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INSTRUCTIONS
for
CONTINUED AIRWORTHINESS
for
COMPOSITE ENGINE COWLING DOOR KIT

P/N 206-506-101 L/H

P/N 206-506-102 R/H

P/N 206-506-103 L/H

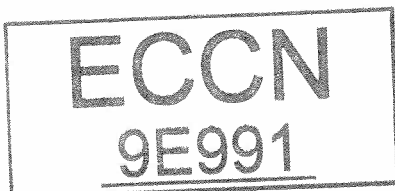
for

Bell 206L-1, L-3, L-4 Model Helicopters

Report No. AA-99105

No Revision

October 19, 2000



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LIST OF EFFECTIVE PAGES

LIST OF REVISIONS

No Revision (NR) October 19, 1999

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These Instructions for Continued Airworthiness (ICA), except
for the Airworthiness Limitation Section, have been reviewed
and found to comply with the applicable requirements of
Appendix A to the Federal Aviation Regulations Part 27

FAA Acceptance Manuel Long Date 12/06/00
Fort Worth Aircraft Evaluation Group

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1.0 INTRODUCTION

These instructions contain the information necessary to inspect and maintain the **AERONAUTICAL ACCESSORIES, INC. COMPOSITE ENGINE COWLING DOOR KITS** (206-506-101, -102, -103) Bell 206L-1, L-3, L-4 Model Helicopters.

1.1 DISTRIBUTION

These instructions are provided with each **COMPOSITE ENGINE COWLING DOOR KIT**. Any airworthiness or flight safety revisions will be immediately sent to all affected **COMPOSITE ENGINE COWLING DOOR KIT** owners.

2.0 DESCRIPTION

The **AERONAUTICAL ACCESSORIES, INC. COMPOSITE ENGINE COWLING DOORS** provides a composite replacement for the existing aluminum doors on Bell 206L-1, L-3, & L-4 Model Helicopters. The door kit includes vent screens, metal hinges, latches, and all hardware necessary for installation.

3.0 MAINTENANCE INSTRUCTIONS

Refer to paragraphs 3.1 through 3.4.

3.1 DAILY/PREFLIGHT INSPECTION

The **COMPOSITE ENGINE COWLING DOOR KIT** shall receive a Daily/Preflight visual inspection. Inspect for proper installation of hardware, any unusual wear patterns, corrosion and/or damage (scratches, nicks, dents, cracks), paying close attention to hinge and latch areas. Ensure the damage limits presented in Table 1 are not exceeded for the **COMPOSITE ENGINE COWLING DOOR KIT**. Replace parts as required.

NOTE

Removal of **COMPOSITE ENGINE COWLING DOORS** from helicopter is not required for inspection. If any damage is noted during the Daily/Preflight Inspection, refer to paragraph 3.3 Repair or paragraph 4.0 Troubleshooting Information.

TABLE 1: DAMAGE AND REPAIR LIMITS

COMPONENT	MAXIMUM ALLOWABLE DAMAGE AND REPAIR LIMITS (Damage and corrosion may be repaired as noted in Section 3.3 REPAIR, if it does not exceed these limits.)	
	SCRATCHES / NICKS / DENTS AND CORROSION	CRACKS
Composite Door	Minor surface damage allowed with no fiber damage.	None
Hinge	To a depth of .025"	None
Screens & Doublers	To a depth of .025"	None

The Daily/Preflight inspection consists of the following items:

1. Inspect the Composite Door for damage or signs of delamination and inspect the Hinges, Screens & Doublers, Latches and scoop for nicks, scratches, dents, corrosion or cracks.

NOTE

The indications of corrosion are: 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in the aluminum or steel surface, 3) blisters, bulging or flaking of protective coatings.

2. Inspect the attaching Hinges and Latches for security.
3. Check working operation of door to ensure there is no bind with door fully opened or closed.
4. Ensure latches are properly positioned on latch tabs on airframe.

3.2 ANNUAL INSPECTION

The **COMPOSITE ENGINE COWLING DOORS** shall receive an Annual Inspection consisting of the following items:

1. Complete the Daily/Preflight inspection listed above.
2. Utilize the Inspection Record provided in Appendix A to document Inspection completion.

3.3 REPAIR

Repair scratches, nicks, dents and corrosion as follows:

1. Lightly polish the affected area using Scotch-Brite pads. Ensure the limits presented in Table 1 are not exceeded. Take care to remove as little of the component protective coatings as possible.
2. For the aluminum components, after corrosion or damage repair: Clean repaired area with isopropyl alcohol, brush Alodine bare aluminum areas per MIL-C-5541 or equivalent, and paint area to match existing finish.
3. For the Steel components, after corrosion or damage repair: Prime with a rust prohibitive primer and paint area to match existing finish.

3.4 CLEANING REQUIREMENTS

Any dirt, sand or debris should be cleaned from the **COMPOSITE ENGINE COWLING DOORS** using a mild, non-abrasive soap or cleaner. Wipe surfaces dry with a non-abrasive cloth or paper before cleaning agent evaporates.

4.0 TROUBLESHOOTING INFORMATION

TABLE 2: TROUBLESHOOTING GUIDE (See Figures 1, 2, & 3)

PROBLEM	PROBABLE CAUSE	REMEDY
Door is loose or vibrates.	Fasteners loose or missing.	Check hinge & latch fastening hardware for security.
	Hinge pin is missing.	Replace missing pin and bend up each end of pin. Check the other hinge pins to ensure they will not vibrate out.
Door is hard to open.	Cowling Door Assembly requires lubrication.	Lubricate the Cowling Door Assembly with a light lubricant such as WD-40.
Door does not fit properly.	Damaged hinge or fasteners.	Replace damaged parts.
	Upper cowling not fastened.	Realign upper cowling and securely fasten to transmission cowling.
Door is warped or delaminated	Excessive heat causing deformation or delamination.	Return door assembly to aeronautical Accessories, Inc. for repair.

5.0 REMOVAL AND REPLACEMENT INFORMATION

(Refer to Table 3 and Figures 1, 2, & 3 for part identification.)

5.1 REMOVAL - COMPOSITE ENGINE COWLING DOOR KIT

1. Remove rivets (24) attaching door hinges to upper cowling.
2. Remove door (1, 2, or 3) from aircraft.

5.2 INSTALLATION - COMPOSITE ENGINE COWLING DOOR KIT

1. Place **COMPOSITE ENGINE COWLING DOOR** on aircraft, latch bottom latches (20) and all dzus fasteners (27) to ensure proper fit.
2. Match drill hinges (19) to existing upper cowling and cleco.
3. Open and close door to ensure smooth operation.
4. Install provided rivets (24) into upper cowling and hinges.
5. Installation complete.

6.0 STRUCTURAL FASTENER DATA

For hardware identification Table 3 and Figures 1, 2, & 3.

7.0 RECOMMENDED OVERHAUL PERIODS

No component overhaul required for this type design change.

8.0 AIRWORTHINESS LIMITATIONS

No airworthiness limitations associated with this type design change.

9.0 REVISION

A Log Of Revision section is included in these instructions and will be utilized to document all changes. Change recommendations should be submitted to:

AERONAUTICAL ACCESSORIES INC.
P.O. Box 3689
Bristol, TN 37625-3689

10.0 PARTS BREAKDOWN

Table 3 contains Parts Breakdown data for the **COMPOSITE ENGINE COWLING DOOR KIT** as illustrated in Figures 1, 2, & 3.

**TABLE 3: COMPOSITE ENGINE COWLING DOOR (206-506-101/-102/-103)
PARTS BREAKDOWN**

INDEX NUMBER	PART NUMBER	ITEM NAME	QTY -101	QTY -102	QTY -103
1	206-506-121	Composite Engine Cowling Door L/H	1		
2	206-506-122	Composite Engine Cowling Door R/H		1	
3	206-506-123	Composite Engine Cowling Door L/H			1
4	206-506-131	Screen	1	1	1
5	206-506-132	Screen	1	1	1
6	206-506-133	Screen	1	1	1
7	206-506-134	Screen	1	1	1
8	206-506-135	Screen	1	1	1
9	206-506-136	Ducting Screen		1	
10	206-506-137	Screen			1
11	206-506-141	Doubler	1	1	1
12	206-506-142	Doubler	1	1	1
13	206-506-143	Doubler	1	1	1
14	206-506-144	Doubler	1	1	1
15	206-506-145	Doubler	1	1	
16	206-506-147	Doubler			1
17	206-506-150	Scoop		1	
18	206-506-151	Flange		1	
19	206-505-027	Hinge	3	3	3
20	H-5000-3-.125-.179	Trigger Lock	3	3	3

**INSTRUCTIONS for CONTINUED AIRWORTHINESS
for COMPOSITE ENGINE COWLING DOOR**

Continued					
INDEX NUMBER	PART NUMBER	ITEM NAME	QTY -101	QTY -102	QTY -103
21	CR3213-4-3	Rivet	27	27	27
22	CR3213-4-4	Rivet	68	74	68
23	CR3213-4-5	Rivet	4	12	4
24	MS20470AD4-4	Rivet	15	15	15
25	206-505-025	Brace	1	1	1
26	140-001-1	Washer	68	82	68
27	AW35T24CBY	Stud	2	2	2
28	50-009-2	Grommet	2	2	2

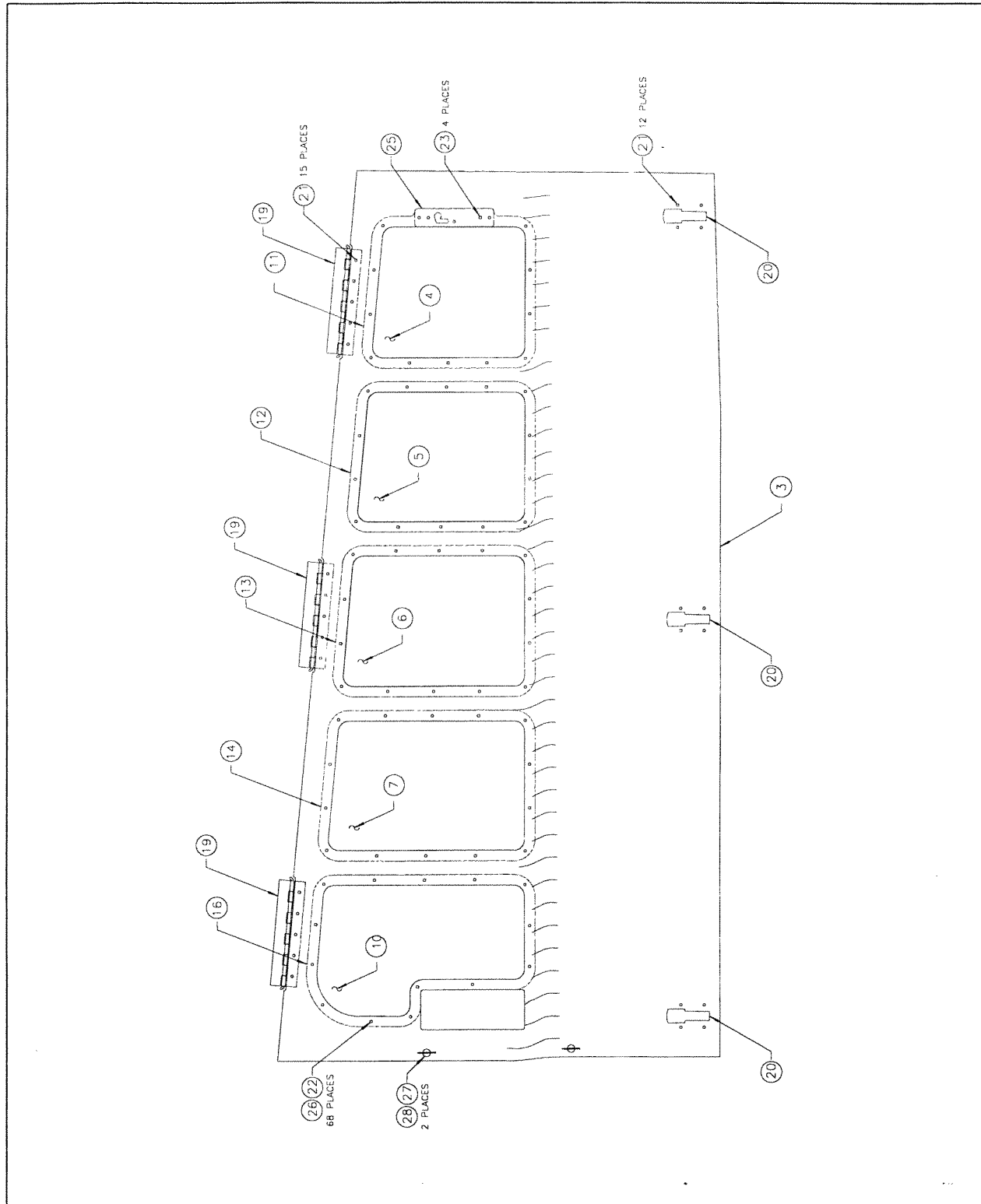


Figure 1
Composite Engine Cowling Door L/H (206 L-1)

AERONAUTICAL ACCESSORIES, INC.

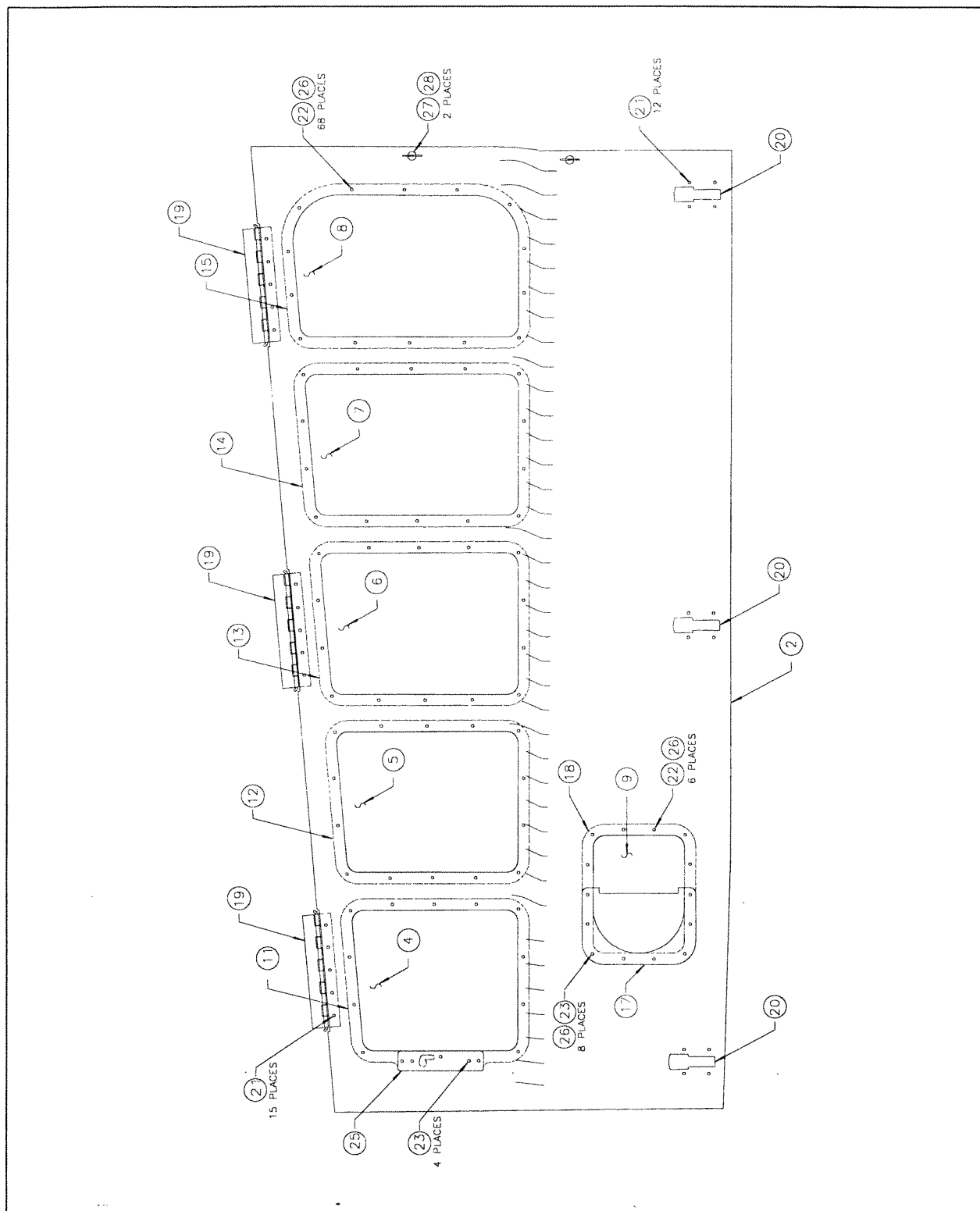


Figure 2
Composite Engine Cowling Door R/H (206 L-1, L-3, L-4)



APPENDIX - A

Annual Inspection Record

Work Order Number: _____
Registration Number: _____
Serial Number: _____
Total Time: _____
Date: _____

Inspect the COMPOSITE ENGINE COWLING DOOR KIT for the following in accordance with Section 3.2 ANNUAL INSPECTION.

- _____ 1. Inspect the Composite Door for damage or signs of delamination and inspect the Hinges, Screens & Doublers, Latches and scoop for nicks, scratches, dents, corrosion or cracks.

NOTE

The indications of corrosion are: 1) corrosion deposits (a white or gray powder on aluminum or rust colored deposits on steel), 2) pits in the aluminum or steel surface, 3) blisters, bulging or flaking of protective coatings.

- _____ 2. Inspect the attaching fasteners for security.
- _____ 3. Press latches to unlock door and pull open to check proper operation of latches and door.

Signature _____ A & P No. _____

Signature _____ Inspector