



US Department  
of Transportation  
Federal Aviation  
Administration

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

Form Approved  
OMB No. 2120-0020  
For FAA Use Only  
Office Identification

**INSTRUCTIONS:** Print or type all entries. See FAR 43.9, FAR 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. 1421). Failure to report can result in civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

<b>1. Aircraft</b>	Make Cessna	Model A185F
	Serial No. 18502213	Nationality and Registration Mark N3946Q
<b>2. Owner</b>	Name (As shown on registration certificate) Paul Mennen	Address (As shown on registration certificate) 1452 Owen Sound Drive Sunnyvale CA 94087

### 3. For FAA Use Only

### 4. Unit Identification

**5. Type**

Repair	Alteration
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Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	(As described in Item 1 above)				x
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

### 6. Conformity Statement

<b>A. Agency's Name and Address</b>	<b>B. Kind of Agency</b>	<b>C. Certificate No.</b>
James D Reyner 3074 McKinley Drive Santa Clara CA 95051	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	AP184248027
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 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.

Date 12 May 2002	Signature of Authorized Individual J D Reyner
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### 7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is  APPROVED  REJECTED

BY	FAA Ft. Standards Inspector	Manufacturer	X	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 12 May 2002		Certificate or Designation No. IA184248027	Signature of Authorized Individual J D Reyner		

**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.)*

**Installed exhaust fairing P/N EP 5002-002, Batch No EF182-00180F, on lower engine cowling IAW Maple Leaf Aviation Ltd Installation Dwg No EP5004, appd. Aug 8, 2001.**

**This installation is approved for all Model 185 aircraft IAW STC SA01386NY, dtd 9/5/01.**

**Wt & Bal change: +0.7 lb @ -19.5 inches**

**END**

| Additional Sheets Are Attached

# Supplemental Type Certificate

IMPORT

Number SA01386NY

This certificate issued to

Maple Leaf Aviation Limited  
Group 520, Box 16, RR5  
Brandon, MB R7A 5Y5  
Canada

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

Original Product -- Type Certificate Number : \*

\* See attached FAA Approved Model List (AML) No. for list of approved airplane models and applicable airworthiness regulations

Make :

Model :

### Description of Type Design Change:

Installation of Fibre Glass Reinforced Plastic Nacelle Fairing, Trade Name: "Exhaust Fairing", in accordance with DOT approved Maple Leaf Installation Drawing Numbers, EP5003 (Cessna 172, 177 and 177RG aircraft) and EP 5004 (Cessna 180, 182 and 185 aircraft), dated August 8, 2001.

### Limitations and Conditions:

1. 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.
2. Compatibility of this design change with previously approved modifications must be determined by the installer.

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 : February 20, 2001

Date reissued :

Date of issuance : September 5, 2001

Date amended :



By direction of the Administrator

*Vito A. Pulcra*  
\_\_\_\_\_  
(Signature)

Vito A. Pulcra  
Manager  
New York Aircraft Certification Office

\_\_\_\_\_  
(Title)

# Installation Instructions and Drawings for: EP5002-002 Exhaust Fairing

Applicable models:

Cessna 182	Models C thru R	Weight 0.7 lbs	-19.5 inches
Cessna 180	Models C thru K	Weight 0.7 lbs	-19.5 inches
Cessna 185	All models	Weight 0.7 lbs	-19.5 inches

Revision Block		
Rev Level	Description	Date

1. The fairing is shipped as it is pulled from the mold. Trimming of the bottom and top is necessary before initial installation takes place.

2. The bottom side of the fairing has a small radius built into it so that it can be used for fitting to the engine cowling contour. Sanding of the bottom side of the radius will provide a good fit to the cowling. See *Example 1*.

3. Tape the fairing to the engine cowling allowing 1/2 inch clearance between the front edge of the fairing and the exhaust pipe. Allow 1/8" to 3/16" extra clearance between the exhaust pipe fairing on the passengers side of the aircraft, as engine torque causes the pipe to move when the engine is running. (Make sure motor mounts are in good condition). Align the fairing with the airflow.

4. Now drill holes as per sheet 2 of this drawing and install with AN hardware. Use flush screws as per *Example 2*. Shims may be required depending upon fit. Shims at the installers discretion.

5. Trimming of the top of the fairing may be necessary. Use 1/4 inch masking tape to establish cutting line. Align the trim line to the level flight attitude. See *Example 3*.

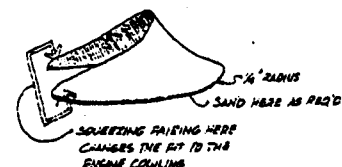
6. Remove fairing and prep for painting. Wet sand with 280 grit *Wet & Dry* paper.

Amend Weight and Balance for aircraft.

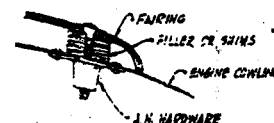
Reinstall after painting with AN hardware.

**\*The fairing is made of a special heat resistant resin and repairs with any other resin will not provide the same protection.\***

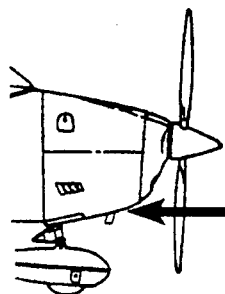
*Example 1:*



*Example 2:*



*Example 3:*



Fairing attaches to cowl around exhaust pipe at this location. 180 & 185 installation similar to 182.

	Transport Canada	Transports Canada
AIRCRAFT CERTIFICATION DIVISION		
<b>APPROVED</b>		
By <i>[Signature]</i>		
App'l No. <i>SA01-94</i>		
App'l Date <i>Aug 8, 2001</i>		
Issue No. <i>1</i>		
Issue Date <i>2001-8-8</i>		
YY - MM - DD		

EP5004P1.WPD

Maple Leaf Aviation Limited	
Installation Drawing	
Drawing Number: EP5004	Doc/Feb 14, 2001
Drawn by: Dave Wall	Page: 1 of 2
Approval Type:	Registration:
Scale: None	Revision: Original

Revision Block		
Rev Level	Description	Date

Notes:

- Fasteners:  
AN526-832 R8 Screws  
NAS 686-A08 Nuts  
MS20426-AD3 or 4 Rivits  
(as required)

Minimum number 7  
Typical spacing 5 inches  
starting 1/2 inch from  
rear and 1/2 inch  
edge spacing.

- Eligible for install  
on the Following Cessna  
Models

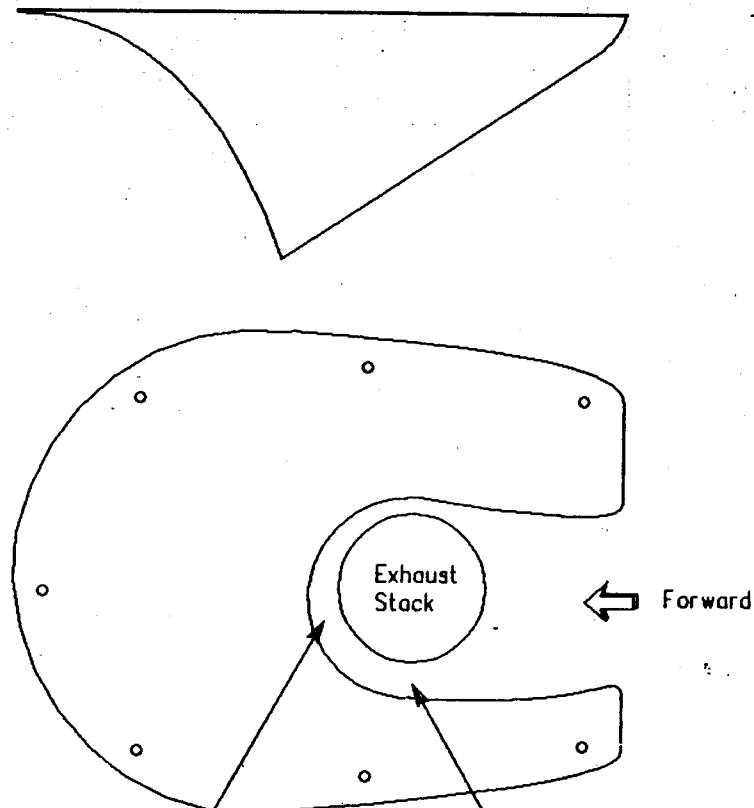
180 C thru K  
182 C thru R  
185 All models

- Wet sand with 220  
grit wet & dry sand  
paper. Prime and paint  
good quality paint system

Typical Weight: 0.7 LBS  
Typical Arm: -19.5 Inches

File: Exhaust\EP5004r1.kcf


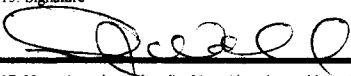
	Transport Canada	Transports Canada
<b>AIRCRAFT CERTIFICATION DIVISION</b>		
<b>APPROVED</b>		
By <u><i>[Signature]</i></u>		
Appr'l No. <u>SA01-94</u>		
Appr'l Date <u>Aug 8, 2001</u>		
Issue No. <u>1</u>		
Issue Date <u>2001-8-8</u>		
YY-MM-DD		



Exhaust to pipe clearance minimum 1/2 inch.  
Increase distance for pipe to fairing 1/8 inch  
additionally on the right hand side to account for engine torque.

Increase distance here 1/8 - 3/16  
of an inch for engine torque.

MAPLE LEAF AVIATION LTD			
Installation Drawing			
DRAWING NO	EP5004	DATE	Feb 14 2001
DRAWN BY	D. WALL	PAGE	2 of 2
AIRCRAFT TYPE		REGISTRATION	
SCALE	NONE	REVISION	ORIGINAL

1. Country - Pays <b>CANADA</b>		2.  <b>Transport Canada</b> <b>Transports Canada</b>			Form Formule <b>24-0078</b>		3. Certificate Ref. No. - N de reference du bon <b>FPD2002-0288</b>	
<b>AUTHORIZED RELEASE CERTIFICATE - BON DE SORTIE AUTORISE</b>								
4. Organization - Organisme <b>Maple Leaf Aviation Limited Group 520, Box 16, RR5 Brandon, MB R7A 5Y5</b>						5. Work Order/Contract/Invoice - Bon de travail/contrat/fracture <b>IN01076</b>		
6. Item <b>1</b>	7. Description <b>182 Exhaust Fairing</b>	8. Part No. - N de piece <b>EP5002-002</b>	9. Eligibility - Admissibilite * <b>SA01386NY</b>	10. Qty - Qte <b>1</b>	11. Serial/Batch No. - N de serie/lot <b>EF182-00180F</b>	12. Status/Work - Etat/travail <b>Manufactured</b>		
13. Remarks - Remarques <b>182 Exhaust Fairing      STC# SA01386NY</b>								
14. New Parts - Pieces neuves:  Certifies that the part(s) identified above except as otherwise specified in block 13 was (were) manufactured/inspected in accordance with the applicable design data and with the airworthiness regulations of the stated country.				19. Used Parts - Pieces usagees: <b>AWM 571-10 - Maintenance Release</b> <b>M de N 571.10 - Certification apres maintenance</b>  Certifies that the work specified above except as otherwise specified in block 13 was carried out in accordance with Chapter 571 of the Airworthiness Manual, and in respect of that work, the part(s) is (are) considered ready for release to service.				
Ceci certifie que la (les) piece(s) identifiee(s) ci-haut, sauf si autrement specifie a la case 13, a (ont) ete construite(s)/inspectee(s) conformement aux donnees de conception pertinentes et aux reglements de navigabilite du pays indique.				Ceci certifie que le travail specifie ci-haut, sauf si autrement specifie a la case 13, a ete effectue conformement aux exigences du chapitre 571 du Manuel de navigabilite, et que, ayant rapport a ce travail, la (les) piece(s) est (sont) considere(e)s prete(s) pour la remise en service.				
15. Signature 		16. Approval Ref. No. - Ref. d'autorisation <b>M156196 AMO 168-91</b>			20. Signature		21. Approval Ref. No. - Ref. d'autorisation	
17. Name (typed or printed) - Nom (dactylographie ou imprime) <b>David J. Wall</b>		18. Date <b>April 8, 2002</b>			22. Name (typed or printed) - Nom (dactylographie ou imprime)		23. Date	

\*Installer must cross-check eligibility with applicable technical data - Le monteur doit verifier l'admissibilite avec les donnees techniques pertinentes.

#### 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 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 14 and 19 do not constitute installation certification. In all cases the aircraft technical maintenance record must contain a maintenance installation certification issued in accordance with the national regulation by the user/installer before the aircraft may be flown.  
24-0078A (96-07)

#### RESPONSABILITES DE L'USAGER/MONTEUR

Il est important de bien comprendre que de par son existence ce document ne constitue pas forcément l'autorisation d'installer la piece/composant/ensemble.  
Lorsque l'usager/monteur(euse) travaille conformement aux reglements nationaux d'une autorite de navigabilite, autre que l'autorite de navigabilite inscrite a la case 1, il est essentiel que l'usager/monteur(euse) s'assure que son autorite de navigabilite accepte les pieces/composants/ensembles de l'autorite de navigabilite inscrite a la case 1.  
Les declarations apparaissant aux cases 14 et 19 ne constituent pas une certification de montage. En tout temps le dossier technique de l'aeronef doit contenir une certification apres maintenance emise selon les reglements nationaux, par l'usager/monteur(euse), avant que l'aeronef puisse decoller.



**WAIVER OF LIABILITY**

MAPLE LEAF AVIATION LIMITED, or any partners therein are not liable for any defects in product manufacture related to any ground or in flight hazard which may occur to persons associated with the use of the "Fancy Pants" modification.

Owners are responsible for the care and control of the modification and any drawings and instructions for installation and certification are purely intended for the proper and suggested installation technique for the kit.

It must be understood that each kit comes in an un-finished state and therefore we cannot control installation or maintenance of the fairing, therefore we must relinquish all responsibility upon shipment of said product.

  
**MAPLE LEAF AVIATION LIMITED**

**DATE** April 8, 2002

**Purchaser:** Mr. Paul Mennen  
1452 Owensound Drive  
Sunnyvale, CA  
94087

<b><u>ITEM</u></b>	<b><u>PART NO.</u></b>	<b><u>SERIAL NO.</u></b>
Exhaust Fairing	EP5002-002	EF182-00180F