



AERONAUTICAL ACCESSORIES, INC.

P.O. BOX 3689 BRISTOL, TENNESSEE 37625-3689 USA
TELEPHONE: 423-538-5151 TOLL FREE: 800-251-7094
TELEFAX: 423-538-8469 E-MAIL: sales@aero-access.com
techsupport@aero-access.com

INSTALLATION INSTRUCTIONS

PASSENGER WINDOW ASSEMBLY

407-541-007/-008
407-541-015/-016
407-541-027/-028

PASSENGER WINDOW ASSEMBLY WITH SLIDE

407-541-009/-010
407-541-013/-014
407-541-029/-030

FOR

BELL HELICOPTER TEXTRON MODEL 407 HELICOPTERS

Report Number AA-96128

Revision F

October 15, 2009



RESTRICTED DISCLOSURE NOTICE

THE DRAWINGS, SPECIFICATIONS, DESCRIPTIONS, AND OTHER TECHNICAL DATA ATTACHED HERETO ARE PROPRIETARY AND CONFIDENTIAL TO AERONAUTICAL ACCESSORIES, INC., AND CONSTITUTE TRADE SECRETS FOR PURPOSES OF THE TRADE SECRET AND FREEDOM OF INFORMATION ACTS. NO DISCLOSURE TO OTHERS, EITHER IN THE UNITED STATES OR ABROAD, OR REPRODUCTION OF ANY PART OF THE INFORMATION SUPPLIED IS TO BE MADE, AND NO MANUFACTURE, SALE OR USE OF ANY INVENTION OR DISCOVERY DISCLOSED HEREIN SHALL BE MADE, EXCEPT BY WRITTEN AUTHORIZATION OF AERONAUTICAL ACCESSORIES, INC. THIS NOTICE WILL NOT OPERATE TO NULLIFY OR LIMIT RIGHTS GRANTED BY CONTRACT. THE DATA SUBJECT TO THIS RESTRICTION IS CONTAINED IN ALL SHEETS AND IS DISCLOSED TO PERSONNEL OF AERONAUTICAL ACCESSORIES, INC., FOR THE PURPOSE(S) OF INTERNAL USE AND DISTRIBUTION ONLY.

© (2009) Aeronautical Accessories, Inc.

UNPUBLISHED - ALL RIGHTS RESERVED

AERONAUTICAL ACCESSORIES, INC.

INSTALLATION INSTRUCTIONS PASSENGER WINDOW ASSEMBLY

LOG OF REVISIONS

Rev.	Date	Description	Pages	Prepared By	Approved by
-	8/12/96	Original Release	All		
A	12/09/97	Added Log of Revisions page Revised P/Ns listed on Report Added FAA approved statement	All 1 3		
B	7/28/98	Revised Torque Values	4		
C	8/14/98	Added Gray P/N's	All		
D	4/13/01	Deleted screw torque values Added screw installation "CAUTION" Revised sealant to MIL-S-8802	4 4 4		
E	4/20/07	Reformatted Document Added Medium Gray P/N's Revised sealant specification to AMS-S-8802, Type 2 Class B	All 1,9 6		
F	10/15/09	Deleted -037, -038, -039, & -040 Kits from P/L	9		

This change has been determined to be minor
in accordance with the agreement between
the FAA and AAI dated September 3, 2009

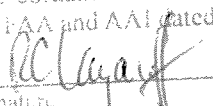

 Signature: _____ Date: 12-2-09

TABLE OF CONTENTS

<u>Identification</u>	<u>Title</u>	<u>Page</u>
1.0	Introduction	5
2.0	Installation Instructions	5
3.0	Maintenance Instructions	6

<u>Identification</u>	<u>Figures</u>	<u>Page</u>
Figure 1	Window Removal	7
Figure 2	Window Alignment	8

1.0 INTRODUCTION

These instructions provide the information necessary to install the **AERONAUTICAL ACCESSORIES, INC. PASSENGER WINDOW ASSEMBLIES AND PASSENGER WINDOW ASSEMBLIES WITH SLIDE** on Bell Helicopter Textron model 407 helicopters. All Engineering aspects of these instructions are FAA approved under STC No. SR01051AT.

2.0 INSTALLATION INSTRUCTIONS

- 2.1 Remove and retain the existing hardware attaching the window.
- 2.2 Obtain a 36 in. piece of .032 diameter safety wire. Work the safety wire between the window and the window frame. Once the safety wire is in place, it can be used as a saw to cut the adhesive tape surrounding the window (See Figure 1).
- 2.3 Remove the window and use a plastic putty knife and lacquer thinner to clean the adhesive tape and sealant off the door flange.
- 2.4 Clean the door flange to allow proper bonding of the double sided tape, (4949.75) provided, as follows:
 - a. Use a soft cloth and aliphatic naphtha or equivalent to clean the surface.
 - b. Clean the area with detergent and cool water.
 - c. Lightly abrade the surface with a fine sandpaper.
 - d. Rinse the area with cool water and towel off. Allow the area to air dry.
- 2.5 Apply the double sided tape to the door flange.

CAUTION

The double sided tape should be carefully placed as it is difficult to remove once it is adhered.

- 2.6 Without removing the outer covering on the tape, position the new window into place and insert two spacers and screws into the frame. With the window flush, use a grease pencil or equivalent to mark lines on the window across to the frame. This will allow for easy location of the window onto the tape (See Figure 2). Remove the screws and the window.
- 2.7 Remove the peel ply from the fiberglass edging surrounding the window.
- 2.8 Use a screw or bolt, (AN3XX or MS27039X1-XX) 1.5 to 2.0 inches long, inserted through four of the holes in the window to guide it to the double sided tape. Adhere the window to the tape.

AERONAUTICAL ACCESSORIES, INC.

- 2.9 Wet install the bolts, screws, washers and spacers with sealant, AMS-S-8802, Type 2 Class B. Ensure the screw heads are installed outboard with washers underneath.

CAUTION

To avoid window damage, screws are to be installed snug only (not to exceed 7 in-lbs).

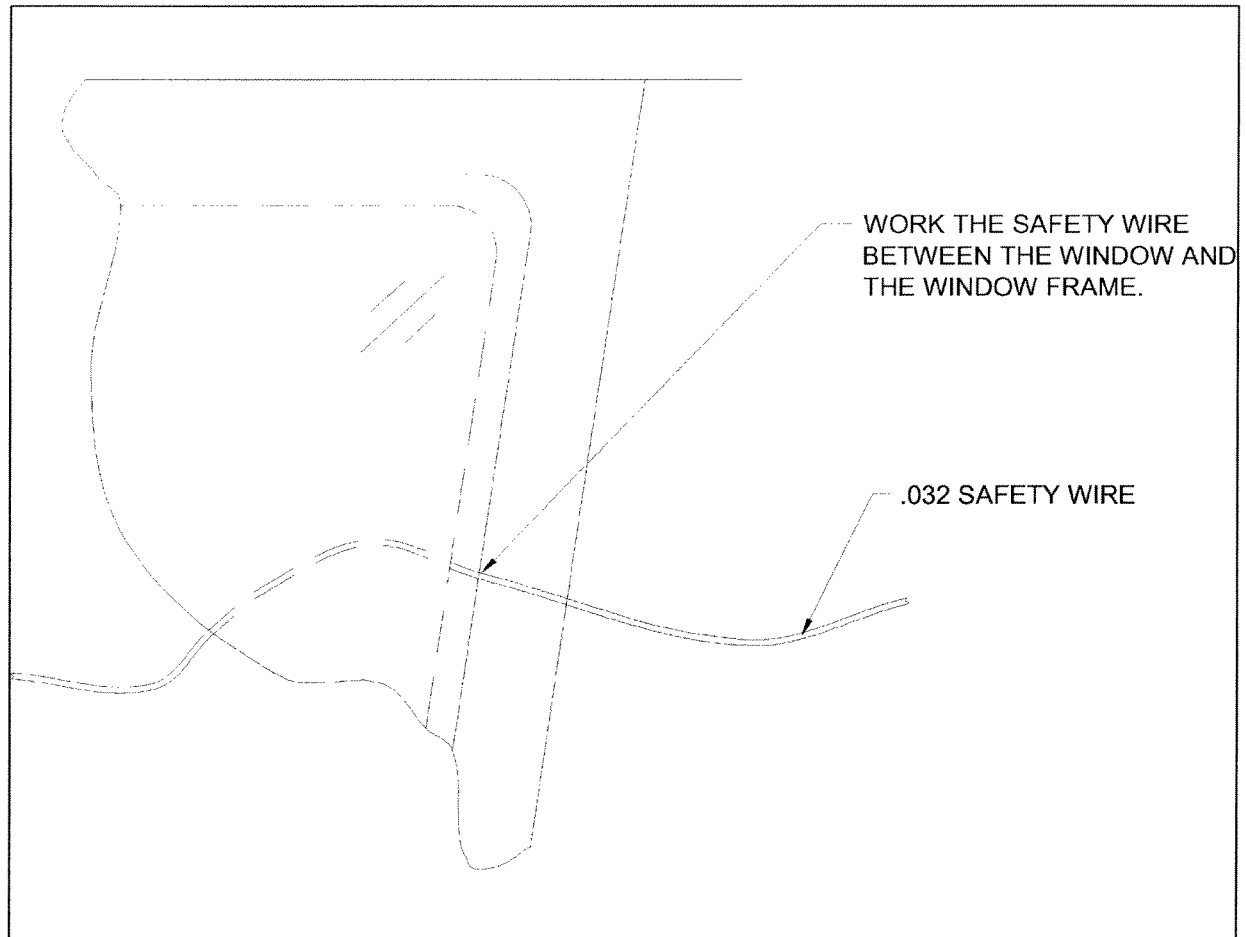
- 2.10 Fill the gap around the window with sealant, AMS-S-8802, Type 2 Class B.
- 2.11 Touch up the paint as required.

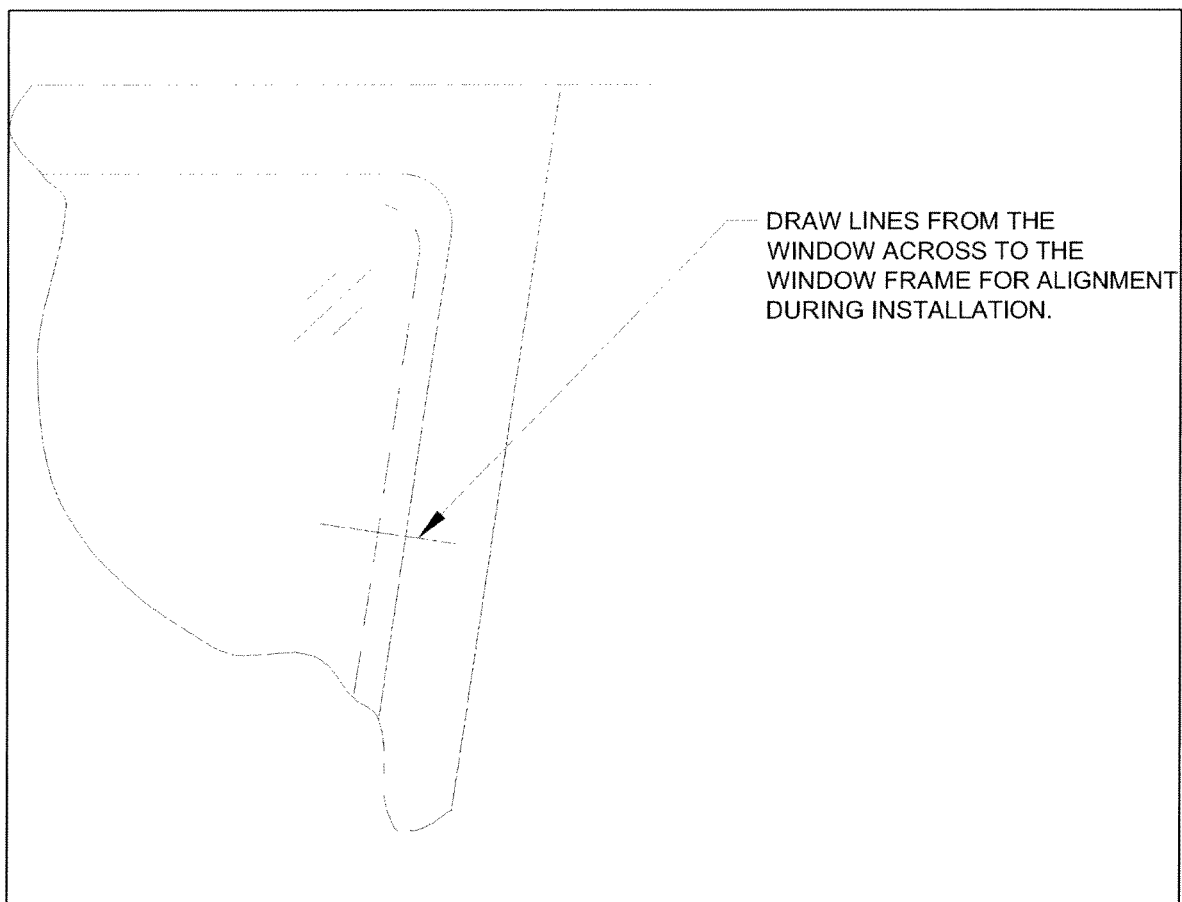
3.0 MAINTENANCE INSTRUCTIONS:

Clean the **PASSENGER WINDOW ASSEMBLIES** with mild, nonabrasive soap and clean, particulate-free water. Use your bare hand to carefully feel and dislodge dirt, salt or other contamination. Dry with a clean, damp chamois. A soft tissue may be used, providing care is taken not to continue rubbing after plastic is dry.

CAUTION

Do not use solvents such as acetone, benzene, carbon tetrachloride, fire extinguisher fluid, dry cleaning compounds, lacquer thinners, window sprays or kitchen scouring compounds on the acrylic plastic.

**FIGURE 1 Window Removal**

**FIGURE 2 Window Alignment**

INSTALLATION INSTRUCTIONS **PASSENGER WINDOW ASSEMBLY**

PARTS LIST

PASSENGER WINDOW ASSEMBLY **407-541-007/-008/-027/-028**

<u>Qty</u> <u>-007</u>	<u>Qty</u> <u>-008</u>	<u>Qty</u> <u>-027</u>	<u>Qty</u> <u>-028</u>	<u>Part Number</u>	<u>Description</u>
1				407-541-111	Passenger Window Assembly, L/H
	1			407-541-112	Passenger Window Assembly, R/H
		1		407-541-211	Passenger Window Assembly, L/H
			1	407-541-212	Passenger Window Assembly, R/H
1	1	1	1	407-541-100	Hardware Kit

PASSENGER WINDOW ASSEMBLY **407-541-015/-016**

<u>Qty</u> <u>-015</u>	<u>Qty</u> <u>-016</u>	<u>Part Number</u>	<u>Description</u>
1		407-541-311	Passenger Window Assembly, L/H
	1	407-541-312	Passenger Window Assembly, R/H
1	1	407-541-100	Hardware Kit

PASSENGER WINDOW ASSEMBLY WITH SLIDE **407-541-009/-010/-029/-030**

<u>Qty</u> <u>-009</u>	<u>Qty</u> <u>-010</u>	<u>Qty</u> <u>-029</u>	<u>Qty</u> <u>-030</u>	<u>Part Number</u>	<u>Description</u>
1				407-541-113	Passenger Window Assembly, L/H
	1			407-541-114	Passenger Window Assembly, R/H
		1		407-541-213	Passenger Window Assembly, L/H
			1	407-541-214	Passenger Window Assembly, R/H
1	1	1	1	407-541-100	Hardware Kit

PASSENGER WINDOW ASSEMBLY WITH SLIDE **407-541-013/-014**

<u>Qty</u> <u>-013</u>	<u>Qty</u> <u>-014</u>	<u>Part Number</u>	<u>Description</u>
1		407-541-313	Passenger Window Assembly, L/H
	1	407-541-314	Passenger Window Assembly, R/H
1	1	407-541-100	Hardware Kit

**INSTALLATION INSTRUCTIONS
PASSENGER WINDOW ASSEMBLY****HARDWARE KIT
407-541-100**

<u>Qty</u>	<u>Part Number</u>	<u>Description</u>
1	4949.75	Tape, double sided (120 IN)

Confirm inventory prior to installation.

Packed by: _____ / _____ / _____

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

Number SR01051AT

This certificate issued to

Bell Helicopter Textron, Inc.
441 Industrial Park Rd.
Piney Flats, TN 37686

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 27 of the Federal Aviation Regulations.

Original Product -- Type Certificate Number: H2SW

Make: Bell Helicopter Textron Canada

Model: 407

Description of Type Design Change:

Installation of replacement windows and windshields in accordance with Aeronautical Accessories, Inc. Drawing List Report No. AA-96032, no revision, dated April 8, 1996, or later FAA approved revisions.

Limitations and Conditions:

The installer must determine whether this design change is compatible with previously approved modifications. If the holder agrees to permit another person to use this certificate to alter a product, the holder must 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: February 13, 1996

Date reissued: February 01, 2011

Date of issuance: June 03, 1996

Date amended:



By direction of the Administrator

John Hardie
(Signature)

James A. Richmond, Acting Manager,
Rotorcraft Certification Office,
Southwest Region

(Title)

INSTRUCTIONS: The transfer endorsement below may be used to notify the appropriate FAA Regional Office of the transfer of this Supplemental Type Certificate.

The FAA will reissue the certificate in the name of the transferee and forward it to him.

TRANSFER ENDORSEMENT

Transfer the ownership of Supplemental Type Certificate Number _____

to *(Name of transferee)* _____

(Address of transferee) _____
(Number and street)

(City, State, and ZIP code)

from *(Name of grantor)* *(Print or type)* _____

(Address of grantor) _____
(Number and street)

(City, State, and ZIP code)

Extent of Authority (if licensing agreement): _____

Date of Transfer: _____

Signature of grantor *(In ink)*: _____

DIRECTION GENERALE DE L'AVIATION CIVILE



**SERVICE
DE LA FORMATION AERONAUTIQUE
ET DU CONTROLE TECHNIQUE**

DIVISION AERONEFS

BUREAU NAVIGABILITE DES HELICOPTERES

**FEDERAL AVIATION
ADMINISTRATION
Southwest Region
Rotorcraft Certification Directorate
ASW-100 ROTORCRAFT STANDARDS
2601 Meacham Boulevard
FORT WORTH
TEXAS 76137-4298
USA**

O/REF: DGAC 2000/0770 - SFACT/N-HE

Attn.: Mr Mark SCHILLING

Affaire suivie par (Followed by): Denis Tranchant

Tel: (33) (1) 58.09.41.16

Fax: (33) (1) 58.09.43.48

E-mail address: TRANCHANT_Denis@sfact.dgac.fr

**Subject: BELL Model 407
fitted with Aeronautical Accessories devices.
DGAC's approvals**

Dear Sir,

With respect to the Bell Model 407, I am pleased to inform you that on 04 February 2000, DGAC have granted approval of the following STCs to Aeronautical Accessories Inc.,

STC	Description	FMS
SH1322SU	407 Flitestep	
SH1990SO	407 Door Openers	
SH2243SO	407 Folding Maint. Step	
3R01040AT	407 Sliding Door	FMS(AA95-079)
SR01074AT	407RM Windows	
SR01336AT	407 Rappelling Fixture	
SR01051AT	407 Windows/Windshield	
SR01339AT	407 Interior Trim	
SR01556AT	407 Air Deflector	
SH1147SO	407 Bagg. Floor Protector	
SH3289SO	407 Cab. Floor Protector	
SH2373SO	407 Coll. Safety Cover	
SH244WE	Cyc. Safety Cover	
SH1227WE	407 Spacemaker	
SR0169AT	407 Skid Tubes	
SH1366SO	407 Step/Handles	
SH01489AT	407 Fuel Caps	
SR00513AT	407 T/R Pedal Lockout	
SR01296AT	407 SX-16 Quick Mount	



These validations are based on FAA's approvals and include the associated Flight Manuals Supplements.

Could you please forward these approvals to the STC holder, along with our congratulations

Yours faithfully,

Denis Tranchant
Certification Manager

C.c. - Aeronautical Accessories Inc., Steve Joseph
- GSAC/T Gérard Hammer
- RotorFrance François Gauthier
SAF Lino Ferri



Transport Canada Transports Canada
Safety and Security Sécurité et Sûreté

Supplemental Type Approval

This approval is issued to:

Aeronautical Accessories, Inc.
P.O. Box 3689
Bristol Tennessee
37625

Number: SH96-93

Issue No.: 1

Approval Date: September 25, 1996

Issue Date: September 25, 1996

Responsible Region:

Headquarters

Aircraft/Engine Type or Model:

Bell 407

**Canadian Type Approval or
Equivalent:**

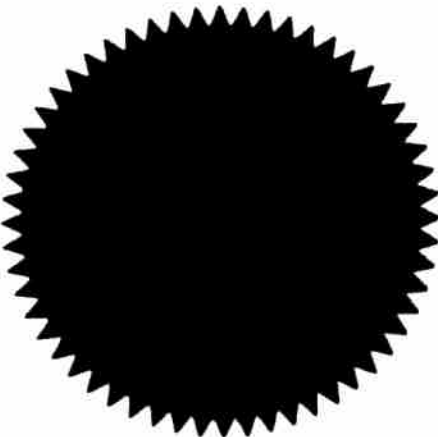
H-92

Description of Type Design Change:

Installation of replacement windows and windshields
in accordance with FAA STC SR01051AT.

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of the replacement windows and windshields is to be
done in accordance with Aeronautical Accessories, Inc. Drawing
List Report No. AA-96032, no revision, dated April
8, 1996, or later approved revision.



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

M. Winstanley
for F. R. Davies

For Minister of Transport

Canada



Ergänzung zur Musterzulassung Supplemental Type Certificate

Nr.: RC 1133

Die nach den Bestimmungen der Luftverkehrs-Zulassungs-Ordnung ergänzte Musterzulassung des Luftfahrtgeräts wird durch diese ERGÄNZUNG ZUR MUSTERZULASSUNG beurkundet. Sie erweitert die Angaben des Musterzulassungsscheins und des zugehörigen Geräte-Kennblatts und ist nur in Verbindung mit diesen gültig.

Anwendbarkeit:

Gerätemuster/Baureihen: Bell 407

Geräte-Kennblatt Nr.: 3034 Ausgabe: 2

Antragsteller:

Aeronautical Accessories, Inc.
P.O. Box 3689
Bristol, Tennessee 37625-3689
U.S.A.

Beschreibung der Ergänzung:

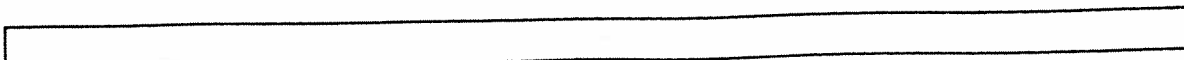
Einbau von Kabinenfenstern und Windschutzscheiben

Zulassungsgrundlage:

- **Bezugsdokument:** Aeronautical Accessories, Inc. Drawing List Report No. AA-96032, vom 8. April 1996, oder jede spätere FAA-anerkannte Revision.

Zulassung im Ursprungsland:

- **Halter der Zulassung:** Aeronautical Accessories, Inc., USA
- **Nr. der Zulassung:** STC No. SR01051AT
- **zugelassen von:** Federal Aviation Administration, USA

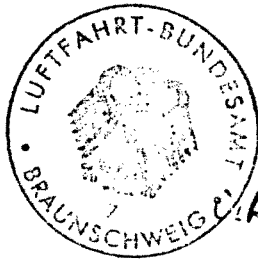


Auflagen und Einschränkungen:

1. Die Verträglichkeit dieser Modifikation mit anderen zugelassenen Modifikationen ist vom Einrüster sicherzustellen.
2. Anweisungen für den Betrieb:
 - Keine Änderung gegenüber dem Grundmuster
3. Anweisungen für die Instandhaltung und die Nachprüfung:
 - Aeronautical Accessories, Inc. Installation Instructions gemäß Report No. AA-96032, in der jeweils gültigen, FAA-anerkannten Revision.

Diese Ergänzung zur Musterzulassung kann in den in § 4 Abs. 3 der Luftverkehrs-Zulassungs-Ordnung vorgesehenen Fällen widerrufen werden.

LBA-Zulassung:



Braunschweig, 15.06.2000

A. Wagner-Hendel

EMZ-Nr.: RC 1133, Ausgabestand: 1



REPÚBLICA FEDERATIVA DO BRASIL
COMANDO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO
CENTRO TÉCNICO AEROESPACIAL
INSTITUTO DE FOMENTO E COORDENAÇÃO INDUSTRIAL

CERTIFICADO DE HOMOLOGAÇÃO SUPLEMENTAR DE TIPO
(Supplemental Type Certificate)

NÚMERO 2000S07-01
(Number)

Este certificado, emitido com base na Lei nº 7565 "Código Brasileiro de Aeronáutica", de 19 de dezembro de 1986,
(This certificate, issued in the basis of the Law No. 7565 "Código Brasileiro de Aeronáutica", dated 19 December 1986,

é conferido ao (à): Aeronautical Accessories, Inc.
is granted to:)
P.O. Box 3689
Bristol, Tennessee 37625-3689
USA

por ter a modificação ao projeto de tipo do produto abaixo citado, observadas as limitações e condições
(for having the change to the type design of the product mentioned below, with the limitations and conditions therefor as)
especificadas, satisfeito aos requisitos de aeronavegabilidade aplicáveis.
(specified hereon, met the applicable airworthiness requirements.)

Produto Original - Número do Certificado de Tipo: 9603 (CTA)
(Original Product - Type Certificate No:)

Fabricante: Bell Helicopter Textron, Inc.
(Manufacturer)

Modelo(s): 407
(Model(s):)

DESCRIÇÃO DA MODIFICAÇÃO AO PROJETO DE TIPO:
(Description of Type Design Change:)

Installation of replacement Windows and Windshields, in accordance with Aeronautical Accessories, Inc. Drawing List Report No. AA-96032, Rev. G, dated 10 MAY 2000, or later approved revisions.
This CHST validates in Brazil the STC # SR01051AT, issued by FAA (USA) and STC # SH96-93, issued by Transport Canada.

LIMITAÇÕES E CONDIÇÕES:
(Limitations and Conditions:)

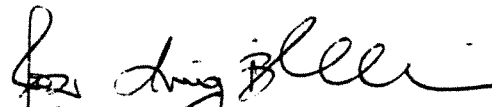
See continuation sheet for applicable data.

DATAS:
(Dates of:)

Do Requerimento: 23 MAY 2000
(Application:)

Da emissão: 05 JUL 2000
(Issue:)

Da reemissão:
(Reissue:)


JOSÉ LUIZ R. BELDERRAIN - Ten.-Cel.-Eng.
Chefe da Divisão de Homologação Aeronáutica
(Chief, Divisão de Homologação Aeronáutica)


SIOMAR CAVALCANTE GODINHO - Cel.-Av.
Diretor do Instituto de Fomento e Coordenação Industrial
(Director, Instituto de Fomento e Coordenação Industrial)

- a) Este Certificado e os dados técnicos com base nos quais ele foi emitido são válidos até que sejam cancelados, (This Certificate and the supporting technical data used for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Centro Técnico Aeroespacial.)
- b) No caso de transferência de propriedade deste Certificado, o transferente deve preencher o quadro "Endosso" (In case of transfer of the property of this Certificate, the grantor should fill the blanks of "Transfer de Transferência", e o adquirente deve enviar este Certificado à Divisão de Homologação Aeronáutica para Endorsement", and the transferee must remit this Certificate to the Centro Técnico Aeroespacial to que seja reemitido em seu nome. permit reissuance of the Certificate in his name.)

ENDOSSO DE TRANSFERÊNCIA
(Transfer Endorsement)

Transfiro a propriedade deste Certificado de Homologação Suplementar de Tipo para:
(I transfer the property of this Supplemental Type Certificate to:)

ADQUIRENTE
(Transferee)

Nome:
(Name:)

Rua:
(Street:)

CEP: **Cidade:** **Estado:** **País:**
(Zip:) (City:) (State:) (Country:)

TRANSFERENTE
(Grantor)

Nome:
(Name:)

Rua:
(Street:)

CEP: **Cidade:** **Estado:** **País:**
(Zip:) (City:) (State:) (Country:)

Data de Transferência:
(Date of Transfer:)

Assinatura do Transferente:
(Signature of the Grantor:)

Nome:
(Name:)

Cargo:
(Function:)



REPÚBLICA FEDERATIVA DO BRASIL
COMANDO DA AERONÁUTICA
DEPARTAMENTO DE PESQUISAS E DESENVOLVIMENTO
CENTRO TÉCNICO AEROESPACIAL
INSTITUTO DE FOMENTO E COORDENAÇÃO INDUSTRIAL

Folha de Continuação ao
(Continuation Sheet to)

CERTIFICADO DE HOMOLOGAÇÃO SUPLEMENTAR DE TIPO
(Supplemental Type Certificate)

NÚMERO 2000S07-01
(Number)

LIMITAÇÕES E CONDIÇÕES:
(Limitations and Conditions:)

- I. The approval of this type design change should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of those other previously approved modifications, including changes in Type Design, will introduce no adverse effect upon the airworthiness of that aircraft.
- II. 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.
- III. A copy of this Certificate shall be maintained as part of the permanent records for the modified aircraft.

----- END -----

PARTS MANUFACTURER APPROVAL NO. PQ1058CE

PRODUCTION APPROVAL LISTING - SUPPLEMENT NO. 142

DATED AUGUST 1, 1997

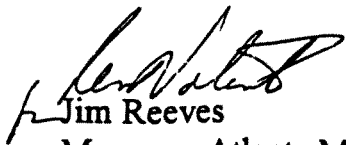
FEDERAL AVIATION ADMINISTRATION - PARTS MANUFACTURER APPROVAL

Aeronautical Accessories, Inc.
P.O. Box 3689
Bristol, TN 37625-3689

<u>Part Name</u>	<u>Part Number</u>	<u>Approved Replacement for</u>	<u>FAA Approval Basis & Approved Design Data</u>	<u>Installation Eligibility</u>	<u>Model</u>
Crew Window Assy L/H (with or without slide)	407-540-101/-103/-111/-113	Bell 407-030-635-101	Test and analysis per FAR 21.303(c)(4) Dwg. 407-540, Rev. B, dated 12/3/96, or Later FAA Approval	Bell	407
Crew Window Assy R/H (with or without slide)	407-540-102/-104/-112/-114	Bell 407-030-635-102	Test and analysis per FAR 21.303(c)(4) Dwg. 407-540, Rev. B, dated 12/3/96, or Later FAA Approval	Bell	407
Passenger Window Assy L/H	407-541-101/-111	Bell 407-030-645-101	Test and analysis per FAR 21.303(c)(4) Dwg. 407-541, no rev., dated 4/8/96, or Later FAA Approval	Bell	407
Passenger Window Assy R/H	407-541-102/-112	Bell 407-030-645-102	Test and analysis per FAR 21.303(c)(4) Dwg. 407-541, no rev., dated 4/8/96, or Later FAA Approval	Bell	407
Passenger Window Assy w/Slide L/H	407-541-103/-113	Bell 407-706-301-105	Test and analysis per FAR 21.303(c)(4) Dwg. 407-541, no rev., dated 4/8/96, or Later FAA Approval	Bell	407
Passenger Window Assy w/Slide R/H	407-541-104/-114	Bell 407-706-301-106	Test and analysis per FAR 21.303(c)(4) Dwg. 407-541, no rev., dated 4/8/96, or Later FAA Approval	Bell	407

<u>Part Name</u>	<u>Part Number</u>	<u>Approved Replacement for</u>	<u>FAA Approval Basis & Approved Design Data</u>	<u>Installation Eligibility</u>	<u>Model</u>
Chin Bubble, L/H	407-543-101/ -103/-105/-107/ -109/-111	Bell 407-030-117-101/ -105	Test and analysis per FAR 21.303(c)(4) Dwg. 407-543, no rev., dated 6/4/97, or Later FAA Approval	Bell	407
Chin Bubble, R/H	407-543-102/ -104/-106/-108/ -110/-112	Bell 407-030-118-103/ -107	Test and analysis per FAR 21.303(c)(4) Dwg. 407-543, no rev., dated 6/4/97, or Later FAA Approval	Bell	407
Skylight L/H	407-548-101/ -103	Bell 407-030-403-103	Test and analysis per FAR 21.303(c)(4) Dwg. 407-548, no rev., dated 8/12/96, or Later FAA Approval	Bell	407
Skylight R/H	407-548-102/ -104	Bell 407-030-403-104	Test and analysis per FAR 21.303(c)(4) Dwg. 407-548, no rev., dated 8/12/96, or Later FAA Approval	Bell	407
Litter Door Window Assy L/H	407-559-003	Bell 407-030-607-101	Test and analysis per FAR 21.303(c)(4) Dwg. 407-559, no rev., dated 8/13/96, or Later FAA Approval	Bell	407
Fuselage Window Assy R/H	407-559-004	Bell 407-030-607-102	Test and analysis per FAR 21.303(c)(4) Dwg. 407-559, no rev., dated 8/13/96, or Later FAA Approval	Bell	407

-END OF LISTING-



Jim Reeves
Manager, Atlanta Manufacturing
Inspection District Office

INTERSTATE AVIATION COMMITTEE
AVIATION REGISTER

DATA SHEET

Type Certificate No CT171-BELL407

Issue 07

Helicopter
Model BELL 407

Type Certificate Holder:

Bell Helicopter Textron
A Division of Textron Canada, Ltd.
Mirabel, Quebec
Canada

Courtesy translation of TCDS No CT171-BELL407
In case of any difficulty reference should be made
to original issue in Russian language

This Data Sheet which is the integral part of Type Certificate No CT171-BELL407 defines Type Design and prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Certification Basis, as given in paragraph 17 of this TCDS.

List of effective pages:

Page	1	2	3	4	5	6
Issue	01	01	01	07	07	07

CONTENTS

1.	Manufacturer	3
2.	Brief Helicopter Description	3
3.	Engine	3
4.	Engine TCDS	3
5.	Fuel	3
6.	Fuel Capacity	3
7.	Engine Limits	3
8.	Transmission output power	4
9.	Main Rotor Limits	4
10.	Airspeed Limits	4
11.	Center of Gravity Range	4
12.	Maximum Weight	4
13.	Altitude Limits	4
14.	Minimum Crew	4
15.	Maximum Occupants	5
16.	Maximum Cargo	5
17.	Serial Numbers Eligible	5
18.	Certification Basis	5
19.	Type Design	5
20.	STCs, approved by IAC AR	5
21.	Special Mandatory Conditions	6

1. Manufacturer	Bell Helicopter Textron A Division of Textron Canada, Ltd. Mirabel, Quebec Canada		
2. Brief Helicopter Description	Light multipurpose helicopter with one turboshaft engine, main and tail rotors.		
3. Engine	One engine Allison Model 250-C47B		
4. Engine TCDS	Performance and operational limitations of the Allison 250-C47B engine model are given in the Type Certificate Data Sheet No CT162AMJ, Issue 01, issued by IAC AR on 10.09.98.		
5. Fuel	Foreign-made fuel grades: Type Jet B, Jet A and Jet A-1 conforming to ASTM-D-1655; JP-4 and JP-5 conforming to MIL-T-5624; JP-8 conforming to MIL-T-83133. For all operations below 4°C ambient temperature, all fuel grades must contain anti-icing additive Philips PFA-55 MB in concentration not less than 0.15% by volume. The following is allowed to use: - CIS made fuel grades: RT and TS-1 (GOST-10227); - Anti-icing additives: "I" fluid (GOST 8313), "I-M" fluid (TU6-10-1458), to be added to the fuel at ambient temperature below 4°C in concentration 0.1 – 0.3% by volume.		
6. Fuel Capacity	483.7 liters (106.4 Imp. Gal), (127.8 U.S. Gal) Usable 10.0 liters (2.21 Imp. Gal), (2.65 U.S. Gal) Unusable		
7. Engine Limits	Speed	Torque Pressure	Output Shaft
	Take-off (5 min)	100% (91.4 psi)	100% (6.317 R.P.M.)
	Maximum Continuous	93.5% (85.5 psi) Measured Gas Temperature	100% (6.317 R.P.M.) Gas. Gen. Speed
	Take-off (5 min)	779°C (1434°F)	105% (53550 R.P.M.)
	Maximum Continuous	727°C (1341°F)	105% (53550 R.P.M.)
Limitations on transient regimes are given in Rotorcraft Flight Manual (see "Type Design")			

8. Transmission Output Power

683 hp (674 UK hp)

9. Main Rotor Limits

Power Off	Power On
Maximum 442 R.P.M. 107%	Maximum 413 R.P.M. 100%
Minimum 351 R.P.M. 85%	Minimum 409 R.P.M. 99%

10. Airspeed Limits

Flight speed limits are given in the Rotorcraft Flight Manual (see "Type Design")

11. Center of Gravity Range

- a) Longitudinal C.G. range:
 Forward Limit (internal loading): linear variation from 302.3 cm (weight up to 2041 kg) to 303.5 cm (weight 2268 kg)
 Aft Limit (Internal Loading): 327.7 cm with weight up to 2268 kg
 Forward Limit (external loading): linear variation from 302.3 cm (weight up to 2041 kg) to 306.1 cm (weight 2724 kg)
 Aft Limit (external loading): linear variation from 327.7 cm (weight up to 2268 kg) to 324.1 cm (weight 2724 kg)
- b) Lateral C.G. Limits (Internal Loading):
 Left: linear variation from 6.3 cm (weight up to 1588 kg) to 3.8 cm (weight 2268 kg)
 Right: linear variation from 7.6 cm (weight up to 1588 kg) to 5.1 cm (weight 2268 kg)
 Lateral C.G. Limits (External Loading):
 Left: linear variation from 6.3 cm (weight up to 1588 kg) to 2.3 cm (weight 2724 kg)
 Right: linear variation from 7.6 cm (weight up to 1588 kg) to 3.5 cm (weight 2724 kg)

Datum is 2.54 cm forward of most forward point of fuselage cabin nose section or 140 cm forward of jack point centerline.

12. Maximum Take-off Weight

2268 kg (Internal Loading)

2724 kg (External Loading)

Helicopters equipped with an external cargo hook may operate to 2724 kg gross weight in accordance with the limits of Transport Canada approved Rotorcraft Flight Manual Supplement BHT-407-FMS-5, Rev.1, Supplemental Cargo Hook P/N 206-706-341 dated September 4, 1998

13. Altitude Limits

Maximum altitude at 2268 kg or less is 20000 фyt (6096 м)

Maximum altitude above 2268 kg is 10000 фyt (3048 м)

14. Minimum Crew

1 pilot

15. Maximum Occupants	7 (includes crew)
16. Maximum Cargo	Refer to Rotorcraft Flight Manual for loading schedule
17. Serial Numbers Eligible	Serial numbers of helicopters which are covered by the IAC AR Type Certificate No CT171-BELL407 AP MAK: 53000 to 53003, 53005 and subsequent
18. Certification Basis	a) Airworthiness Criteria 407.27; 6) Aviation Regulations, Part 36 (AP-36) "Aircraft Noise Type Certification".
19. Type Design	Type Certificate No CT171-BELL407, issued by IAC AR, is applicable to BELL 407 helicopters which type design is defined: a) Basic design defined by Type Certificate No H-92 issued by Transport Canada. b) Model 407 configuration defined by Bell Helicopter Textron top drawing No 407-900-001 c) BELL 407 Operational Documentation: • Rotorcraft Flight Manual BHT-407-FM-IAC AR, approved by Transport Canada on 20 May 1999. • Maintenance Manual BHT-407-MM-1. See Chapter 4 approved by Transport Canada for service lives of components. • Mandatory Service Bulletins d) Type Design modifications in accordance with C.I.S Certification Kit 407-706-021
20. STCs, approved by IAC AR	No SR 01450 LA; No SR 00222 DE; No SR 01040 AT; No SR 00221 DE; No SR 00975 AT; No SR 00790 NY; No SH 1990 SO; No SH 1664 SO; No SH 2373 SO; No SH 244 WE; No SR 01051 AT; No SR 00760 NY; No SR 01411 AT;

No SR 09324 RC-D;
No SR 01074 AT;
No SR 00411 DE;
No SH 1312 SO;
No SH 1322 SO.

21. Special Mandatory Conditions.

21.1. Installed battery capacity must be at least 17 ampere hours to insure fuel transfer pump operation for c.g. control after electrical system failure.

21.2. Oxygen equipment must be installed for passenger transportation above 2400 m or with only crew on board above 3000 m.

21.3. Minimum piloting and navigation equipment for helicopters intended for CIS operation must include:

- basic configuration and navigational equipment, defined by drawing No 407-900-001;
- an Attitude Indicator, Turn and Slip Indicator and a gyroscopic Heading Indicator or equivalent;
- metric altimeter;
- Emergency Locator Transmitter;
- VHF communication radio;
- Aural and Visual "Fire Warning" annunciation and;
- for commercial operations, a Flight Data Recorder.

21.4. Emergency VHF radio together with its operational instruction must be installed on the pilot's cabin door according to drawing No. 407-706-021 or equivalent.

21.5. For flights on the CIS routs helicopter must be equipped with:

- GPS;
- transponder (including at least Mode A and C).

21.6. Flights in CIS airspace are allowed only along the routes with continuous ATC monitoring using RBS mode.

21.7. Near the fill opening there should be a placard with the approved CIS-made fuel grades.

21.8. Placards and inscriptions related to the emergency and rescue equipment must be presented in two languages: English and the language requested by the CIS operator.

21.9. Flights in icing conditions are forbidden.

21.10. Helicopter is not certified for flights over extensive water spaces.

* * *

Original in Russian language signed by
Vyacheslav Komarov
Consultant, Helicopter Branch