

**BELL MODEL 206B
JET RANGER II**

FLIGHT MANUAL

SUPPLEMENT FOR

**LIGHTWEIGHT
EMERGENCY FLOTATION
LANDING GEAR**

206-706-211

**APPROVED
JUNE 26, 1984**

This supplement shall be attached to the Flight Manual when the 206-706-211 Lightweight Emergency Flotation Landing Gear has been installed.

The information contained herein supplements the information of the basic Flight Manual. For Limitations, Procedures, and Performance Data not contained in this supplement, consult the basic Flight Manual.

Bell Helicopter **TEXTRON**

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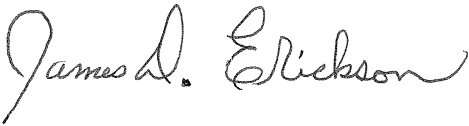

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INTRODUCTION

The Bell High-Skid Gear with Lightweight Emergency Floats, Kit No. 206-706-211, consists of a high-skid landing gear, emergency floats attached to the main skid panels, inflation system, navigation lights, and attaching hardware. Installation of this kit permits operation over land or water. Float inflation time is approximately 5 seconds.

Section 1

OPERATING LIMITATIONS

TYPE OF OPERATION

Operation with the pop-out floats inflated is limited to a flight to a servicing facility for repacking and recharging the system. Amphibious operations are not approved.

The floats and covers must be installed and ground handling wheels removed for all flight operations.

Accomplish preflight float system check daily prior to performing over water operations.

Flight operations requiring use of the external hoist are PROHIBITED and the system SHALL BE DEACTIVATED when the floats are installed unless Cable Guard kit 206-706-214 is installed.

If Cable Guard Kit is installed, hoist cable and hook shall be stowed prior to float inflation.

AIRSPED LIMITATIONS

FLOATS STOWED

Floats stowed, covers installed — Same as basic helicopter.

Doors ON or OFF in any combination — Same as basic helicopter.

FLOATS INFLATED

Maximum inflation airspeed — 60 mph (52 knots) IAS.

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AIRSPEED LIMITATIONS (Cont)

During the inflation cycle undesirable pitching will occur at airspeeds above 60 mph (52 knots) IAS).

Maximum allowable airspeed, floats inflated — 80 mph (69 knots) IAS.

Maximum AUTOROTATION airspeed, floats inflated — 70 mph (60 knots) IAS.

RATE OF CLIMB LIMITATIONS

Maximum rate of climb with floats inflated is 1000 feet per minute.

CENTER OF GRAVITY LIMITS

Actual weight changes shall be determined after kit is installed and ballast readjusted, if necessary, to return empty weight CG to within allowable limits. Refer to Center of Gravity vs Weight Empty Chart in Maintenance Manual.

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PLACARDS

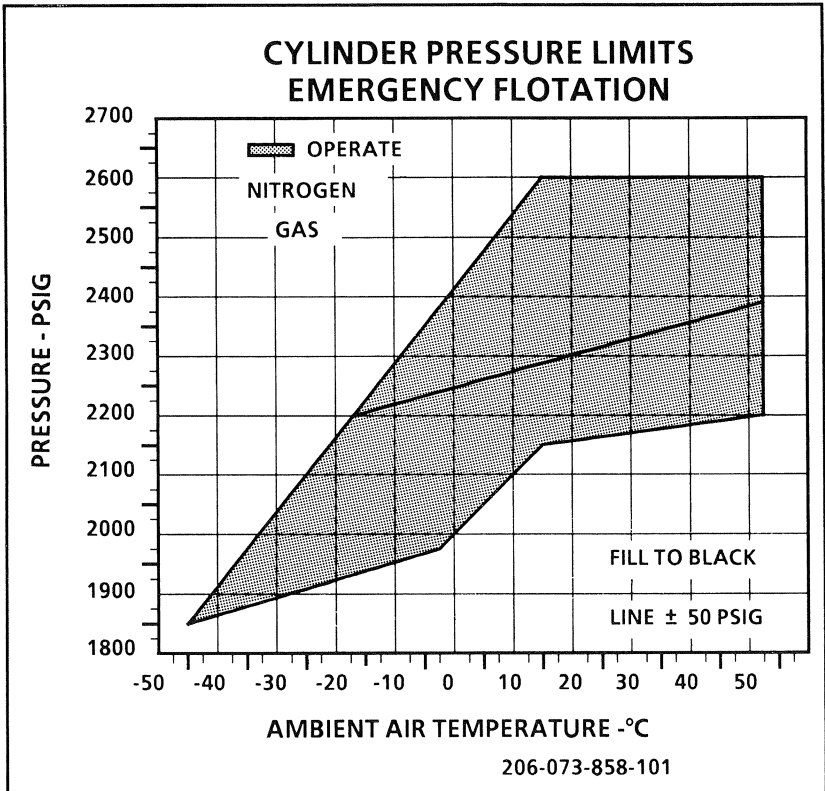
FLOAT
ARMING/INFLATION
ABOVE 60 MPH
PROHIBITED

MAXIMUM ALLOWABLE AIRSPEED
FLOATS INFLATED - 80 MPH
(69 KNOTS) IAS

MAXIMUM AUTOROTATION
AIRSPEED, FLOATS INFLATED -
70 MPH (60 KNOTS) IAS

FLOAT
INFLATION

HOIST CABLE AND HOOK MUST BE
STOWED PRIOR TO FLOAT INFLATION



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Section 2

OPERATING PROCEDURES

NORMAL PROCEDURES

EXTERIOR CHECK

Floats stowed.

Nitrogen lines — Check for condition and evidence of leakage.

Float covers clean and secured.

Float inflation cylinder — Check for proper temperature and altitude vs inflation pressure. Refer to placard on cylinder. Check cannon plug for security.

INTERIOR CHECK

PREFLIGHT FLOAT SYSTEM CHECK

FLOAT MANUAL ARM switch — OFF (guard closed).

FLOAT POWER circuit breaker — Check IN.

FLOAT TEST and ARMED lights — PUSH TO TEST.
(If installed.)

CAUTION LIGHT PANEL — Actuate test switch. (If installed.)

PREFLIGHT FLOAT SYSTEM CHECK (Cont)

FLOAT TEST switch — FLOAT TEST position, and hold.

FLOAT INFLATION trigger switch — PULL ON, float test light ON, then release.

FLOAT TEST switch — RELEASE, test light OUT.

FLOAT MANUAL ARM switch — POWER (guard open),
FLOAT ARMED light — Check ON, then switch OFF
(guard closed), light OFF.

IN-FLIGHT OPERATIONS

OVER WATER OPERATION

FLOAT MANUAL ARM switch — POWER (guard open).

FLOAT ARMED light — Check ON.



During flight at altitudes above 500 feet and at
airspeeds of 60 mph (52 knots) IAS and above the
system SHOULD BE DEACTIVATED by
positioning the FLOAT MANUAL ARM switch in
the OFF position (GUARD CLOSED).

Rearm system prior to landing.

OVER LAND OPERATION

FLOAT MANUAL ARM switch — OFF.

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DESCENT AND LANDING – FLOATS STOWED



If the CG is aft of station 112.7, practice of autorotational touchdowns should be avoided due to nosedown pitching.



Run-on landings on other than a hard, firm surface should be exercised with caution.

NOTE

Tail-low, run-on landings should be avoided to prevent nosedown pitching.

EMERGENCY PROCEDURES

FLOAT INFLATION PROCEDURE

Reduce airspeed below maximum inflation airspeed — 60 mph (52 knots) IAS.

Establish autorotation or low power descent at approximately 500 feet per minute.

FLOAT MANUAL ARM switch — POWER (guard open).

FLOAT ARMED light — Check ON.

FLOAT INFLATION trigger switch — PULL ON.



DO NOT inflate floats more than 2000 feet above anticipated landing surface.

NOTE

During flight with floats inflated, a random bumping of the skid gear crosstube against the landing gear saddles will occur. Reducing airspeed will reduce bumping.

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AFTER EMERGENCY WATER LANDING

After landing, inspect the helicopter for possible damage. If malfunction was cause of landing, correct malfunction.

If no damage has occurred to helicopter and malfunction has been corrected, the helicopter can be ferried to the nearest maintenance facility to repack floats and charge system. The ferrying airspeed is restricted to 80 mph (69 knots) IAS. The maximum rate of climb while ferrying is 1000 feet per minute.

Section 3

PERFORMANCE DATA

HOVERING CEILING — FLOATS STOWED

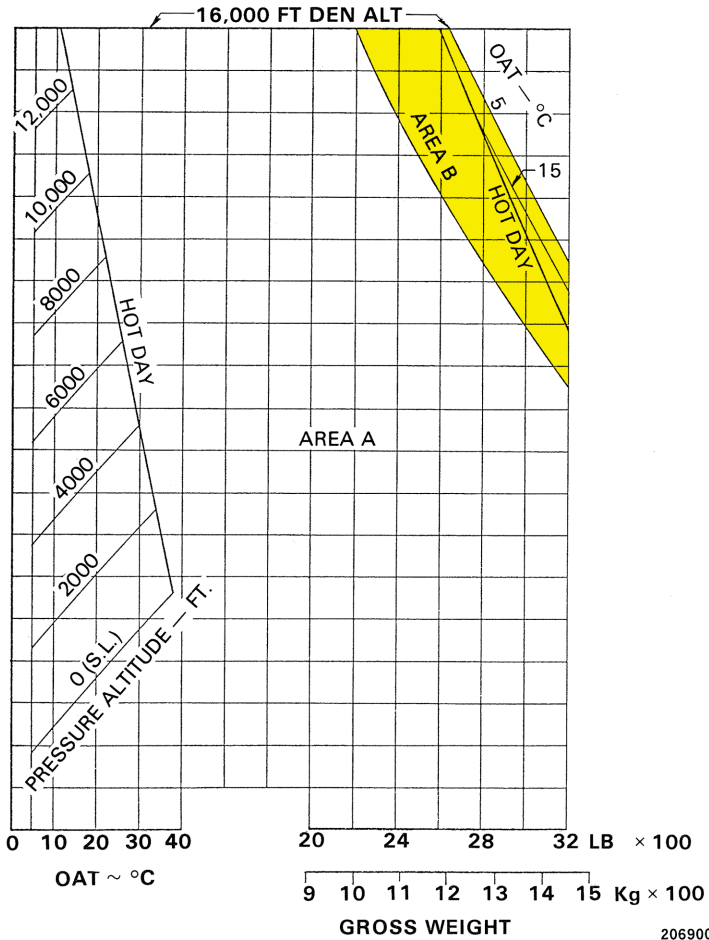
Out-of-ground-effect hovering performance is the same as basic helicopter. In-ground-effect hovering performance is shown on the following charts:

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**HOVER CEILING
IN GROUND EFFECT TAKEOFF POWER**
5° TO 37.8°C

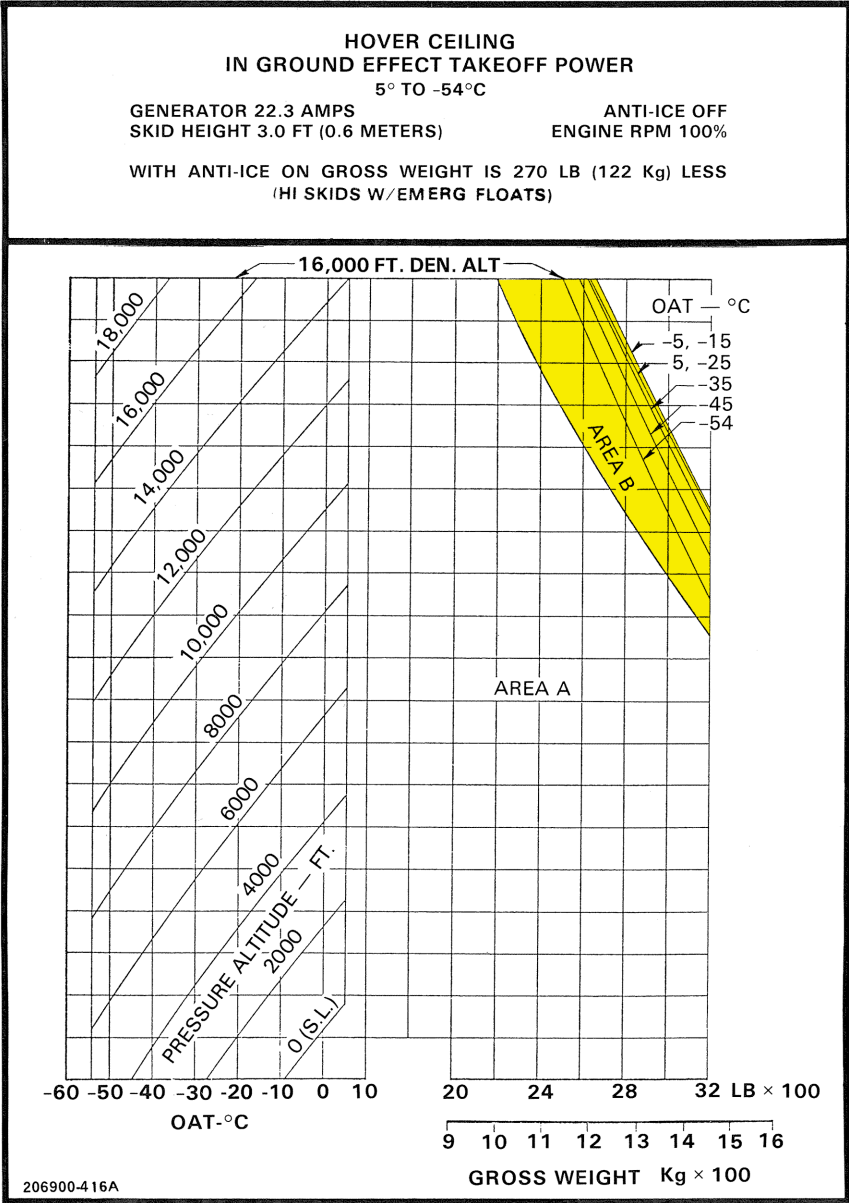
GENERATOR 22.3 AMPS
SKID HEIGHT 3.0 FT (0.9 METERS)
(HI SKIDS W/EMERG FLOATS)

ANTI-ICE OFF
ENGINE RPM 100%



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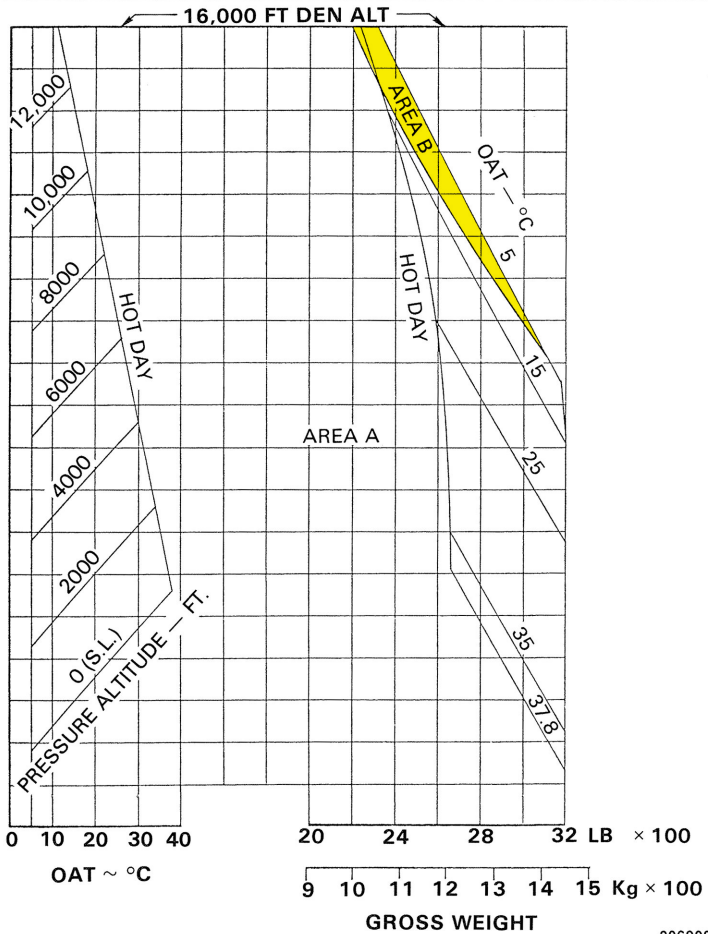
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HOVER CEILING IN GROUND EFFECT MAX CONTINUOUS POWER 5° TO 37.8°C

GENERATOR 22.3 AMPS ANTI-ICE OFF
SKID HEIGHT 3.0 FT (0.9 METERS) ENGINE RPM 100%
(HI SKIDS W/ EMERG FLOATS)



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