



US Department  
of Transportation  
Federal Aviation  
Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved  
OMB No. 2120-0020  
2/28/2011

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>N2056X</b>	Serial No. <b>18256156</b>	
	Make <b>Cessna</b>	Model <b>182H</b>	Series
<b>2. Owner</b>	Name (As shown on registration certificate) <b>Aircraft &amp; Aviation Professionals LLC</b>	Address (As shown on registration certificate) Address <b>647 E Chicago</b>	
		City <b>Coldwater</b> State <b>MI</b>	Zip <b>49036</b> Country <b>USA</b>

### 3. For FAA Use Only

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

### 6. Conformity Statement

A. Agency's Name and Address		B. Kind of Agency	
Name <b>Premier Avionics, LLC</b>		U. S. Certificated Mechanic	
Address <b>4424 Altitude Drive</b>		Foreign Certificated Mechanic	
City <b>Fort Wayne</b> State <b>IN</b>		<input checked="" type="checkbox"/> Certificated Repair Station	
Zip <b>46809</b> Country <b>USA</b>		Certificated Maintenance Organization	
		<b>7PMR634B</b>	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <b>2-26-21</b>
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### 7. Approval for Return to Service

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>7PMR634B</b>	Signature/Date of Authorized Individual <b>2-26-21</b>
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**NOTICE**

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

N2056X

2/26/21

Nationality and Registration Mark

Date

Removed the following components: AT-150 Transponder and IN-514 Indicator.

Installed the following components: GNX375 GPS/Transponder, and GA-35 GPS Antenna. The GNX375 was installed in accordance with manufacturer's installation manual; PN: 190-02207-A4, Revision 7, dated February 1, 2020. The GNX375 was installed per STC# SA02636SE. The GNX375 was interfaced to the existing GI-106B Nav Indicator previously installed. The above mentioned system was ramp checked in accordance with manufacturer installation manual listed above and was found to operate within manufacturer's performance specifications. No interference was found between the installed system and the existing systems in the aircraft. Supplementary weight and balance data was updated to reflect this change. An electrical load analysis was done and found that the load on the electrical system was negligible with this installation project.

Instructions for normal continued airworthiness are contained on GNX375 addendum attached to your 337 form. Customer was provided with FAA approved, GNX375 AFMS.

-- end --

Additional Sheets Are Attached

# SUPPLEMENTAL TYPE CERTIFICATE SA02821CH

## FAA APPROVED AIRPLANE FLIGHT MANUAL SUPPLEMENT FOR *Cessna Aircraft Models* **180, 182, 185, 206, 207 & 210** *Series Aircraft*

**Aircraft Model:** CESSNA 182H

**Aircraft Serial Number:** 1826156

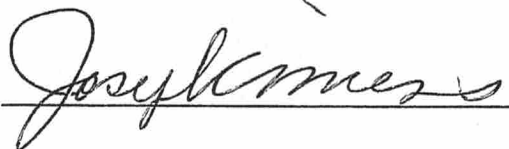
**Registration Number:** N2056X

### 1. General Section

This supplement must be attached to the FAA approved Flight Manual when the airplane is modified by installation of Hartzell Propeller metal propellers (P)HC-()3YF-1RF/F8068(B,K)(-2) or (P)HC-()3YF-1RF/F7693DF(B,K)(+2) constant speed propeller.

The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this supplement, consult the FAA approved Airplane Flight Manual.

FAA APPROVED:



Date:

JUL 06 2009

**Hartzell Propeller Inc**  
One Propeller Place  
Piqua, OH 45356

Report:	H0801-3
Revision:	A
Date:	7/6/09

# **INSTALLATION INSTRUCTIONS**

## **SUPPLEMENTAL TYPE CERTIFICATE**

### **SA02821CH**

### ***CESSNA AIRCRAFT MODELS***

### ***180, 182, 185, 206, 207 & 210 SERIES***

## **INSALLATION OF HARTZELL**

## **PROPELLERS**

**(P)HC-()3YF-1RF/F8068(B,K)**  
**(P)HC-()3YF-1RF/F7693DF(B,K)**

FAA Approved: \_\_\_\_\_

Date: \_\_\_\_\_

FAA APPROVED  
MAR 27 2010  
CIVIL AIRCRAFT  
CERTIFICATION OFFICE  
CLEVELAND, OH



US Department of Transportation  
Federal Aviation Administration

## MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

OMB No. 2120-0020  
Exp: 8/31/2014

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

<b>1. Aircraft</b>	Nationality and Registration Mark <b>N2056X</b>	Serial No. <b>18256156</b>	
	Make <b>CESSNA</b>	Model <b>182H</b>	Series <b>100</b>
<b>2. Owner</b>	Name (As shown on registration certificate) <b>JOE BRUM</b>		Address (As shown on registration certificate)
			Address <b>2291 BENITO DR.</b>
			City <b>CAMARILLO</b> State <b>CA.</b>
			Zip <b>93010</b> Country <b>USA</b>

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input type="checkbox"/>	POWERPLANT			
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>		<b>B. Kind of Agency</b>	
Name <b>BRETT E. LEE</b>		<input checked="" type="checkbox"/> U. S. Certificated Mechanic	
Address <b>206 LAREDO LN.</b>		<input type="checkbox"/> Foreign Certificated Mechanic	C. Certificate No.
City <b>OJAI</b> State <b>CA.</b>		<input type="checkbox"/> Certificated Repair Station	<b>550856335</b>
Zip <b>93023</b> Country <b>USA</b>		<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual <i>04/11/2014 B. E. Lee</i>
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**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  Approved  Rejected

<b>BY</b>	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee	Repair Station	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>550856335</b>	Signature/Date of Authorized Individual <i>04/11/2014 B. E. Lee</i>
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

N2056X

04/11/2014

Nationality and Registration Mark

Date

Installed Hartzell STC SA02821CH, 3 Blade Propeller Models(P)HC-( )3YF-1RF/F8068(B,K, )() and or (P)HC-( )3YF-1RF/F7693DF(B,K, )() 3 Blade metal propeller in accordance with Hartzell Propeller, Inc. Installation instructions No. H0801-3 Rev.A dated July 6, 2009, or later FAA approved revisions

Parts Removed: 2A34C66-NP, SN 733034.

Parts Installed: PHC-G3YF-1RF, SN NT133B.

New Empty Weight and Balance: Aircraft weighed and Revised Weight and Balance Sheet provided.

Customer furnished with FAA Approved Supplement for Flight Manual.

FOR CONTINUED AIRWORTHINESS:

Perform on at least an Annual basis a periodic inspection of the equipment, equipment mounting, associated hardware and related aircraft structure for integrity, security, wear, chaffing and ect.

END

Additional Sheets Are Attached

United States of America  
Department of Transportation -- Federal Aviation Administration  
**Supplemental Type Certificate**

*Number* SE03309CH

*This certificate is issued to*

Tanis Aircraft Products  
2951 100<sup>th</sup> Court NE Suite 150  
Blaine, MN 55449-5126

*certifies that the change in the type design for the following product with the limitations and conditions thereof as specified herein meets the airworthiness requirements of Part \* of the \* Regulations.*

*Original Product - Type Certificate Number:*

\*See attached FAA Approved Model List (AML)

*Make:*

\*No. SE03309CH for list of approved engine models and

*Model:*

\*applicable airworthiness regulations

*Description of Type Design Change:*

Installation of Tanis Engine Preheat Kit, p/n TSP6CYL-2927-115 for 115-volt application in accordance with Engine Preheat Kit drawing 02927-115, Revision E, dated April 12, 2019 and Tanis Instruction - Preheat Kit Installation, TNP2927 Rev. G, dated April 12, 2019 or later FAA approved revisions. or  
Installation of Tanis Engine Preheat Kit, p/n TSP6CYL-2927-230 for 230-volt application in accordance with Engine Preheat Kit, drawing 02927-230, Revision E, dated April 12, 2019 and Tanis Instruction - Preheat Kit Installation, TNP2927 Rev. G, dated April 12, 2019 or later FAA approved revisions.

*Limitations and Conditions:*

1. Compatibility of this design change with previous modifications must be determined by the installer.
2. FAA accepted, Instructions for Continued Airworthiness (ICA), TCA1000, Revision A, dated December 11, 2017, and Operating Guide TPG1000, Rev. C, dated February 6, 2014 or later FAA accepted revisions are required.
3. A copy of this certificate must be maintained as part of the permanent records for the modified engine.
4. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

*This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.*

*Date of application:* August 08, 2013

*Date issued:* May 13, 2015

*Date of issuance:* March 18, 2014

*Date amended:* June 10, 2019



*By direction of the Administrator*

*Roy E. Boffo*  
(Signature)

Roy E. Boffo  
Manager, Propulsion and Program Management Section  
Chicago ACO Branch

(Title)



**TANIS**  
AIRCRAFT PRODUCTS  
www.TanisAircraft.com

Date: Nov. 8, 2019

This letter serves as an official authorization that Tanis Aircraft Products allows the single installation of the preheat system part number: TSP6CYL-2927- 115 , serial number: 54764 per STC AML SE03309CH on one applicable engine.

This letter is also for reference to:

- TCCA acceptance of FAA-STC
- EASA-STC: 10054433

Retain a copy of this authorization for your records.

For any questions please contact Tanis Aircraft Products.

Regards,



Douglas J. Evink  
President & CEO

You can obtain an optional copy of the STC cover letter and AML on our Website:

<http://www.tanisaircraft.com/piston-preheat/tsp6cyl-2927-115.html>

or on the the FAA RGL website:

[http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/AC8C1243653814E186257CB4004EE213?OpenDocument&Highlight=tanis](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/AC8C1243653814E186257CB4004EE213?OpenDocument&Highlight=tanis)





US Department  
of Transportation  
Federal Aviation  
Administration

**MAJOR REPAIR AND ALTERATION**  
**(Airframe, Powerplant, Propeller, or Appliance)**

Form Approved  
OMB No. 2120-0020  
11/30/2007

Electronic Tracking Number

For FAA Use Only

INSTRUCTIONS: Print or type all entries. See Title 14 CFR §43.9, Part 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. §44701). Failure to report can result in a civil penalty for each such violation. (49 U.S.C. §46301(a))

1. Aircraft	Nationality and Registration Mark <b>USA</b> <b>N2056X</b>	Serial No. <b>18256156</b>
	Make <b>Cessna</b>	Model                      Series <b>182H</b>
2. Owner	Name (As shown on registration certificate) <b>Eagle Air Inc</b>	Address (As shown on registration certificate) <b>24226 Lone Pine Road</b>
		City <b>Hinckley</b> State <b>MN</b>
		Zip <b>55037</b> Country <b>USA</b>

**3. For FAA Use Only**

4. Type		5. Unit Identification			
Repair	Alteration	Unit	Make	Model	Serial No.
<input type="checkbox"/>	<input type="checkbox"/>	AIRFRAME	_____	(As described in Item 1 above)	_____
<input type="checkbox"/>	<input checked="" type="checkbox"/>	POWERPLANT	<b>Continental</b>	<b>O-470-R</b>	<b>131066-4</b>
<input type="checkbox"/>	<input type="checkbox"/>	PROPELLER			
<input type="checkbox"/>	<input type="checkbox"/>	APPLIANCE	Type		
			Manufacturer		

**6. Conformity Statement**

<b>A. Agency's Name and Address</b>		<b>B. Kind of Agency</b>	
Name	<b>NorthPoint Aviation</b>	<input type="checkbox"/> U. S. Certificated Mechanic	<input type="checkbox"/> Manufacturer
Address	<b>16384 Airport Road, Suite 8</b>	<input type="checkbox"/> Foreign Certificated Mechanic	<b>C. Certificate No.</b>
City	<b>Brainerd</b> State <b>MN</b>	<input checked="" type="checkbox"/> Certificated Repair Station	<b>6DVR982C</b>
Zip	<b>56401</b> Country <b>USA</b>	<input type="checkbox"/> Certificated Maintenance Organization	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 5 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Extended range fuel per 14 CFR Part 43 App. B <input type="checkbox"/>	Signature/Date of Authorized Individual December 12, 2019      Adam Kainulainen
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**7. Approval for Return to Service**

Pursuant to the authority given persons specified below, the unit identified in item 5 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is       Approved       Rejected

BY	FAA Fit. Standards Inspector	Manufacturer	Maintenance Organization	Persons Approved by Canadian Department of Transport
	FAA Designee <input checked="" type="checkbox"/>	Repair Station	Inspection Authorization	Other (Specify)

Certificate or Designation No. <b>3705623</b>	Signature/Date of Authorized Individual December 12, 2019      Adam Kainulainen
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**NOTICE**

*Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.*

**8. Description of Work Accomplished**

*(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)*

USA N2056X

12/12/2019

Nationality and Registration Mark

Date

**Install Tanis Heater**

Printed all necessary documentation for installation. Installed Tanis Kit P/N TSP6CYL-2927-115 S/N 54764 on aircraft engien IAW STC SE03309CH and TNG1000 installation guide and references. Filled out information in TCA1000. Functional test of tanis system satisfactory. Weight and balance data has been updated. Inspection and maintenance to be done IAW Tanis TCA1000 ICA.

Additional Sheets Are Attached