



FORM - 100B

FLIGHT CLEARANCE CERTIFICATE

FOR HELICOPTERS

In accordance with IMTAR – 21, Subpart P, 21.P.10

The flying and other LIMITATIONS of _____ are detailed herein.
Wherever applicable, values of the parameters are specified for sea level ISA conditions, unless otherwise indicated.

1. **Maximum all up weight**
2. **Centre of gravity range**

Refer figure 1

3. **Flight envelope**

For allowable V-n diagram, reduced flight envelope with single hydraulic system and main rotor stall limits refer figures 2 and 3. For the height velocity diagram (H-V diagram) pertaining to the cases of one engine failed and the live engine in MCR and SCR, refer figures 4 and 5.

4. **Clutch wheel engagement time** if applicable and speed

- | 5. Main rotor/tail rotor track and balance | On ground | In flight |
|---|------------------|------------------|
| a) Main rotor : (ips) | Lateral | |
| | Vertical | |
| b) Tail rotor : (ips) | In plane | |
| | Out of plane | |

6. **Main rotor speed limits (% normal RPM)**

- a) Engagement speed
- b) Maximum speed
- c) Maximum transient speed
- d) Minimum speed
- e) Minimum Transient Speed
- f) Maximum Power ON Speed
- g) Minimum Power ON Speed
- h) Maximum speed for Rotor brake application



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7. Maximum limiting helicopter speeds (without external Stores)

- a) Maximum level speed
 - i) Forward (VH)
 - ii) Sideward
 - iii) Rearward
- b) Never exceed speed
- c) Maximum auto rotational forward speed
- d) Maximum speed with door kept open/removed

8. Maximum operational altitude

- a) Maximum altitude for take-off and landing
- b) Maximum altitude for flying
- c) Zero speed hover out of ground effect ceiling.

9. Maximum normal acceleration - (without external Stores)

Instantaneous

Sustained

- a) Positive
- b) Negative

10. Maximum angle of side slip at various speeds.

- a) V min P
- b) V cruise
- c) V NE

11. Maximum bank angle

12. Turn on spot

Maximum rate of turn

Altitude/Speed

13. Maximum mast moment

14. Controls margin

	d□ (%)	d□ (%)	d□ (%)	d□ (%)
a) VH	—	—	—	—
b) Vne	—	—	—	—
c) Left sideward Flight	—	—	—	—
d) Right sideward Flight	—	—	—	—
e) Rearward Flight	—	—	—	—
f) Hover	—	—	—	—



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15. Maximum rate of climb

- i) Vertical
- ii) Oblique

16. Landing on inclined surface

- i) Slope
- ii) Landing direction

17. Maximum tyre inflation pressure

18. Maximum oleo pressure

In the case of wheeled version

19. Limitations with External Stores and under slung loads

- | | Item | Max Speed | Max 'g' | Max Bank Angle | Side Slip |
|----|-----------------------|-----------|---------|----------------|-----------|
| a) | Armament Stores | | | | |
| b) | Under slung loads | | | | |
| | i) High density loads | | | | |
| | ii) Low density loads | | | | |

20. Engine limits (ISA, S/L)

Rating	Power	TGT (□C)	Torque	NG	ANG
—	—	—	—	—	—

21. Single engine performance - (Where more than one engine is used)

- a) Maximum level speed
- b) Minimum level speed
- c) Maximum rate of climb

22. Engine relight envelope

Max Altitude	Speed	OAT
—	—	—

23. Engine manual handling

24. Use of AVTAG (JP-4) and JP-5 Fuel

25. Transmission Limits

<u>Rating</u>	<u>Power</u>	<u>Torque</u>
—	—	—



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26. Gun firing

- a) Calibre :
- b) Burst length :

27. Pressure error correction

28. Minimum airspeed indicator reading

This FCC is issued for Developmental Flight Trials only and it does not constitute any authority to fly unless accompanied by a current Certificate for safety for flight (F-1090) issued by DGAQA.

Head of Design
Contractor's Firm

CEMILAC / Regional Director (Helicopters)