

TECHNICAL BULLETIN
Bell Helicopter **TEXTRON**

A Subsidiary of Textron Inc.

No. 214-04-95

Date 04-06-04

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DATE
REV

MODEL AFFECTED: 214B/214B-1

SUBJECT: CONVERSION OF MODEL 214B TO MODEL 214B-1 OR MODEL 214B-1 TO MODEL 214B

HELICOPTERS AFFECTED: Model 214B/214B-1 helicopters serial number 28001 and subsequent.

COMPLIANCE: At Customer's Option

DESCRIPTION:

The 214B and 214B-1 configurations differ primarily in their certificated maximum internal gross weight, the 214B being 13,800 pounds and the 214B-1 being 12,500 pounds. The certificated maximum external gross weight, 16,000 pounds, is identical for both configurations. In some situations, it will be advantageous for operators to certificate their helicopters under the lower internal gross weight.

This technical bulletin details the changes and process required for converting the Model 214B to a Model 214B-1 and for converting a Model 214B-1 back to a Model 214B.

This technical bulletin cancels and supercedes BHT Service Instruction No 214-21.

APPROVAL:

The engineering design aspects of this bulletin are FAA/DER approved.

MANPOWER:

Approximately 1.5 man-hours are required to complete the decal and modification plate installation portions of this bulletin. Man-hours are based on hands-on time, and may vary with personnel and facilities available.

MATERIALS:

Required Material:

The following material is required for the accomplishment of this bulletin and may be obtained through your Bell Helicopter Textron Supply Center. See text for additional material requirements not listed here.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>
214-075-256-105 ¹	Decal	1
214-075-256-107 ²	Decal	1
MS20604B3W2	Rivet	4
MS27253-1	Modification Plate	1

¹For use on 214B-1 only.

²For use on 214B only.

Consumable Material:

The following material is required to accomplish this bulletin, however this material is considered consumable (bench stock) material and may not require ordering depending on the operators consumable material stock levels. This material may be obtained through your Bell Helicopter Textron Supply Center.

<u>Part Number</u>	<u>Nomenclature</u>	<u>Quantity</u>	<u>Reference</u>
MIL-P-85582, TY1, CL2	Epoxy Primer	AR	C-100
MIL-C-81706 1 QT	Alodine	AR	C-204
TT-N-95, TYII 1GAL	Aliphatic Naphtha	AR	C-305
3950 SCOTCHCAL	Decal Sealer	AR	C-349
TT-I735 ISOPROPYL	Alcohol	AR	C-385

SPECIAL TOOLS:

None required

WEIGHT AND BALANCE:

Not Affected

ELECTRICAL LOAD DATA:

Not affected

REFERENCES:

A.S.B. 214-87-37, MAIN ROTOR YOKE, P/N 214-010-105-001, REDUCTION OF RETIREMENT LIFE, FROM 5000 HOURS TO 3750, THE ADDITION OF A 1200 HOUR INSPECTION, AND A NEW AIRSPEED VERSUS ALTITUDE RESTRICTION, Rev A, dated 9/10/87.
BHT-ALL-SPM, Chapters 3, 4, and 13.
BHT-MED-SRM-1, Section 3.
BHT-214B-FM-1, 214B Flight Manual
BHT-214B1-FM-1, 214B-1 Flight Manual

PUBLICATIONS AFFECTED:

None affected

ACCOMPLISHMENT INSTRUCTIONS:

Convert a 214B to a 214B-1 or a 214B-1 to a 214B as follows:

1. Refer to Figure 1. When converting Model 214B to Model 214B-1 configuration, install airspeed limits decal P/N 214-075-256-105; and, when converting Model 214B-1 to Model 214B configuration, install airspeed limits decal, P/N 214-075-256-107, as follows:
 - a. Remove existing decal and thoroughly clean surface of instrument panel with clean cloth wetted with aliphatic naphtha, item C-305.
 - b. Wipe dry with clean cloth before naphtha dries.

-NOTE-

To obtain best adhesion of pressure sensitive decals, install at temperatures above 60°F (16°C). When installing decals below 60°F (16°C), activate adhesive with isopropyl alcohol (C-385).

- c. Locate lower edge of decal 7.0 inches from upper edge of center instrument panel and right edge of decal 0.25 inch from left edge of integrally lit panel.
- d. Remove liner from back of decal and install on instrument panel. Remove air blisters by puncturing with pin or with thumb pressure.
- e. Seal edge of decal with edge sealer, item C-349.

2. Mark and install a P/N MS27253-1, Modification Plate as noted below:
 - a. Refer to Figure 2, Detail C. Impression stamp or vibroetch the required data on the modification plate as noted.
 - b. Refer to Figure 2, View B-B. Locate the modification plate below the helicopter's data plate as shown and layout, as required, the four attaching holes on the door post structure.
 - c. As required, using a No. 40 drill, drill four fastener holes through the door post structure.
 - d. Deburr holes, alodine (C-204) bare metal, and touch up prime (C-100). Allow to dry.
 - e. Install modification plate with four P/N MS20604B3W2.rivets.
3. Complete the following prior to operation:

-NOTE-

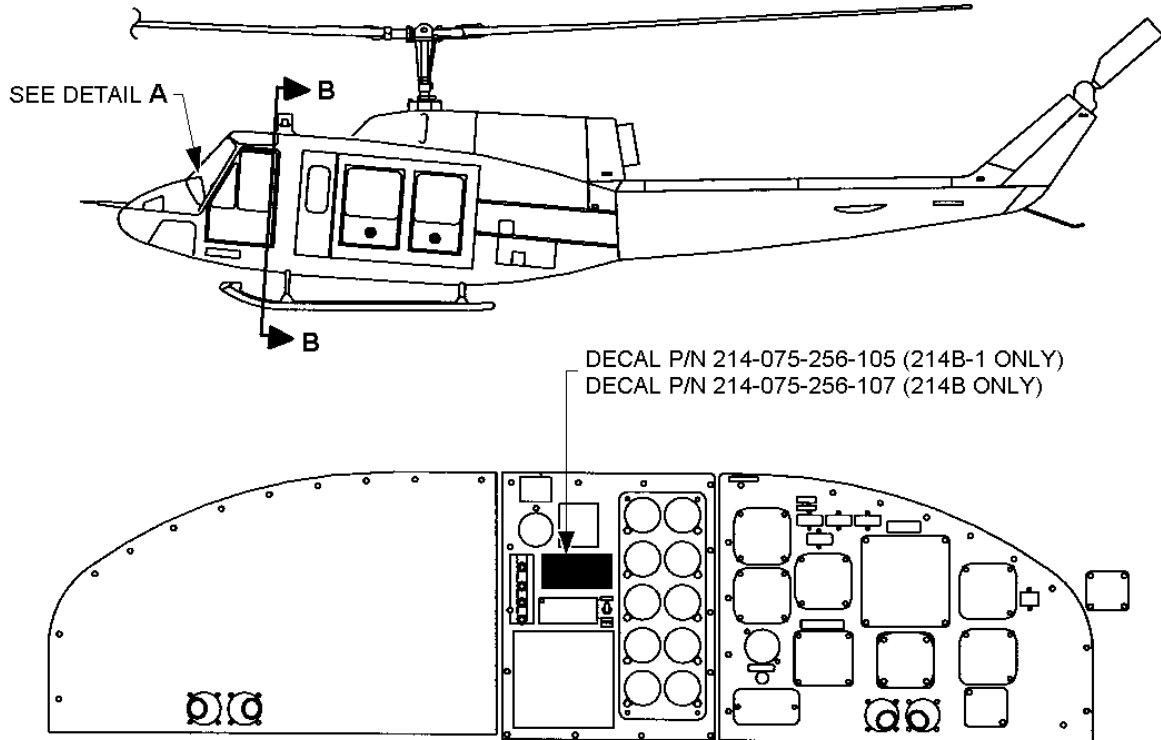
All four requirements listed below must be complete prior to return to service.

- a. For FAA registered helicopters complete and submit Form 337; for helicopters registered by other nationalities, complete and submit their specific documentation required for aircraft modifications.
- b. A new owner's registration and a revised Airworthiness Certificate showing the change in designation must be obtained from the appropriate airworthiness authority.
- c. Change all aircraft records to reflect the new model designation. Make a logbook entry noting compliance with this Technical Bulletin and a change in model designation.

-NOTE-

Flight manuals may be obtained from Bell Helicopter Commercial Publications Distribution Center at facsimile 817-280-6466.

- d. Replace existing flight manual with the appropriate manual for the new model designation.



DECAL P/N 214-075-256-105 (214B-1 ONLY)
DECAL P/N 214-075-256-107 (214B ONLY)

DETAIL A
INSTRUMENT PANEL - TYPICAL

(P/N 214-075-256-105)

214B-1	AIRSPEED LIMITS (INDICATED AIRSPEED)																214B-1	
BASIC HELICOPTER																		
PRESSURE ALTITUDE - 1000 FEET																		
	0	2	4	6	8	10	12	14	16	18	20							
OAT ~ °C	VNE ~ KNOTS																	
51.7	140	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
40	140	136	128	117	*	*	*	*	*	*	*	*	*	*	*	*	*	
20	140	140	135	127	116	103	92	78	70	*	*	*	*	*	*	*	*	
0	140	140	140	135	126	115	102	89	77	70	*	*	*	*	*	*	*	
-20	138	133	128	123	117	113	109	101	89	76	70	*	*	*	*	*	*	
-40	115	111	107	103	99	94	90	86	83	80	78	*	*	*	*	*	*	
-50	103	99	95	91	88	84	81	78	75	71	68	*	*	*	*	*	*	
OTHER CONFIGURATIONS																		
EXTERNAL SLING LOAD									VNE = 100 KN									

(P/N 214-075-256-107)

214B	AIRSPEED LIMITS (INDICATED AIRSPEED)																214B	
BASIC HELICOPTER																		
PRESSURE ALTITUDE - 1000 FEET																		
	0	2	4	6	8	10	12	14	16	18	20							
OAT ~ °C	VNE ~ KNOTS																	
51.7	140	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
40	140	136	128	115	*	*	*	*	*	*	*	*	*	*	*	*	*	
20	140	140	135	127	113	97	79	70	70	*	*	*	*	*	*	*	*	
0	140	140	140	135	126	112	94	78	70	70	*	*	*	*	*	*	*	
-20	138	133	128	123	117	113	109	93	78	70	70	*	*	*	*	*	*	
-40	115	111	107	103	99	94	90	86	83	80	70	*	*	*	*	*	*	
-50	103	99	95	91	88	84	81	78	75	71	68	*	*	*	*	*	*	
OTHER CONFIGURATIONS																		
EXTERNAL SLING LOAD									VNE = 100 KN									

FIGURE 1
AIRSPEED DECAL INSTALLATION

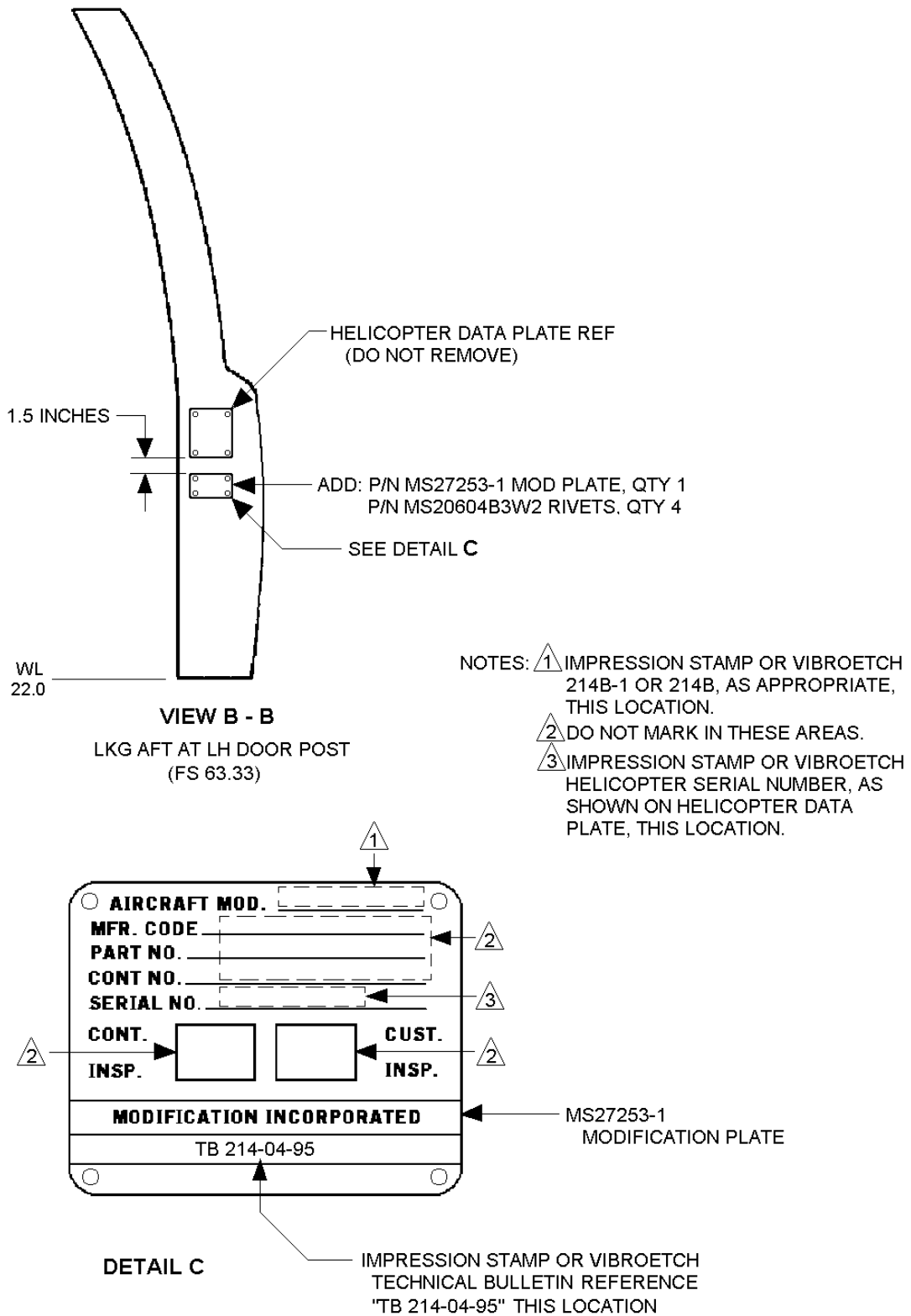


FIGURE 2
MODIFICATION PLATE MARKING AND INSTALLATION