

KOKU-KU-KI-923

No. TCD-7805-2010

Date of Issue: December 28, 2010

Japan Civil Aviation Bureau

TAIKUSEI-KAIZEN-TSUHO

Airworthiness Directive

The undermentioned examinations or modifications are mandatory.

1. Applies to: Kawasaki BK117 C-2 helicopters

2. Compliance is required as indicated, unless already accomplished.

To prevent loss of electrical power and inducing loss of systems that are necessary for safe flight, which result from failure of the generator, because the over current pass through one generator when another generator is deactivated, accomplish the following.

2.1 Before next flight after the effective date of this AD, confirm the contents of the attached sheet No.1 and No.2 (temporary revision), and insert the applicable page in front of the corresponding page of basic flight manual.

Advise the contents of revision mentioned above to flight crews.

2.2 An alternative means of compliance with this AD may be used, if approved by the Director-General of JCAB.

3. Remarks

3.1 This AD becomes effective on January 4, 2011.

3.2 Kawasaki Service News No. KSN-117-143 dated December 22, 2010 pertain to this subject.

**KAWASAKI BK117C-2**  
FLIGHT MANUAL

3.1.4 Establishment of OEI flight condition

“OEI flight condition — Establish” is used as a leading step in some engine emergency procedures to express the following:

1. In case that power of affected engine tends to zero:

- Maintain the normal engine within OEI limits.
- Attempt to obtain a safe single engine flight condition. If a climb is necessary to reach a safe flight condition, attempt to obtain 65 kt (Vy).
- Continue with the remaining steps of the relevant procedure.

2. In case that affected engine still delivers power:

- If deemed necessary, try to escape from immediate danger with both engines operating.
- Establish steady level flight and determine if the situation will allow for OEI flight. As a rule of thumb, this can be done by checking that the sum of the individual engine torque is lower than the OEI torque limit. If this is fulfilled, re-check OEI power available by setting the affected engine to IDLE while maintaining the normal engine within appropriate OEI limit.
  - If engine power is sufficient for OEI flight and if a safe OEI landing can be assumed, continue with the remaining steps of the relevant procedure.
  - If engine power is not sufficient for OEI flight or if a safe OEI landing is not assured, LAND AS SOON AS POSSIBLE. If necessary, re-establish power of affected engine before landing. After landing perform single engine emergency shutdown of affected engine.

**3.15 “GEN” Switch—OFF**

is used as a leading step in some procedure to express the following.

- |                 |                     |
|-----------------|---------------------|
| 1. VEMD         | — Indicate GEN AMPS |
| 2. “GEN” Switch | — OFF               |
| 3. VEMD         | — Check AMPS        |

If GEN AMPS is above 270 A

- |                          |       |
|--------------------------|-------|
| 4. Both “BUS TIE” Switch | — OFF |
|--------------------------|-------|

If GEN AMPS become normal value,

- |                                    |                              |
|------------------------------------|------------------------------|
| 5. DC Voltage and GEN and BAT AMPS | — Monitor                    |
| 6. Electrical load                 | — Reduce as much as possible |
| 7. LAND AS SOON AS PRACTICABLE     |                              |

If GEN AMPS keeps above 270A

- |   |                              |
|---|------------------------------|
| 5. “GEN” Switch of the side of over current | — OFF                        |
| 6. Electrical load                          | — Reduce as much as possible |
| 7. LAND AS SOON AS PRACTICABLE              |                              |

**CAUTION: BOTH “GEN” SWITCHES AND BOTH “BUS TIE” SWITCHES MUST NOT BE RESETEd OR SWITCHED ON AGAIN.**

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FLIGHT MANUAL

5.3 VARIABLE FACTORS AFFECTING PERFORMANCE

Details of the variable factors affecting performance are given in the appropriate diagrams.

**NOTE :** ● None of the curves presented should be extrapolated, but interpolation between given data is permissible.

- Wind accountability data presented in diagrams are UNFACTORED. Unless otherwise authorized by operating regulations, the pilot is not authorized to credit more than 50% of the performance increase resulting from the actual headwind component.
- Performance data contained in this flight manual are not assured in the event of sand or hailstone ingestion into the engine(s).

5.4 READING OF THE CHARTS

It is of the utmost importance that the charts be read accurately, especially the multi-variable graphs. In this type of presentation, errors in reading can be cumulative, resulting in large final errors. Close attention should be paid to subdivisions of the grid.

5.5 POWER CHECK

(TURBOMECA ARRIELIE2)

← **NOTE : Refer to 3.1.5 "GEN" Switch—OFF**

5.5.1 Power check procedure

Two different engine power check procedures are provided :

(1) Ground power check :

This procedure shall be exercised on ground to make certain that the engine power available is within the limits established for legal use of the flight manual performance charts.

EFFECTIVITY	Mfg S/N up to 4004 on which KSB-117-201 is not incorporated.
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5.5.1 Power check procedure

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This procedure shall be exercised to make certain that the engine power available is within the limits established for legal use of the flight manual performance charts.

**EFFECTIVITY**

Mfg S/N 4005 and subsequent, and  
helicopters which are incorporated KSB-117-201