

10 WEIGHT & BALANCE

## WEIGHT AND BALANCE DATA

### GENERAL

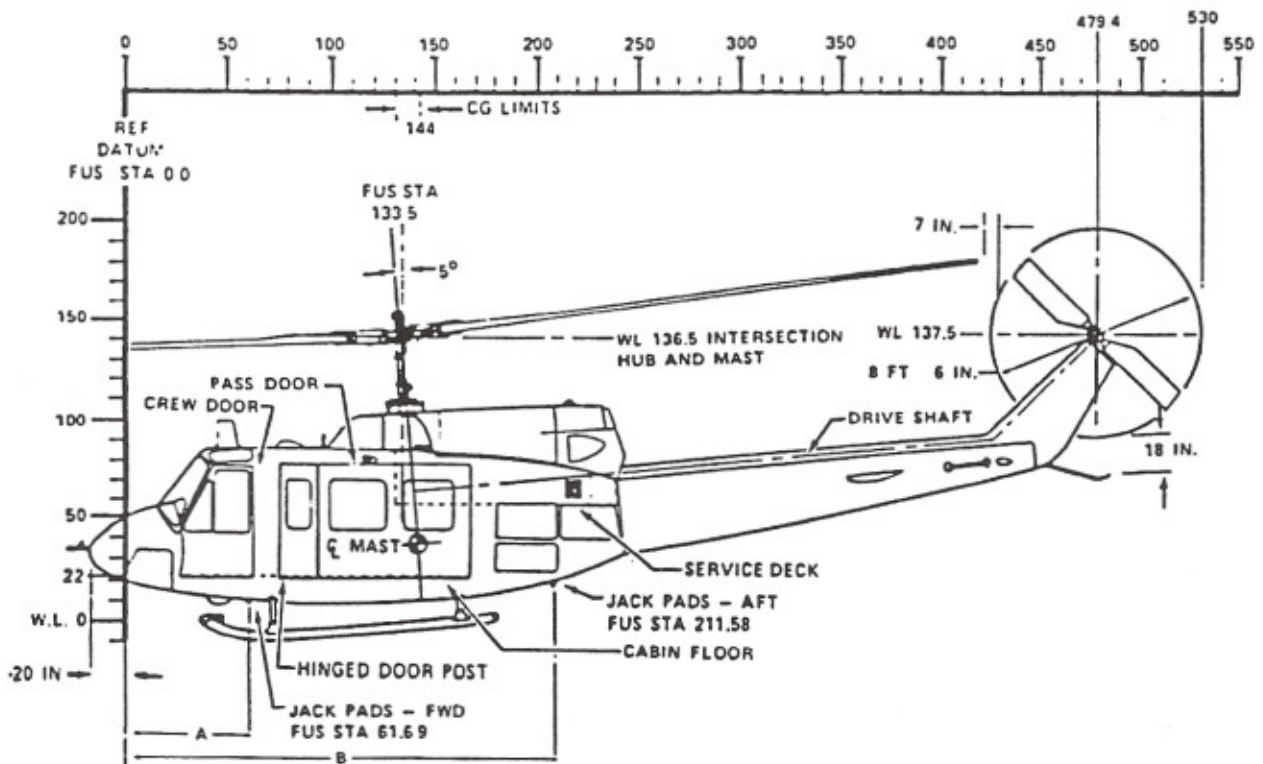
The Weight and Balance Data information presented herein is intended to familiarize the operating personnel with the CG range and to provide the information necessary for computing Weight and Balance.

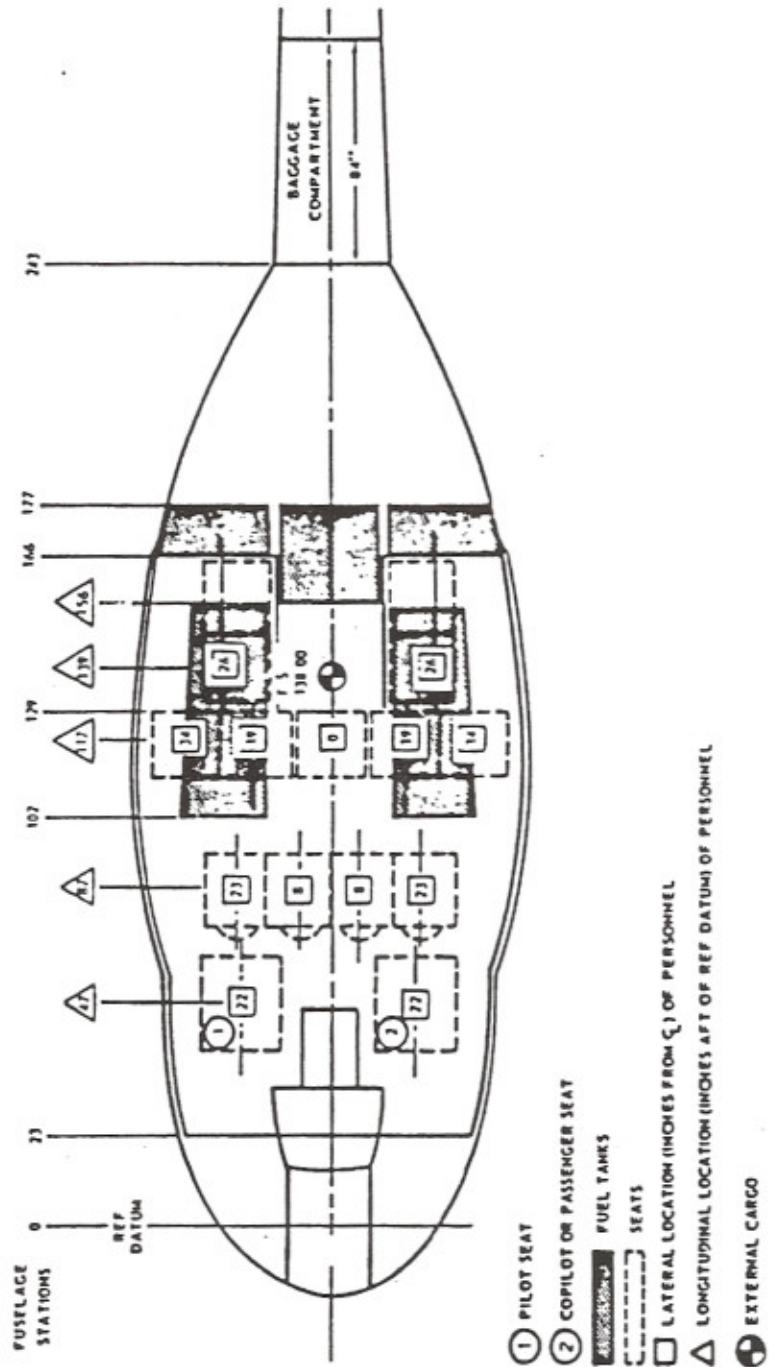
### WEIGHT AND BALANCE

The helicopter empty weight CG is adjusted to require a minimum of 170 pounds at the pilot's station. The aft cabin area has a deck loading limit of 100 pounds per square foot.

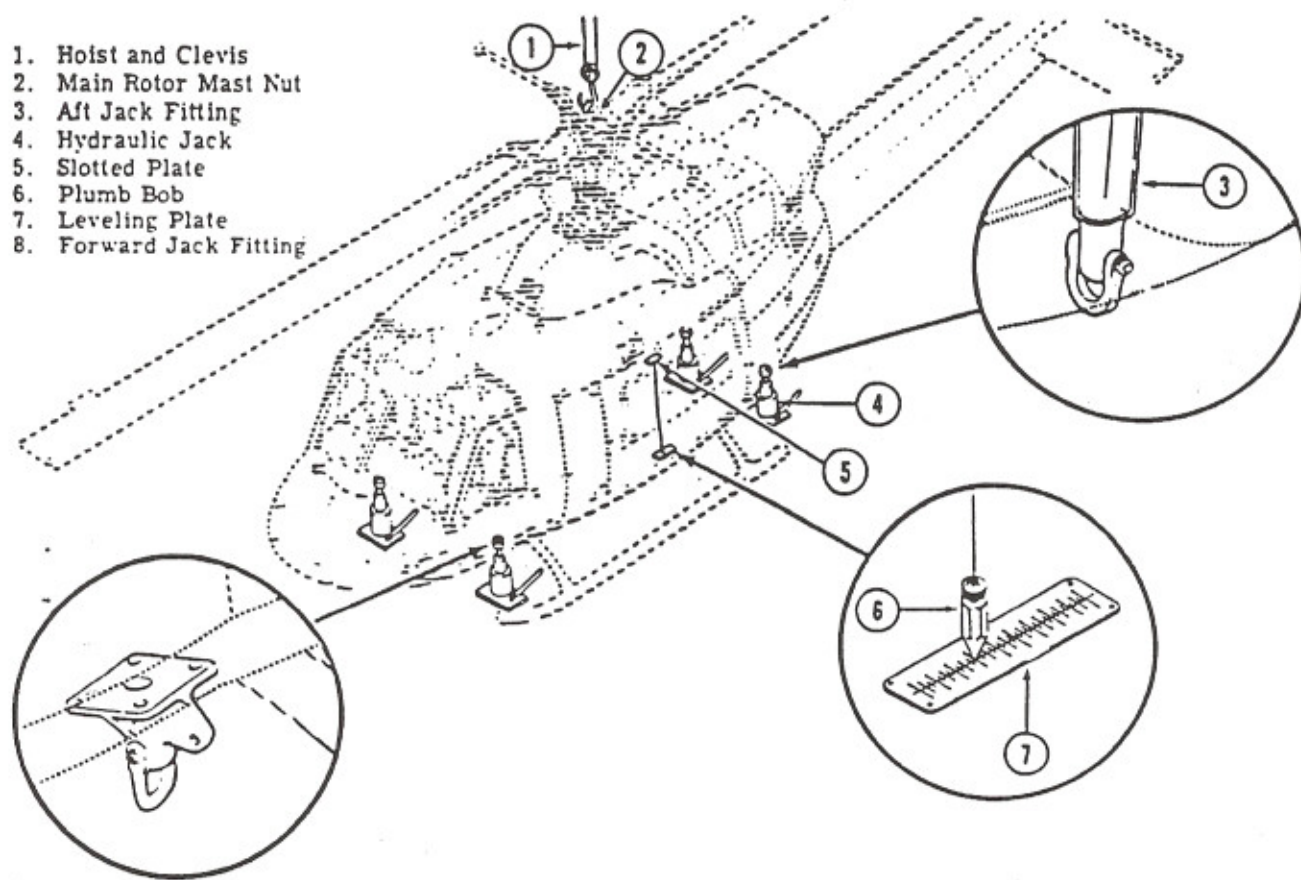
Additional space for baggage or cargo is provided in a compartment located in the forward end of the tail boom. Access to the compartment is through a large door on the right side of the tail boom. Loading of compartment shall be from the front to the rear, and the load shall be secured to prevent shifting which would change the CG loading position.

Safe loading of the helicopter shall be computed from the Weight and Balance Data contained in this manual to assure that flight is conducted within the limits of the CENTER of GRAVITY vs GROSS WEIGHT CHART.





1. Hoist and Clevis
2. Main Rotor Mast Nut
3. Aft Jack Fitting
4. Hydraulic Jack
5. Slotted Plate
6. Plumb Bob
7. Leveling Plate
8. Forward Jack Fitting



Hoisting Jacking and Leveling

SAMPLE LOADING PROBLEM

The helicopter is chartered to transport nine passengers (170 lbs. each) and 180 pounds of baggage for a trip that will require approximately 157 gallons (1,019 lbs.) of fuel. The 190 pound pilot will return alone. Determine extreme CG conditions for both trips.

	Weight	C.G.	Moment
Weight Empty	6105	144.3	880952
+ Oil	24	169.1	4058
+ Pilot	190		8930
+ Passengers (5-man seat)	850		99450
+ Passengers (4-man seat)	680		59160
+ Baggage	180		46980
Zero fuel weight	<u>8029</u>	<u>136.9</u>	<u>1099530</u>
Zero fuel weight	8029		1099530
+ Take-off Fuel	<u>1409</u>		<u>216066</u>
Take-off Weight	<u>9438</u>	<u>139.4</u>	<u>1315596</u>
Zero fuel weight	8029		1099530
+ Most forward CG fuel	<u>472</u>		<u>60176</u>
Most forward CG weight	<u>8501</u>	<u>136.4</u>	<u>1159706</u>
Zero fuel weight	8029		1099530
+ Landing fuel	<u>390</u>		<u>50480</u>
Landing weight	<u>9419</u>	<u>136.6</u>	<u>1150010</u>

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