

PART III OPERATING DATA

46. Engine data *Goblin 2*

The principal engine limitations are as follows:—

	R.P.M.	Max. Temperature Jet Pipe	°C. O.I
TAKE-OFF, CLIMB, and OPERATIONAL NECESSITY (30 MIN. LIMIT)	10,200	720	} 70° *
MAX. CONTINUOUS	9,700	620	
IDLING	3,000 (±200)	500	

* Minimum for opening up MINUS 5°C.

OIL PRESSURE

Normal at 9,700 r.p.m.	...	40/45 lb./sq. in.
Emergency minimum (5 min. limit)		25 lb./sq. in.

47. Flying limitations

(i) The aircraft is designed for the duties of a single-seat fighter, although the spinning characteristics are considered to be satisfactory for recovery from an incipient spin, intentional spinning should not be carried out.

If a spin occurs, normal recovery action should be initiated immediately, but care must be taken when moving the control column forward to avoid excessive negative acceleration and a very steep nose down attitude. The rudder should be centralised immediately rotation ceases, to avoid flicking into a spin in the opposite direction, and in the initial stage, the pull out from the ensuing dive should be made gently.

(ii) Maximum speeds. The maximum permissible speeds are:—

(a) Without wing drop tanks

Sea level to 5,000 ft.	...	455 knots
5,000 to 10,000 ft.75 mach number
10,000 ft. to 15,000 ft.76 mach number
Above 15,000 ft.78 mach number

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(ii) (b)
Note

- (b) With wing drop tanks
Sea level to 5,000 ft. 390 knots I.A.S.
At heights above 15,000 ft. an indicated mach number of .65
must not be exceeded.

NOTE.—When carrying wing drop tanks (full or empty) above 15,000 ft., full ammunition or ballast in lieu, must be carried and the guns must not be fired. Below this height full ammunition or ballast in lieu, need not be carried and the guns may be fired. Gentle manœuvres only are permissible when carrying wing drop tanks.

- (c) Dive brakes open Up to max. permissible
diving speed
Undercarriage down ... 175 knots
Flaps down 155 knots

(iii) Maximum weights

For free or catapulted take-off and gentle manœuvres only	12,700 lb.
All forms of flying	10,900 lb.
Landing on airfields	10,900 lb.
Deck-arrested landings	9,700 lb.†

† Obtained by having full ammunition and 185 gallons of fuel, or no ammunition and 230 gallons of fuel. Arrested landings must not be carried out with wing drop tanks.

(iv) Jettisoning of wing drop tanks.

The wing drop tanks may be safely jettisoned in level flight at speeds up to 260 knots.



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