





1. Approving Competent Authority / Country / <i>Autorité Compétente / Pays</i> DIRECTION GENERALE DE L'AVIATION CIVILE FRANCE		2. <b>AUTHORISED RELEASE CERTIFICATE</b> <i>Certificat Libérateur Autorisé</i> <b>EASA FORM 1</b> <i>Formulaire 1 de l'EASA</i>			3. Form Tracking Number <i>N° de repère du Formulaire</i>  FO-20212270-1										
4. Organisation Name and Address : <i>Nom et Adresse de l'Organisme :</i>					5. Work Order / Contract / Invoice <i>Bon de commande / Contrat / Facture</i>  CC20212270										
BERINGER AERO 30 rue Pierre Georges Latecoere 05130 TALLARD - FRANCE Tel:+33 (0)4 92 20 16 19 Fax:+33 (0)4 92 52 69 66		6. Item / <i>Item</i>		7. Description / <i>Description</i>		8. Part No. / <i>N° de pièce</i>		9. Qty / <i>Qté</i>		10. Serial No. / <i>N° série</i>		11. Status / Work / <i>Etat / Travaux</i>			
1		Brake pad		PQT-010(A)		160		LI-20201112-10		NEW					
12. Remarks <i>Remarques</i> ETSO EASA.210.10043365 RevA/ETSO EASA.210.10056960 RevA															
13a. Certifies that the items identified above were manufactured in conformity to : <i>Certifie que les éléments identifiés ci-dessus ont été fabriqués conformément aux :</i> <input checked="" type="checkbox"/> approved design data and are in a condition for safe operation <i>données de conception approuvées et sont en état de fonctionner en toute sécurité</i> <input type="checkbox"/> non-approved design data specified in block 12 <i>données de conception non approuvées spécifiées dans la case 12</i>							14a. <input type="checkbox"/> Part 145.A.50 Release to Service <i>Approbation pour remise en service</i> <i>Selon Partie 145.A.50</i> <input type="checkbox"/> Other regulation specified in block 12 <i>Autre réglementation précisée en case 12</i>  Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part 145 and in respect to that work the items are considered ready for release to service. <i>Certifie que, sauf indication contraire spécifiée en case 12, les travaux identifiés en case 11 et décrits en case 12 ont été réalisés conformément à la partie 145 et qu'au vu de ces travaux, les pièces sont considérées prêtes à la remise en service.</i>								
13b. Authorised Signature <i>Signature autorisée</i> 				13c. Approval/Authorisation Number <i>Numéro d'agrément/d'autorisation</i>				14b. Authorised Signature <i>Signature autorisée</i>				14c. Certificate/Approval Ref. No <i>N° du Certificat/Agrément</i>			
13d. Name / <i>Nom</i>  Frédéric SALLE				13e. Date (dd mmm yyyy) / <i>Date (jj mmm aaaa)</i>  2 Nov. 2021				14d. Name / <i>Nom</i>				14e. Date (dd mmm yyyy) / <i>Date (jj mmm aaaa)</i>			
<b>USER/INSTALLER RESPONSIBILITIES / Responsabilités de l'utilisateur/Installateur</b> This certificate does not automatically constitute authority to install the item(s). <i>Ce document ne constitue pas forcément l'autorisation d'installer l'(es) item(s)</i> Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1 it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. <i>Quand l'utilisateur/installateur travaille selon les réglementations d'une autorité de navigabilité différente de l'autorité de navigabilité mentionnée dans la case 1, il est essentiel que l'utilisateur/installateur s'assure que son autorité de navigabilité accepte les items libérés par l'autorité de navigabilité mentionnée dans la case 1.</i> 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. <i>Les indications portées en cases 13a et 14a ne constituent pas une certification de montage. Dans tous les cas le dossier d'entretien de l'aéronef doit contenir une certification d'installation délivrée conformément aux règlements nationaux par l'utilisateur/installateur avant que l'aéronef puisse voler.</i>															

1. Approving Competent Authority / Country / <i>Autorité Compétente / Pays</i> DIRECTION GENERALE DE L'AVIATION CIVILE FRANCE		<b>AUTHORISED RELEASE CERTIFICATE</b> <i>Certificat Libératoire Autorisé</i> <b>EASA FORM 1</b> <i>Formulaire 1 de l'EASA</i>			3. Form Tracking Number <i>N° de repère du Formulaire</i>  <b>FO-20200825-07</b>	
4. Organisation Name and Address : <i>Nom et Adresse de l'Organisme :</i>		 <b>BERINGER AERO</b> 30 rue Pierre Georges Latecoere 05130 TALLARD - FRANCE Tel:+33 (0)4 92 20 16 19 Fax:+33 (0)4 92 52 69 66			5. Work Order / Contract / Invoice <i>Bon de commande / Contrat / Facture</i>  CC20201626	
6. Item / <i>Item</i>	7. Description / <i>Description</i>	8. Part No. / <i>N° de pièce</i>	9. Qty / <i>Qté</i>	10. Serial No. / <i>N° série</i>	11. Status / Work / <i>Etat / Travaux</i>	
1	PISTON SEAL	JNT-006N(A)	100	N/A	NEW	
12. Remarks ETSO Approved 19 Sep. 2013, ref: 10040509, Batch number: LI-20200518-02, Use before: 30 jun. 2025. <i>Remarques ETSO Approuvé le 19 Sep. 2013, réf : 10040509, Numéro de lot : LI-20200518-02, Utiliser avant : 30 jun. 2025.</i>						
13a. Certifies that the items identified above were manufactured in conformity to : <i>Certifie que les éléments identifiés ci-dessus ont été fabriqués conformément aux :</i> <input checked="" type="checkbox"/> approved design data and are in a condition for safe operation <i>données de conception approuvées et sont en état de fonctionner en toute sécurité</i> <input type="checkbox"/> non-approved design data specified in block 12 <i>données de conception non approuvées spécifiées dans la case 12</i>				14a. <input type="checkbox"/> Part 145.A.50 Release to Service <i>Approbation pour remise en service</i> <i>Selon Partie 145.A.50</i> <input type="checkbox"/> Other regulation specified in block 12 <i>Autre réglementation précisée en case 12</i>		
13b. Authorised Signature <i>Signature autorisée</i> 				13c. Approval/Authorisation Number <i>Numéro d'agrément/d'autorisation</i>  <b>FR.21G.0220</b>		
13d. Name / <i>Nom</i>  M. Frederic SALLE				13e. Date (dd mmm yyyy) / <i>Date (jj mmm aaaa)</i>  25 Aug. 2020		
13d. Name / <i>Nom</i>				14b. Authorised Signature <i>Signature autorisée</i>		
13d. Name / <i>Nom</i>				14c. Certificate/Approval Ref. No <i>N° du Certificat/Agrément</i>		
13d. Name / <i>Nom</i>				14d. Name / <i>Nom</i>		
13d. Name / <i>Nom</i>				14e. Date (dd mmm yyyy) / <i>Date (jj mmm aaaa)</i>		
<p><b>USER/INSTALLER RESPONSIBILITIES / Responsabilités de l'utilisateur/installateur</b> This certificate does not automatically constitute authority to install the item(s). <i>Ce document ne constitue pas forcément l'autorisation d'installer l'(es) item(s)</i></p> <p>Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1 it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. <i>Quand l'utilisateur/installateur travaille selon les réglementations d'une autorité de navigabilité différente de l'autorité de navigabilité mentionnée dans la case 1, il est essentiel que l'utilisateur/installateur s'assure que son autorité de navigabilité accepte les items libérés par l'autorité de navigabilité mentionnée dans la case 1.</i></p> <p>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. <i>Les indications portées en cases 13a et 14a ne constituent pas une certification de montage. Dans tous les cas le dossier d'entretien de l'aéronef doit contenir une certification d'installation émise en conformité avec les règlements nationaux par l'utilisateur/installateur avant que l'aéronef puisse voler.</i></p>						

# Aircraft Engine Test Verification

This document verifies that the engine model listed below has satisfactorily completed all testing listed below in accordance with CM standard engine testing specifications as approved by the FAA.

Engine Model TSIO550K1B

Engine Serial Number 1031163

## Testing Completed

Standard Acceptance Test:

Date of Completion 9/1/2015 Test Operator (31645)



**Continental Motors, Inc.**

# HARTZELL PROPELLER INC

Item Number: J3F90550

Date: 9/8/2015

INSPECTION

Work Order #: M405330

Model Number PHC-J3Y1F-1N/N7605CB											
Ass'y Ser No. NJ1185B		Hydr Unit No. NA		Bulkhead No. NA			Valve No. NA				
Blade 1: B1308		Blade 2: B1309		Blade 3: B1310			Blade 4:		Blade 5:	Blade 6:	
Clamp 1:		Clamp 2:		Clamp 3:			Clamp 4:		Clamp 5:		
Reverse NA	Start Lock NA	Low Pitch 12.2	High Pitch 35.0	Feather NA	Position	Orient.	Qty:Al	St	Scrw	A-2424-1	Washer
Ref Radius (inches) for angles: 30					1	T	0	0	2	0	0
					3	L	1	0	0	0	0
Comments: Deice Kit: NA											
Packing Certified By:					Date:						
Inspected By: MIKEH											

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.  
The propeller covered by this certificate has passed a functional test as required by 14 CFR Part 21.137(e)(2).

# HARTZELL PROPELLER INC

Item Number: J3F90550

Date: 9/8/2015

INSPECTION

Work Order #: M405330

Model Number PHC-J3Y1F-1N/N7605CB											
Ass'y Ser No. NJ1185B		Hydr Unit No. NA		Bulkhead No. NA			Valve No. NA				
Blade 1: B1308		Blade 2: B1309		Blade 3: B1310			Blade 4:		Blade 5:	Blade 6:	
Clamp 1:		Clamp 2:		Clamp 3:			Clamp 4:		Clamp 5:		
Reverse NA	Start Lock NA	Low Pitch 12.2	High Pitch 35.0	Feather NA	Position	Orient.	Qty:Al	St	Scrw	A-2424-1	Washer
Ref Radius (inches) for angles: 30					1	T	0	0	2	0	0
					3	L	1	0	0	0	0
Comments: Deice Kit: NA											
Packing Certified By:					Date:						
Inspected By: MIKEH											

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.  
The propeller covered by this certificate has passed a functional test as required by 14 CFR Part 21.137(e)(2).

# HARTZELL PROPELLER INC

Item Number: J3F90550

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INSPECTION

Work Order #: M405330

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Ass'y Ser No. NJ1185B		Hydr Unit No. NA		Bulkhead No. NA			Valve No. NA				
Blade 1: B1308		Blade 2: B1309		Blade 3: B1310			Blade 4:		Blade 5:	Blade 6:	
Clamp 1:		Clamp 2:		Clamp 3:			Clamp 4:		Clamp 5:		
Reverse NA	Start Lock NA	Low Pitch 12.2	High Pitch 35.0	Feather NA	Position	Orient.	Qty:Al	St	Scrw	A-2424-1	Washer
Ref Radius (inches) for angles: 30					1	T	0	0	2	0	0
					3	L	1	0	0	0	0
Comments: Deice Kit: NA											
Packing Certified By:					Date:						
Inspected By: MIKEH											

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.  
The propeller covered by this certificate has passed a functional test as required by 14 CFR Part 21.137(e)(2).

# HARTZELL PROPELLER INC

INSPECTION

Item Number: J3F90550

Date: 9/8/2015

Work Order #: M405330

Model Number							PHC-J3Y1F-1N/N7605CB							
Ass'y Ser No. NJ1185B			Hydr Unit No. NA			Bulkhead No. NA			Valve No. NA					
Blade 1: B1308		Blade 2: B1309		Blade 3: B1310		Blade 4:		Blade 5:		Blade 6:				
Clamp 1:		Clamp 2:		Clamp 3:		Clamp 4:		Clamp 5:						
Reverse	Start Lock	Low Pitch	High Pitch	Feather	Position	Orient.	Qty: Al	St	Scrw	A-2424-1	Washer			
NA	NA	12.2	35.0	NA	1	T	0	0	2	0	0			
Ref Radius (inches) for angles: 30					3	L	1	0	0	0	0			
Comments: Deice Kit: NA														
Packing Certified By: <i>BL</i>					Date: <i>9-8-15</i>									
Inspected By: MIKEH														

The approved design data for this propeller incorporates all changes required by applicable Airworthiness Directives.  
 The propeller covered by this certificate has passed a functional test as required by 14 CFR Part 21.137(e)(2).



ALTS-3800 Computerized Test Report

P/N: ES-7024-14-845  
S/N: H-S031751  
W/O: M273500  
Description: ALT, 24V/70A, 657199

**PASS**  
3/20/2018 15:29

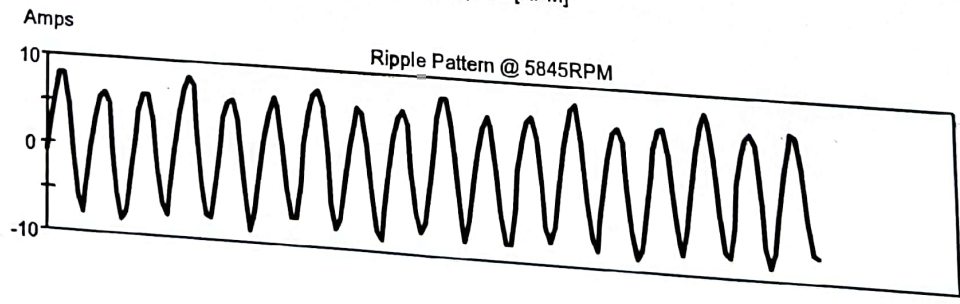
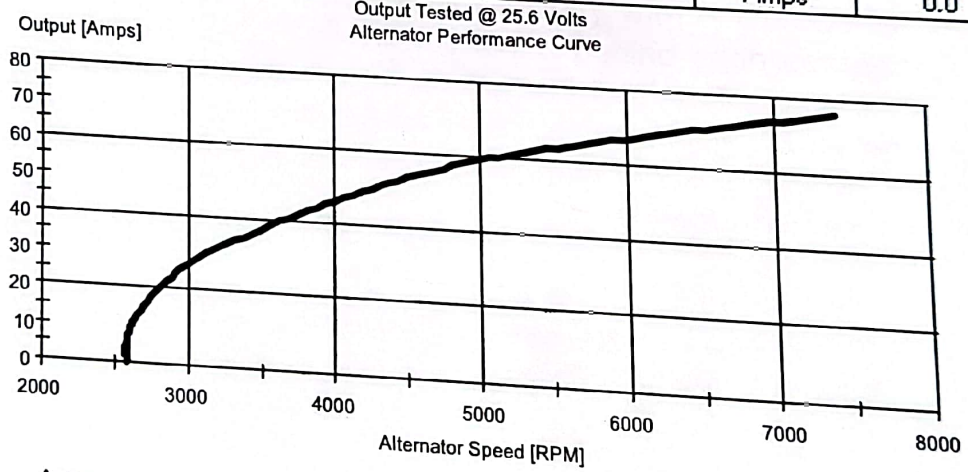
#2

This alternator has an external voltage regulator, SOME PARAMETERS DO NOT APPLY.

**Test Results Table:**

Maximum Alternator Output:	Amps	76.59
Maximum Output Power:	Watts	1923
Leakage Current	mAmps	.000027
Ripple Current	Amps	16.84
Alternator Turn On Speed	RPM	2587
Field Current	Amps	3.978

Output Current at 2500 RPM	Amps	10.60
Output Current at 3000 RPM	Amps	27.11
Output Current at 4000 RPM	Amps	48.63
Output Current at 5000 RPM	Amps	58.98
Output Current at 6000 RPM	Amps	67.68
Output Current at 7500 RPM	Amps	76.59
Output Current at 0 RPM	Amps	0.0
Output Current at 0 RPM	Amps	0.0



ALTS-3800 Computerized Test Report



P/N: ES-10024-845  
 S/N: H-Q110629  
 W/O: M914650  
 Description: ALT, 24V/100A, 656802

**PASS**  
 11/14/2016 13:4

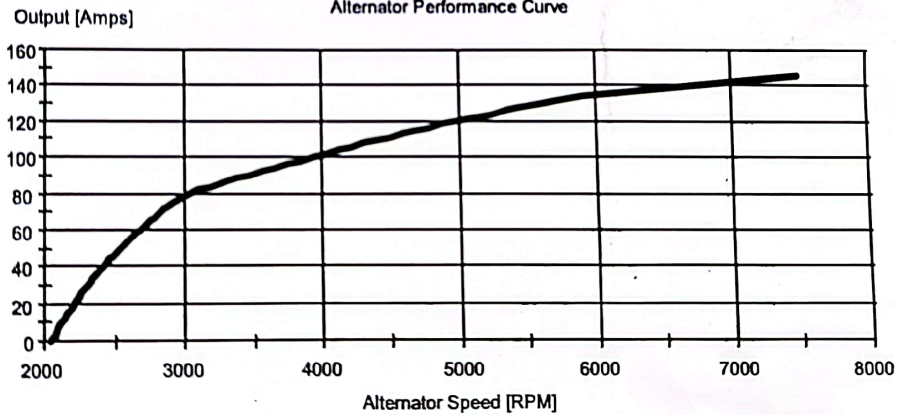
This alternator has an external voltage regulator, SOME PARAMETERS DO NOT APPLY.

**Test Results Table:**

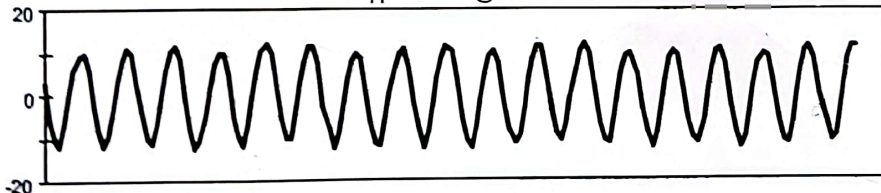
Maximum Alternator Output:	Amps	146.3
Maximum Output Power:	Watts	3730
Leakage Current	mAmps	0.0
Ripple Current	Amps	24.45
Alternator Turn On Speed	RPM	2054
Field Current	Amps	3.436

Output Current at 2400 RPM	Amps	47.92
Output Current at 3000 RPM	Amps	79.05
Output Current at 4500 RPM	Amps	115.3
Output Current at 6000 RPM	Amps	135.2
Output Current at 7500 RPM	Amps	146.3
Output Current at 7500 RPM	Amps	0.0
Output Current at 0 RPM	Amps	0.0
Output Current at 0 RPM	Amps	0.0

Output Tested @ 25.6 Volts  
 Alternator Performance Curve



Amps  
 Ripple Pattern @ 4418RPM



1. Approving Civil Aviation Authority/Country:  
FAA/UNITED STATES

2. **Authorized Release Certificate**  
FAA Form 8130-3, Airworthiness Approval Tag

3. Form Tracking Number:  
791106400600-006

4. Organization Name And Address:  
GOODYEAR TIRE & RUBBER CO.  
100 BUSINESS CENTER DRIVE  
STOCKBRIDGE, GA 30281

GOODYEAR TIRE & RUBBER CO.  
1901 GOODYEAR BLVD  
DANVILLE, VA 24541 (PT2265CE)

5. Work Order/Contract/Invoice Number:  
791106400600

6. Item:	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	15X6.0-6	156E06-1	12	SEE BLOCK 12 - REMARKS	NEW

12. Remarks: TSOC62D AIRWORTHINESS APPROVAL  
90282279 90282295 90282296 90282300 90292172 90302108 90302112 90302119 90302125 90302129 90302162 90302171

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 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:  
*Paul Bryant*

13d. Name (Typed or Printed):  
PAUL BRYANT

13c. Approval/Authorization No.:  
PT2265CE

13e. Date (dd/mmm/yyyy):  
12/FEB/2019

14b. Authorized Signature: [Signature]

14c. Approval/Certificate No.: [Number]

14d. Name (Typed or Printed): [Name]

14e. Date (dd/mmm/yyyy): [Date]

**User/Installer Responsibilities**

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.  
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 aircraft engine(s)/propeller(s)/article(s) 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.



1. Approving Civil Aviation Authority/Country:

FAA/United States

# AUTHORIZED RELEASE CERTIFICATE

FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG

3. Form Tracking Number:

492397

4. Organization Name and Address

Continental Motors, Inc. 2039 Broad Street, Mobile, Alabama 36615

PC #508

5. Work Order/Contract/Invoice Number:

563664

Date:

0000219577

6. Item:	7. Description	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status/Work:
1	ALTERNATOR ASSEMBLY - 24V,	656802	20	See Block 12	NEW

12. Remarks:

AIRWORTHINESS APPROVAL

Serial/Batch Number(s):

Serial	Description	Serial	Description	Serial	Description
H-Q091077	ALTERNATOR AS:	H-Q110624	ALTERNATOR AS:		
H-Q110662	ALTERNATOR AS:	H-Q110664	ALTERNATOR AS:		
H-Q110656	ALTERNATOR AS:	H-Q110672	ALTERNATOR AS:		
H-Q110663	ALTERNATOR AS:	H-Q110655	ALTERNATOR AS:		
H-Q110659	ALTERNATOR AS:	H-Q110625	ALTERNATOR AS:		
H-Q110629	ALTERNATOR AS:	H-Q110673	ALTERNATOR AS:		
H-Q110660	ALTERNATOR AS:	H-Q110626	ALTERNATOR AS:		
H-Q110658	ALTERNATOR AS:	H-Q110665	ALTERNATOR AS:		
H-Q110668	ALTERNATOR AS:	H-Q110627	ALTERNATOR AS:		
H-Q110657	ALTERNATOR AS:	H-Q110016	ALTERNATOR AS:		

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.

13b. Authorized Signature

13c. Approval/Authorization No.:

348552003

13d. Name (Typed or Printed):

Thomas Wells

13e. Date (dd/mm/yyyy):

08/Dec/2016

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 the 14 Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

14b. Authorized Signature

14c. Approval/Certificate No.:

14d. Name (Typed or Printed):

14e. Date (dd/mm/yyyy):

## User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article. 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 aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country. This is an installation certification issued in accordance with the

KALA HARL FLYERS  
Attn: STEPHAN HABERMEYER  
63 WEST CLIFF RD

Aircraft: SR22  
S/N: 1169  
Tail No.: N741KF

Date: 12/29/2015  
Engine S/N: 1031163  
Engine Model: CONT. T550

WESTON MA 02493  
United States

Values in (parenthesis) below your results are average values from all our analysis data for the same engine model with similar engine hours and oil hours. See [www.avlab.com/explain](http://www.avlab.com/explain) for detailed explanation of the statistical analysis used with your laboratory results.

CURRENT SAMPLE		SAMPLE APPEARS NORMAL. Send next sample at normal interval.											Normal	Elevated	High	
<b>Sample Date:</b> 12/11/2015 <b>Analysis Date:</b> 12/24/2015 <b>Sample Number:</b> P57 <b>Cylinder Type:</b> steel  <b>TSN/TSO:</b> 44.8 <b>Oil Hours:</b> 20.6 <b>Filter Hours:</b> 20.6 <b>Oil Added:</b> <b>Filter Wt. (mgs):</b> <b>Flashpoint(deg. F):</b> <b>H2O (ppm):</b> <b>Total Acid No.:</b>		<b>*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***</b>														
		Iron	Copper	Nickel	Chromium	Silver	Magnesium	Aluminum	Lead	Silicon	Titanium	Tin	Moly.			
		56.9 (N/A)	24.1 (N/A)	10.0 (N/A)	24.6 (N/A)	N/A	N/A	4.3 (N/A)	3630 (N/A)	9.3 (N/A)	N/A	< 0.1 (N/A)	N/A			
		<b>*** FILTER ANALYSIS RESULTS ***</b>														
		<b>Material:</b>	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.				
		<b>Amount:</b>														
		<b>Type:</b>														
		<b>Form:</b>														
<b>Comments:</b> ALL OIL VALUES SEEM FINE FOR THE ENGINE BREAK-IN CYCLE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE.																
PREVIOUS SAMPLE 1		SAMPLE APPEARS NORMAL. Send next sample at normal interval.											Normal	Elevated	High	
<b>Sample Date:</b> 11/11/2015 <b>Analysis Date:</b> 12/1/2015 <b>Sample Number:</b> P12 <b>Cylinder Type:</b> steel  <b>TSN/TSO:</b> 24.2 <b>Oil Hours:</b> unknown <b>Filter Hours:</b> 24.2 <b>Oil Added:</b> 2 <b>Filter Wt. (mgs):</b> <b>Flashpoint(deg. F):</b> <b>H2O (ppm):</b> <b>Total Acid No.:</b>		<b>*** OIL ANALYSIS RESULTS IN PARTS PER MILLION ***</b>														
		Iron	Copper	Nickel	Chromium	Silver	Magnesium	Aluminum	Lead	Silicon	Titanium	Tin	Moly.			
		54.9 (N/A)	46.9 (N/A)	7.7 (N/A)	24.6 (N/A)	N/A	N/A	4.4 (N/A)	2877 (N/A)	14.9 (N/A)	N/A	0.5 (N/A)	N/A			
		<b>*** FILTER ANALYSIS RESULTS ***</b>														
		<b>Material:</b>	Stainless Steel	Carbon Steel	Alloy Steel	Bearing Alloy	Copper	Silver	Magn.	Alum.	Grit	Misc.				
		<b>Amount:</b>														
		<b>Type:</b>														
		<b>Form:</b>														
<b>Comments:</b> NOTE FIRST SAMPLE SEEN ALL OIL VALUES SEEM FINE FOR THE ENGINE BREAK-IN CYCLE. WE WILL CONTINUE TO MONITOR THIS ENGINE WITH YOUR NEXT SAMPLE																

FIELD REPAIR / ALTERATION

CIRRUS DESIGN CORPORATION  
4515 Taylor Circle, Duluth, MN 55811 (218)-788-3185

<b>AUTHOR:</b>	<b>MATTHEW STEERE</b>	<b>CHANGE CLASS:</b>	<b>MINOR</b>	<b>REPAIR #</b>	<b>FRA00012098</b>
<b>NAME:</b>	<b>FIREWALL BULKHEAD DAMAGE</b>	<b>REASONS AND REMARKS:</b>		<b>MODELS AFFECTED</b>	<b>ASN#(S) IMPACTED</b>
<b>DESCRIPTION:</b>	<b>DAMAGE TO FIREWALL BULKHEAD AT BEVEL</b>	THIS REPAIR ADDRESSES IMPACT DAMAGE TO THE FIREWALL BULKHEAD.		<b>SR22T</b>	<b>1169</b>
<b>DOCUMENT TYPE:</b>	<b>FIELD REPAIR</b>	REFERENCE FSR SR2X-2864		<b>n/a</b>	
				<b>n/a</b>	

**NOTICE:**

THE REPAIRS HEREIN ARE PROVIDED SPECIFIC TO DAMAGE REPORTED TO CIRRUS AIRCRAFT. OTHER DAMAGE MAY BE PRESENT AND IT IS THE RESPONSIBILITY OF THE MAINTENANCE PERSONNEL OR ORGANIZATION TO ASSESS ANY ADDITIONAL DAMAGE AND REPLACE DISCREPANT PART(S). KNOWN DAMAGED PARTS WHICH CAN BE REPLACED IN ACCORDANCE WITH APPROVED METHODS SHOULD BE ADDRESSED AND MAY NOT BE ADDRESSED SPECIFICALLY IN THIS REPAIR.

**SUMMARY:**

1. GENERAL REQUIREMENTS
  - >> CAUTION: READ INSTRUCTIONS COMPLETELY AND THOROUGHLY BEFORE ATTEMPTING ACCOMPLISHMENT OF THIS REPAIR.<<
  - A. FOLLOW PRACTICES DEFINED IN DOCUMENT 13773-001, "SR22 AND SR22T AIRPLANE MAINTENANCE MANUAL" (AMM), CHAPTER 51.
  - B. AFFECTED EMM SHALL BE REMOVED PRIOR TO ACCOMPLISHMENT OF THIS REPAIR AND REPLACED AFTERWARDS PER AMM 51-20.
  - C. TAKE EXTREME CARE TO PREVENT ADDITIONAL DAMAGE TO THE AIRCRAFT STRUCTURE OR SYSTEMS.
2. FIREWALL BULKHEAD REPAIR.

Viewed or Printed On: November 07, 2018 12:32PM Matthew Steere \*

\*\* CDC Document Control Field Repair/Alteration Released \*\*  
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## FIREWALL BULKHEAD REPAIR:

1. DRILL INJECTION HOLES IN ALL AREAS THAT FAIL TAP TEST.
  - A. USE DRILL BIT WITH  $\varnothing 0.098$ " (#40) DIAMETER (MAXIMUM).
  - B. USE A DRILL STOP TO ENSURE HOLE STOPS 0.030" (APPROXIMATE) THROUGH TOOLSIDE FACESHEET.
  - C. MAINTAIN A 6D MINIMUM PITCH (0.60" CENTER TO CENTER) WHERE MULTIPLE INJECTION OR VENTING HOLES ARE REQUIRED.
2. INJECT RESIN TO RESTORE STABILITY TO THE DAMAGED AREAS.
  - A. USE STRUCTURAL HIGH-TEMPERATURE RESIN REPAIR SYSTEM PER AMM 51-30: HYSOL EA 9396-A/B.
  - B. MAY ADD FILLERS PER AMM 51-30 TO HELP THICKEN RESIN AND IMPROVE VISIBILITY.
  - C. CUT SYRINGE TIP LENGTH TO THE THICKNESS OF THE LAMINATE.
  - D. INJECT RESIN BETWEEN TOOLSIDE FACESHEET AND CORE UNTIL THE RESIN STOPS FLOWING IN AN OUTWARD DIRECTION.  
\*\*NOTE: CONTINUE INJECTING RESIN UNTIL ALL OUTWARD FLOW STOPS.\*\*  
>>CAUTION: THE FORCE USED TO INJECT THE RESIN SHOULD NOT DELAMINATE OR DEFORM THE DISCREPANT AREA(S).<<
3. INITIAL CURE INJECTED RESIN PER AMM 51-20.
4. FABRICATE THREE (3) REPAIR PLYS FOR FIREWALL BULKHEAD TOOLSIDE SURFACE.
  - A. USE STRUCTURAL FABRIC PER AMM 51-30: HEXCEL 7781/F16 OR F3.
  - B. ORIENT REPAIR PLYS AS FOLLOWS (IN ORDER OF PLY APPLICATION): +45°/ 0°/-45° W.R.T. FIREWALL BEVEL (INBOARD/OUTBOARD) AS 0°.
  - C. FOR FIRST PLY, MAINTAIN 0.5" (MINIMUM) OVERLAP BEYOND DELAMINATION IN ALL DIRECTIONS UNLESS NOTED OTHERWISE.
    - i. TRIM PLY AROUND ENGINE MOUNT WASHERS.
  - D. FOR SUBSEQUENT PLYS, MAINTAIN 0.5" (MINIMUM) STAGGER BEYOND PRECEDING PLY IN ALL DIRECTIONS UNLESS NOTED OTHERWISE.
    - i. TRIM PLYS AROUND ENGINE MOUNT WASHERS.
5. PREPARE THE REPAIR AREAS FOR WET-LAY PER AMM 51-20, "REPAIR SURFACE PREPARATION".
  - A. PREPARE SURFACES SUFFICIENTLY BEYOND THE AREAS OF THE LARGEST REPAIR PLYS TO ENSURE PROPER ADHESION.
6. APPLY REPAIR PLYS TO FIREWALL BULKHEAD.
  - A. USE STRUCTURAL HIGH-TEMPERATURE RESIN SYSTEM PER AMM 51-30: HYSOL EA 9396-A/B.
7. CURE TOOLSIDE WET-LAY PER AMM 51-20.

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