PT. SMART CAKRAWALA AVIATION

WORK ORDER

Form: SCA/MTC/030

Subject : **COMPONENTS INSTALLATION FOR RECTIFICATION**	No.	WO/021-SNW/I/2023
	Date	27 September 2023
	A/C Reg.	PK-SNW C208B-5579
Reference : MP C208B Issued 01	Prepared By	TS
	Checked By	CI
	Approved By	TM

To : Engineer In Charge

Description :

1. Perform Component Installation for Rectification
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
27 Sept 2023	WO/021-SNW/I/2023	Components Installation	

A/C Type	Mfg. Serial Number	A/C Registration
C208B	C208B-5579	PK-SNW

AIRCRAFT DATA

Subject	Pos #	Serial Number (SN)	TTSN/TCSN
Engine	#1	VA00461	
	#2	-	
Propeller/Rotor	#1		
	#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 : Technical Support	Checked by : Chief Maintenance	Verified by : Chief Inspector	Approved by : Technical Manager
			
.....	.....	.....	.....
Hani	Dodit	Yanuar	Istiono

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

WO Ref: WO/021-SNW/I/2023

NO.	TASK CARD NO.	DESCRIPTION	DATE	EST MHR	NAME	STAMP
1	013/EO/TEK-TS/IX/2023	PROPELLER INSTALLATION				
2	014/EO/TEK-TS/IX/2023	ENGINE INSTALLATION				
3	015/EO/TEK-TS/IX/2023	NLG ASSY REPLACEMENT				
4	APPENDIX B08	ENGINE GROUND RUN UP				
5	APPENDIX E06.7	PROPELLER BALANCING				

PT. SMART CAKRAWALA AVIATION

CERTIFICATE RETURN TO SERVICE

SCHEDULED MAINTENANCE INSPECTION
(CRS-SMI)

A/C TYPE	: CESSNA 208B	TTSN	:
A/C REG	: PK-SNW	TCSN	:
MSN	: C208B-5579	DATE	:

TYPE OF INSPECTION : COMPONENTS INSTALLATION
DUE AT :
REFF :

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

Appendix B08 – PT6A-140 Engine Run Performance Sheet

Reg. Mark : PK - WO/FML No. :

PRE – INSPECTION	
Location	
Date	
Cycle	
Filed Barometric	
OAT	
Altitude	

POST – INSPECTION	
Location	
Date	
Cycle	
Filed Barometric	
OAT	
Altitude	

PRE – INSPECTION		
	Target	Actual
Tq		
Np		
ITT	°C	°C
Ng	%	%
Wf		
Oil Press		°C
Oil Temp		°C
Start Temp		°C

POST– INSPECTION		
	Target	Actual
Tq		
Np		
ITT	°C	°C
Ng	%	%
Wf		
Oil Press		°C
Oil Temp		°C
Start Temp		°C

Engine Run Up Checks

Inertial ☐ **EPL** ☐ **OVG** ☐ **Stby Alt** ☐ **BOV** ☐ **Brake** ☐ **Randown** ☐

NOTE:

1. Brake system at Torque 2000 ft-lbs.
2. Inertial Separator at Torque 400 ft-lbs.
3. EPL check can't exceed 4% Ng per second.
4. Standby Alt at 80% Ng.
5. Low idle at 55.5 - 57% 40Amps.
6. High idle at 64 - 66% Ng 40Amps

Engine Performance Target Table (Cessna C208B EX)

OAT (°C)	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Tq (ft.lbs)	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397	2397
Np	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
ITT (°C)	835	837	839	841	841	841	841	841	841	842	843	844	846	846	846
Ng (%)	102.7	102.7	102.7	102.7	102.7	102.7	102.7	102.6	102.6	102.6	102.6	102.6	102.6	102.6	102.5
WF (PPH)	578	578	578	578	578	578	578	570	565	565	560	560	555	548	548

Note:

1. Make sure that inertial separator in normal condition, no bleed air extracted from the engine and air condition OFF.
2. This table only applies to altitude 0-500 feet MSL. For higher altitude, refer to EMM 72-00-00.
3. Max fuel flow is 580 lb/hr fuel flow is not more than 15 lbs/hr higher than the value shown in table.
4. If parameters are outside the target performance table to EMM chapter 71-00-00.

REMARKS:

PERFORMED BY			
Name	Sign & Stamp	Date	Location

ENGINEERING ORDER

014/EO/TEK-TS/IX/2023

INSTALLATION OF ENGINE ASSY PT6A-140 ON CESSNA C208B

PT. SMART CAKRAWALA AVIATION

Prepared	Checked	Approved
Technical Support	**Chief Inspector**	**Technical Manager**
Signature: 	Signature: 	Signature: 
Name: Dwi M.	Name: Yanuar A. Fatah	Name: Istiono
Date: 27 Sept 2023	Date: 27 Sept 2023	Date: 27 Sept 2023

SMART AVIATION
ENGINEERING ORDER

	No. EI: **014/EO/TEK-TS/IX/2023**	Rev. No. : **ORIGINAL**
	Date Issued : **September 27, 2023**	
Task Description : **INSTALLATION OF ENGINE ASSY PT6A-140 ON CESSNA 208B**	Data Reference : - **Model 208 Series Maintenance Manual Revision 39, Revision Date Mar 1, 2023 Chapter 71 Power Plant – Maintenance Practices**	
Aircraft Type : **CESSNA 208B WITH ENGINE MODEL PT6A-140**		

SMART AVIATION
ENGINEERING ORDER

1. Description.

This EO is issued, to perform installation checklist powerplant maintenance practices the PT6A-140 engine on Cessna 208B.

2. Aircraft Effectivity.

REGISTRATION	SERIAL NUMBER
PK-SNW	208B-5579

3. Compliance

The Engine model PT6A-140 have TBO 4000 Hours, do install the overhauled/new engine on the aircraft refer to accomplishment instruction task card.

4. Distribution.

TECHNICAL MANAGER	[√]	MATERIAL SUPPORT	[√]
SAFETY & QUALITY MANAGER	[√]	TECHNICAL SUPPORT	[√]
CHIEF INSPECTOR	[√]	FILE	[√]

5. Manhours

32.0 man-hour to do the inspection.

SMART AVIATION
ENGINEERING ORDER

6. Material.

3074153-01 PROPELLER GOVERNOR
A 1633-72 O-RING HUB TO PROPELLER SHAFT
A 1639-32 NUT
B 5096 SPACER
B 5121 FEEDBACK ASSY
MS 206685 GASKET PROPELLER OVER SPEED GOVERNOR
206684G or 303952 GASKET PROPELLER GOVERNOR
AN 4044-1 GASKET STAR-GEN
S 3346-1 GASKET PROPELLER TACHOMETER
S 3346-1 GASKET NG TACHOMETER
S 3346-1 GASKET STBY ALTERNATOR
S 3346-1 GASKET AC COMPRESSOR DRIVE UNIT
AN363-720 NUT
MS24665-302 COTTER PIN MOUNT BRACKET TO MOUNT RING
VSF1015N12B SEAL CONICAL
9910333-1 ELASTOMER
MS24665-302 COTTER PIN
MS24665-134 COTTER PIN
MS24665-86 COTTER PIN
3007342 GASKET
S2808/AE3663 HOSE OIL
MIL PRF 83483C LUBRICANT FOR THREAD PROPELLER
MIL W-G-632 LUBRICANT FOR COMPRESSOR DRIVE UNIT, PLASTILUBE
2380 ENGINE OIL

7. Special Tool Required.

Propeller Special tool D-5945 1 SET
7/8 inch special tool 1 SET
MASTER COMPASS

8. Publication Affected.

None.

SMART AVIATION
ENGINEERING ORDER

C208B ENGINE INSTALLATION

Date :_____ Work Number :_____

Part No. Engine : PT6A-140 A/C Total Hours :_____

Ser. No. Engine :_____ A/C Total Landings :_____

Engine Time TSN: 2529:70 H TSO: 0:00 H

CSN:4238 CSO: 0

Installed on A/C Reg. : PK-SNW

Description	Eng.	RII	Remarks
25.INSTALL ENGINE (Refer to Figure 201 and Figure 202).			
1. If the engine is new or was at manufacturer for service, install engine components. Refer to Engine Build-Up.			
2. Make and inventory record P/N and S/N of the engine and its accessories. Fill out into the List (Form Engine Change – Major Component Inventory Record)			
3. Install engine mount brackets, elastomers, and engine mount ring. Refer to Chapter 71, Engine mount – Maintenance Practices.			
4. Connect the lifting hoist sling to forward and aft lifting brackets on engine and lift engine in its correct position forward of engine mount.			
5. Make sure that all engine lines and equipment are clear.			
6. Lubricate the engine mount bolts with MIL-PRF-81322G Grease, before you install them to prevent corrosion.			
7. Make sure that the threads of bolts are covered during application of grease. Lubrication on threads can alter the torque reading.			
8. Move the hoist and engine aft to align the engine mount ring holes with the holes in the engine mount truss.			
9. Install the mount bolts and torque the bolt/nuts to 480 to 690 inch-pounds. a. Remove the hoist and sling			
10. Connect torquemeter pressure and vent lines at upper left firewall (a) Do a leak test of the torquemeter pressure and vent lines. Refer to Chapter 77, Wet Torque indicating System - Maintenance Practices			

SMART AVIATION
ENGINEERING ORDER

11. Connect engine power controls at fuel control unit. (a) Rig the fuel controls. Refer to Chapter 76, PT6A-140 Engine Power Control Rigging - Adjustment/Test			
12. Connect the electrical wiring connectors and ground wires at the following equipment locations: • Battery Connector (PN004) (aft right side of engine) • Prop Overspeed Valve Connector (PN041) (left front of engine) • NP Speed Tach (PN033) (right front of engine) • Cabin Heat Bleed Air Valve connector (PN043) (lower right side of engine) • Oil Pressure Switch (PN030) (right side on engine truss). • Oil Temperature Sensor connector (PN031) (right rear of engine) • NG Speed Tach (PN034) rear, (lower right side of engine) • Starter Generator connector (PN002) (center top of engine accessory case) • Ignition Exciter Connector (PN040) (right engine mount truss) • Fuel Flow connector (PN032) (rear, lower right side of engine) • Torque Transducer (PN038) (right engine mount truss) • RGB Chip Detector (PN035) (right engine mount truss) • Engine groundstraps airplane frame connections.			
13. Install the oil pressure switch supply hose. Refer to Chapter 79, Oil Pressure Switch - Maintenance Practices			
14. nstall the engine fire detector wiring harness. Chapter 26, Fire Detection System - Maintenance Practices			
15. Install the starter/generator cooling air hose to the starter/generator. For the 300 Amp Starter/Generator refer to Chapter 80, 300 AMP Starter/Generator Cooling Air Duct - Maintenance Practices. For the 200 Amp Starter/Generator refer to Chapter 80, Starter/Generator Cooling Air Blast Tube - Maintenance Practices.			
16. Connect the cabin heater bleed air line at the flow control valve. Chapter 21, Compressor Bleed Air Heater - Maintenance Practices.			
17. Connect the bleed air hose at mixing air valve. Chapter 21, Compressor Bleed Air Heater - Maintenance Practices			
18. If necessary, install the left nose cap/induction air duct/inertial air separator. Refer to Chapter 71, Inertial Air Separator - Maintenance Practices			
19. If necessary, install the propeller. Refer to Chapter 61, Propeller (Hartzell) - Maintenance Practices.			

SMART AVIATION
ENGINEERING ORDER

20. Install the propeller speed control cable. Refer to Chapter 76, Quadrant Assembly And Controls - Maintenance Practices.			
21. Install left and right nosecap bulkhead assemblies and top cowling center panel. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices			
22. Install the oil cooler. Refer to Chapter 79, Oil Distribution - Maintenance Practices (PT6A-140).			
23. Install the right nosecap. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.			
24. Install the fuel supply hose at the fuel heater. Refer to Chapter 73, Oil-To-Fuel Heater Unit - Maintenace Practices section of the Pratt and Whitney PT6A-140 Maintenance Manual P/N 3075742 found in the Introduction List of Publications.			
25. Install the fuel motive flow hose at the motive flow shut-off valve (MFSOV). Refer to Chapter 73, Fuel Control - Maintenance Practices section of the Pratt and Whitney PT6A-140 Maintenance Manual P/N 3075742 found in the Introduction List of Publications.			
26. Purge the fuel lines as follows: (a) Push fuel firewall shutoff control fully in. (b) Disconnect the supply fuel line at fuel manifold below engine. 1 Cap down stream line. 2 Use correct shop practices to collect fuel from open supply line. (c) Use the starter to motor the engine. (d) When the purge is complete, connect the fuel line to the manifold. Use correct shop practices to discard purged fuel.			
27. Do an operational check of the different components on the engine. (a) Start the engine and do the operational check. Refer to Pilot's Operating Handbook and FAA-Approved Airplane Flight Manual and the Pratt and Whitney PT6A-140 Maintenance Manual P/N 3075742 found in the Introduction List of Publications. (b) Complete an Engine Performance Check. Refer to Chapter 71-00-05, Power Plant (PT6A-140) - Adjustment/Test, Engine Performance Check.			
28. Perform RII inspection if any controls have been disturbed or adjusted.			
29. Install engine cowling.			

SMART AVIATION
ENGINEERING ORDER

30. Make an appropriate entry in Work Order (WO) and Aircraft Flight Maintenance Log (AFML)			

MAINTENANCE RELEASE

I hereby certify that the above stated maintenance and/or inspection was performed in accordance with the approved Aircraft Maintenance Program and meets requirements of Civil Aviation Safety Regulations.

Name : _____ Stamp : _____

Signature : _____ Place/Date : _____

ENGINE CHANGE - Major Component Inventory Record			
Registration	:	**Work Order Number**	:
Airframe Time	:	**Airframe Landings**	:
Engine Time	:	**Engine Cycle**	:

	Engine OFF			**Engine ON**		
Description	**Part Number**	**Serial Number**	**Time Remaining**	**Part Number**	**Serial Number**	**Time Remaining**
Engine Assembly						
Propeller Assembly						
Compressor Bleed Valve						
Fuel Control Unit						
Oil Fuel Heater						
Igniter Exciter						
Flow Divider						
Oil Cooler						
Starter Generator						
Alternator						
Fuel Pump						
Propeller Governor						
Propeller Overspeed Governor						
Fuel Nozzle						

NOTE: ANY OTHER COMPONENT CHANGES MUST BE FILLED ON INSPECTION CARD (SCA/MTC/048)

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/UNITED STATES	**AUTHORIZED RELEASE CERTIFICATE** FAA Form 8130–3, AIRWORTHINESS APPROVAL TAG	220020
4. Organization Name and Address: PRATT & WHITNEY ENGINE SERVICES, INC. 1525 MIDWAY PARK RD BRIDGEPORT, WV 26330 FAA CRS# LM1R301K		5. Work Order/Contract/Invoice Number: 220020

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial/Batch Number:	11. Status/Work:
ONE	ENGINE, TURBOPROP PT6A-140	3076226-01	ONE	PCE-VA0461	TESTED

12. Remarks: TTSN: 2529.7 TCSN: 4238 TTSO: N/A TCSO: N/A

THIS ENGINE HAS BEEN TESTED AS RECEIVED FOR POST RENTAL INSPECTION IN ACCORDANCE WITH P&WC; OVERHAUL MANUAL P/N 3075743 REV 10 DATED 07 OCTOBER 2019; AND OTHER P&WC APPROVED DOCUMENTATION AND/OR ENGINEERING DOCUMENTATION ACCEPTABLE TO THE ADMINISTRATOR.

ENGINE TEST CERTIFICATE, LIST OF PARTS REPLACED, AND ENGINE SHIPPING CHECKLIST ARE ATTACHED TO THE LOGBOOK. PERTINENT DETAILS OF THE WORK PERFORMED ARE ON FILE AT THIS REPAIR STATION UNDER THE ABOVE SALES ORDER NUMBER. EXPORT CLASSIFICATION: ECCN 9E991
CERTIFIES THAT THE WORK SPECIFIED IN BLOCK 11/12 WAS CARRIED OUT IN ACCORDANCE WITH EASA PART 145 AND WITH RESPECT TO THAT WORK THE AIRCRAFT ENGINE IS CONSIDERED READY FOR RELEASE TO SERVICE UNDER EASA ACCEPTANCE CERTIFICATE NUMBER: EASA.145.4757.

13a. Certifies the items identified above were manufactured in conformity to: ☐ Approved design data and are in a condition for safe operation. ☐ Non-approved design data specified in Block 12.		14a. ☒ 14 CFR 43.9 Return to Service ☒ Other regulation specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.	
13b. Authorized Signature:	13c Approval/Authorization No.:	14b. Authorized Signature:	14c. Approval/Certificate No.: LM1R301K
13d Name (Typed or Printed):	13e Date (dd/mmm/yyyy):	14d. Name (Typed or Printed): Rene Yost, Authorized Inspector	14e. Date (dd/mmm/yyyy): 12 Aug 2020

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

Where the user/installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

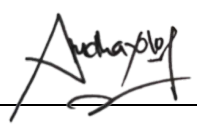
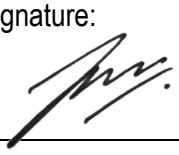
Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.

ENGINEERING ORDER

013/TEK-TS/IX/2023

INSTALLATION OF PROPELLER MCCAULEY MODEL 4HFR34C778 Series ON CESSNA 208B GRAND CARAVAN

PT. SMART CAKRAWALA AVIATION

Prepared	Checked	Approved
Technical Support	**Technical Manager**	**Chief Inspector**
Signature: 	Signature: 	Signature: 
Name: Dwi M	Name: Istiono	Name: Yanuar A. F.
Date: 27 Sept 2023	Date: 27 Sept 2023	Date: 27 Sept 2023

SMART AVIATION ENGINEERING ORDER			
Aircraft Reg.: **PK-SNW (208B5579**	Make/Model: **C208B**	No. EO: **013/TEK-TS/IX/2023**	Rev. No. : **Original**
Total Flight Hours:	Total Flight Cycle:	Date Issued : **27 Sept 2023**	
Task Description : **INSTALLATION OF PROPELLER MCCAULEY MODEL 4HFR34C778 Series ON CESSNA 208B GRAND CARAVAN**		Technical Data Reference : **MCCAULEY PROPELLER SYSTEMS Propeller Owner/Operator Information Manual C700/C750/C1000 Propeller Removal/Installation**	
Effectivity : **CESSNA 208B EQUIPPED WITH PROPELLER MCCAULEY MODEL 4HFR34C778 Series**			

SMART AVIATION
ENGINEERING ORDER

1. Description.

This EO is issued, to perform installation checklist Propeller Assembly maintenance practices the 4HFR34C778 Series Propeller on Cessna 208B Grand Caravan.

2. Aircraft Effectivity.

REGISTRATION	SERIAL NUMBER
PK-SNW	208B5579

3. Distribution :

TECHNICAL MANAGER	[√]	MATERIAL SUPPORT	[√]
SAFETY & QUALITY MANAGER	[√]	TECHNICAL SUPPORT	[√]
CHIEF INSPECTOR	[√]	FILE	[√]

4. Man Hours

18.0 man-hour to do the inspection

5. Material

A1633-72 Packing
A1639-32 Nut, Propeller

6. Special Tool Required

Tracking, Propeller
Adapter, Torque Wrench
Start Lock Release

7. Compliance

The Propeller model 4HFR34C778 Series have 4 of Blades, do a removal the propeller installed on Engine refer to accomplishment instruction task card, and install the Serviceable/New Propeller on the aircraft refer to accomplishment instruction task card.

SMART AVIATION
ENGINEERING ORDER

PROPELLER INSTALLATION

Date :
Part No. Propeller : 4HFR34C778-
Serial No. Propeller :
Propeller Time : TSN: TSO:
Install to A/C Reg. :

WO Number :
A/C Total Hours :
A/C Total Landing :

Description	Eng.	RII	Remarks
B. INSTALL PROPELLER (Refer to Figure 01 to 04).			
NOTE: McCauley recommends that the propeller mounting nuts (McCauley part number A-1639-32) be replaced at each propeller installation, whenever possible. However, nuts may be reused if the locking material prevents turning of the nut on the stud by hand.			
1. Install the D-5945 feedback collar retractor tool on the propeller.			
2. Remove protective cover from the end of engine propeller flange.			
3. Make sure the flange is clean and free of nicks and burrs.			
4. Make mounting sure stud that the holes are engine clean, propeller dry, and flange, free of dowels, nicks and and burrs.			
5. Remove protective cover from the propeller hub mounting the flange.			
6. Make sure and that the propeller studs hub mounting flange, dowel pin holes, are clean mounting and, undamaged.,			
7. Make sure that a new O-ring is installed in the groove of the propeller hub mounting flange. Lubricate the O-ring with engine oil prior to installation of the propeller. NOTE: Refer to the Installation Parts For Turbine Engine Propellers, Table 1002 for the O-ring part number. NOTE: In the past, new propeller assemblies shipped from McCauley, the propeller hub/engine O-ring was installed in the O-ring groove of new propellers and hub assemblies. This practice has been discontinued. The O-ring is now included in the propeller unattached parts kit, which is included in the box with the propeller or hub assembly. Install the O-ring according to the assembly instructions in this Owner/Operator Manual.			
8. Use a propeller sling and hoist, or additional personnel, to position the propeller close to the engine propeller flange and align engine			

SMART AVIATION
ENGINEERING ORDER

flange dowel pins with the dowel pin holes on the propeller hub mounting flange. Rotate engine propeller mounting flange as required to align the dowel pin holes.			
A. Hoist straps must be a minimum of 4 inches (100 mm) wide			
B. The sling and hoist should have a weight limit rating at least twice the weight of the propeller that is to be installed.			
C. The straps of the propeller sling should be placed on two of the propeller blades at least 6 inches (152 mm) outboard of the propeller hub. Make sure you protect the deice boots or anti-ice shoes from potential propeller sling abrasion damage, if installed.			
CAUTION: Propeller must be installed straight onto the engine flange. Any rocking of the propeller with respect to the flange could result in damage to the engine/propeller flange mating surfaces.			
9. Mount the propeller on the engine propeller shaft.			
10. Make sure the alignment mark on the spinner aft bulkhead and the propeller blade with are in alignment.			
11. Ensure threads of nuts and studs are free of burrs, nicks, and similar damage, and clean of foreign material.			
CAUTION: Do not use oil as a substitute for approved lubricant. It is imperative that the correct specification of lubricant be used during installation. Substitution of the approved grease with an unapproved lubricant { or no lubricant) could result in undertorquing or severe over-torquing of propeller attaching parts.			
12. Lubricate the threads of studs and nuts and the faces of nuts, spacers, or washers with MIL-PRF-83483 (McCauley part number A-1637-16) grease.			
13. Install mounting nuts on mounting studs.			
14. Torque the mounting nuts in an alternating sequence to prevent the hub rocking on the engine flange.			
15. When the hub is seated fully on the engine flange, torque to the specification called out in the mounting decal located on propeller hub at the number 1 socket. **NOTE: If the decal containing the propeller installation instructions is missing or illegible, install a new decal. All Pratt & Whitney engine installations, use a part number A- 2230-7 decal. The A-2230-7 decal specifies a lubricated 68 to 72 foot-pounds (92.196 to 97.619 N-m) torque.**			
16. After you apply the final torque, apply torque seal to nut and stud threads.			
17. If required, install the deice leads.			
18. McCauley Torque Wrench Adapter:			

SMART AVIATION
ENGINEERING ORDER

CAUTION: If an adaptor or extension (such as McCauley part number B-5588) is attached to torque wrench drive end and this adds to its length, then the actual applied torque will be greater than the dial reading. The following formula should be used to find what the dial should read in order to obtain the correct applied torque: Dial Reading = Torque Wrench Length x Desired Torque / (Torque Wrench Length + Extension Length)			
19. Remove the D-5945 feedback collar retractor tool from the propeller			
20. Make sure of proper rigging of engine controls. Refer to aircraft maintenance manual or STC maintenance manual supplement.			
a. Feather, reverse, and low blade angles are set during assembly or overhaul. These angles are NOT adjustable in the field.			
CAUTION: Do not operate the propeller below the minimum propeller idle speed operating restriction. The minimum propeller idle speed operating restriction is the result of a specific vibratory resonant condition known as "reactionless mode". Ground operation, at or near a reactionless mode vibratory resonance speed, can cause very high stresses in the propeller blades and hubs. These high stresses are more severe when operating in a tail-wind condition. If the propeller is operated within a restricted RPM range or below a minimum RPM restriction for an extended period of time, the propeller blades and hubs may become unairworthy due to fatigue. Hub or blade failure has the potential of causing a catastrophic event due to blade separation. The propeller RPM restriction is often placed below the minimum idle RPM; however, certain aircraft have a restriction that is above the propeller idle RPM setting. Either restriction is important. The propeller operating restrictions or limitations may be found in the Airplane Flight Manual (AFM) or Airplane Flight Manual Supplement (AFMS). The propeller installations may be controlled by the various airframe manufacturers Type Certificate (TC) or by Supplemental Type Certificate (STC).			
21. Install Propeller Spinner			
22. Start engine I.A.W Pilots Operating Handbook and FAA			
23. Perform propeller dynamic balancing ref. C208B MM chapter 61-11-00 Dynamic balancing (McCauley) - Adjustment test. Refer also to related balancer tools manual.			
24. Make an appropriate entry in Work Order and Aircraft Flight & Maintenance Log (AFML).			
***** END OF THE TASK *****			

SMART AVIATION
ENGINEERING ORDER

MAINTENANCE RELEASE

I hereby certify that the above stated maintenance and/or inspection was performed in accordance with the approved Aircraft Maintenance Manual and meets requirements of Civil Aviation Safety Regulations.

Name : _____ Stamp :

Signature : _____ Place/Date : _____

- END -

PROPELLER CHANGE – Component Inventory Record			
Registration	:	Work Order Number	:
Airframe Time	:	Airframe Landing	:
Propeller Time	:	Propeller Cycle	:

Propeller OFF				**Propeller ON**		
Description	**Part Number**	**Serial Number**	**Time Remaining**	**Part Number**	**Serial Number**	**Time Remaining**
Propeller Hub						
Blade#1						
Blade#2						
Blade#3						
Blade#4				a		

NOTE: ANY OTHER COMPONENT CHANGES MUST BE FILLED ON ADDITIONAL WORKSHEET (SCA-MTC 030)

Reg. Mark : PK - Date :

MSN : Station :

TSN / CSN : WO No. :

NO.	ZONE	TASK	SIGNATURE	
			ENGINEER SIGN&STAMP	RII SIGN&STAMP
01	211 212	Perform propeller dynamic balancing refer to Cessna Maintenance Manual 61-11-00.		
*** End of OOP61001 Items ***				

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 : _____ Place/Date : _____

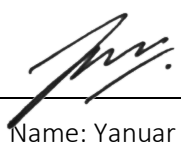
Sign & Stamp : _____

ENGINEERING ORDER

015/EO/TEK-TS/IX/2023

NOSE LANDING GEAR REPLACEMENT

PT. SMART CAKRAWALA AVIATION

Prepared	Checked	Approved
Technical Support	**Chief Inspector**	**Technical Manager**
Signature: 	Signature: 	Signature: 
Name: Dwi M.	Name: Yanuar A. Fatah	Name: Istiono
Date: 27 Sep 2023	Date: 27 Sep 2023	Date: 27 Sep 2023

SMART AVIATION ENGINEERING ORDER			
Aircraft Reg.: PK-SNW (208B-5579	Make/Model: C208B	No. EI: 015/EO/TEK-TS/IX/2023	Rev. No. : ORIGINAL
Total Flight Hours:	Total Flight Cycle:	Date Issued September 29, 2023	
Task Description : **Replacement of Nose Landing Gear** Assy		Data Reference : - AMM Rev. 39_March 2023	
Aircraft Type : **C208B Grand Caravan**			

SMART AVIATION
ENGINEERING ORDER

1. Description.

This EO is issued to perform replacement of nose landing gear assy after incident.

2. Aircraft Effectivity.

REGISTRATION	SERIAL NUMBER
PK-SNW	208B-5579

3. Compliance

After incident of PK-SNW that has impact on nose landing gear area, the nose landing gear assy must be replaced

Note:

A. Remove the damaged nose landing gear
B. Install the nose landing gear assy

4. Distribution.

TECHNICAL MANAGER	[√]	MATERIAL SUPPORT	[√]
SAFETY & QUALITY MANAGER	[√]	TECHNICAL SUPPORT	[√]
CHIEF INSPECTOR	[√]	FILE	[√]

5. Manhours

6.0 man hours

6. Material.

Nose gear assy

7. Special Tool Required.

None.

8. Publication Affected.

None.

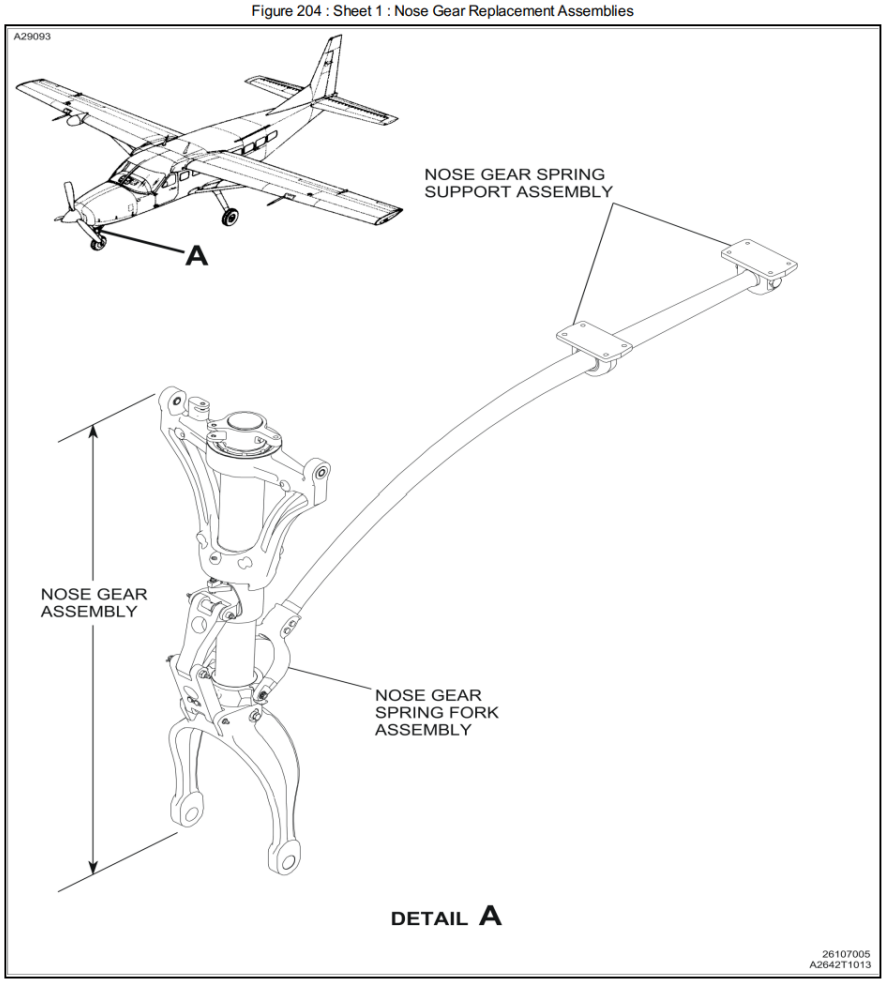
SMART AVIATION
ENGINEERING ORDER

9. Accomplishment Instructions.

Description	Eng.	RII	Remarks
Remove NLG assy			
Install NLG Assy *RII			

SMART AVIATION
ENGINEERING ORDER

Figure 204 : Sheet 1 : Nose Gear Replacement Assemblies



*** END OF THE TASK ***

RETURN TO SERVICE

I hereby certify that the aircraft has been modified in accordance with the Aircraft Maintenance Manual EC130T2 with applicable Approved Data and met the requirements as set forth with the Indonesia Civil Aviation Safety Regulation and it is approved for return to service.

Name :_____ Place & Date :_____

Sign & Stamp :_____

Additional Remark:

Description :
Nose Landing Gear Assy
Part Number OFF:
2643100-24
Serial Number OFF:
95258102

Attachment:

Additional Work Sheet
Component Installation

Aircraft Registration: **PK-SNW**

WO# Nr: **WO/021-SNW/I/2023**

Parts Used Sheet

Special Tool Used

No.	Description	Due Date	Engineer

Additional Work Sheet
Component Installation

Aircraft Registration: **PK-SNW**

WO# Nr: **WO/021-SNW/I/2023**

Parts Used Sheet

Part Used

Date	Part Nr.	Serial Nr.	Description	Quantity	Engineer