



AERONAUTICAL ACCESSORIES, INC.

P.O. BOX 3689

BRISTOL, TENNESSEE 37625-3689

TELEPHONE: 423-538-5151

800-251-7094

TELEFAX: 423-538-8469 E-MAIL: aero-access.com

INSTALLATION INSTRUCTIONS

for

SHOULDER HARNESS KITS

P/N 206-910-041 (2 Place)

206-910-053 (L/H)

206-910-054 (R/H)

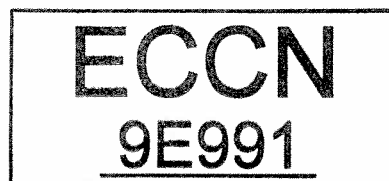
on

BELL 206A & 206B MODEL HELICOPTERS

Report Number AA-86023

Revision H

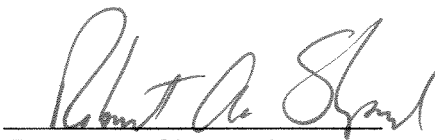
July 13, 1999



LOG OF REVISIONS

Rev.	Date	Description	Effected Pages
-	11/5/86	Original Release.	All
A thru F	- 8/1/96	Various technical updates.	All
G	4/14/98	Added Log of Revisions. Added FAA approval statement.	All 3
H	7/13/99	Revised Step 6.2 Revised Step 6.3 Revised Parts List	10 10 14

Approved by: _____



Robert A. Shepard
FAA DER No. SO-140
(Structures)

INTRODUCTION:

These instructions contain the information necessary to install the AERONAUTICAL ACCESSORIES, INC. **SHOULDER HARNESS KITS** on Bell Helicopter/Textron, Inc. 206A & 206B model helicopters. Both the L/H and R/H kits are the "quick-release, H-frame" type and are compatible with all standard and litter provisioned aircraft. These instructions are FAA approved under STC No. SH2073SO.

GENERAL NOTES

- A. Tag all parts, including attaching hardware (unless otherwise noted), removed to gain access to the work area. Protect parts from damage until reinstalled.
- B. Following any drilling or cutting operations, remove burrs and metal particles. Apply a thin coat of primer (zinc chromate or equivalent) to the bare metal EXCEPT when the hole is used for grounding.
- C. Seal (by capping or plugging) all openings and/or ports in components, hoses and/or tubes disconnected or removed to facilitate the installation.
- D. Whenever possible, use existing holes in the structure to locate holes in the modification parts. Use a hole finder or equivalent or backdrill when match drilling holes. Where an oversized or elongated hole exists, drill new holes using 1-1/2 times diameter minimum edge distance and 4 times diameter minimum rivet spacing. If covered by a kit part, leave "bad" holes open; otherwise, fill holes using NAS1738 (CR3242) type rivets.
- E. Due to the complexity and critical interfacing of the kit parts, **most parts should be temporarily installed/secured in place using Cleco fasteners until all surrounding parts have been fitted and installed (temporarily or permanently)**. After all applicable parts have been fitted, refer to the corresponding section for the appropriate fastener hardware.

1. PREPARATION:

- 1.1. Ground the aircraft, disconnect battery, and ensure that the battery master switch is OFF.
- 1.2. Prepare the aircraft for safe ground maintenance in accordance with applicable maintenance procedures.
- 1.3. Remove aircraft crew and passenger doors from the appropriate side(s) of the aircraft and store in a safe place.
- 1.4. If equipped, remove the copilot cyclic and collective sticks.

- 1.5. Remove crew and passenger seats and seatback cushions. Remove ALL installed interior trim panels and other items in the immediate work area (crew seatback, crew rollover bulkhead, vertical tunnel, ash trays, etc.). Retain all hardware for reinstallation.

2. INSTALLATION OF CREW SEATBACK STIFFENERS:

NOTE

For aircraft S/N 1-3122 without an FAA- approved Litter Kit installed, the upper crew seatback bulkhead requires stiff fening. The following section details the steps for installing the AAI Stif fener Channel, P/N 206-914-087, and the two Seatback Angles, P/Ns 206-914-093 and -295. For A/C equipped with FAA Litter Kit provisions, use AAI Installation Kit P/N's 206-910-059 (2 Place), -067 (L/H) or -068 (R/H).

- 2.1. If wiring provisions for lighted ashtrays are present inside the upper crew seatback, expose the end of each wire bundle and attach a 3 ft. safety wire snake to each end. Remove the vertical tunnel aft cover and carefully pull the wire bundle(s) out of the seatback channel (leaving 3 to 4 in. of the safety wire snake extending from the seatback). Secure the wires as required.
- 2.2. Remove all existing equipment installed (riveted or screwed) on the upper crew seatback bulkhead. Remove the vertical tunnel aft cover if present.
- 2.3. Position the Shoulder Harness Assembly, P/N 206-913-039, in the A/C as shown in the applicable view of Drawing No. 206-910. Slip two Clips, P/N 206-914-273, over the lower frame studs and position the clips on the upper crew seatback box frame.
- 2.4. Mark the **GENERAL** location of the two clips and note the location of all existing rivets (on top and back) which interfere with the installation of the clips. Two holes will be drilled through each clip and the seatback structure. Countersunk rivets will be installed under the clip(s) if interference or inadequate edge distance exists; mark the **location** of all applicable rivets.
- 2.5. Using a #30 (.129) bit, drill out and remove the interfering rivets on the upper crew seatback top. Deburr holes and remove all loose debris. Open applicable holes with a #27 (.144) bit if rivets are to be reinstalled.

- 2.6. On the aft face of the crew seatback box frame, measure down 3/4" at each end and draw a line from end to end. On the lower face of the seatbox frame, lay out a new rivet line 1/4 in. from the seatback panel (Ref. Dwg 206-910, Sheet 6, View "C"). On approximate 1.0" centers, locate and mark the location for the two new rows of rivets as shown in the Installation Drawings.
- 2.7. Orient and insert the Stiffener Channel, P/N 206-914-087, into the crew seatback box section with the flat section of the channel facing aft (Ref: Drawing 206-910, Sheet 6, View "C"). Slide the channel completely into the box section until the outboard end is 1.0" from the outboard edge of the box section. If present, ensure that the ashtray light wiring snake is in the stiffener's "channel."
- 2.8. Note and mark the location of any interfering rivets on the box frame top which lie forward, aft or under the channel. Remove the interfering rivets.
- 2.9. Position the channel with the lower and aft surfaces flush to the box frame. Holding the channel securely in position and working inboard, drill through both the aft box frame and the channel (except as noted) using a #27 (.144) bit [6 or 12 inches long]; DO NOT match-drill the channel to the aft box frame in the area under or near the two Clips if any question of possible interference exists. Cleco the channel to the box as drilling progresses.
- 2.10. Position one Inboard Seatback Angle, P/N 206-914-093, in the inboard corner between the seatback box frame and the vertical tunnel with of the angle flush with the box frame. Using existing rivet locations when possible, lay out/match drill three rivet locations each side. Ensure adequate edge distance. Trim angle length as required.
- 2.11. Holding the angle securely in position, drill through the angle and A/C structure using a #27 (.144) bit. Cleco the angle to the structure as drilling progresses.
- 2.12. Position one (1) Outboard Seatback Angle, P/N 206-914-295, in the outboard corner between the seatback box frame and the lower rollover bulkhead with the angle approximately flush to the seatback structure as shown in the Installation Drawing (Dwg. 206-910, Sheet 8, View "F-F").
- 2.13. Holding the angle securely in position drill through the angle and A/C structure using a #27 (.144) bit. Cleco the angle to the structure as drilling progresses.
- 2.14. Remove the angle(s) and channel, if applicable, and deburr all holes. Remove all loose debris from the area. Reposition all new pieces and Cleco into place.
- 2.15. If applicable, repeat for the other side.

3. **INSTALLATION OF THE ROLLOVER BULKHEAD DOUBLER:**

NOTE

The following steps are critical to insure proper fit of the Shoulder Harness Assembly in the aircraft. Any deviations from these procedures or the locations specified in the Installation Drawing may cause incorrect mounting of the shoulder harness frame with a resulting loss of structural integrity.

- 3.1. Lock the Shoulder Harness Frame Assembly, P/N 206-913-039, into the appropriate Rollover Bulkhead Doubler, P/N 206-916-209, L/H or -210, R/H by inserting the two studs into the keyhole slots and locking the assembly together with the attached release hinges. Position the complete assembly as shown in the applicable view of Drawing No. 206-910, Sheets 2 & 3.

NOTE

The L/H frame and doubler may be shifted
WITHIN THE SPECIFIED LIMITS ONLY
to allow the maximum number of existing rivets
to be used when installing the doubler.

Ensure that the vertical support posts remain parallel and are both perpendicular to the seatback box. For the R/H installation only, match the doubler to the upper rollover bulkhead contour with the aft edge of the doubler flush with the edge of the rollover bulkhead.

- 3.2. Holding the frame/doubler assembly firmly in place, outline the doubler on the rollover bulkhead. Remove the assembly and separate the doubler from the frame assembly.
- 3.3. Reposition the doubler on the rollover bulkhead and note and mark which of the existing rivet locations can be used to install the doubler; ensure adequate edge distance is maintained. Note that the doubler is slightly oversized and may be later trimmed to fit as required.
- 3.4. Locate and mark the rivets near the raised sections of the doubler which require countersinking to avoid interference. Also mark the existing rivets directly under the raised sections which will not interfere with the installation of the doubler and do not require removal.
- 3.5. Using a #27 (.144) bit, drill out all existing rivets on the upper rollover bulkhead marked for removal in the steps above. Deburr all holes and remove debris from surface.

- 3.6. Reinstall the doubler on the frame assembly and lock into place. Reposition the entire assembly in the A/C per the Installation Drawing to confirm proper fit and placement. Adjust assembly as required and note changes on the A/C structure. Remove the doubler/frame assembly and, if required, mark and drill out any additional rivets.
- 3.7. Holding the doubler firmly in position, use a hole finder and a #27 (.144) bit to match drill the doubler to the rollover bulkhead. Ensure adequate edge distance is maintained. Cleco the doubler into position as drilling progresses.
- 3.8. Using the Installation Drawing as a guide (Dwg. 206-910, Sheets 4 & 5, Views "A", L/H or "B", R/H) layout the new rivet locations (typically 10 places) in the center of the doubler. Using a #27 (.144) bit, drill through the doubler and bulkhead where marked. Remove the doubler.
- 3.9. Hold the doubler in place and note which existing rivets/ holes in the bulkhead fall below the sloped areas or under the four slots/holes of the doublers and require CSK rivets. Countersink the appropriate holes and install CR3242-4-2 or -3 rivets through the bulkhead. **DO NOT** rivet doubler to rollover bulkhead at this time.
- 3.10. Cleco the doubler in place. Orient the Forward Overhead Angle, P/N 206-914-250, over the lower and forward surfaces of the rollover bulkhead between the two raised sections of the doubler as shown in Drawing No. 206-910, Sht. 4 & 5, Views "A", L/H or "B", R/H. Position the angle to ensure adequate edge distance; trim the angle as required to ensure proper fit. Lay out a new row of three equally spaced rivets on the angle's forward face.
- 3.11. Using a hole finder and a #27 (.144) bit, match drill the angle to the existing rivet locations in the doubler and bulkhead. Drill through the forward face of the angle and bulkhead where marked. Cleco the angle in place as drilling progresses.
- 3.12. Orient the Aft Overhead Angle, P/N 206-914-262, over the lower and aft surfaces of the rollover bulkhead between the two raised sections of the doubler as shown in Dwg. 206-910, Sheets 4 & 5, Views "A", L/H or "B", R/H. Position the angle to ensure adequate edge distance; trim the angle as required to ensure proper fit. Lay out a new row of three rivets on angle (aft face).
- 3.13. Using a hole finder and a #27 (.144) bit, match drill the angle to the existing rivet locations in the doubler and bulkhead. Drill through the forward face of the angle and bulkhead where marked. Cleco the angle in place as drilling progresses.

- 3.14. Remove the doubler and the two angles. Deburr all holes and apply a thin coat of primer (zinc chromate or equivalent) to the bare metal. Reposition the doubler and the two angles and securely Cleco into place.
- 3.15. If applicable, repeat for the other side.

4. **INSTALLATION OF THE SEATBACK CLIPS:**

- 4.1. Lock the Shoulder Harness Frame Assembly, P/N 206-913-039, into the Clecoed overhead doubler by inserting the two studs into the keyhole slots and locking the assembly together with the attached release hinges. **Ensure that the vertical support posts remain parallel and are both perpendicular to the seatback structure** in accordance with the applicable view of Drawing No. 206-910.
- 4.2. Slip one Clip, P/N 206-914-273, over each of the the lower frame studs.

NOTE

The next steps are critical to the correct installation and operation of the "Quick- Mount" Shoulder Harness provisions. The clips must be installed so that the frame assembly does not bind when it is "un locked" and being removed.

- 4.3. Letting the frame assembly hang straight down, carefully push it STRAIGHT forward until the clips are parallel to the seatback with a nominal 1/8 in. gap between the upper crew seatback structure box frame and the "inside" of the clip (Ref: Dwg 206-910, Sheets 7 & 8, View "C" or "D-D").
- 4.4. Holding the frame assembly and clips securely in place, outline the clips and mark the general locations of four clip mounting holes (two per clip). Remove the frame assembly and clips. Reposition the clips on the seatback and locate any existing rivet holes which might be used to install the clip(s). Ensure adequate edge distance. If existing rivets cannot be used and/or interfere with either the fit or function of the clip or frame assy lower studs, remove and replace with CSK rivets.

NOTE

Ensure the center to center distance of the two clip slots remains 5.25 in. (Ref: Dwg 206-910, Sheet 6, View "C").

- 4.5. Using a #27 (.144) bit, drill the seatback clips then matchdrill the bulkhead structure. Cleco the clips in place after the first hole is drilled and **confirm proper alignment of the clip PRIOR to drilling the second hole.**

- 4.6. If the channel near the two new clip mounting holes still has not been matched drilled to the seatback bulkhead, determine if any interference will exist between the new clip mounting holes and the undrilled rivet locations. If one or more rivets can be added (ensure adequate spacing), match drill the channel at this time. Countersink (100) all rivets in the seatback box frame as required to avoid interference with the installation and operation of the clip(s). Leave unused rivet holes open.
- 4.7. Remove the two clips and the channel from the A/C. Deburr all holes and apply a thin coat of primer (zinc chromate or equivalent) to the bare metal.
- 4.8. Reposition the channel and clips on the seatback structure and Cleco all items securely in place. Install the frame assembly and lock the frame in place. Ensure all parts fit correctly and are aligned per the Installation Drawing. Ensure that the frame assy is easily installed and removed. If the frame tends to bind upon removal, ensure that the seatback clips are correctly installed and that the clips hang parallel to the installed frame support posts. If required, remove and gently bend the clips to the proper angle. Reinstall the clips and frame and again test operation; repeat as required.
- 4.9. If applicable, repeat for the other side.

5. **INSTALLATION OF PROVISIONS:**

- 5.1. Using the Installation Drawing as a guide, rivet all structural parts together as follows:
- 5.2. **CREW SEATBACK:**
 - 5.2.1. Secure the inboard corner angle to the vertical tunnel structure using three CR3243-4-4 rivets. Secure the angle to the seatback box frame using two CR3243-4-4 rivets through the seatback frame and the channel and one MS20470AD4-4 rivet through the seatback.
 - 5.2.2. Working outboard, install CR3243-4-3 rivets through the aft and lower seatback box frame and channel.
 - 5.2.3. Secure the seatback clips to the seatback structure using four CR3243-4-4 rivets.
 - 5.2.4. Secure the outboard corner angle to the seatback structure using two CR3243-4-4 rivets and one MS20470AD4-4 rivet. Secure the angle to the rollover bulkhead structure using three CR3243-4-4 rivets.

5.3. ROLLOVER BULKHEAD DOUBLER:

- 5.3.1. Remove doubler and ensure all rivets under the raised sections of the doubler have been installed. Reposition doubler and securely Cleco in place.
- 5.3.2. Using Dwg. 206-910, Sheets 4 & 5, Views "A" or "B", install the applicable rivets (CR3243-4-2 or -3) through the doubler and the rollover bulkhead.
- 5.3.3. Secure the two Overhead Doubler Angles to the rollover bulkhead using six CR3243-4-4 rivets (lower surface) and six CR3243-4-2 rivets (forward and aft surfaces).
- 5.4. If applicable, repeat for the other side.
- 5.5. Paint all exposed items (doubler, angles, clips and rivet heads) as desired to match existing interior.

6. REPLACEMENT OF THE LAP BELT ASSEMBLIES:

NOTE

The lap belt assembly may be oriented as desired (buckle side inboard, as recommended, or outboard) depending on operator preference. The recommended orientation will limit the effects of "seatbelt rash" if the seatbelt is left outside the A/C.

- 6.1. Gain access to the lap belt attachment points. Remove existing lap belt assemblies and attaching hardware and discard.
- 6.2. Slip one Plastic Sleeve P/N 206-919-121 over each of the outboard seatbelt assemblies to be installed in the next step.
- 6.3. Install the new seatbelt assemblies using the provided AN174-5A bolts, AN174-7A bolts, and NAS1149C0432R washers; (one washer under bolt head and one under nut), and 90-003-4 nuts.
- 6.4. If applicable, repeat for the other side.

7. INSTALLATION OF THE SHOULDER HARNESS ASSEMBLY:

- 7.1. Orient the Shoulder Harness Assembly behind the crew seat back and insert the two lower studs into the installed clips. Lift the frame assembly up and insert the two upper studs into the rollover bulkhead doubler keyhole slots. Push the frame forward into the doubler and ensure that the two release hinges lock **SECURELY** in position.

- 7.2. Route the shoulder harnesses to the crew seats, slide the shoulder harness adapters over the tang and secure in the buckle.
- 7.3. Adjust Headrest height to suit.

8. **RETURN AIRCRAFT TO SERVICE:**

- 8.1. Clean all areas of debris. Inspect all opened spaces to ensure equipment, tools, etc. are removed.
- 8.2. If applicable, modify and install the upper rollover trim panels. Ensure adequate clearance is given the upper studs, the support posts and the release hinges.

NOTE

ENSURE PROPER FUNCTION OF THE LOCKING HINGES.

- 8.3. Install the shoulder harness assembly and lay up the Lower Cover, P/N 206-923-201, over the lower section of the frame assembly. Mark on the seatback frame the location of the three mounting locations. Using a #11 (.191) bit, match drill the cover and A/C structure, deburr and install three MS27130A-7 Rivnuts in the A/C structure. Remove the frame assembly.
- 8.4. If applicable, return the ashtray light wiring bundle(s) to within the crew seatback structure and remove the snake wire. Reinstall the vertical tunnel aft panel.
- 8.5. Replace all remaining interior trim panels and items in the immediate work area (crew seatbacks, vertical tunnel side pieces, roll over trim panels, ash trays, etc.) using the existing hardware for reinstallation. Trim the Upper Rollover and Seatback Trim panels as required to ensure easy installation of the shoulder harness assembly.
- 8.6. Orient and position the appropriate Upper Cover Assembly; P/N 206-922-235, L/H, or -236, R/H; over the top of the frame assembly. Reinstall the frame assembly. Remove the two backing strips from the attached Velcro on the Upper Cover Assy and press the cover into place.
- 8.7. Secure the Lower Cover to the seatback with three each 120-079-6-10 screws and 601-6 trim washers.
- 8.8. Replace the crew and passenger seats and seatback cushions.
- 8.9. If equipped, replace the copilot cyclic and collective sticks.
- 8.10. Replace the aircraft crew and passenger doors.

9. **WEIGHT AND BALANCE:**

9.1. Calculate new A/C Weight and Balance as follows:

9.1.1. **L/H KIT ONLY INSTALLED:**

+5.5 lbs. at STA. 80.1 Lat. Arm -11.8

9.1.2. **L/H KIT w/ SEATBACK STIFFENER KIT, L/H INSTALLED:**

+5.8 lbs. at STA. 80.1 Lat. Arm -11.8

9.1.3. **R/H KIT ONLY INSTALLED:**

+5.5 lbs. at STA. 80.1 Lat. Arm +12.7

9.1.4. **R/H KIT w/ SEATBACK STIFFENER KIT, R/H INSTALLED:**

+5.8 lbs. at STA. 80.1 Lat. Arm +12.7

9.1.5. **BOTH SIDES INSTALLED:**

+11.0 lbs. at STA. 80.1 Lat. Arm +0.45

9.1.6. **BOTH SIDES w/ SEATBACK STIFFENER KITS INSTALLED:**

+11.6 lbs. at STA. 80.1 Lat. Arm +0.45

9.2. Revise A/C equipment list and make a Log Book entry. Insert attached STC (# SH2073SO) in A/C records. Complete and submit FAA form 337.

9.3. Installation complete.

10. **MAINTENANCE PROCEDURES:**

10.1. **INSPECTION**

- 10.1.1 Visually inspect the frame assembly for signs of damage. Ensure proper operation of inertia reel(s).
- 10.1.2 Remove Cover to gain access to the shoulder harness reel assemblies, snap the square plastic reel cover off and visually inspect inertia reels for internal rust and corrosion. Spray accessible parts of inertia reels with lubricant (DOD-L-25681 "Molybdenum Disulfide, Silicone" or equivalent). Check tightness of attaching hardware. Replace cover.
- 10.1.3 Visually inspect lap belt and shoulder harness straps for wear and/or fraying.

10.2. **REPLACEMENT**

- 10.2.1 Replace defective inertia reels and perform operational check.
- 10.2.2 Replace all worn or frayed lap belt(s) and shoulder harness straps.

10.3. **ADJUSTMENTS**

- 10.3.1 Inertia reel assemblies are factory adjusted to the proper G setting and are not field adjustable.

PARTS LIST

for

P/N 206-910-041, Pilot and Copilot Kit

P/N 206-910-053, Copilot (L/H) Kit

P/N 206-910-054, Pilot (R/H) Kit

<u>QTY</u>	<u>-041</u>	<u>-053</u>	<u>-054</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
___ 2	1	1		206-913-039	Shoulder Harness Assy.
___ 2	1	1		206-914-087	Stiffener Channel
___ 2	1	1		206-914-093	Seatback Angle, Inboard
___ 2	1	1		206-914-250	Forward Overhead Angle
___ 2	1	1		206-914-262	Aft Overhead Angle
___ 4	2	2		206-914-273	Seatback Clip
___ 2	1	1		206-914-295	Seatback Angle, Outboard
___ 1	1			206-916-209	Overhead Doubler, L/H
___ 1			1	206-916-210	Overhead Doubler, R/H
___ 1	1			206-922-235	Upper Cover Assy, L/H
___ 1			1	206-922-236	Upper Cover Assy, R/H
___ 2	1	1		206-923-207	Lower Cover
___ 2	1	1		206-919-121	Plastic Sleeve
___ 20	10	10		CR3242-4-2	Rivet (CSK)
___ 6	3	3		CR3242-4-3	Rivet (CSK)
___ 24	12	12		CR3243-4-2	Rivet
___ 88	44	44		CR3243-4-3	Rivet
___ 28	14	14		CR3243-4-4	Rivet
___ 4	2	2		MS20470AD4-4	Rivet
___ 2	1	1		AN174-5A	Bolt
___ 2	1	1		AN174-7A	Bolt
___ 8	4	4		NAS1149C0432R Alt.: AN960C416L	Washer
___ 4	2	2		90-003-4	Nut
___ 6	3	3		120-079-6-10	Screw
___ 6	3	3		601-6	Washer
___ 6	3	3		MS27130A-7	Rivnut
___ 1	1	1		Dwg. 206-910	Installation Drawings

Confirm inventory prior to installation. Packed by: _____ / /

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

Number

SH2073SO

This certificate issued to

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

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 6 of the Civil Air Regulations.

Original Product — Type Certificate Number: H2SW

Make: Bell

Model: 206A, 206B, 206L, 206L-1, 206L-3, 206L-4

Description of Type Design Change: Installation of shoulder harness restraint system in accordance with Aeronautical Accessories, Inc. Report No. AA-86025, Drawing List, shoulder harness restraint system, dated January 30, 1987, or later FAA approved revision.

Limitations and Conditions:

This approval should not be extended to other rotorcraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will produce no adverse effect upon the airworthiness of that rotorcraft. This determination should include considerations of significant changes in weight distribution such as an increase in the fixed disposable weight in the fuselage.

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 9, 1987

Date received:

Date of issuance: March 16, 1987

Date amended: October 5, 1992



By direction of the Administrator

Paul C. Sconyers
(Signature)

Paul C. Sconyers
Acting Manager, Atlanta Aircraft
Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.



REPÚBLICA FEDERATIVA DO BRASIL
Ministério da Aeronáutica
CENTRO TÉCNICO AEROSPAÇIAL

CERTIFICADO DE HOMOLOGAÇÃO SUPLEMENTAR DE TIPO

NÚMERO 9603-15

CATEGORIA NORMAL

Este documento, emitido com base na Portaria nº 453/GM5, de 02 de agosto de 1991, em nome de: **AERONAUTICAL ACCESSORIES, INC.**

*P.O. Box 3689
Bristol, TN - 37625
U.S.A.*

atesta que a modificação ao projeto de tipo do produto citado abaixo, observadas as limitações e condições especificadas, satisfaz aos requisitos de aeronavegabilidade aplicáveis ao:

PRODUTO ORIGINAL :

Marcas de nacionalidade e de matrícula: -X-X-

Fabricante: **BELL HELICOPTER TEXTRON**

Modelo(s): **206A, B, L, L-1, L-3 & L-4**

Nº de série: -X-X-

Nº do Certificado de Tipo: **H2SW (FAA - U.S.A.)**

DESCRIÇÃO DA MODIFICAÇÃO AO PROJETO DE TIPO:

Instalação de "CREW SHOULDER HARNESS RESTRAINT SYSTEM" da Aeronautical Accessories, Inc., de acordo com o "Report Nº AA-86025 Drawing List", Rev. F, de 10 Fev. 94, ou em revisões posteriores aprovadas pelo CTA.

LIMITAÇÕES E CONDIÇÕES:

Conforme listadas na pág. 01 de 01 do Adendo a este CHST.

DATAS:

Do requerimento: **16 MAR 1993**

Da emissão: **28 MAR 1996**

Da reemissão:

APROVAÇÃO:

CLOBALDO MATIAS DE OLIVEIRA - Ten.-Cel.-Av.
Chefe da Divisão de Homologação Aeronáutica

Maj.-Brig.-do-Ar REGINALDO DOS SANTOS
Director do Centro Técnico Aeroespacial



REPÚBLICA FEDERATIVA DO BRASIL
Ministério da Aeronáutica
CENTRO TÉCNICO AEROSPAÇIAL

ADENDO AO CERTIFICADO DE HOMOLOGAÇÃO SUPLEMENTAR DE TIPO

NÚMERO 9603-15

FOLHA 01 DE 01

LIMITAÇÕES E CONDIÇÕES:

- I. Os dados referentes a esta modificação são considerados adequados para reprodução em outras aeronaves de mesmo tipo e modelo.
- II. A aprovação desta modificação não é estendida para outras aeronaves de mesmo tipo e modelo que tenham recebido anteriormente outra modificação aprovada; a não ser que o responsável pela modificação verifique se não há incompatibilidade desta modificação com as anteriormente instaladas e que não haverá nenhum efeito adverso na aeronavegabilidade da aeronave.
- III. Permanecem válidas as limitações e condições estabelecidas na especificação da aeronave nº H2SW, emitida pela FAA (U.S.A.).
- IV. Uma cópia do Certificado, do Adendo, e dos Relatórios abaixo especificados devem ser mantidos como parte integrante dos documentos da aeronave modificada.

RELATÓRIO Nº	REV. / DATA	DESCRIÇÃO
AA-86023	E / 02.11.90	Installation Instructions - Shoulder Harness Kits - Bell 206A/B
AA-86024	E / 01.07.93	Installation Instructions - Shoulder Harness Kits - Bell 206L, L-1, L-3, L-4
AA-87008	D / 19.12.91	Installation Instructions - Shoulder Harness Kits - Bell 206A/B with Litter Kit Provisions

DATAS:

Da emissão: 18 MAR 1996

Da reemissão:

APROVAÇÃO:


CLOBALDINO MATIAS DE OLIVEIRA - Ten.-Cel.-Av.
Chefe da Divisão de Homologação Aeronáutica


Maj.-Brig.-do-Ar REGINALDO DOS SANTOS
Diretor do Centro Técnico Aeroespacial


 Transports
Canada

 Transport
Canada

Aviation

Aviation


**BORDEREAU DE TRANSMISSION POUR TÉLÉCOPIEUR/
FACSIMILE TRANSMITTAL FORM**

700, Leigh Capreol
Aéroport Int'l de Montréal/Montreal Int'l Airport
Dorval (Québec)
H4Y 1G7

PAGE 1 DE/OF: 3

DATE: November 4, 1992

DE/FROM: <i>Pierre G. Richard</i> (signature)			
DE/FROM: (nom/name) Pierre G. Richard, Eng.	SIGLE/ DESIGNATOR: NAHD	FAX.: (514) 633-3538	LIEU/LOCATION: Dorval, Quebec, Canada
		TÉL.: (514) 633-3602	
À/TO: (nom/name) Eugene F. Dearing Director of Engineering	SIGLE/ DESIGNATOR: Aeronautical Accessories, Inc.	FAX.: (615) 538-8469	LIEU/LOCATION: Bristol, Tennessee, U.S.A.
		TÉL.: (615) 538-5151	
CLASSE DE SÉCURITÉ/ SECURITY CLASSIFICATION: ☒ NON CLASSIFIÉ x UNCLASSIFIED ☐ CONFIDENTIEL ☐ CONFIDENTIAL ☐ PROTÉGÉ ☐ PROTECTED			

INSTRUCTIONS SPÉCIALES/SPECIAL INSTRUCTIONS:

Mr. Dearing,

In accordance with Transport Canada Airworthiness Policy Letter No. 38, Issue No. 1 dated August 21, 1989 on the subject of familiarization of FAA STC's incorporated on Bell 206 helicopters that was previously sent to you, it has been determined that the following FAA STC's issued to Aeronautical Accessories, Inc. may be accepted on the basis of their FAA certification and therefore would not normally require a Canadian familiarization:

<u>FAA STC No.</u>	<u>Applicability</u>	<u>Description</u>
SH227WE	Bell 206A, 206B, 206L, 206L-1 & 206L-3 (Normal Category only)	Installation of baggage compartment extension.
SH244WE	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation and fabrication of cyclic support safety cover.
SH1312SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of the Nightscanner belly mounted searchlight.
SH1322SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of an aluminum entrance step on helicopter equipped with high skid gear.
SH1385SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of a cargo viewing mirror on Bell helicopters.
SH1392SO	Bell 206A & 206B	Installation of High Skid Type Landing Gear.
SH1522SO	Bell 206L & 206L-1	Installation of Range Extender (EA 891-40).
SH1609SO	Bell 206A & 206B	Installation of a spacer block assembly on helicopters equipped with high skid gear.
SH1813SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of passenger bubble window assemblies.
SH1814SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of crew bubble window assemblies.

SH1815SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of crew wedge window assemblies.
SH2073SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of shoulder harness restraint system.
SH2373SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of a collective stick socket protective cover.
SH2764SO	Bell 206A & 206B	Installation of Low Skid Type Landing Gear.
SH2804SO	Bell 206L, 206L-1 & 206L-3	Installation of High Skid Type Landing Gear.
SH2889SW	Bell 206A & 206B	(A) Installation of fuel filler neck. (B) Installation of Range Extender (EA-891-20) or Range Extender-Quick Disconnect (EA-891-30).
SH2941SO	Bell 206L, 206L-1 & 206L-3	Installation of a replacement low skid landing gear kit.
SH2976SO	Bell 206L, 206L-1 & 206L-3	Replacement Skid Gear Cross Tubes and installation of same, for emergency flotation systems BHT P/N 206-706-067-3 or 206-706-067-101.
SH3191SO	Bell 206A & 206B	Installation of external hoist.
SH3298SO	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of interior trim parts on Bell 206 Series rotorcraft.
SH3582SW	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of left rear sliding door for the Bell Model 206B; and installation of left or right sliding passenger door assemblies for Bell Models 206A, 206B, 206L, 206L-1 and 206L-3.
SH5685SW	Bell 206B, 206L, 206L-1 & 206L-3	Installation of wedge window assemblies, P/N 26HP901-1, -2, -3, -4.
SH5773SW	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of rubber seal mounted crew door windows and/or crew door wedge windows with vent.
SH5850SW	Bell 206A, 206B, 206L, 206L-1 & 206L-3	Installation of Heli Plex Chin Bubble.
SH7882SW	Bell 206A & 206B	Installation of a Frahm vibration absorber.



Ergänzung zur Musterzulassung Supplemental Type Certificate

Nr.: RC 1156

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.

The Supplemental Type Certificate of the aeronautical product supplemented in accordance with the provisions of the „Luftverkehrs-Zulassungs-Ordnung“ (Air Navigation Certification Order) is documented by means of this „ERGÄNZUNG zur MUSTERZULASSUNG“ (SUPPLEMENTAL TYPE CERTIFICATE). It amends the data of the Type Certificate and of the pertinent Type Certificate Data Sheet and will only be valid in conjunction with them.

Anwendbarkeit:

Applicability:

Gerätemuster/Baureihen:
Type / variants :

Bell 206A, B, L, L-1, 206 L-3, 206 L-4
Agusta Bell AB 206A, AB 206 B

Geräte-Kennblatt Nr.:
No. of Type Certificate Data Sheet :

3034

Ausgabe:
Issue :

206 A, 206 B, AB 206 A, 206 L, 206 L-1, AB 206 B	14
206 L-3	15
206 L-4	2

Antragsteller:

Applicant:

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

Beschreibung der Ergänzung:

Description of the Supplement:

Schultergurte

Zulassungsgrundlage:

Certification Basis :

- **Bezugsdokument:**
Reference Document :

Aeronautical Accessories, Inc. Drawing List
Report No. AA-86025, vom 30. Januar 1987 oder
spätere, FAA-anerkannte Revision.

Zulassung im Ursprungsland:

Certification in the Country of Origin :

- **Halter der Zulassung:**
STC Holder :

Aeronautical Accessories Inc.

- **Nr. der Zulassung:**
STC No.:

STC SH2073SO

- **zugelassen von:**
certified by :

Federal Aviation Administration, U.S.A

Conditions and Restrictions :

- 1. Die Verträglichkeit dieser Modifikation mit anderen zugelassenen Modifikationen ist vom Einrüster sicherzustellen.**

The compatibility of this modification with other approved modifications has to be ensured by the company installing the modification.

- 2. Anweisungen für den Betrieb:**

Instructions for operation:

Keine Änderung gegenüber den Anweisungen des Grundmusters

- 3. Anweisungen für Installation, Instandhaltung und die Nachprüfung:**

Instructions for maintenance and inspection

The instructions for the type are applicable

- 3.1** Für alle Baureihen des Musters:
Aeronautical Accessories, Inc. Drawing List Report No. AA-86025
- 3.2** Für alle Baureihen des Musters (Kopfstütze):
Aeronautical Accessories, Inc. Installation Instructions Report No. AA-96059
- 3.3** Für Muster Bell 206 L, L-1, L-2, L-3, L-4:
Aeronautical Accessories, Inc. Installation Instructions Report No. AA-86024, Rev, H.
- 3.4** Für Muster Bell 206 A/B ohne Vorkehrungen für den Einbau einer **Ambulanz-Ausrüstung:**
Aeronautical Accessories, Inc. Installation Instructions Report No. AA-86023, Rev, H.
- 3.5** Für Muster Bell 206 A/B mit Vorkehrungen für den Einbau einer **Ambulanz-Ausrüstung:**
Aeronautical Accessories, Inc. Installation Instructions Report No. AA-87008, Rev, F

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

This Supplemental Type Certificate may be revoked in the cases provided for by § 4 section 3 of the „Luftverkehrs - Zulassungs - Ordnung“ (Air Navigation Certification Order).

LBA-Zulassung:

Certificate issued by LBA :

C. A. K. K. K.



Braunschweig, 15. Februar 2001

EMZ-Nr.: RC 1156,

Ausgabestand: 1

Status of Issue :



AIRWORTHINESS APPROVAL NOTE NO: 23814 Issue 12

APPLICANT: CAA Internal Purposes

AIRCRAFT TYPE: Bell 206 Series

REGISTRATION NO: Not Applicable

CONSTRUCTOR'S NO: Not Applicable

Validation of Aeronautical Accessories FAA Bell 206 Series STC Approvals

In accordance with BCAR B2-2 para 7.2.3 procedures, the following Aeronautical Accessories, Inc modifications are approved for use in the Transport Category (Passengers) when installed in accordance with the FAA STC on UK registered Bell/Agusta Bell 206 Series aircraft, as appropriate:

<u>Description</u>	<u>STC</u>	<u>Model</u>
Range Extender	SH2889SW	Bell 206A,B
Longrange Extender	SH1522SO	Bell 206L,L-1
Raingutter	SH1148SO	Bell 206A,B,L,L-1,L-3
Spasomaker	SH227WE	Bell 206A,B,L,L-1,L-3,L-4,407
Maintenance Step	SH1281SO	Bell 206A,B
Folding Maintenance Step	SH2243SO	Bell 206A,B,L,L-1,L-3,L-4,407
Step/Handle	SH1282SO	Bell 206A,B
Step/Handle	SH1366SO	Bell 206L,L-1,L-3,L-4,407
High Skid Gear	SH1392SO	Bell 206A,B
High Skid Gear	SH2804SO	Bell 206L,L-1,L-3,L-4
Low Skid Gear	SH2764SO	Bell 206A,B
Low Skid Gear	SH2941SO	Bell 206L,L-1,L-3,L-4
Flitestep	SH1322SO	Bell 206A,B,L,L-1,L-3,L-4
Baggage Floor Protector	SH1147SO	Bell 206A,B,L,L-1,L-3,L-4,407
Cyclic Cover	SH244WE	Bell 206A,B,L,L-1,L-3,L-4
Collective Safety Cover	SH2373SO	Bell 206A,B,L,L-1,L-3,L-4
Crew Wedge Window	SH1815SO	Bell 206A,B,L,L-1,L-3,L-4
Replacement Windows	SH1664SO	Bell 206A,B,L,L-1,L-3,L-4
Crew Shoulder Harness	SH2073SO	Bell 206A,B,L,L-1,L-3,L-4
Door Openers	SH1990SO	Bell 206A,B,L,L-1,L-3,L-4,407
VRS	SH7882SW	Bell 206A,B
Cabin Floor Protector	SH2289SO	Bell 206A,B,L,L-1,L-3,L-4,407
Crew Vertical Slide Windows	SH2139SO	Bell 206A,B,L,L-1,L-3,L-4,L-4 (Modified)
Replacement Drive Train Seals	SR00539AT	Bell 206A,B,L,L-1,L-3,L-4
Tail Rotor Pedal Lockout	SR00513AT	Bell 206A,B,L,L-1,L-3,L-4
Replacement Interior Trim	SIB298SO	Bell 206A,B,L,L-1,L-3
Replacement Door Locks and Locking	SR00095AT	Bell 206A,B,L,L-1,L-3,L-4
Fuel Cap		

APPLICANT
AIRCRAFT PROJECTS DEPARTMENT
FLIGHT MANUALS SECTION
POWERPLANT DEPARTMENT
REGIONAL MANAGER:-

<u>Description</u>	<u>STC</u>	<u>Model (Cont'd)</u>
Lightweight Replacement Nitrogen Reservoir Assembly	SR00175AT	Bell 206A, B, L, L-1, L-3, L-4
Electrical Inflation Valve Retrofit Kit	SR00822AT	Bell 206A, B, L, L-1, L-3
Air Deflector	SR01556AT	Bell 407
Air Deflector	SR01582AT	Bell 206A, B, L, L-1, L-3, L-4
Dual Video Camera System and Monitor	SH2292SO	Bell 206A, B, L, L-1, L-3
Hinged Circuit Breaker Panel	SR00347AT	Bell 206A, B, L, L-1, L-3, L-4

Issue 2 has been raised to correct minor editorial errors.

Issue 3 has been raised to include the Bell 206L4, where applicable.

Issue 4 has been raised to include the Crew Vertical Slide Windows.

Issue 5 has been raised to include the Replacement Drive Train Seals.

Issue 6 has been raised to include the Tail Rotor Pedal Lockout and Bell 206 L-4 applicability to High and Low Skid Gear.

Issue 7 has been raised to include the Replacement Interior Trim

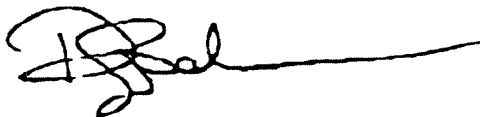
Issue 8 has been raised to include Replacement Door Locks and Locking Fuel Cap

Issue 9 has been raised to include replacement Nitrogen Reservoir and Electrical Inflation Valves for the Bell Emergency Flotation Equipment.

Issue 10 has been raised to include installation of Air Deflection on crew and passenger door windows.

Issue 11 has been raised to include STCs SR01582AT, SH2292SO and SR00347AT.

Issue 12 has been raised to include the Bell 407, where applicable.



P Sparkes

For the Civil Aviation Authority

Date 8 October 1999