# BELL MODEL 206B JET RANGER II FLIGHT MANUAL

## SUPPLEMENT FOR

206-706-101

# EXTERNAL CARGO HOOK

FAA APPROVED JULY 30, 1971

This supplement shall be attached to the Flight Manual, when the 206-706-101 Fixed Cargo Hook 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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DEPARTMENT OF TRANSPORT

10 Jul 96

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#### INTRODUCTION

The Bell Cargo Hook Kit No. 206-706-101, consists of two A-frame mountings, a main cross beam and an integral cargo hook, designed to carry loads of 1200 pounds. The cargo is suspended from the helicopter center of gravity fuselage station 108.5, and the design is such that oscillatory moments of a freeswinging cargo do not impart motiom to the airframe. The system contains an electrical and manual emergency release. Provisions for stowing the kit when flight without cargo is anticipated, are provided. Operations with cargo on the hook shall be conducted in accordance with appropriate operating regulations.

#### NOTE

- 1. Two bumper assemblies, 206-070-585-1, must be installed per Bell Service Letter No. 206A-74 when external cargo hook is used with float equipped helicopters.
- 2. A swivel link is not supplied with the Cargo Hook Kit; however, it is recommended that a link be installed between the suspension cable and the cargo hook.



## **OPERATING LIMITATIONS**

## WEIGHT LIMITATIONS

Maximum approved gross weight is 3350 pounds.

## AIRSPEED LIMITATIONS

Vne 91 MPH (78 knots) for gross weights above 3000 pounds.

Extreme caution should be exercised when carrying cargo loads as controllability may be affected, due to the size and shape of the cargo load.

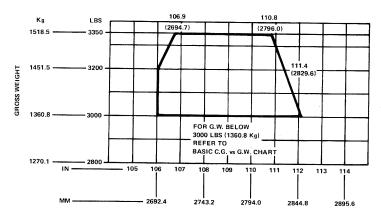
## TYPE OF OPERATION

Refer to Particle Separator Supplement when the Particle Separator is installed.

FAA APPROVED SUPPLEMENT

## BHT-206B-FMS-5

## 3200 (1451.5) TO 3350 LBS (1518.5 KG) EXTERNAL LOAD CENTER OF GRAVITY VS GROSS WEIGHT



LONGITUDINAL CENTER OF GRAVITY, FUSELAGE STATION

206900-246

## CARGO HOOK LOAD LIMIT

Cargo hook, structural, loading limit, 1200 pounds.

# Section 2

## OPERATING PROCEDURES

### FLIGHT PLANNING

Instruct ground personnel to discharge helicopter static electricity, before attaching cargo sling, by touching airframe with a ground wire. If a metal sling is used, hook up ring can be struck against cargo hook to discharge static electricity. If contact has been lost after initial grounding, helicopter should be electrically regrounded and, if possible, contact maintained until hook up is complete.

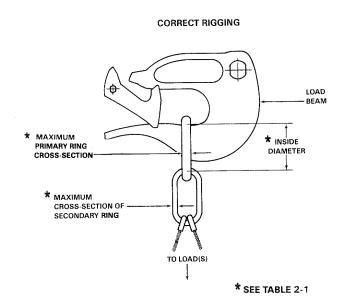
Instruct ground personnel to check primary load ring and secondary load ring for condition and proper size (table 2-1). Check for correct rigging.

## WARNING

Use of multiple rings, slings, or shackles on the load beam or the primary load ring or use of an oversize secondary load ring is like using a primary load ring smaller than nominal size. This can cause the load to hang up during release.

Failure to comply with these instructions may impair cargo hook ring interface operation, resulting in potential problems.

Instruct ground personnel to check that only one primary ring is captured in the load beam and only one secondary ring with correct cross-section dimension is captured in the primary ring. Additional rings, slings, or shackles shall be attached to the secondary load ring. See figure 2-1.



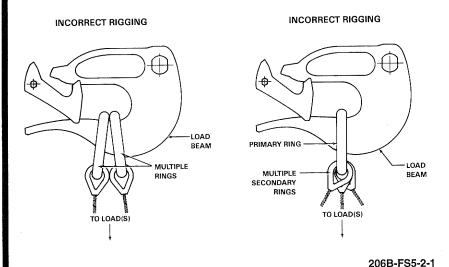


Figure 2-1. External load rigging

Table 2-1. Ring sizes — cargo hook P/N 14027-2

PRIMARY RING INSIDE DIAMETER	PRIMARY RING CROSS SECTION	MAXIMUM CROSS SECTION OF SECONDARY RING
2.38 to 2.50 in.	0.625 in.	0.438 in.
(60.45 to 63.50 mm)	(15.88 mm)	(11.12 mm)
2.50 to 2.75 in.	0.625 in.	0.625 in.
(63.50 to 69.85 mm)	(15.88 mm)	(15.88 mm)

## **OPERATION**

- 1. ACTIVATE circuit by pushing CARGO HOOK circuit breaker IN.
- $2. \ \ \, {\rm Engage\ CARGO\ switch\ on\ cyclic\ control\ stick,\ to\ release\ cargo.}$

## **EMERGENCY RELEASE**

1. Pull mechanical manual release control HANDLE to drop cargo in the event of an electrical failure.



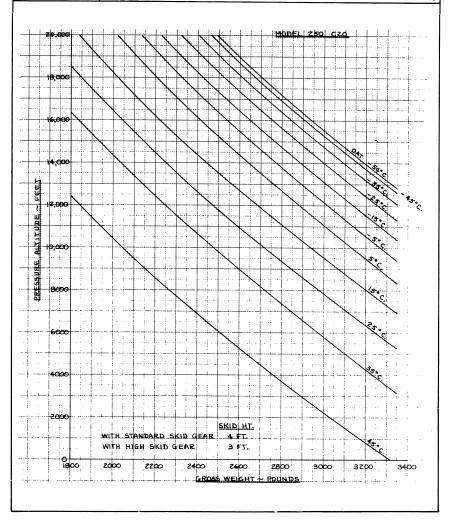
PERFORMANCE DATA



IN GROUND EFFECT TAKE-OFF POWER ANTI-ICE OFF

3200 G.W. TO 3350 LB. G.W. WITH EXTERNAL CARGO ONLY

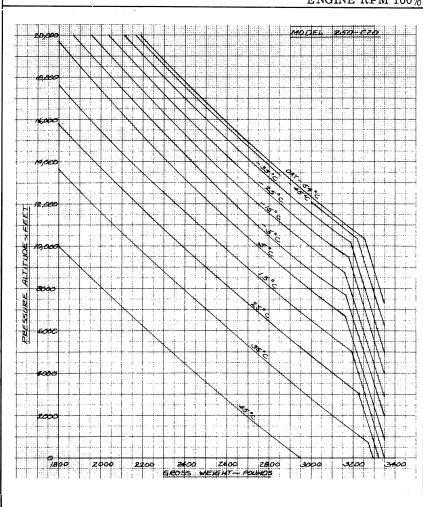
4 FT SKID HT. WITH STANDARD GEAR 3 FT SKID HT. WITH HIGH-SKID GEAR



## HOVERING CEILING

OUT OF GROUND EFFECT TAKE-OFF POWER ANTI-ICE OFF

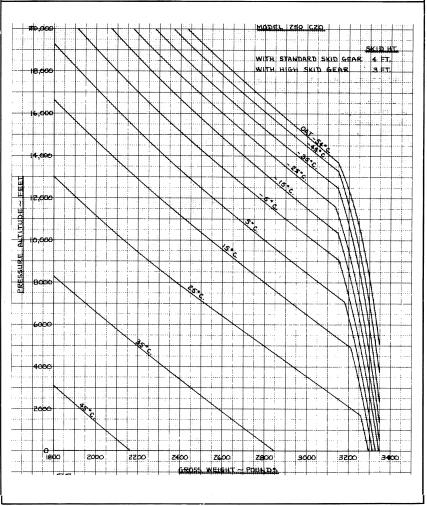
3200 LB. G.W. TO 3350 LB. G.W. WITH EXTERNAL CARGO ONLY



## HOVERING CEILING

IN GROUND EFFECT
MAXIMUM CONTINUOUS POWER
ANTI-ICE OFF
3200 G.W. TO 3350 LB. G.W.
WITH EXTERNAL CARGO LOAD ONLY

4 FT SKID HT. WITH STANDARD GEAR 3 FT SKID HT. WITH HIGH-SKID GEAR



## HOVERING CEILING

OUT OF GROUND EFFECT
MAXIMUM CONTINUOUS POWER
ANTI-ICE OFF
3200 G.W. TO 3350 LB. G.W.
WITH EXTERNAL CARGO LOAD ONLY

