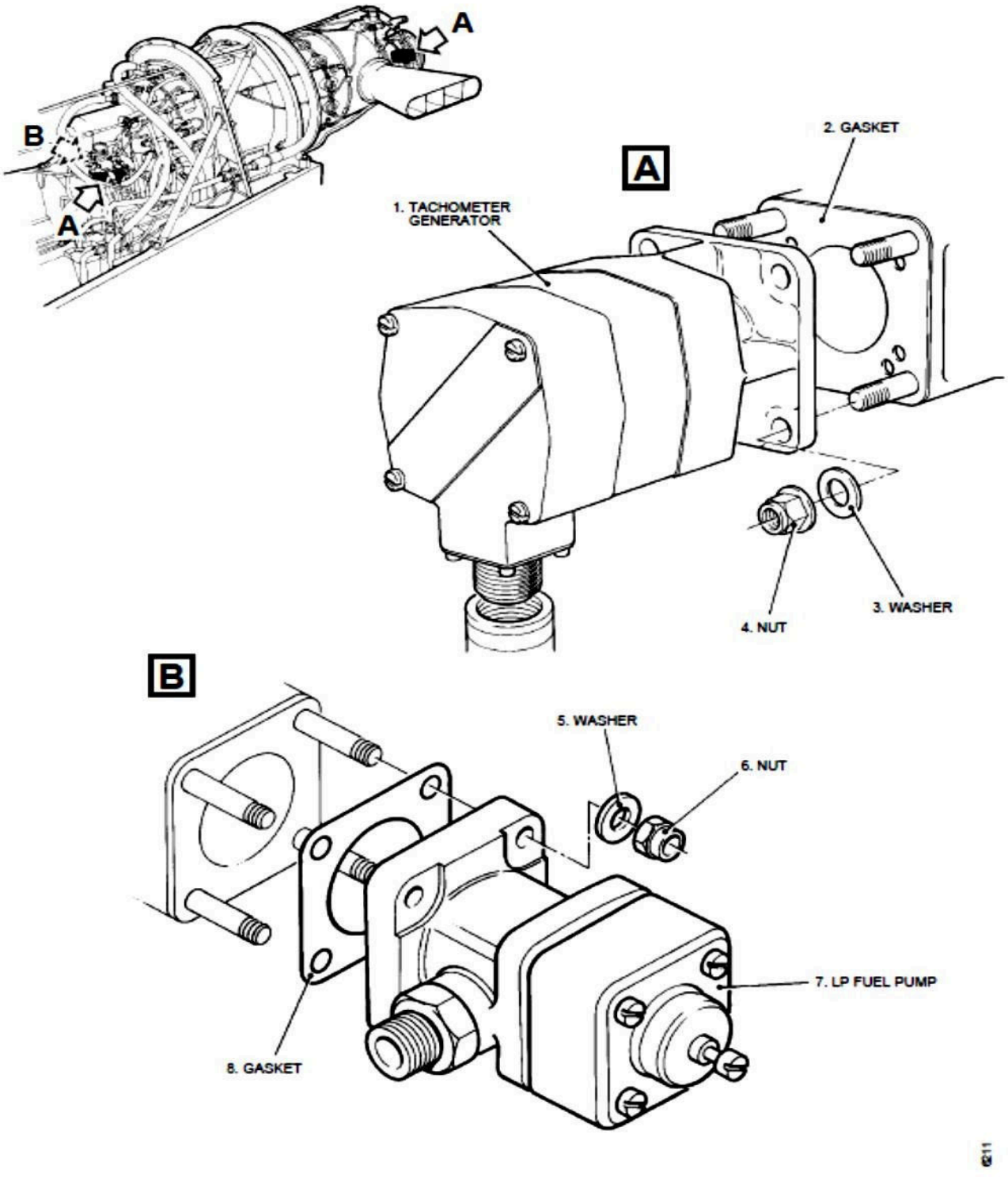
Powerplant - Removal / Installation - Engine Mounts and Support Struts
Figure 408

PILATUS
PC-6
MAINTENANCE MANUAL



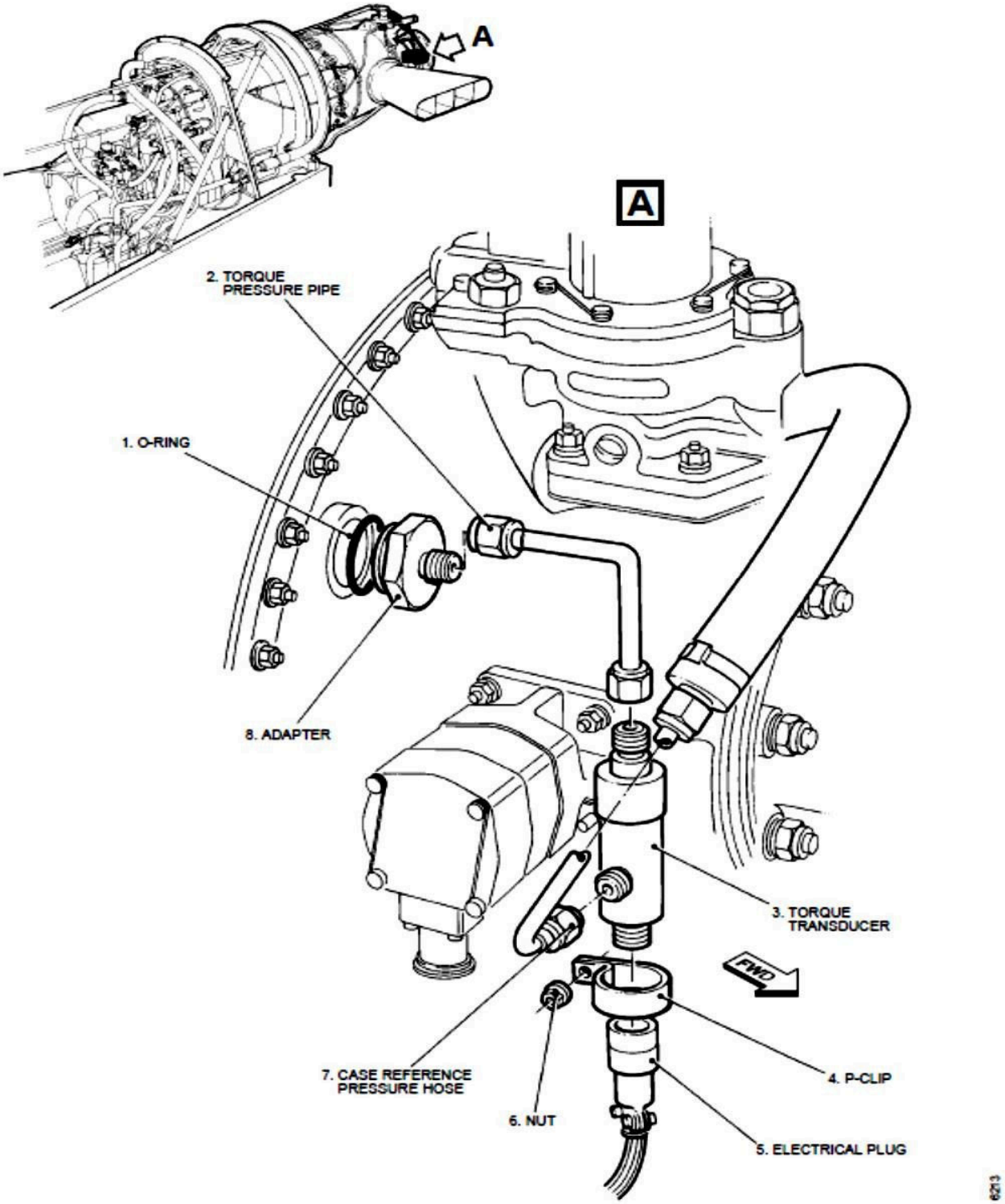
Powerplant - Removal / Installation - Oil Temperature Sensor, Breather and Drain Valve
Figure 409

PILATUS
PC-6
MAINTENANCE MANUAL



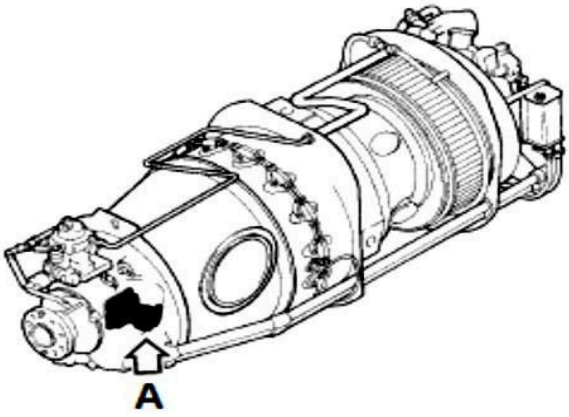
Powerplant - Removal / Installation - Engine Driven Fuel Pump and Gas Generator and Tachometer Generator
Figure 410

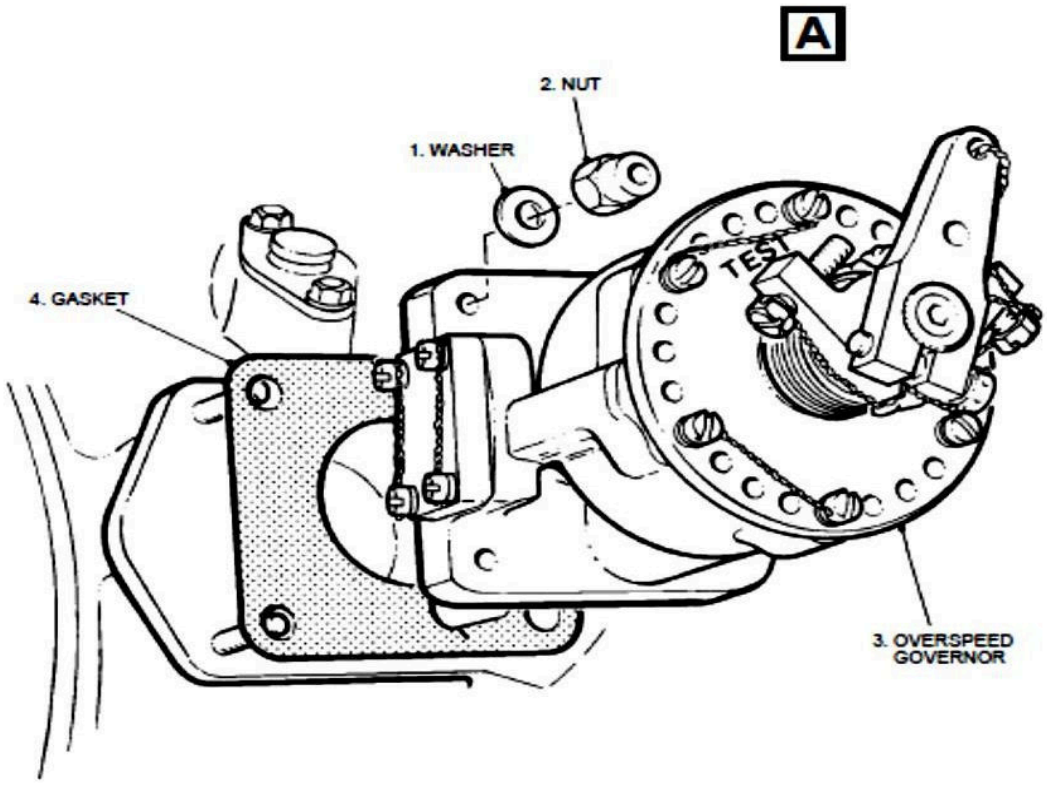
PILATUS
PC-6
MAINTENANCE MANUAL



Powerplant - Removal / Installation - Torque System (Aircraft from MSN 825)
Figure 411 (Sheet 2 of 2)

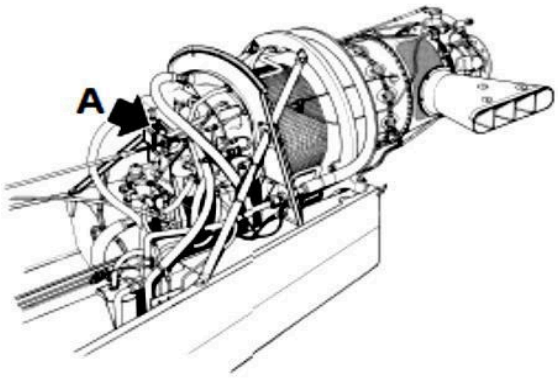
PILATUS
PC-6
MAINTENANCE MANUAL

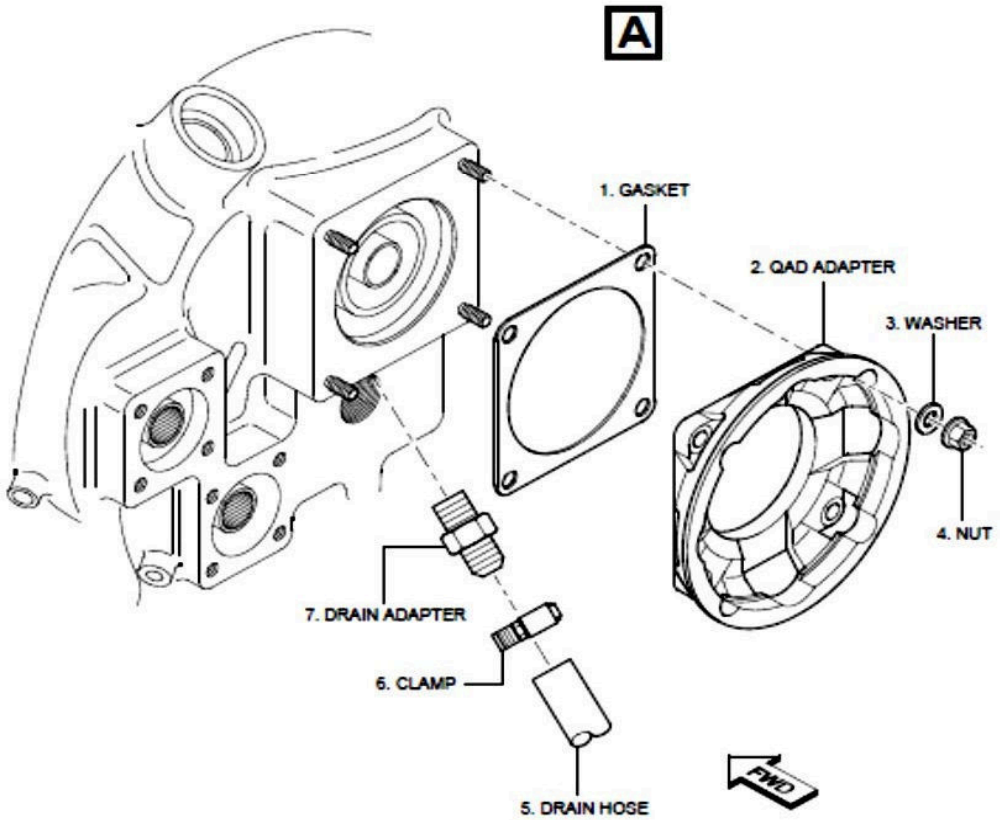




Powerplant - Removal / Installation - Propeller Overspeed Governor
Figure 412

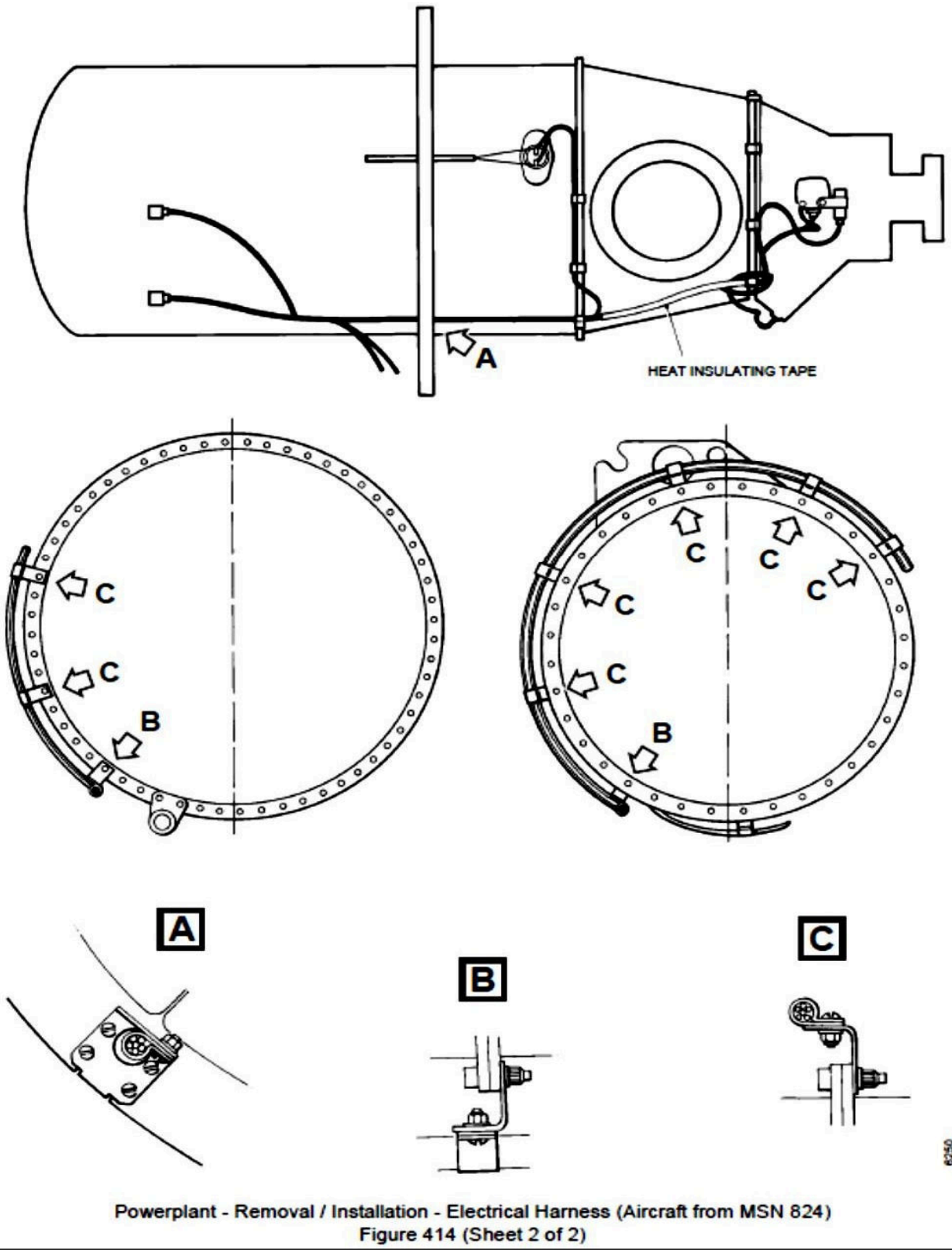
PILATUS
PC-6
MAINTENANCE MANUAL





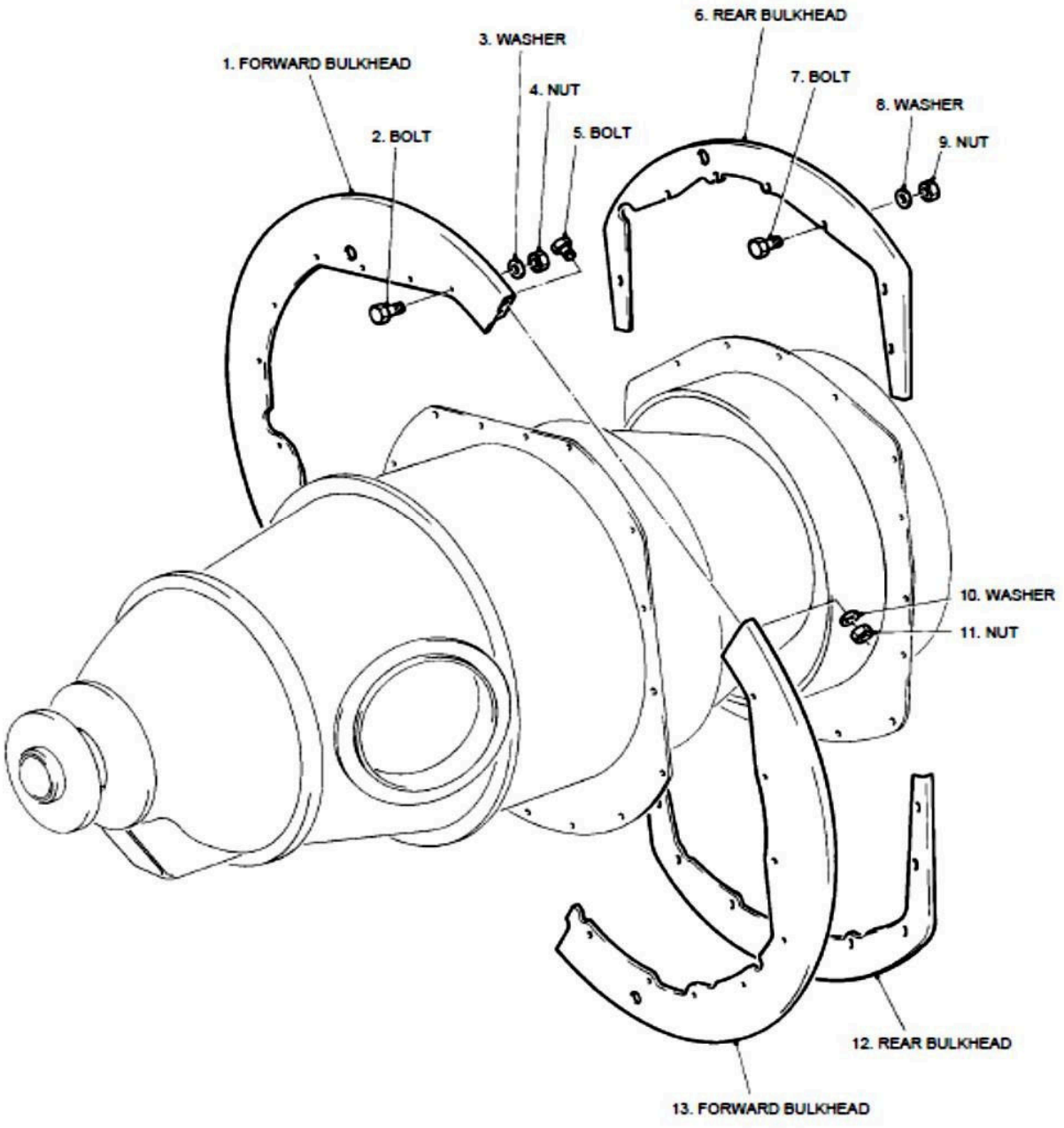
Powerplant - Removal / Installation - Starter-Generator, QAD Adapter (if installed) and Pad Drain Adapter
Figure 413

PILATUS
PC-6
MAINTENANCE MANUAL



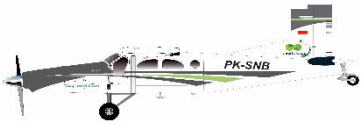
Powerplant - Removal / Installation - Electrical Harness (Aircraft from MSN 824)
Figure 414 (Sheet 2 of 2)

PILATUS
PC-6
MAINTENANCE MANUAL



Powerplant - Removal / Installation - Engine Inner Bulkheads
Figure 415

ENGINE GROUND RUN CHECK SHEET - PT6A-27 ENGINE WITH FOUR BLADE PROPELLER (HARTZELL STC SA377CH)



PILATUS

HARTZELL

WORK ORDER NO.		**:**	
Aircraft Registration		**Aircraft Total Hours**	
Aircraft Serial No.		**Aircraft Total Landings**	
Engine Serial No.		**Engine TSN / TSO**	
Propeller Serial No		**Propeller TSN / TSO**	
Ambient Temp	**°C**	**FBP (Field Barometric Pressure)**	**In.Hg**
Date		**Time**	
Mechanic / Engineer		**Authorized Engineer**	
Reason For Ground Run			

Checks to be carried out. No:	**1 2 4 5 7 8 9 10 11 12 13 14 15**

Engine Ground Run Check Frequency

Check Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Each 100 / Yearly	x	x		x			x	x			x	x	x	x	x
Each 200									x						
Pre-Complete Overhaul	x	x	x	x		x	x	x	x	x	x	x	x	x	x
After Short Term Storage															x
After Long Term Storage	x	x	x	x		x	x	x	x	x	x	x	x	x	x

In additional the following check must be carried out after Installation, Repair and Adjustment of any ofthe following components.

Check Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Engine Installation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Propeller Installation		x	x	x	x			x							
Fuel Control Unit	x				x	x	x	x		x	x				
HP Fuel Pump						x	x								
Fuel Nozzle						x	x								
Starting Flow Control	x				x		x	x							
Emer Fuel Control Actuator											x				
Prop Governor	x		x	x	x		x	x							
Prop Overspeed Governor									x						
Compressor Bleed Valve						x	x								
Engine Controls	x			x	x			x	x						
Low Pitch Warning Switch				x											
Suction Components														x	

Use this sheet's to record engine run result, use in conjunction with task cards.

NO.	CHECK	TARGET	ACTUAL
	ENGINE START		
	ITT (Troubleshoot If More Than 925□C)	Max. 1090 □C	□C
	Cabin Heat	OFF	OK?
1	Low Idle (Minimum Governing) Speed	51 - 53 % Ng	% Ng
	Fuel Pressure / Boost Pump OFF	Light out or 25 ± 5 psi	OK?
	ITT		□C
	Oil Pressure		psi
	Oil Temperature		□C
2	Propeller Governor		
	Maximum Np	1980 - 2000 rpm (90.0 - 90.9 %)	rpm
	Py Disconnected		% Ng
	Py Connected		% Ng
	Difference	Maximum 0.3% Ng	%
	Airbleed Link at Minimum	1900 - 1950 rpm (86.4 - 88.6 %)	rpm
	Aircraft with SB 161:		
	Propeller Control Lever at Minimum	1880 - 1900 rpm (85.5 - 86.4 %)	rpm
3	Propeller Fine Pitch Setting (High Idle)		
	Target Torque	psi	psi
	Power Lever to Give Np	1694 rpm (77 %)	rpm
	Basic High Idle	68 - 72% Ng	%Ng
4	Propeller Low Pitch Warning		
	PCL from Reverse to Detent	Light OFF	
		1 to 2 mm before Detent	mm
5	Minimum Pitch in Flight		
	Ng	67 - 73 %	% Ng
	Np	1800 - 1950 rpm (81.8 - 88.6 %)	rpm
	Torque	4 - 7 psi	psi
6	FCU Maximum Governing Speed (Ng)	97.1 % Ng	% Ng
	(Trim stop deployed)		

NO.	CHECK	TARGET	ACTUAL
7	Engine Performance	Ref: AMM 71-00-00	
	Target Torque Pressure	psi	psi
	Fuel flow (Actual minus 23 lb / hr or 3.4 gal / hr)	lb / hr	lb / hr
	Target Ng	% Ng	% Ng
	Maximum ITT	^0C	^0C
8	Reverse Power Setting		
	Np	1880 - 1925 rpm (85.5 - 87.5 %)	rpm
	Torque	psi	psi
9	Propeller Overspeed Governor		
	Test Lever Selected to:		
	TEST	1880 - 1920 rpm (85.5 - 87.3 %)	rpm
	NORMAL	1980 - 2000 rpm (90.0 - 90.9 %)	rpm
10	Acceleration		
	64 % – 90 % Ng	2.5 – 4 secs	secs
	Deceleration		
	85% to 60% Ng or low idle speed(Whichever comes first)	Maximum 6-12 sec (Dependent upon altitude)	secs altitude (kFt)
	Manual Override (MOR) (Aircraft with SB 164)		
	Use Toggle Switch In Small Increment	Increase to 15% above Idle	OK?
	(REF. to WARNINGS and CAUTIONS in Check 11)	(Max Increase less than 4 % per Second)	
		Decrease To Idle	OK?
		(Max Decrease less Than 4% per Second)	
12	Oil Pressure	80 -100 psi	psi
13	Generator (Ref. 24-30-00)	Online by 60% Ng	% Ng
14	Suction (High Idle)	4.5 – 5.2 in. Hg	in. Hg
15	Engine Rundown Time After Stop	MIN 30 secs	secs
Additional			
Generator Check (High Idle Under Load)		27.75 – 28.25 VDC	VDC
After Engine Run			
Check Eng. For Signs of Fuel/Oil/Air Leaks		NO LEAKS FOUND	OK?
Safety All Screws, Bolts, Locknuts as Req.			OK?

Ref. AMM Pilatus Porter PC6 Chapter 61-10-00,

PROPELLER INSTALLATION SHEET

Date :		**Propeller P/N :**	D4N00163SKD
Aircraft Registration :	PK-SNB	**Propeller S/N :**	FY4093
Aircraft Type :	**PILATUS PC6, B2-H4**	**TSN :**	739:56H
Aircraft Total Hours :	476:14	**TSO :**	0
Aircraft Total Cycle :	580	**Work Order Number :**	WO-012-SNB-XI-2022

NO	TASK		SIGNATURE	
			SIGN	STAMP
Job Set Up				
1	Do Engine Run Ground Sheet before Propeller installation, fill out FormNo. **XXXXXX**			
2	Ensure airplane electrical power is OFF.			
Installation (Ref. Fig. 401)				
1	(1) Attach the puller (16) and pull the slip ring fully forward to touch the rear face of the propeller bulkhead.	**RII:** Sign & Stamp		
	(2) Install a new O-ring (15) on the propeller shaft.	**RII:** Sign & Stamp		
	(3) Install the sling and put the propeller in position on the engine flange.	**RII:** Sign & Stamp		
	(4) Lubricate the bolts (7) with grease (Material No. P04-009).	**RII:** Sign & Stamp		
	CAUTION: MAKE SURE THAT THE CHAMFERED SIDE OF THE WASHER FACES THE BOLT HEAD.			
	(5) Install the attachment bolts (7) and washers (8), with the chamfered side of the washer next to the bolt head.	**RII:** Sign & Stamp		
	(6) Torque the bolts in three steps as follows: a) To 54 Nm (480 lbf in.), (Ref. Fig. 402, Sequence A). b) To 108 Nm (960 lbf in.), (Ref Fig. 402, Sequence A). c) To between 136 and 142 Nm (1200 and 1260 lbf in.), (Ref. Fig402, Sequence B).	**RII:** Sign & Stamp		

NO	TASK		SIGNATURE	
			SIGN	STAMP
	(7) Safety the bolts with lockwire (Material No. P02-001).	**RII:** Sign & Stamp		
	(8) Remove the sling and puller.			
	(9) Put the carbon block (9) in position.	**RII:** Sign & Stamp		
	(10) Put the reversing lever (12) in position.	**RII:** Sign & Stamp		
	(11) Put the low pitch switch control rod in position.	**RII:** Sign & Stamp		
	(12) Install the nut (5) and washer (6).	**RII:** Sign & Stamp		
	(13) Safety the nut with a new cotter pin (4).	**RII:** Sign & Stamp		
	(14) Install the pin (3) and washer (11).	**RII:** Sign & Stamp		
	(15) Safety the pin with a new cotter pin (10).	**RII:** Sign & Stamp		
	(16) Install the bolt (2), bush (15), washer (14) and nut (13).	**RII:** Sign & Stamp		
	(17) Install the bolt (2), bush (15), washer (14) and nut (13).	**RII:** Sign & Stamp		
	(18) Safety the nut with a new cotter pin (1).	**RII:** Sign & Stamp		
	(19) Make sure the side clearance between the beta-ring and the carbon block (9) is between 0,03 and 0,25 mm (0.001 and 0.01 in). If necessary, remove material from, or replace, the carbon block (9) to get the correct clearance.	**RII:** Sign & Stamp		
Job Close Up				
1	(1) Install the spinner dome to the bulkhead assembly. Align the marks on the spinner with the marks on the bulkhead.	**RII:** Sign & Stamp		

NO	TASK	SIGNATURE	
		SIGN	STAMP
	NOTE: The spinner assembly (plate, bulkhead and dome) is balanced as a unit. The components are notinterchangeable.		
	(2) Do a balance check.		
	(3) Do a ground run.		
	(4) Check for oil leaks from the propeller, - No leaks are acceptable.		
	(5) Make sure that the work area is clean and clear of tools and other items.		
	(6) Install the engine cowls PT1 and PB1.		
2	Make an appropriate entry in Work Order or Aircraft Flight Maintenance Log (AFML)		

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.

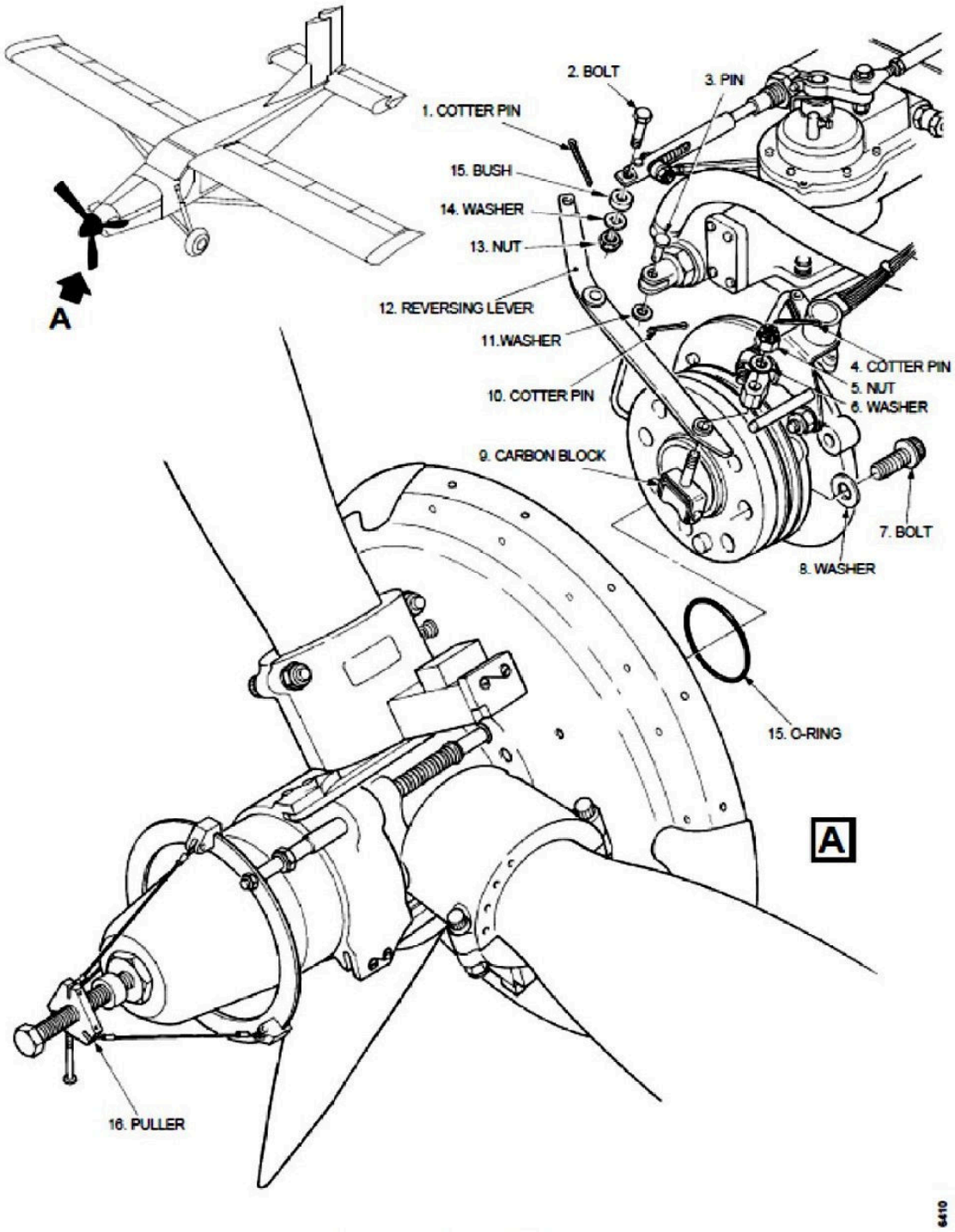
Name : _____ Name of RII : _____

Signature : _____ Signature : _____

Stamp : _____ Stamp : _____

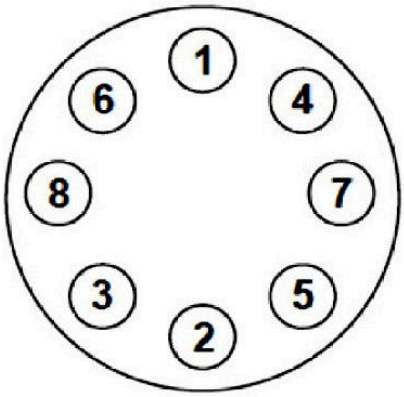
Place/Date : _____ Place/Date : _____

PILATUS
PC-6
MAINTENANCE MANUAL

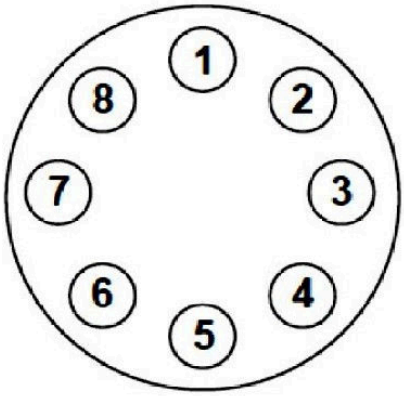


Propeller - Removal / Installation
Figure 401

PILATUS
PC-6
MAINTENANCE MANUAL



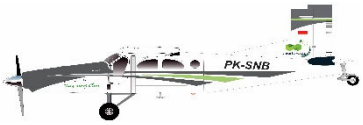
SEQUENCE A



SEQUENCE B

Propeller - Bolt Tightening Sequence
Figure 402

ENGINE GROUND RUN CHECK SHEET - PT6A-27 ENGINE WITH FOUR BLADE PROPELLER (HARTZELL STC SA377CH)



PILATUS

HARTZELL

WORK ORDER NO.		**:**	
Aircraft Registration		**Aircraft Total Hours**	
Aircraft Serial No.		**Aircraft Total Landings**	
Engine Serial No.		**Engine TSN / TSO**	
Propeller Serial No		**Propeller TSN / TSO**	
Ambient Temp	**°C**	**FBP (Field Barometric Pressure)**	**In.Hg**
Date		**Time**	
Mechanic / Engineer		**Authorized Engineer**	
Reason For Ground Run			

Checks to be carried out. No:	**1 2 4 5 7 8 9 10 11 12 13 14 15**

Engine Ground Run Check Frequency

Check Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Each 100 / Yearly	x	x		x			x	x			x	x	x	x	x
Each 200									x						
Pre-Complete Overhaul	x	x	x	x		x	x	x	x	x	x	x	x	x	x
After Short Term Storage															x
After Long Term Storage	x	x	x	x		x	x	x	x	x	x	x	x	x	x

In additional the following check must be carried out after Installation, Repair and Adjustment of any ofthe following components.

Check Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Engine Installation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Propeller Installation		x	x	x	x			x							
Fuel Control Unit	x				x	x	x	x		x	x				
HP Fuel Pump						x	x								
Fuel Nozzle						x	x								
Starting Flow Control	x				x		x	x							
Emer Fuel Control Actuator											x				
Prop Governor	x		x	x	x		x	x							
Prop Overspeed Governor									x						
Compressor Bleed Valve						x	x								
Engine Controls	x			x	x			x	x						
Low Pitch Warning Switch				x											
Suction Components														x	

Use this sheet's to record engine run result, use in conjunction with task cards.

NO.	CHECK	TARGET	ACTUAL
	ENGINE START		
	ITT (Troubleshoot If More Than 925□C)	Max. 1090 □C	□C
	Cabin Heat	OFF	OK?
1	Low Idle (Minimum Governing) Speed	51 - 53 % Ng	% Ng
	Fuel Pressure / Boost Pump OFF	Light out or 25 ± 5 psi	OK?
	ITT		□C
	Oil Pressure		psi
	Oil Temperature		□C
2	Propeller Governor		
	Maximum Np	1980 - 2000 rpm (90.0 - 90.9 %)	rpm
	Py Disconnected		% Ng
	Py Connected		% Ng
	Difference	Maximum 0.3% Ng	%
	Airbleed Link at Minimum	1900 - 1950 rpm (86.4 - 88.6 %)	rpm
	Aircraft with SB 161:		
	Propeller Control Lever at Minimum	1880 - 1900 rpm (85.5 - 86.4 %)	rpm
3	Propeller Fine Pitch Setting (High Idle)		
	Target Torque	psi	psi
	Power Lever to Give Np	1694 rpm (77 %)	rpm
	Basic High Idle	68 - 72% Ng	%Ng
4	Propeller Low Pitch Warning		
	PCL from Reverse to Detent	Light OFF	
		1 to 2 mm before Detent	mm
5	Minimum Pitch in Flight		
	Ng	67 - 73 %	% Ng
	Np	1800 - 1950 rpm (81.8 - 88.6 %)	rpm
	Torque	4 - 7 psi	psi
6	FCU Maximum Governing Speed (Ng)	97.1 % Ng	% Ng
	(Trim stop deployed)		

NO.	CHECK	TARGET	ACTUAL
7	Engine Performance	Ref: AMM 71-00-00	
	Target Torque Pressure	psi	psi
	Fuel flow (Actual minus 23 lb / hr or 3.4 gal / hr)	lb / hr	lb / hr
	Target Ng	% Ng	% Ng
	Maximum ITT	^0C	^0C
8	Reverse Power Setting		
	Np	1880 - 1925 rpm (85.5 - 87.5 %)	rpm
	Torque	psi	psi
9	Propeller Overspeed Governor		
	Test Lever Selected to:		
	TEST	1880 - 1920 rpm (85.5 - 87.3 %)	rpm
	NORMAL	1980 - 2000 rpm (90.0 - 90.9 %)	rpm
10	Acceleration		
	64 % – 90 % Ng	2.5 – 4 secs	secs
	Deceleration		
	85% to 60% Ng or low idle speed(Whichever comes first)	Maximum 6-12 sec (Dependent upon altitude)	secs altitude (kFt)
	Manual Override (MOR) (Aircraft with SB 164)		
	Use Toggle Switch In Small Increment	Increase to 15% above Idle	OK?
	(REF. to WARNINGS and CAUTIONS in Check 11)	(Max Increase less than 4 % per Second)	
		Decrease To Idle	OK?
		(Max Decrease less Than 4% per Second)	
12	Oil Pressure	80 -100 psi	psi
13	Generator (Ref. 24-30-00)	Online by 60% Ng	% Ng
14	Suction (High Idle)	4.5 – 5.2 in. Hg	in. Hg
15	Engine Rundown Time After Stop	MIN 30 secs	secs
Additional			
Generator Check (High Idle Under Load)		27.75 – 28.25 VDC	VDC
After Engine Run			
Check Eng. For Signs of Fuel/Oil/Air Leaks		NO LEAKS FOUND	OK?
Safety All Screws, Bolts, Locknuts as Req.			OK?

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Additional Work Sheet
Engine and Propeller Installation

Aircraft Registration: **PK-SNB**

WO# Nr: **WO/012-SNB/XI/2022**

Parts Used Sheet

Special Tool Used

No.	Description	Due Date	Engineer

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Additional Work Sheet
Engine and Propeller Installation

Aircraft Registration: **PK-SNB**

WO# Nr: **WO/012-SNB/XI/2022**

Parts Used Sheet

Part Used

Date	Part Nr.	Serial Nr.	Description	Quantity	Engineer