BHT-206B-FMS-18

Bell JetRanger-II

MODEL 206B

ROTORCRAFT FLIGHT MANUAL

SUPPLEMENT FOR

206-706-136

ENGINE AIR INDUCTION SYSTEM DEFLECTOR KIT

CERTIFIED
NOVEMBER 20, 1972

This supplement shall be attached to the Flight Manual, when the 206-706-136 Engine Air Induction System Deflector Kit has been installed.

Information contained herein supplements information of basic Flight Manual. For Limitations, Procedures, and Performance Data not contained in this supplement, or other applicable supplements, consult basic Flight Manual.

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GENERAL INFORMATION

The Deflector kit, 206-706-136, consists of the Deflector Baffle assemblies, flow vanes, fairing assembly and all required items and hardware to complete the installation.

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Section 1
OPERATING LIMITATIONS

CENTER OF GRAVITY LIMITS

Actual weight change shall be determined after kit is installed and ballast readjusted, if necessary, to return empty weight C.G. within allowable limits.

TYPE OF OPERATION

The Particle Separator Engine Air Induction System Kit (BHT-206B-FMS-15) and Engine (Automatic) Re-ignition (BHT-206B-FMS-19) shall be installed in conjunction with Deflector Kit when conducting flight operations in falling and/or blowing snow and the following limits apply:

1. Take-off is prohibited with any snow or ice present in the inlet or plenum areas.
2. Ground operations and hover flight time is limited to 20 minutes total duration per occurrence. Ground operations at idle power (twist grip at idle) shall not exceed five (5) minutes. If five (5) minutes idle power time limit is exceeded or ground and hover operations exceed 20 minutes total, helicopter shall be shut down and inspected per Section 2, EXTERIOR CHECK.

NOTE

Particle separator is more efficient at 100% rpm and hover power than at idle.

3. Flight operations are prohibited when visibility in falling and/or blowing snow is less than one-half (1/2) statute mile.

OPTIONAL EQUIPMENT LIMITATIONS

Deflector Baffles shall be removed at OAT of 80°F (26.7°C) and above. Refer to Particle Separator supplement when Deflector Baffles are removed.

Use basic helicopter performance data when Particle Separator is removed and the engine air intake screen is reinstalled.

Deflector Baffles shall be removed if Particle Separator is removed.

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Section 2
OPERATING PROCEDURES

NORMAL PROCEDURES

EXTERIOR CHECK

BEFORE EACH FLIGHT

Immediately before each flight, thoroughly check cabin roof, transmission cowling, deflector baffles and engine air intake areas. All areas checked must be clean and free of accumulated snow, slush and ice before each flight. Check engine air plenum chamber through the plexiglass windows on each side of the inlet cowling for snow, slush or ice, paying particular attention to the firewalls, rear face of the Snow Particle Separator, bottom corners and flow vanes.

AFTER EXITING HELICOPTER IN FALLING OR BLOWING SNOW

WARNING

FAILURE TO INSTALL ENGINE INLET COVERS COULD ALLOW FALLING/BLOWING SNOW TO ENTER THE PARTICLE SEPARATOR PLENUM.

Install protective covers (engine inlet, exhaust, and pitot tube) during any exposure to falling and/or blowing snow during non-engine operation.

Section 3 PERFORMANCE DATA

Refer to Particle Separator Engine Air Induction System (BHT-206B-FMS-15) Performance Data for Power Check Procedure.

A chart for Performance Determination is provided to determine whether or not a performance loss occurs. The chart is used as follows:

Using a power condition where the chart curve lies to the RIGHT of the altitude (3000 feet)/temperature (–15°C) intersection, point A, and the take-off power anti-ice OFF curve, for example is to the RIGHT, the performance obtainable will be the same as shown in the Particle Separator Kit Supplement page 11.

Using a power condition where the chart curve lies to the LEFT of the altitude (6000 feet)/temperature (20°C) intersection, point B, and the take-off power anti-ice OFF curve, for example is to the LEFT, the performance obtainable is less than that shown in the Particle Separator Kit Supplement for any gross weight as follows:

The Maximum Rate of Climb is 170 FT/MIN less.

The Hovering Ceiling is 1200 feet less.

EXAMPLE HOVER PERFORMANCE

Find the maximum gross weight for the following conditions:

Pressure altitude	6000 feet
Ambient temperature (OAT)	20°C
Desired flight condition	Hover IGE
Desired power condition	T.O.P. Anti-ice OFF
Configuration	BASIC

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EXAMPLE HOVER PERFORMANCE (Cont)

From the Performance Determination Chart it is noted that the power condition curve is to the left of the altitude/temperature intersection, point B, therefore, the hovering ceiling is less by 1200 feet.

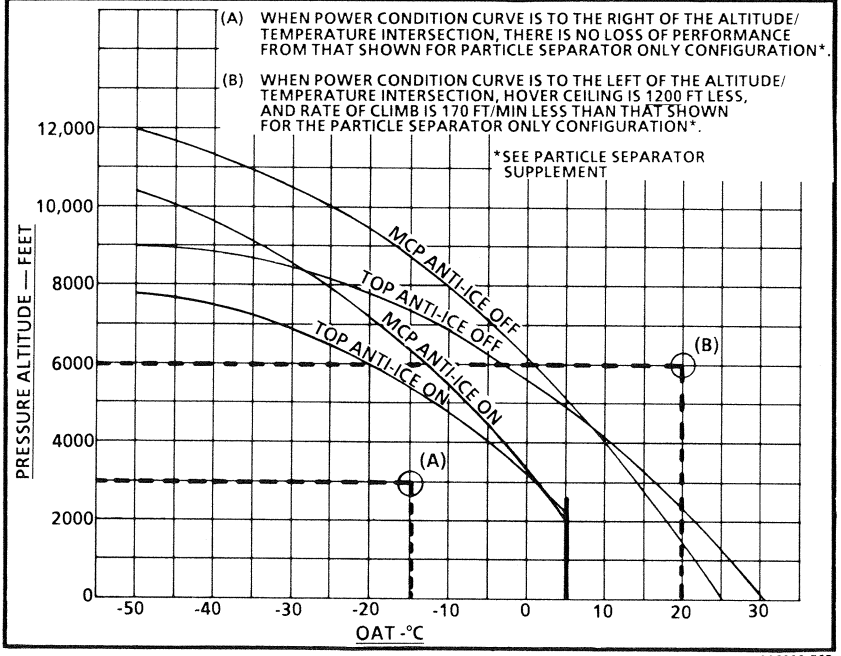
Add pressure altitude and loss:

6000 feet, plus 1200 feet = 7200 feet

From the 206B Particle Separator Supplement, page 7, find the gross weight for 7200 feet and 20°C = 3070 pounds. This is the maximum gross weight at which it is possible to Hover In-Ground-Effect with Take-Off Power, Anti-Ice OFF.

DETERMINATION OF PERFORMANCE DECREMENTS

ALLISON ENGINE MODEL 250-C20 DEFLECTOR KIT WITH PARTICLE SEPARATOR



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