

02-16-07

ISSUED TO: CHARLES H. MOUNT JR.

A/C MODEL: CESSNA 177

S/N: 17700512

N3212T

United States of America
Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate*Number* SA01669CH*This certificate issued to*

Challenger Aviation Products, Inc.
3530 Lightner Road
Vandalia, OH 45377

notifies 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 21 of the "Regulations."

Original Product: Type Certificate Number:

*See attached FAA Approved Model List (AML)

*Model: **

No. SA01669CH for list of Approved airplane models and applicable airworthiness regulations.

*Model: ***Description of Type Design Change:*

Installation of Challenger Re-usable Air Filters in accordance with Installation Instructions on AML No. SA01669CH, issued July 3, 2002, or later FAA approved revision.

Limitations and Conditions:

1. Compatibility of this design change with previously approved modifications must be determined by the installer.
2. A copy of this Certificate and FAA Approved Model List (AML) No. SA01669CH issued July 3, 2002, or later FAA approved revision, must be maintained as part of the permanent records for the modified aircraft.
3. Installer must use Challenger Air Filter Cleaning Instructions (Instructions for Continued Airworthiness) Document #4003, Revision C, dated March 9, 2004, or later FAA approved revision.
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:

Date of expiration: November 9, 2001*Date issued:* May 15, 2004*Date of issuance:* July 3, 2002*Date approved:* March 10, 2004; May 3, 2004; May 27, 2004; December 10, 2004*unterminated, suspended, revoked or a termination date*

*is otherwise
established by
the
Administrator
of the Federal
Aviation
Administration*

Signature of the Administrator

(Signature)
Thaddeus D. Krolieki, Jr.
Manager, Propulsion Branch
Chicago Aircraft Certification Office

(7102)

NOT VALID FOR USE IN THE UNITED STATES OF AMERICA. THIS CERTIFICATE IS VALID FOR USE IN THE UNITED STATES OF AMERICA. THIS CERTIFICATE IS VALID FOR USE IN THE UNITED STATES OF AMERICA. THIS CERTIFICATE IS VALID FOR USE IN THE UNITED STATES OF AMERICA.

Authorized Challenger Representative

Inv#

204798

For Questions regarding this STC please contact:
Challenger Aviation Products, Inc.
PO Box 577
Vandalia OH 45377
937-667-0510

Permission for Use of STC Document

This Supplemental Type Certificate is the property of Challenger Aviation Products, Inc. Challenger Aviation Products, Inc. authorizes the use of STC data only for the aircraft specified. Unauthorized use of the STC data is a violation of proprietary laws and is subject to legal action. Please keep the STC and installation instructions in a secure location. There will be a charge for issuing replacement documents.

CHALLENGER AIR FILTER CLEANING INSTRUCTIONS
Issue Date: August 31, 2005 Revision D, Document No. 4003

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Airworthiness limitations section is FAA approved and specifies maintenance required under sections 43.16 and 91.403 of the Federal Aviation Regulations unless alternative program has been approved.

AIRWORTHINESS LIMITATIONS

Challenger's air filter elements are enclosed in a frame or without a frame depending on the aircraft model. Challenger's air filter charging instructions must be followed carefully for maximum air filter life. The air filter must be recharged every 100 hour or 12 months, or sooner if operated in extremely dusty conditions. The air filter assembly must be replaced after 25 cleanings or sooner if any deterioration or damage is found during pre-flight, post flight or any other aircraft inspections.

Note: Air Filters exposed to in flight rain encounter must be inspected before next flight. If red oil color is missing, then clean and re-oil per these instructions.

Step 1: Remove the air filter assembly from the aircraft air box per the Aircraft Manufacturer's Instructions. **DO NOT REMOVE** the filter element from inside its frame. Remove the old sealing gasket from the filter assembly with the frame.

Step 2: Begin re-charging the Challenger Air Filters by "gently" tapping the filter assembly on a hard surface to remove any loose dust that will easily fall off the filter. Visually inspect the filter for any damage, cracks, broken wires or missing fibers. If any of these conditions are visible, the filter assembly must be scrapped and replaced with a new filter assembly.

Step 3: Begin cleaning with Challenger Re-charger Kit P/N CP-99-5050, the only FAA approved re-charge kit. Inside are two squeeze bottles, one for cleaning and one red in color for re-oiling the filter element. Remove the bottle containing cleaning fluid and thoroughly saturate the filter. Allow the filter to soak for approximately 15 minutes. **DO NOT USE ANY OTHER CLEANING FLUID**

Step 4: Flush the filter with low non-pressurized warm water starting from inside out for round filters and front to back for flat filters. After flushing the filter, gently shake the water out of the filter and allow to air dry only. **DO NOT USE ANY OTHER DRYING METHOD.**

Step 5: Remove the bottle from the Re-charger kit P/N CP-99-5050 containing oil red in color. Begin re-oiling the dry filter by applying a bead or line of red oil along the top only of each pleat of the filter. The oil will soak into the length of each pleat. It may be necessary to apply oil on filter material that has not received oil from the wicking action. The entire filter medium must be covered with red oil. **DO NOT OVER OIL.** If oil drips from the filter, it has been over oiled. Allow the filter to drain the excess oil onto a clean rag or paper towel until the red oil stops dripping. Install a new gasket on the frame surface to be mounted to the air box assembly.

Step 6: Re-Install the air filter per the Aircraft Maintenance Instructions and Challenger Installation Instruction #0402. Make sure the air filter assembly is properly seated and is mounted securely to the filter air box assembly in accordance with the Aircraft Manufacture's Specification.

NOTE: Do not use gasoline, jet fuel, or caustic cleaning solutions or shop solvents. Use only FAA approved Challenger cleaning solution in Challenger Re-charger Kit P/N CP-99-5050.

Do not use steam cleaning equipment or any other cleaning devices. When drying the filter after cleaning, let the filter dry naturally. Pressurized equipment will strip the cotton of critical microfilaments. Do not use compressed air, open flames or heating devices of any kind. When recharging the filter with oil, use only FAA approved Challenger Re-charger Oil in Re-charger Kit P/N CP-99-5050. The oil is the same oil applied at the factory during the manufacturing process.

Do not use transmission fluid, motor oil, or any other lightweight oil of any kind or any products containing petroleum products.

NOV 29 2005

CHICAGO AIRCRAFT
CERTIFICATION OFFICE
CENTRAL REGION

FAA APPROVED MODEL LIST (AML) NO. SA01669CH
CHALLENGER AVIATION PRODUCTS, INC
FOR
INSTALLATION OF CHALLENGER AIR FILTERS
Issue Date: July 3, 2003, Amended July 19, 2006.

ITEM	AIRCRAFT MAKE	AIRCRAFT MODEL	ORIGINAL TYPE CERTIFICATE NUMBER	CERTIFICATION BASIS FOR ALTERATION	INSTALLATION INSTRUCTIONS		AML AMENDMENT DATE
					NUMBER	REVISION AND DATE	
18	CESSNA	177 177A 177B	A13CE	14 CFR Part 23	0402	Rev E December 10, 2004	December 10, 2004
19	CESSNA	177RG	A10CE	14 CFR Part 23	0402	Rev E December 10, 2004	December 10, 2004
20	CESSNA	180 180A 180B 180C 180D 180E 180F 180G 180H 180J 180K	SAS	CAR 3	0402	Rev B July, 2003	July 3, 2003
21	CESSNA	182 182A 182B 182C 182D 182E 182F 182G 182H 182J 182K 182L 182M 182N 182P 182Q 182R	JA13	CAR 3	0402	Rev H November 29, 2005	November 29, 2005
22	CESSNA	T182 S/N 18208001 and up 182S S/N 1820945 and up 182T S/N 1820945 and up	JA13	CAR 3	0402	Rev H November 29, 2005	November 29, 2005



U.S. 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).

1. Aircraft	Make Cessna	Model 177
	Serial No. 17700512	Nationality and Registration Mark N3212T
2. Owner	Name (As shown on registration certificate) Charles H Mount Jr.	Address (As shown on registration certificate) 1621 Hampton Place Orange Park Fl, 32003-7284

3. For FAA Use Only

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4. Unit Identification

5. Type

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

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
Bryan M Wood Southeast Aero Services Inc. 385 Hawkeye View Lane St Augustine Fl, 32085	<input checked="" type="checkbox"/> U.S. Certificated Mechanic	254396757
	<input type="checkbox"/> Foreign Certificated Mechanic	
	<input type="checkbox"/> Certificated Repair Station	
	<input type="checkbox"/> Manufacturer	

I, **D.**, 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 2-23-07	Signature of Authorized Individual 
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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 Fit. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/>	Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station		Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 2-23-07		Certificate or Designation No. 254396757	Signature of Authorized Individual 		

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

Installed Challenger Aviation Products STC# SA01669CH re-usable air filter in accordance with installation instructions document# 0402 Rev. J, STC, Approved Model List and Instructions for Continued Airworthiness, document# 4003 Rev. D entered into Aircraft Permanent Records.

***** END *****