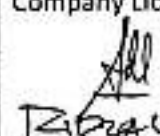




PT. SMART CAKRAWALA AVIATION

WORK ORDER

Form: SCA/MTC/030

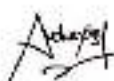
Subject : Propeller Assy Replacement	No.	WO/040-SNM/II/2023
	Date	9 February 2023
	A/C Reg.	PK-SNM 208-00655
Reference : MP C208B Issued 01	Prepared By	TS
	Checked By	CI
	Approved By	TM
To : Engineer In Charge		
Description : 1. Perform Propeller Assy Replacement. 2. Make an entry in Maintenance Log. 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 : -NIL-		
Compliance Statement PROPELLER ASSY REPLACEMENT CARRIED OUT	Sign & Date Company Lic. No.:  14/02/2023 (Engineer In Charge)	Signature (Technical Manager)

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

DATE OF ISSUED	JOWO #	TYPE OF MAINTENANCE	DATE OF ACCOMPLISHED	
9 Feb 2023	WO/040-SNM/III/2023	Propeller Assy Replacement	19-03-2023	
A/C Type		Mfg. Serial Number	A/C Registration	
208		208-00655	PK-SNM	
AIRCRAFT DATA				
Subject	Pos #	Serial Number (SN)	TTSN/TCSN	
Engine	#1		130;29/148	
	#2	-		
Propeller/Rotor	#1	190085 (S/N REMOVED)	4128:42/5622	
	#2	-		
Landing Gear	NLG		4128:42/5622	
	LH MLG		4128:42/5622	
	RH MLG		4128:42/5622	
PACKAGE COVERED				
No	Subject	Qty	Remark	
1	Non-Routine Card	1	#001	
2	Inspection Card	1		
3	Work Order	1		
4	Summary Inspection List	1		
5	Material and Tool List	-		
6	Escalation form	-		
7	CRS (SMI / Unscheduled Maintenance)	-		
INSPECTION CARD (IC) LIST (Finding during maintenance)				
No	Taskcard Ref	Subject	Status Open Close	Name/ Sign & Stamp
<u>IC-001</u>				
<u>IC-002</u>				
<u>IC-003</u>				
<u>IC-004</u>				
<u>IC-005</u>				
<u>IC-006</u>				

<u>IC-007</u>					
<u>IC-008</u>					
<u>IC-009</u>					
<u>IC-010</u>					
<u>IC-011</u>					
<u>IC-012</u>					
<u>IC-013</u>					
<u>IC-014</u>					
<u>IC-015</u>					

Prepared by :
Technical Support



Hani

Checked by :
Chief Maintenance



Dodit

Verified by :
Chief Inspector



Yanuar

Approved by :
Technical Manager



Istiono



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

WO Ref: WO/04D-SNM/II/2023

NO.	TASK CARD NO.	DESCRIPTION	DATE	EST MHR	NAME	STAMP	INSPECTOR
1	B07	PT6A-114A ENGINE GROUND RUN PERFORMANCE	14/03/2023		Rudra. G		
2	NRC-001	REMOVAL & INSTALLATION OF PROPELLER ASSY 3GFR34C703 ON CESSNA C208/C208B REF: 013/EQ/TEK-TS/II/2023	14/03/2023		Rudra. G		



PT. SMART CAKRAWALA AVIATION

CERTIFICATE RETURN TO SERVICE
SCHEDULED MAINTENANCE INSPECTION
(CRS-SMI)

A/C TYPE : CESSNA 208

A/C REG : PK-SNM

MSN : 208-00655

TTSN : 4128.42

TCSN : 5622

DATE : 14-03-2023

TYPE OF INSPECTION : PROPELLER ASSY REPLACEMENT

DUE AT : 4000 HOURS

REFF : MP C208B ISSUED 01

EXCEPTION

- NO 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
Rizal GHARALI	AIRFRAME & POWER PLANT	9694 SCA 021	 	14 / 03 / 2023
	EIRA			

THE NEXT DUE TYPE OF INSPECTION : PROPELLER OVERHAUL

DUE AT : 6124:00 HOURS

Form: SCA/MTC/049

Appendix B07 – PT6A-114A Engine Run Performance Sheet

Reg. Mark

: PK - S/M

WO/FML No. : W0 1040 - SNA/11/2023

PRE – INSPECTION	
Location	
Date	
Cycle	
Filed Barometric	
OAT	
Altitude	

POST – INSPECTION	
Location	<u>MALINAU</u>
Date	<u>14-03-2023</u>
Cycle	
Filed Barometric	<u>1008</u>
OAT	<u>33</u>
Altitude	<u>80</u>

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		<u>1845</u>
Np		<u>1880</u>
ITT	°C	<u>743 °C</u>
Ng	%	<u>97.9 %</u>
Wf		<u>448</u>
Oil Press		<u>88 °C</u>
Oil Temp		<u>71 °C</u>
Start Temp		<u>710 °C</u>

Engine Run Up Checks

Inertial ☒ EPL ☒ OVG ☒ Stby Alt ☒ BOV ☒ Brake ☒ Randomn ☒

NOTE:

1. Brake system at Torque 1500 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 52.5 – 53.5% 40Amps.
6. High idle at 64 – 66% Ng 40Amps.

Engine Performance Target Table Cessna C208

OAT (°C)	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
Tq (ft-lbs)	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865	1865
Np	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
ITT (°C)	772	775	778	780	785	790	793	795	797	800	800	800	802	805	810
Ng (%)	98.5	98.5	99	99	99.1	99.2	99.4	99.5	99.5	100	100	100.2	100.5	100.7	100.9
WF (PPH)	450	450	450	450	450	450	450	450	450	450	450	450	448	448	446

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 465 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:

-ALL ENGINE PARAMETER
DURING RUN UP FOUND
WITHIN LIMIT -

PERFORMED BY

Name	Sign & Stamp	Date	Location
<u>RIDALIG</u>		<u>14/03/2023</u>	<u>MALINAU</u>

NON ROUTINE CARD (Form: SCA/MTC/047)

1. JO/WO #	2. DATE	3. MTC TYPE	4. A/C REG/MSN
WO1040-SNM11/2023	14-MAR-2023	COMPONENT REPLACEMENT	PK-SNM
5. CARD #	6. ATA SPEC	7. TRADE	8. STA
001	61		LNU
9. ZONE	10. PANEL		
PROPELLER			

11. DESCRIPTION

PERFORM REMOVAL & INSTALLATION OF PROPELLER ASSY 3GFR34C703 ON CESSNA C208/C208B REF
ENGINEERING ORDER NO. 013/EO/TEK-TS/11/2023
OFF: ON:
MODEL: 3GFR34C703 MODEL: 3GFR34C703-B
SN OFF: 190085 SN ON: 000930

REFERENCE	☒ AMM Ch. 61-11-00	☐	☐ OTHER
R11 (*)	☒ Y	☐ N	MHR:

12. RESULT

PERFORMED REMOVAL & INSTALLATION PROPELLER ASSY
REFER TO EO: 013/EO/TEK-TS/11/2023
PERFORMED ENGINE RUN UP ALL PARAMETER
FOUND SATISFY: IPS: 0.06 REF. 61-11-00
Performed at A/C TT: 4128.43 A/C TC/LDG: 5622

FINDING	☐ Y	☒ N	ACT MHR:	DATE/TIME (DD/MM/YY)
INSPECTION CARD (IC) #				14 03 2023

13. PARTS REQUIRED

DESCRIPTION	PART NO	QTY	REMARK	
			STOCK	STATUS
PROPELLER ASSY	3GFR34C703-B	1 ASSY		

14. TOOLS REQUIRED

DESCRIPTION	PART NO / MODEL	NEXT CALIBRATION DATE	STATUS
REFER TO WO/040-SNM/11/2023			

1. Approving Civil Aviation Authority/Country FAA/United States		2. AUTHORIZED RELEASE CERTIFICATE FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG		3. FORM TRACKING NUMBER 21514	
4. ORGANIZATION NAME AND ADDRESS  Palm Beach Aircraft Propeller 2633 Lantana Rd, Building 1501 Lantana, Florida 33462				5. WORK ORDER, CONTRACT OR INVOICE NUMBER 21514 Full details held on WO#	
6. ITEM 1	7. DESCRIPTION PROPELLER	8. 3GFR34C703-B/B-106GA-0	9. QTY 1	10. SERIAL/BATCH NUMBER 000930	11. STATUS/WORK OVERHAULED
12. REMARKS TTSN: 2524.0 TSLO: 549.2 TSO: 0 SB Complied with: THRU 274 AD Complied with: NA BOM100 REV 11 DATE 8-1-2020 MPC 700 REV 3 DATE 10-19-2015 SPM100 REV 8 DATE 8-1-2020					
Notes: MCCAULEY PROP OVERHAUL AND DISASSEMBLED WITH ALL BLADES OUT FOR SHIPPING. BLADE SERIAL NUMBERS. ABD30016, ABD30019, ABD30022					
13a. Certifies the items identified above were manufactured in conformity to: ☐ Approved design data and are in condition for safe operation. ☐ Non-approved design data specified in block 12		14a. ☒ 14 CFR 43.9 Return to Service Certifies that the work specified in block 12 (or attachment) the work identified in Block 11 and described in Block 12 was accomplished with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.		14c. APPROVAL/CERTIFICATION NO. FAA CRS # LU4R349M EASA 145.5271	
13b. AUTHORIZED SIGNATURE		14b. AUTHORIZED SIGNATURE 		14d. NAME (TYPED OR PRINTED) Michael F. O'Neill	
13c. APPROVAL/AUTHORIZATION NO:		13d. NAME (TYPED OR PRINTED)		14e. DATE (dd/mm/yyyy) 20/Sep/2022	
13e. DATE (dd/mm/yyyy)					
User/Installer Responsibilities It is important to understand that the existence of this document does not automatically constitute authority to install the aircraft engine/propeller/etc. When 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 neither airworthiness authority accepts aircraft engine/propeller/etc. from the airworthiness authority of the country specified in Block 1. Elements 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.					



TECHNICAL SUPPORT
TECHNICAL DEPARTMENT
ENGINEERING ORDER

013/EO/TEK-TS/II/2023

Rev. No Original

Rev. Date 8/02/2023

**SMART AVIATION
ENGINEERING ORDER**

9. Accomplishment Instructions.

PROPELLER REMOVAL

Date : 12-03-2023 WO Number : W0/040-SNM/11/2023
Part No. Propeller : 3GFR34C703- A/C Total Hours : 4128:42
Ser. No. Propeller : 190085 A/C Total Landings : 5622
Propeller Time TSN: 4128:42 TSO: 0
Removed from A/C Reg.: PK-SNM

Description	Eng.	RII	Remarks
A. REMOVE PROPELLER (Refer to Figure 01 to 04)			
CAUTION: Do not forcibly pull the feedback collar against the guide which limits the forward travel.			
1. Turn electrical power off.			
2. Open upper right hand cowling and remove right nose cap. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.			
3. Disconnect propeller reversing lever (26) from control cable and beta valve devis (25).			
4. Remove propeller reversing lever (26) and carbon block (24) from propeller feedback collar (23). Refer to Pratt & Whitney Engine Maintenance Manual PT6A-114A chapter 76-10-00 Page 201 for removing the propeller reversing lever.			
5. Remove spinner (17) by removing screws (19) and fiber washers (18).			
6. If propeller anti-ice is installed, loosen nuts securing anti-ice brush block assembly (22) and carefully insert an electrical tie strap between brushes and slip ring (15). Secure brushes in holder and remove brush block assembly and bracket.			
7. Install assembly tool, D-5945, on forward end of beta rods (5). NOTE: Do not disturb beta rod nuts. The position of beta rod nuts, with respect to the beta rod, determines the low pitch setting. NOTE: Adjustment of low pitch setting may only be performed by an approved propeller repair station.			



TECHNICAL SUPPORT
TECHNICAL DEPARTMENT
ENGINEERING ORDER

013/EO/TEK-15/11/2023

Rev. No

Original

Rev. Date

8/02/2023

**SMART AVIATION
ENGINEERING ORDER**

- | | | | |
|--|--|--|--|
| 8. Pull beta rods forward until roll pin on tool bottoms against the plate. This will position feedback collar forward to make mounting nuts accessible. | | | |
| 9. Attach lifting sling to hoist and position hoist forward of the airplane. Attach sling to propeller by positioning blades at 10 O'clock and 2 O'clock | | | |
| 10. Position drip pan under propeller to catch residual oil which will drain from the propeller when removed, | | | |
| 11. Remove mounting nuts (9) and spacers (8) | | | |
| 12. With propeller supported by the sling, remove propeller from engine flange (10). | | | |
| 13. If removal of the spinner bulkhead (13) is required on standard propeller, remove screws (11) and washers (12) and remove bulkhead. On propeller with anti-ice installation, remove screws securing anti-ice leads (21) to slip ring (15) and screws securing lead clamps to bulkhead. | | | |
| 14. Make an appropriate entry in work order and Aircraft Flight & Maintenance Log (AFML). | | | |

***** END OF THE TASK *****



TECHNICAL SUPPORT
TECHNICAL DEPARTMENT
ENGINEERING ORDER

013/EO/TEK-TS/11/2023

Rev. No

Original

Rev. Date

8/02/2023

**SMART AVIATION
ENGINEERING ORDER**

PROPELLER INSTALLATION

Date : 14-03-2023 Work Number : _____
Date : 14-03-2023 WO Number : WD/040-SNA/11/2023
Part No. : _____ A/C Total Hours : 4128:42
Propeller : 3GFR34C703-B A/C Total Landings : 5622
Ser. No. : _____
Propeller : 000430
Propeller Time TSN: 2524 TSO: 0
Removed from A/C Reg.:

Description	Eng.	RII	Remarks
B. INSTALL PROPELLER (Refer to Figure 01 to 04).			
1. Ensure airplane electrical power is OFF.			
2. If spinner bulkhead (13) was removed, position spinner bulkhead on propeller and install washers (12) and screws (11). Torque screws (11) 20 to 25 inch-pounds.			
3. On propeller with anti-ice installation, install screws securing anti-ice leads (21) to slip ring (15) and secure leads to bulkhead using screws and clamps removed.			
4. Install Beta Ring Puller D-5945 tool.			
5. Apply a light coating of engine oil to O-ring (14) and install in the propeller hub.			
6. Inspect stud and nut threads for cleanliness and absence of nicks, burrs or other damage.			
7. Apply MIL-PRF-83483C (Loctite Moly-50 or equal) lubricant liberally to propeller studs, nut threads and both faces of spacers (8). CAUTION: It is important that propeller be seated against engine flange with a straight push. Rotation, cocking or wiggling will damage the o- ring groove and oil leakage may result.			
8. With propeller supported by a hoist and sling position propeller on engine flange (10) and install spacers (8) and nuts (9). Keeping the B-5588 torque wrench adapter or equivalent, at a 90 degree angle to the torque wrench torque nuts 68 to 72 foot-pounds.			



TECHNICAL SUPPORT
TECHNICAL DEPARTMENT
ENGINEERING ORDER

013/EQ/TEK-TS/II/2023

Rev. No

Original

Rev. Date

8/02/2023

**SMART AVIATION
ENGINEERING ORDER**

9. On propeller with anti-ice installation, install anti-ice brush block assembly(22). Clearance between anti-ice brush block and slip ring is 0.064 inch, +0.015 or - 0.015 inch. Torque the nuts that attach the brush block bracket assembly to the engine from 145 to 165 inch-pounds (16.38 to 18.64 N-m) .			
10. Remove Beta Ring Puller D-5945 tool. NOTE: The lower end of the propeller reversing lever is machined with a stepped notch. CAUTION: Make sure the stepped notch at the end of the propeller reversing lever (26) is under the guide pin (37) in the reversing lever guide pin bracket (36).			
11. Install propeller reversing lever (26) and carbon block (24) in propeller feedback collar (23). Refer to Pratt & Whitney Engine Maintenance Manual for installing the propeller reversing lever.			
12. Connect propeller reversing lever (26) to control cable and beta valve clevis(25).			
13. To facilitate propeller dynamic balancing, remove all previously installed propeller weights from spinner bulkhead.			
14. Slide spinner support (1) on feathering spring housing (2). CAUTION: Perform the following procedure exactly as written to prevent damage.			
15. Lightly press spinner (17) against spinner support (1) and check alignment of spinner holes with spinner bulkhead holes. Spinner holes should be approximately 1/2 hole diameter forward from alignment with bulkhead holes. If not add or remove shims (16) to obtain this alignment.			
16. Once shimming is complete, push hard on front of spinner to align holes and install screws (19) and washers (18).			
17. Install propeller dynamic balancing test equipment.			
18. Perform RII inspection before first engine start.			
19. Install right nose cap half and close cowling.			
20. Start engine I.A.W Pilots Operating Handbook and FAA Approved Airplane Flight Manual.			



TECHNICAL SUPPORT
TECHNICAL DEPARTMENT
ENGINEERING ORDER

013/EO/TEK-TS/II/2023

Rev. No

Original

Rev. Date

8/02/2023

**SMART AVIATION
ENGINEERING ORDER**

21. Perform propeller dynamic balancing ref, C208B MM chapter 61-11-00 Dynamic balancing (McCauley) – Adjustment test. Refer also to related balancer tools manual.

22. Make an appropriate entry in Work Order 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.

ENGINEER

Name

: RIZDAL GHARALI

Signature

:

Stamp

:

Place/Date

: LNU, 14-03-2023

RII

Name

: ROHPININDO - N.S.P

Signature

:

Stamp

:

Place/Date

: LNU / 14-MAR-2023

Aircraft Registration: **PK-SNM**

WO# Nr: WO/040-SNM/II/2023

Parts Used Sheet

1

Special Tool Used

[illegible]



Aircraft Registration: **PK-SNM**

WO/040-SNM/II/2023

2

[illegible]