



PT. SMART CAKRAWALA AVIATION

WORK ORDER

Form: SCA/MTC/030

Subject : Starter Generator Replacement	No.	WO/057-SNS/VII/2023
	Date	12 Jul 2023
	A/C Reg.	PK-SNS C208B-2341
Reference : MP C208B ISSUED 01	Prepared By	TS
	Checked By	CI
	Approved By	TM
To : Engineer In Charge		
Description : 1. Perform Starter Generator 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 : SHORT TERM ESCALATION NO 003/STE/TM/VI/2023 CLOSED.		
Compliance Statement CARRIED OUT	Sign & Date Company Lic. No.: 025  (Engineer in Charge) 17 July 2023 KADER AGUS JULIARTHA	Signature  (Technical Manager)

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

DATE OF ISSUED	JO/WO #	TYPE OF MAINTENANCE	DATE OF ACCOMPLISHED		
12 Jul 2023	WO/057-SNSMII/2023	Starter Generator Replacement	17 July 2023		
A/C Type		Mfg. Serial Number	A/C Registration		
C208B		C208B-2341	PK-SNS		
AIRCRAFT DATA					
Subject	Pos #	Serial Number (SN)	TTSN/TCSN		
Engine	#1	PCE-PC1306	6955:26 / 7924		
	#2	-			
Propeller/Rotor	#1	081043	1005:40		
	#2	-			
Landing Gear	NLG				
	LH MLG				
	RH MLG				
PACKAGE COVERED					
No	Subject	Qty	Remark		
1	Non-Routine Card	1	COMPLETED		
2	Inspection Card	1	COMPLETED		
3	Work Order	1	COMPLETED		
4	Summary Inspection List	1	COMPLETED		
5	Material and Tool List	-	-		
6	Escalation form	-	-		
7	CRS (SMI / Unscheduled Maintenance)	1	COMPLETED		
INSPECTION CARD (IC) LIST (Finding during maintenance)					
No	Taskcard Ref	Subject	Status		Name/ Sign & Stamp
			Open	Close	
<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

Checked by :
Chief Maintenance

Verified by :
Chief Inspector

Approved by :
Technical Manager



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

WO Ref: WO/057-SNS/VII/2023

NO.	TASK CARD NO.	DESCRIPTION	DATE	EST MHR	NAME	STAMP
1	NRC-01	STARTER GENERATOR REPLACEMENT	17 July 2023	3	KADEK	



PT. SMART CAKRAWALA AVIATION

CERTIFICATE RETURN TO SERVICE

SCHEDULED MAINTENANCE INSPECTION (CRS-SMI)

A/C TYPE : CESSNA 208B	TTSN : 6455 : 26
A/C REG : PK-SNS	TCSN : 7924
MSN : C208B-2341	DATE : 17 July 2023

TYPE OF INSPECTION : STARTER GENERATOR REPL.
 DUE AT : 2000 HOURS
 REFF : MP C208B ISSUED 01

EXCEPTION *NIL*

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
<i>Kadek Agus J</i>	AIRFRAME & POWER PLANT	<i>4685/025</i>		<i>17 July 2023</i>
<i>-</i>	EIRA	<i>-</i>	<i>-</i>	

THE NEXT DUE TYPE OF INSPECTION : STARTER GENERATOR REPLACEMENT
 DUE AT : 8955 : 26 AF HOURS

Form: SCA/MTC/049

		INSPECTION CARD (Form: SCA/MTC/ 048)			TECHNICAL DEPARTMENT	
1. CARD #	2. JOWO #	3. ORIGINATOR	4. CARD REF	5. DATE		
	WD 1057-SNS/11/2023			17 July 2023		
6. A/C REG/MSN	7. A/C TYPE	8. TRADE	12. VENDOR ORDER #			
PK-SNS 200B-2341	C208B					
9. ZONE	10. STA	11. MTC TYPE				
13. DESCRIPTION/DEFECT-IF FINDING OF CPOI INSPECTION, PLEASE COMPLETE SET. 20				14	15	
				PPC/ENG	DATE	
16. CORRECTIVE ACTION				17	18	
				MECH	ENG, LIC	
Performed at A/C TT : A/C TC /LDG :				19	DATE	
20. CORROSION INFORMATION						
LOCATION		CAUSE OF DAMAGE				
CORROSION ☐ Isolated ☐ Widespread CORROSION LVL ☐ 1 ☐ 2 ☐ 3 PROPOSED ACTION ☐ Doublers ☐ Others		☐ Environment ☐ Internal Leakage ☐ Chemical Spill ☐ LAV/Galley Spill ☐ Blocked Drain ☐ 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			

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

1. JO/WO #	2. DATE	3. MTC TYPE	4. A/C REG/MSN
WO/057-SNS/VIII/2023	17 July 2023	REPLACEMENT	PK-SNS/208B-2341
5. CARD #	8. ATA SPEC	7. TRADE	8. STA
#001	80		
9. ZONE	10. PANEL		

11. DESCRIPTION

PERFORM REPLACEMENT OF STARTER GENERATOR

P/N : 200SGL119Q-2

S/N OFF : 500594 S/N ON: 2288XL

REFERENCE	☒ AMM Ch 80-00-00	☐ EMM Ch	☐ OTHER
RII (*)	☐ Y	☒ N	MHR :

12. RESULT

		MECH	ENG	INSP (*)
Performed at A/C TT : 6985:26 A/C TC/LDG : 7924				
FINDING	☐ Y	☒ N	ACT MHR :	DATE/TIME (DD/MM/YY)
INSPECTION CARD (IC) #				17 July 2023

13. PARTS REQUIRED

DESCRIPTION	PART NO	QTY	REMARK	
			STOCK	STATUS
STAR GEN	200SGL119Q-2	1	✓	

14. TOOLS REQUIRED

DESCRIPTION	PART NO / MODEL	NEXT CALIBRATION DATE	STATUS
TQ METER	0-200 in lbs	NOV 2023	O.K.

STARTER/GENERATOR - REMOVAL/INSTALLATION

1. General

A. This section gives removal and installation information for all starter/generators used on the airplane.

2. Starter/Generator Removal and Installation

A. Remove the Starter/Generator (Refer to Figure 401).

NOTE: Two mechanics are required to properly remove or install the starter/generator.

CAUTION: Make sure the starter/generator drive shaft is aligned with and concentric to the armature shaft. Slight misalignment and/or binding of the starter/generator drive can reduce the unit's service life.

- (1) Remove the left and right upper cowling doors. Refer to Chapter 71, Engine Cowling and Nose Cap - Maintenance Practices.
- (2) Remove all external power from the airplane, make sure the battery switch is in the OFF position, and disconnect the battery from the airplane electrical system.
- (3) Remove the cover from the terminal block.
- (4) Put an identification tag on each of the electrical leads for later identification and remove the terminal nuts.
- (5) Remove the speed sensor circuit connector.

NOTE: Removal of the A/C drive unit is necessary for access to the starter generator on airplanes before 208000505 and 208B002025 that have a 200 AMP starter generator option installed.

- (6) Loosen the clamp that holds the cooling air blast hose on the starter/generator and remove the hose.

NOTE: Two mechanics are required to properly remove or install the starter/generator. One mechanic is to hold the starter/generator in position to keep the mounting surfaces flush with the quick attach/detach (QAD) adapter pad. This keeps the starter/generator aligned while the other mechanic loosens and removes the V-band clamp.

CAUTION: Hold the starter/generator in place to prevent damage to the splined drive shaft before you do the following step.

- (7) Loosen the V-band that holds the starter/generator to the quick attach/detach QAD adapter.
- (8) Carefully remove the starter/generator from the QAD adapter pad so that the starter/generator drive spline is not put into a bind.
- (9) Remove the QAD adapter as necessary.
 - (a) Remove the nuts that hold the QAD adapter to the engine accessory gearbox and remove the adapter.
 - (b) Discard the gasket.
- (10) Use a cloth that is damp with MIL-PRF-680 or an equivalent solvent to clean the starter-generator splines.
- (11) Use a 10X magnifying glass to examine for signs of electrical arcing damage (in the form of pitting).

NOTE: If there are signs of arcing on the starter-generator drive splines, refer to Cessna SNL07-16 and P&WC S.J.L NO. Gen-PT6-024 for additional information and inspection requirements.

NOTE: If the Starter-Generator was removed for an electrical fault, refer to the Pratt and Whitney Canada PT6A Maintenance Manual 05.50.00 unscheduled inspection section- Starter-Generator Replacement.

B. Install the Starter/Generator (Refer to Figure 401).

- (1) Do the following steps before you install the starter/generator. Make sure:
 - (a) There are no burrs or foreign objects on the starter/generator shaft.
 - (b) The starter/generator guide pins are clean and not bent or damaged.
 - (c) The mounting surfaces of the starter/generator and the QAD adapter pad are clean and do not have any burrs.
 - (d) The QAD adapter is fastened to the engine transfer case correctly.
 - (e) The QAD adapter pad guide pin holes does not have any burrs or foreign objects, and that they are in good condition.

NOTE: For a 300-Amp Starter/Generator installation, the QAD adapter must be located with the internal machined circular recesses on the top.

- (2) Install the QAD adapter onto engine accessory gearbox with a new gasket, and install nuts as necessary.
- (3) Install a new O-ring around the groove on the splined drive shaft.
- (4) With the T-bolt unlatched, put the V-band on the starter/generator between the mounting flange and the terminal block.

NOTE: Two mechanics are required to properly remove or install the starter/generator. One mechanic is to hold the starter/generator in position to keep the mounting surfaces flush with the quick attach/detach QAD adapter pad. This keeps the starter/generator aligned while the other mechanic installs and tightens the V-band clamp.

CAUTION: The spline drive shaft must stay aligned with and concentric to the armature. If the starter/generator is allowed to be installed with the drive shaft out of position, excessive vibration and damage may develop during operation.

- (5) Carefully look at the spline drive shaft and the armature shaft interface plates. If the drive shaft looks to be out of position, lightly tap on the spline drive shaft with a plastic mallet to move it to a full concentric position. [Figure 401](#).
- (6) Carefully engage the spline drive shaft with the engine spline.

CAUTION: Keep the starter/generator flush up against the adapter during installation. Do not let the unit hang loosely without the V-band being latched because too much load on the drive shaft shear section may cause damage.

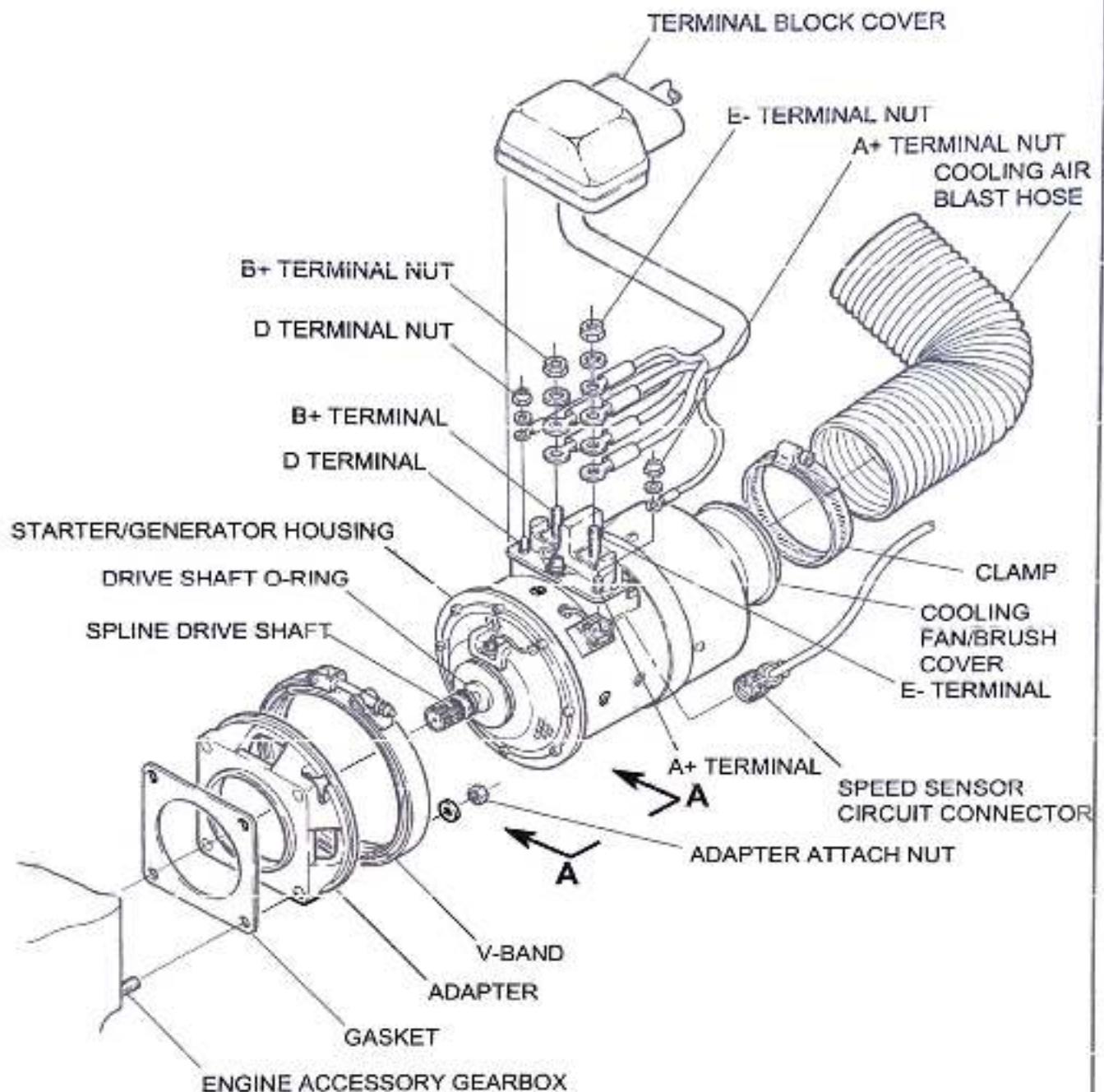
- (7) Make sure the dowel pins are engaged.
- (8) Put the V-band over the mating flanges and latch.
- (9) Tap the V-band at several places with a rubber mallet to make sure that there is correct alignment of the spline drive shaft and the armature shaft, and tighten the T-bolt nut to two-thirds the recommended torque.

NOTE: The correct torque value is stamped on the V-band.

- (10) Tap the V-band repeatedly with the rubber mallet and tighten the T-bolt nut to the recommended torque.
- (11) Install the cooling air blast hose with the clamp on the starter/generator.
- (12) Tighten the cooling air blast hose clamp.
- (13) Connect the speed sensor cable connector to the starter/generator.
- (14) Install the electrical cables in the same relationship to the terminal posts as you tagged them during the removal procedure, and install the nuts.
- (15) Put the cover in place over the terminal block.
- (16) Reconnect the battery to the airplane electrical system.
- (17) Install the left and right upper cowl doors. Refer to Chapter 71, [Engine Cowl and Nose Cap - Maintenance Practices](#).

Figure 401 : Sheet 1 : Starter/Generator Installation

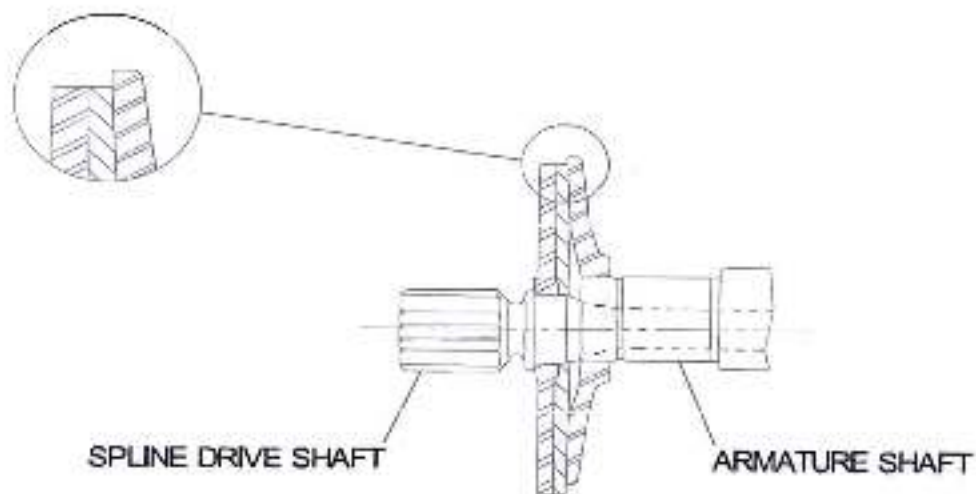
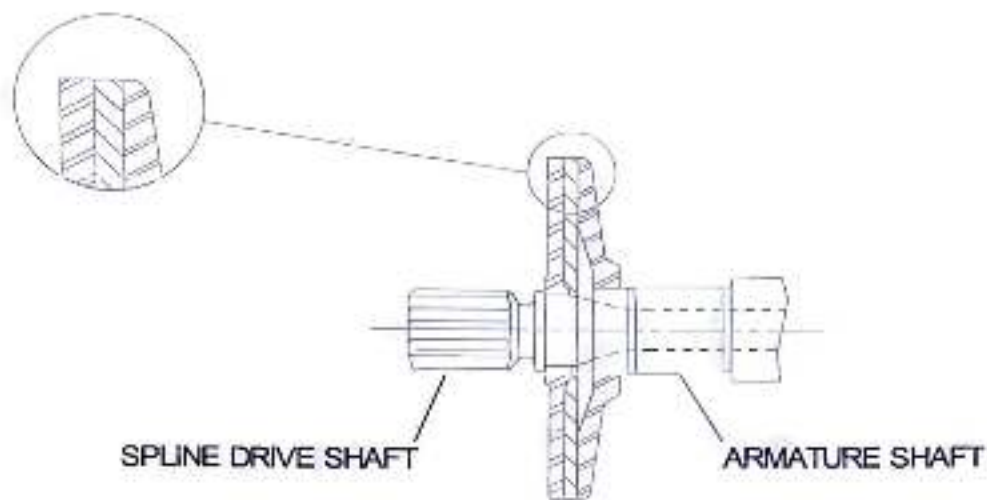
A21653



2658A/001

Figure 401 : Sheet 2 : Starter/Generator Installation

ASB001





Aircraft Registration: **PK-SNS**

Parts Used Sheet

WO# Nr: WO/057-SNS/VII/2023

Special Tool Used

[illegible]



Additional Work Sheet

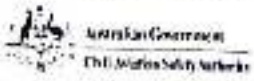
Starter Generator Replacement

WO# Nr: WO/057/ SNS/VII/2023

Parts Used Sheet

Part Used

[illegible]

1. Approving Competent Authority/Country 		2. AUTHORISED RELEASE CERTIFICATE CASA FORM 1		3. Form Tracking No. 6206417	
4. Organisation Name and Address Precision Aviation Group Australia, PTY, LTD Unit 1, Lot 5, 457-459 Tufnell Rd, Banyo, QLD 4014				5. Work Order/Contractor/Invoice No. 6206417	
6. Item	7. Description	8. Part Number	9. Quantity	10. Serial/Batch No.	11. Status/Work
1	Starter Generator	2005GL119Q-2	1	2288XL	Overhauled
12. Remarks Starter Generator overhauled and tested serviceable I.A.W APC CMM TM105A Rev 12 TSO: 0.00					
RELEASED UNDER THE PROVISIONS OF THE TA-M BETWEEN JCAB AND CASA					
13a. Certifies that the items listed above were manufactured in conformity to: ☐ Approved design data and in a condition for safe operation; or ☐ Non-approved design data specified in Block 12.			13b. ☐ Division 42 H-R of CASR 1988 - Certificate of Release to Service (CORS Part 145 AMO) ☐ Regulation 42.04 of CAR 1988 - Release to Service (for Part AA maintenance under CAR 1588) ☐ Other regulations specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was carried out in accordance with Civil Aviation Safety Regulations, 1988 & 1988 in relation to that work, the items are approved for return to service.		
13b. Authorised Signature:		13c. CASA Approval for:		14a. Authorised Signature  PAI-AD03 PAG-AUST	
13d. Name (printed or typed)		13e. Date: (dd/mm/yyyy)		14c. CASA Certificate No. 1-11RETK	
		14b. Name (printed or typed) Jake Martin		14d. Date: (dd/mm/yyyy) 06 / Apr / 2023	
15. 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 works in accordance with the national regulations of a National Aviation Authority (NAA) different than the NAA of the country specified in Block 1, it is essential that the user/installer ensures that neither NAA accepts parts, components, assemblies from the NAA of the country specified in Block 1. Statements in Block 13a and 14a do not constitute installation certification. In all cases the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.					

SERVICEABLE TAG

Part Number: 200 SGL 119 Q-2	Qty.: 1 EA
Serial Number: 2288 XL	Receipt Date: 10/07/2023
Order Number: 6206A17	Vendor / Approved Shop: PRECISION
Mfg. Date: 06/04/2023	Shelf Life Expiry Date: N/A
TSN: NSN	TSO: N/A
Remarks: GOOD	Store Inspector: RYNALDI
	Main Store: AEROPOLIS
Condition: OH	

Description: STARTER GENERATOR		
☐ Form 8130-4 For Class I Product	☒ DAAG From 21-18 For Class II/III Product	☐ C of C For Class II Product Only
The Part Identified has been:		
☐ Inspected only	☐ Repaired	☒ New
☐ Other		
CERTIFICATE OF RELEASE TO SERVICE		
I hereby certify that the work recorded above have been carried out in accordance with the requirements of the Indonesia Civil Aviation Safety Regulations applicable thereto and is airworthy		
Sign/Stamp	Authority	Date:
	 INSPECTOR	12/07/2023

1. Approving Competent Authority/Country:  Australian Government Civil Aviation Safety Authority		2. AUTHORISED RELEASE CERTIFICATE CASA FORM 1			3. Form Tracking No. 6206417	
4. Organisation Name and Address Precision Aviation Group Australia, PTY, LTD Unit 1, Lot 5, 457-459 Tufnell Rd, Banyo, QLD 4014					5. Work Order/Contractor/Invoice No. 6206417	
6. Item	7. Description	8. Part Number	9. Quantity	10. Serial/Batch No.	11. Status/Work	
1	Starter Generator	200SGL119Q-2	1	2288XL	Overhauled	
12. Remarks: Starter Generator overhauled and tested serviceable I.A.W APC CMM TM105A Rev 12 TSO: 0.00						
COPY SESUAI ASLI						
RELEASED UNDER THE PROVISIONS OF THE TA-M BETWEEN JCAB AND CASA						
13a. Certifies that the items listed above were manufactured in conformity to: ☐ Approved design data and in a condition for safe operation; or ☐ Non-approved design data specified in Block 12.			14a. ☒ Division 42.H.4 of CASR 1998 - Certificate of Release to Service (CASR Part 145 AMD) ☐ Regulation 42WA of CAR 1988 - Return to Service (for Part 4A maintenance under CAR 1988) ☐ Other regulations specified in Block 12 Certifies that unless otherwise specified in Block 12, the work identified in Block 11 and described in Block 12 was carried out in accordance with Civil Aviation Safety Regulations, 1988 & 1998 and in respect to that work, the items are approved for return to service.			
13b. Authorised Signature:		13c. CASA Approval No:		14b. Authorised Signature:		14c. CASA Certificate No:
				 PAI-A008 PAG-AUST		1-11RETK
13d. Name (printed or typed)		13e. Date: (dd/mm/yyyy)		14d. Name (printed or typed)		14e. Date: (dd/mm/yyyy)
				Jake Martin		06 / Apr / 2023
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 works in accordance with the national regulations of a National Aviation Authority (NAA) different than the NAA of the country specified in Block 1 it is essential that the user/installer ensures that his/her NAA accepts parts, components, assemblies from the NAA of the country specified in Block 1. Statements in Block 13a and 14a do not constitute installation certification. In all cases the aircraft maintenance record must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.						



APPLICATION AND APPROVAL FORM SHORT TERM ESCALATION AND DEFERRED RECTIFICATION INTERVAL (D76)

Form: SCA/MTC/007

Applicant No.	: 003/STE/TM/VI/2023	Date	: 14 Jun 2023
Aircraft Type	: C208B	Aircraft Registration	: PK-SNS
Component / Inspection / Technical Directive / Work Requiring Escalation: Starter Generator Overhaul / Replacement			
Part Name / Subject	: Starter Generator	Position	: TRK
Part No. / Models	: 200SGL119Q2	TSN/TSO	: 1965:37 Hrs
Serial No.	: S00594	CSN/CSO	: - Ldg
Total Time	: 1965:37 Hrs	Approved TBO	: 2000 Hours
Escalation	: I / 44	Approved Deferment Interval	: 100 Hours
		Due at	: 2100 FH
Escalation Required: 100 Hours Due at 2100 FH			
Reason for Escalation: Delay for shipment			
Special Action / Attention / Instruction Incorporated: N/A			
Enclosed:		 Hani Escalation Requestor: Name & Sign	
APPROVAL NO. 003 / PK-SNS / STE / SCA/VI/ 2023			
Remark:			
I hereby certify that aircraft / component / part bearing this escalation has been inspected and safe for flight			
Date:	Preparation by:	Reviewed & Approved by:	Escalation II - Approved by
14 Jun 2023	 Istiono Technical Manager	 Yantuar Chief Inspector	N/A PAI / DGCA Inspector
ESCALATION CLOSING - Close / Accomplishment Date : 17 July 2023 - At Aircraft Total Time : 6955:26 AF HOURS - Short Brief / Explanation of Closure : STE CLOSED CARRIED OUT  KADER AGUS JULIARTYA (Name & Sign)			

Rev. 00, August 2020

Form: SCA/MTC/007

Rev. 00, Aug 2020