

KOKU-KU-KI-878

No. TCD-7000-2006

Date of Issue: November 10, 2006

Japan Civil Aviation Bureau

TAIKUSEI-KAIZEN-TSUHO

Airworthiness Directive

The undermentioned examinations or modifications are mandatory.

1. Applies to : Kawasaki BK117C-1 and C-2 helicopters

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

To prevent the situation of continuous flight being difficult in one engine inoperative condition because the predetermined output of engine is not provided, accomplish the following:

2.1 Before the next flight after the effective date of this AD, insert the copy of applicable Appendix of this AD into the Flight Manual and affix the selected placard.

2.2 After the effective date of this AD, for helicopters that are about to perform starting, landing and hovering procedures in or out of ground effect at pressure altitudes above 10,000 feet and/or to operate at pressure altitudes above 13,000 feet, accomplish beforehand the "MAX N1 CHECK" in accordance with the instructions of the referenced Kawasaki Service Bulletin No.KSB-117-280(BK117C-1) or No.KSB-117-281(BK117C-2) dated November 2, 2006 (SB), as applicable.

2.3 If it is necessary to limit the operation altitude as a result of this check, amend the placard in accordance with the instructions of SB, if necessary.

2.4 When engine and/or Fuel Control Unit are replaced after the effective date of this AD, accomplish the procedures required by paragraph 2.1, 2.2 and 2.3 of this AD.

2.5 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 November 15, 2006.

3.2 Kawasaki Service Bulletin No.KSB-117-280, No.KSB-117-281 dated November 2, 2006 and later JCAB approved revisions and pertain to this subject.

This is the English translation. In case of any difficulty, refer to the Japanese original text.

FMS 2.12.4 P.2-22

2.12.4 Operating altitude limitations

NOTE : ● All altitudes given in this Manual are pressure altitudes, unless otherwise indicated.

- The following limitations are valid for all H/C operations.
- Maximum altitude for hover in and out of ground effect / takeoff and landing is 10,000 ft and the maximum operating altitude is 13,000ft until the “MAX. N1 check” required by the KSB-117-280 is performed.

CAUTION THESE LIMITATIONS HAVE TO BE OBSERVED WHEN USING THE PERFORMANCE CHARTS (SECTION 5);

- Hover ceiling out of ground effect (OEI, 2.5 MIN POWER), Fig.5 - 13A
- Rate of climb(OEI, 2.5 minute power, GW; 1700 kg to 2400 kg), Fig.5 - 23
- Rate of climb(OEI, 2.5 minute power, GW; 2400 kg to 3000 kg), Fig.5 - 25
- Rate of climb(OEI, 2.5 minute power, GW; 3000 kg to 3350 kg), Fig.5 - 27

In case of the “MAX N1 CHECK” required by the KSB-117-280 is successful in 15,000ft.
Maximum operating altitude is 15,000 ft

Maximum operating altitude for hover in and out of
ground effect / takeoff and landing is 15,000 ft or
17,000 ft (density altitude)
whichever is less.

In case of the “MAX N1 CHECK” required by the KSB-117-280 is successful in 13,000ft
and is not successful or not performed in 15,000 ft.
Maximum operating altitude is 13,000 ft

Maximum operating altitude for hover in and out of
ground effect / takeoff and landing is 13,000 ft

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In case of the "MAX N1 CHECK" required by the KSB-117-280 is not successful in 13,000ft or is the "MAX N1 CHECK" not performed.

Maximum operating altitude is 13,000 ft

Maximum operating altitude for hover in and out of
ground effect / takeoff and landing is 10,000 ft

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FMS 2.14 P.2-30

2.14 PLACARDS AND DECALS

In case of the "MAX N1 CHECK" required by the KSB-117-280 is successful in 13,000ft and is not successful or not performed in 15,000 ft.

(KSB-117-280)

**Maximum operating altitude is
13000 ft PA**

**Maximum altitude for take-off,
landing and IOGE / HOGE is
13000 ft PA**

Location : In pilot's view

In case of the "MAX N1 CHECK" required by the KSB-117-280 is not successful in 13,000ft or the "MAX N1 CHECK" is not performed.

(KSB-117-280)

**Maximum operating altitude is
13000 ft PA**

**Maximum altitude for take-off,
landing and IOGE / HOGE is
10000 ft PA**

Location : In pilot's view

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FMS 11-1 2.1.2.1 P.1-9

2.1.1.1 Maximum takeoff and landing altitude

Maximum altitude..... 13,000 ft (density altitude) or
10,000 ft (pressure altitude)
whichever is less

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FMS 11-5 2.1.1.1 P.5-9

2.1.1.1 Maximum takeoff and landing altitude

Maximum altitude.....10,000 ft (density altitude) or
10,000 ft (pressure altitude)
whichever is less

FMS 2.7 P.2-11

2.7 ALTITUDE LIMITATIONS

NOTE : ● The following limitations are valid for all H/C operations.

- Maximum altitude for hover in and out of ground effect / takeoff and landing is 10,000 ft (pressure altitude) and the maximum operating altitude is 13,000ft (pressure altitude) until the "MAX. N1 check" required by the KSB-117-281 is performed.

CAUTION THESE LIMITATIONS HAVE TO BE OBSERVED WHEN USING THE PERFORMANCE CHARTS (SECTION 5);

- Rate of climb(OEI, 2.5 minute power, GW; 1750 kg to 2400 kg), Fig.5 - 23
- Rate of climb(OEI, 2.5 minute power, GW; 2400 kg to 3000 kg), Fig.5 - 24
- Rate of climb(OEI, 2.5 minute power, GW; 3000 kg to 3585 kg), Fig.5 - 25

In case of the "MAX N1 CHECK" required by the KSB-117-281 is successful in 18,000ft (pressure altitude).

Maximum operating altitude is 18,000 ft (pressure altitude)

Maximum operating altitude for hover in and out of ground effect / takeoff and landing is 18,000 ft (density altitude) or 18,000 ft (pressure altitude) whichever is less.

In case of the "MAX N1 CHECK" required by the KSB-117-281 is successful in 16,000ft (Pressure Altitude) and is not successful or not performed in 18,000 ft (pressure altitude).

Maximum operating altitude is 16,000 ft (pressure altitude)

Maximum operating altitude for hover in and out of ground effect / takeoff and landing is 18,000 ft (density altitude) or 16,000 ft (pressure altitude) whichever is less.

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In case of the "MAX N1 CHECK" required by the KSB-117-281 is successful in 13,000ft (pressure altitude) and is not successful or not performed in 16,000 ft (pressure altitude).

Maximum operating altitude is 13,000 ft (pressure altitude)

Maximum operating altitude for hover in and out of ground effect / takeoff and landing is 13,000 ft (pressure altitude)

In case of the "MAX N1 CHECK" required by the KSB-117-281 is not successful in 13,000ft or the "MAX N1 CHECK" is not performed (pressure altitude).

Maximum operating altitude is 13,000 ft (pressure altitude)

Maximum operating altitude for hover in and out of ground effect / takeoff and landing is 10,000 ft (pressure altitude)

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FMS 2.7 P.2-30

2.17 PLACARDS AND DECALS

In case of the "MAX N1 CHECK" required by the KSB-117-281 is successful in 16,000ft (pressure altitude) and is not successful or not performed in 18,000 ft.

(KSB-117-281)
**Maximum operating altitude is
16000 ft PA**
**Maximum altitude for take-off,
landing and HIGE / HOGE is
16000 ft PA**

Location : In pilot's view

In case of the "MAX N1 CHECK" required by the KSB-117-281 is successful in 13,000ft (pressure altitude) and is not successful or not performed in 16,000 ft.

(KSB-117-281)
**Maximum operating altitude is
13000 ft PA**
**Maximum altitude for take-off,
landing and HIGE / HOGE is
13000 ft PA**

Location : In pilot's view

In case of the "MAX N1 CHECK" required by the KSB-117-281 is not successful in 13,000ft (pressure altitude) or the "MAX N1 CHECK" is not performed.

(KSB-117-281)
**Maximum operating altitude is
13000 ft PA**
**Maximum altitude for take-off,
landing and HIGE / HOGE is
10000 ft PA**

Location : In pilot's view

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FMS 11-1 A.2.3 P.1-11

A.2.3 Altitude limitation

Maximum operating altitude for CAT A operations ····· 12,000 ft (density altitude) or
10,000 ft (pressure altitude)
whichever is less

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FMS 11-1 A.2.7 P.1-12

A.2.7 Flight envelope

Flight envelope is shown in Fig. A2-1.

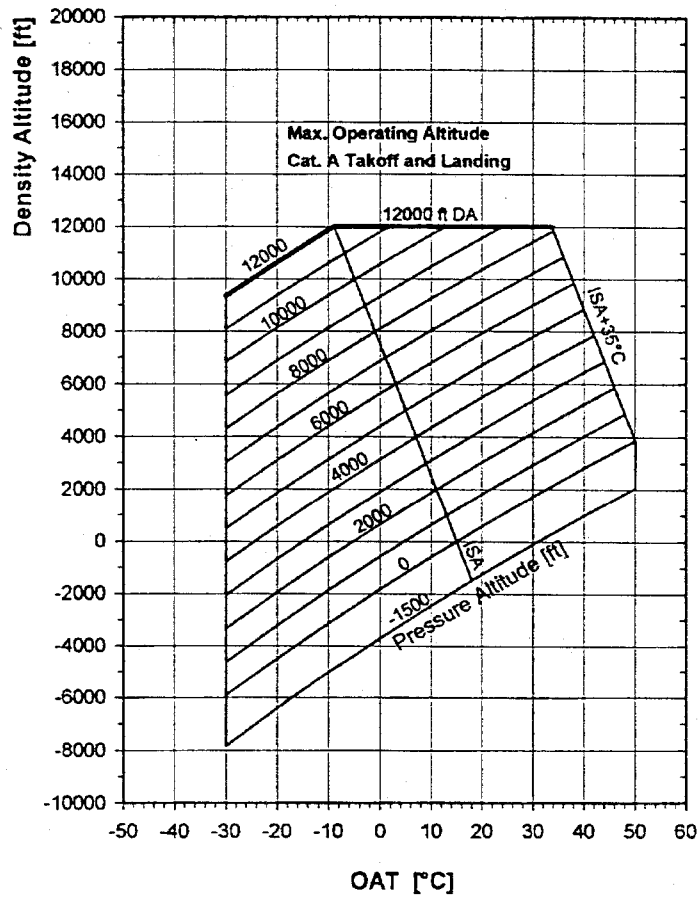


Fig. A 2 - 1 Flight envelope

NOTE : Maximum operating altitude 10,000 ft pressure altitude.