

SERVICE BULLETIN



TITLE : Main Rotor Blade - Change of Inspection Interval for Blade Thimble

1. EFFECTIVITY

(1) Helicopters Affected:

Model	Mfg. Serial No.
KAWASAKI-BK117, BK117 A-3, BK117 A-4, BK117 B-1, BK117 B-2, BK117 C-1	All

(2) Parts Affected:

Part No.	Part Name	Remarks
117-150071 117-150081 117-151311 117-151331	Main Rotor Blade (Blade Sweep Angle 1°)	All corresponding S/N up to 4729, including spare parts.
117-151371 117-151371V001 117-151501	Main Rotor Blade (Blade Sweep Angle 0°)	All corresponding S/N up to 4729, including spare parts.
117-151421V001 117-151441 117-151441V001 117-151451 117-151451V001 117-151511 117-151521	Main Rotor Blade with Vibration Absorber, (Blade Sweep Angle 0°)	All corresponding S/N up to 4729, including spare parts.

2. PURPOSE

AHD reported that, due to the test results of an analysis of the blade root area, the inspection intervals of the blade thimble for corresponding main rotor blades in the MAINTENANCE MANUALS were reduced.

This Service Bulletin prescribes an initial inspection and repetitive inspections of the blade thimble until the new inspection intervals are reflected in the MAINTENANCE MANUALS and the latest KSB-117-192.

3. CATEGORY

MANDATORY

4. COMPLIANCE

NOTE Even if the initial inspection (for new blades) prescribed in the MAINTENANCE MANUAL and the latest KSB-117-192 are completed, the initial inspection of the blade thimble prescribed by this Service Bulletin must be accomplished.

(1) Equipment Installed on Helicopters:

a. Main rotor blades with sweep angle 1°

(a) Determination of the initial inspection time:

After receiving this Service Bulletin, the determination of the initial inspection time must be accomplished promptly in accordance with Section 9.(1) a of this Service Bulletin.

(b) Initial inspection:

Accomplish the inspection of the blade thimble in accordance with Section 9.(1) b. by the inspection time determined in accordance with Section 4.(1) a.(a) of this Service Bulletin.

(c) Repetitive inspections:

After accomplishing the inspection in accordance with 4.(1) a.(b) of this Service Bulletin, repeat the inspection of the blade thimble every 100 Fh (tolerance of 10 Fh) in accordance with Section 9.(1) b.

b. Main rotor blades with sweep angle 0°

(a) Determination of the initial inspection time:

After receiving this Service Bulletin, the determination of the initial inspection time must be accomplished promptly in accordance with Section 9.(1) a of this Service Bulletin.

(b) Initial inspection:

Accomplish the inspection of the blade thimble in accordance with Section 9.(1) b. by the inspection time determined in accordance with Section 4.(1) b.(a) of this Service Bulletin.

(c) Repetitive inspections:

After accomplishing the inspection in accordance with 4.(1) b.(b) of this Service Bulletin, repeat the inspection of the blade thimble every 300 Fh (tolerance of 30 Fh) in accordance with Section 9.(1) b.

(2) Spare Parts:

After receiving this Service Bulletin and before installation of the main rotor blades on the helicopter, check the necessity for the inspection of the blade thimble in accordance with Section 9.(2) a of this Service Bulletin.

5. JCAB APPROVAL

Approved by JCAB.

6. LOG BOOK ENTRY

- (1) For equipment installed on helicopters, make an entry in the Aircraft Logbook and on the Main Rotor Blade Log Card stating that work has been accomplished in accordance with KSB-117-442 (ASB MBB-BK117-10A-137).
- (2) For spare parts, make an entry on the Main Rotor Blade Log Card stating that work has been accomplished in accordance with KSB-117-442 (ASB MBB-BK117-10A-137).

7. MAN-HOUR REQUIRED

Approximately 1 man-hour (for reference only) will be required.
(Not including inspection of the blade thimble)

8. WEIGHT AND BALANCE CHANGE

None.

9. ACCOMPLISHMENT INSTRUCTIONS

(1) Main Rotor Blades Installed on Helicopters

a. Determination of the initial inspection time:

- (a) Determine the flight hours (Fh) of the main rotor blade from: the Fh since installation of the main rotor blade on the helicopter, or the Fh since the previous inspection of the blade thimble or the previous inspection of lead-lag amounts and unbalance amounts (for main rotor blades with sweep angle 1° only).
- (b) Use the Main Rotor Blade Log Card and blade part number to determine whether the configuration of the main rotor blade is blade sweep angle 1° or 0°.
- (c) If the configuration of main rotor blade is sweep angle 1° and KSB-117-192 **has not been accomplished**, use the flow chart in Figure 1 to determine the Fh until the initial inspection of the blade thimble.

NOTE Blades with sweep angle 1° can be modified to blades with sweep angle 0° by accomplishing KSB-117-192 “Modification and Inspection of Main Rotor Blades.”

- (d) If the configuration of main rotor blade is sweep angle 0°, use the flow chart in Figure 2 to determine the Fh until the initial inspection of the blade thimble.
- (e) Complete determination work of this Service Bulletin by making an entry in the Aircraft Logbook and on the Main Rotor Blade Log Card stating that the Fh until the initial inspection of the blade thimble has been determined in accordance with Section 9.(1).a.(c) (for sweep angle 1°) or 9.(1).a.(d) (for sweep angle 0°), and determination of the initial inspection time has been accomplished in accordance with Service Bulletin KSB-117-442 (ASB MBB-BK117-10A-137) .

b. Inspection of blade thimble:

(a) Set-up:

- 1. Remove the main rotor blade from the helicopter (MAINTENANCE MANUAL [hereafter, “MM”], section 14-6).
- 2. Disassemble the blade fittings (MM, section 14-10).

(b) Inspection:

Inspect the blade thimble and the surrounding components (MM section 14-5.6.(2) ~ (3) and 14-11).

(c) Close up:

- 1. Assemble the blade fittings (MM, section 14-12).
- 2. Install the main rotor blade on the helicopter (MM, section 14-6).
- 3. Conduct tracking and balancing for the main rotor (MM, appendix 3).

(d) Completion of work:

Complete inspection work of this Service Bulletin by making an entry in the Aircraft Logbook and on the Main Rotor Blade Log Card stating that work has been accomplished in accordance with KSB-117-442 (ASB MBB-BK117-10A-137).

(2) Spare Parts

a. Determination of inspection necessity:

In the following procedure, refer to the Main Rotor Blade Log Card to check the blade thimble inspection history and the Fh since the previous blade thimble inspection or the previous inspection of lead-lag amounts and unbalance amounts (for main rotor blades with sweep angle 1° only).

(a) If one of the following conditions apply, it is not necessary to inspect the blade thimble before installing the blade on a helicopter. Complete work in accordance with section 9.(2)b.(d) of this Service Bulletin:

- The blade is new
- The Fh since the previous inspection of the blade thimble or the previous inspection of lead-lag amounts and unbalance amounts (for main rotor blades with sweep angle 1° only) is 0 Fh

(b) If one of the following conditions apply, inspect the blade thimble in accordance with section 9.(2) b. of this Service Bulletin before installing the blade on a helicopter:

- The blade is not new and the blade thimble has not been inspected even once
- The Fh since the previous inspection of the blade thimble or the previous inspection of lead-lag amounts and unbalance amounts (for main rotor blades with sweep angle 1° only) is not 0 Fh.

b. Inspection of blade thimble:

(a) Set-up:

Disassemble the blade fittings (MM, section 14-10).

(b) Inspection:

Inspect the blade thimble and the surrounding components (MM section 14-5.6.(2) ~ (3) and 14-11).

(c) Close up:

Assemble the blade fittings (MM, section 14-12).

(d) Completion of work:

Complete inspection work of this Service Bulletin by making an entry on the Main Rotor Blade Log Card stating that work has been accomplished in accordance with KSB-117-442 (ASB MBB-BK117-10A-137).

10. PARTS AND MATERIAL INFORMATION

(1) Required Parts for One Helicopter

None.

(2) Required Materials for One Helicopter

None.

(3) Parts to be Removed

None.

11. SPECIAL TOOLS REQUIRED

Not required.

12. REFERENCE TECHNICAL DATA

KAWASAKI BK117 MAINTENANCE MANUAL

KAWASAKI BK117C MAINTENANCE MANUAL

Service Bulletin KSB-117-192 "Modification and Inspection of Main Rotor Blades"

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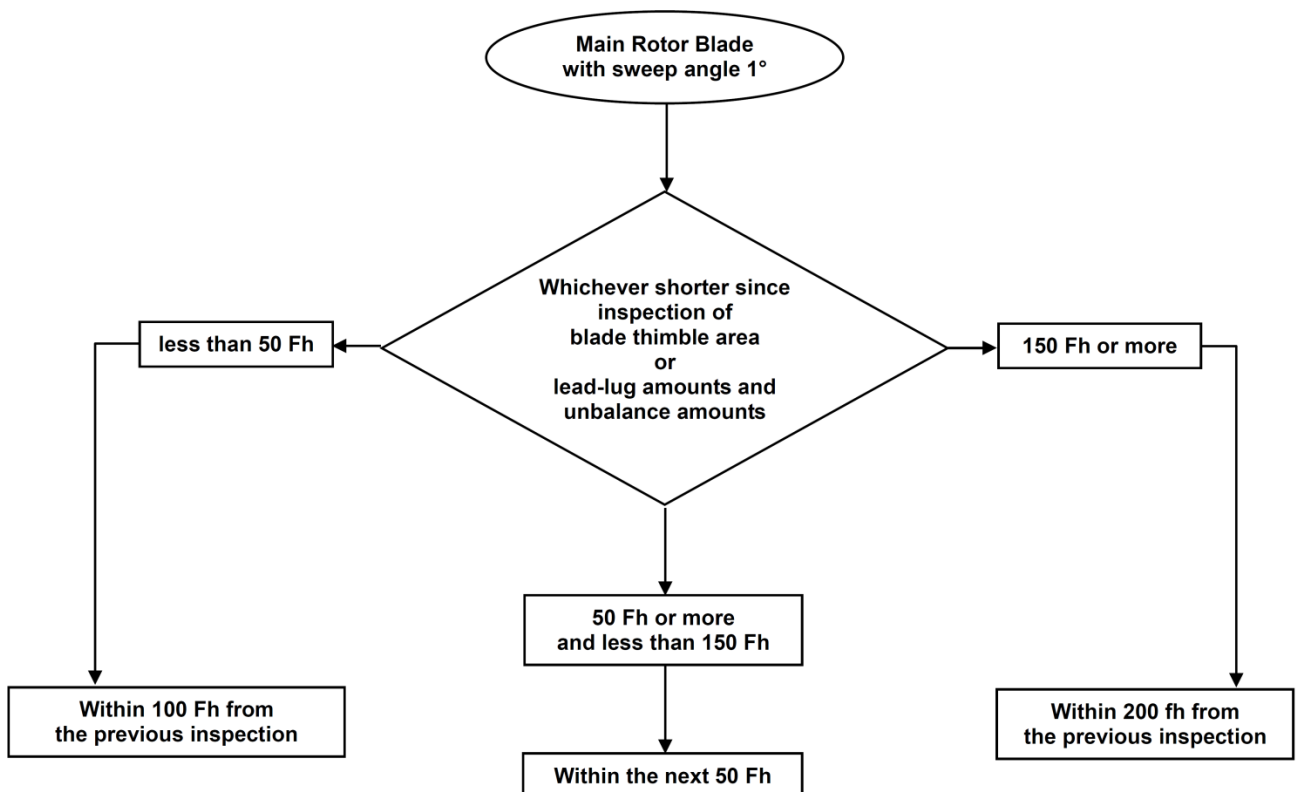


Figure 1 Determination of Initial Inspection Time (Blade with Sweep Angle 1°)

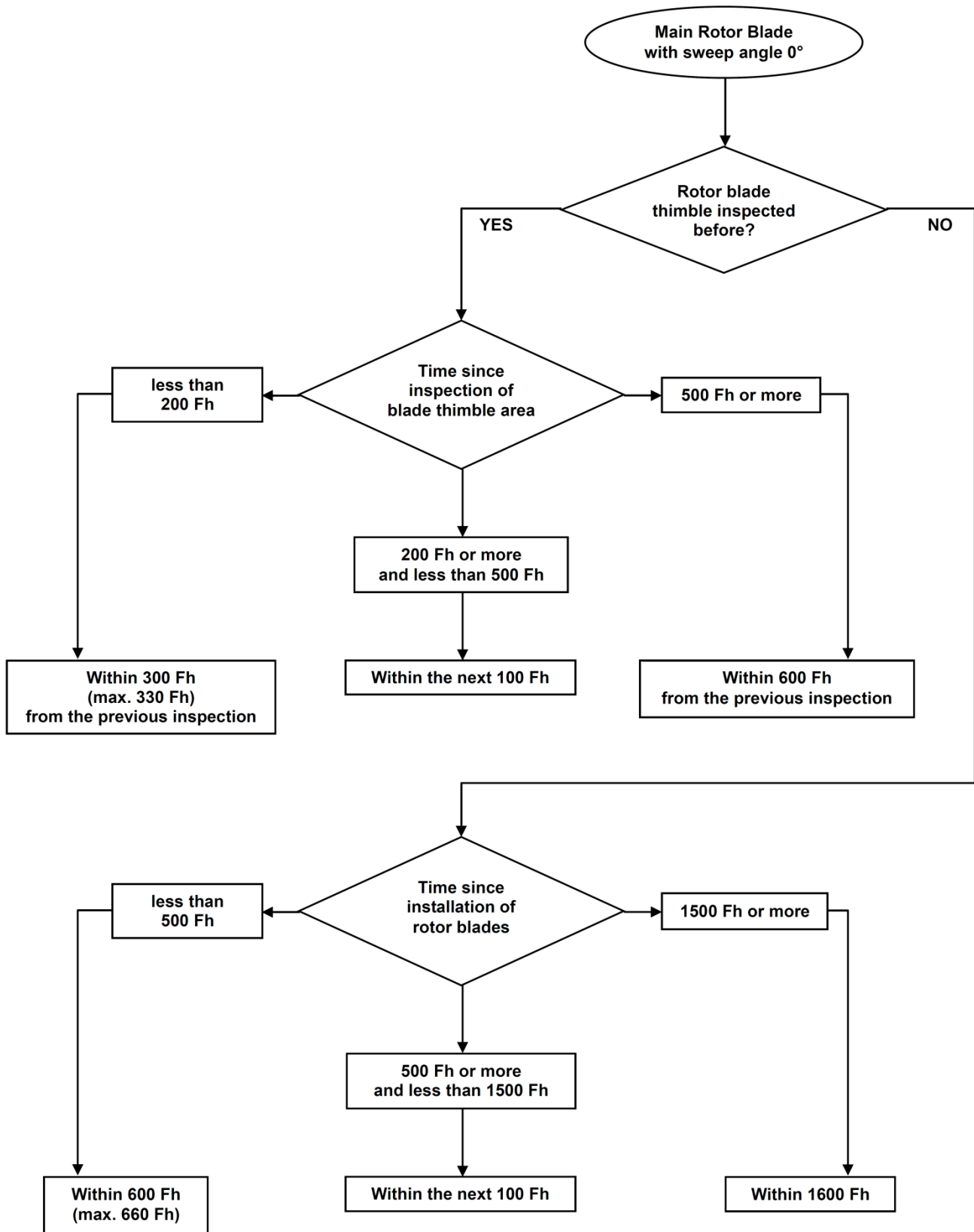


Figure 2 Determination of Initial Inspection Time (Blade with Sweep Angle 0°)