

- (b) The bomb release pushbutton is on the starboard side in the nose compartment, and is duplicated on the control column (48).
- (c) A bomb safety switch (14) on the port console panel must be set ON before any bombing circuits can be operated.

#### 48. Emergency operation of bomb doors and jettisoning bombs

- (a) In emergency the bomb doors can be opened and all bombs jettisoned by the pilot by the shielded EMERGENCY BOMB JETTISON switch (21) on the port console panel.
- (b) Should the doors fail to open when the emergency jettison switch is operated, the door selector valve can be operated mechanically by means of the lever (23) on the port side of the cockpit. The lever should be pulled down after releasing the gate. If the defect is electrical the doors should then open and the bombs automatically jettison as soon as the doors reach the fully open position, provided the jettison switch is still on. If the indicator light does not come on, however, indicating that the doors have not opened, a hydraulic fault is the probable cause and an attempt may be made to open them by means of the handpump.
- (c) If the emergency lever is operated it is impossible to close the doors subsequently in flight. The doors should, therefore, not be opened by this means if it is of vital importance to reclose them after jettisoning the bombs. If time permits an attempt should be made by selecting air brakes or flaps to ascertain whether the defect is electrical or hydraulic. If these fail to operate, a hydraulic failure may be assumed and the handpump used to open the doors, and, after resetting the bomb door selector switch to CLOSED, to close them. Subsequent lowering of the undercarriage by the handpump may not prove possible.

#### 49. Camera controls

The camera is controlled by the air bomber, the control unit and switch box being mounted on the cabin starboard wall at his station.

## PART II

## LIMITATIONS

#### 50. Engine limitations—Avon Mk. 1

	R.P.M.	J.P.T.
<b>Max. take-off and operational necessity</b>	7,800 ± 50	600
<i>30 Mins. limit</i>		
<b>Max. continuous</b>	7,600	565
<b>Idling on the ground</b>	2,750 ± 100	500
<b>Oil pressures</b>		
Minimum idling ... ..		3 lb./sq. in.
Minimum at 7,400 r.p.m. and above		15 lb./sq. in.
Normal at 7,400 r.p.m. ... ..		20 lb./sq. in.

#### 51. Flying limitations

- (a) The aircraft is designed as a light bomber. Intentional spinning and aerobatics are not permitted.

PART II—LIMITATIONS

(b) Speed and mach number limitations

(i) Airframe limitations	Max. I.A.S.	Max. I.M.N.
Clean	450	0.75M below 15,000 ft. 0.79M 15,000 to 25,000 ft. Above 25,000 ft. limited by compressibility effects. The speed at which a nose-up change of trim occurs, i.e. about 0.84M, must not be exceeded.
With wing tip tanks	365	0.79M below 25,000 ft. 0.8M above 25,000 ft.
(ii) Other limitations		
Bomb doors open	350	0.75M up to 40,000 ft. 0.8M above 40,000 ft.
2-position airbrakes OUT	No limit	No limit.
3-position airbrakes MID	No limit	No limit.
3-position airbrakes OUT	400	0.75M 12,500 to 25,000 ft. 0.79M above 25,000 ft.
For operating under-carriage and flying with it down	190	
Flaps down	160	

(c) Maximum weights

For take-off and all permitted forms of flying ... .. 46,000 lb.  
For landing ... .. 40,000 lb.

NOTE.—When landing at weights above 33,000 lb., the brakes must be used with care and the initial touch-down made on the main wheels only.

PART II—LIMITATIONS

(d) C.G. limits (inches aft of datum)

- (i) In flight and landing
  - Without wing tip tanks ... .. 14.8 to 36.7
  - With wing tip tanks ... .. 14.8 to 33.7
- (ii) When taxiing over uneven surfaces the aft limit should not exceed 34.7 inches.

(e) G limitations

The following limitations of maximum indicated G must be observed.

Clean ... .. 4G

With tip tanks ... .. 3G in straight pull-outs only  
(Rolling pull-out is not permitted)

52. Pilot limitation

Pilots having a thigh length in flying clothing of more than 26.5 inches must not fly the aircraft. This restriction is imposed because personnel with a greater thigh length are liable to injury due to the knees fouling the coaming if the ejector seat is used. All pilots should press the legs back as far as possible if the ejector seat is to be used.

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