

Chapter I

PILOT'S CONTROLS AND EQUIPMENT

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WARNING

AN AIRCREW EJECTION SEAT IS FITTED TO THIS AIRCRAFT.

This equipment is a source of potential danger to personnel and of damage to the aircraft. If the firing mechanism is operated while the aircraft is on the ground, the seat will be ejected, damage will be done to the aircraft and injury may be caused to any person in, or leaning into, the cabin.

Before any individual is allowed to enter the cabin, therefore, the N.C.O. i/c airframe servicing is to ensure that the safety strap is in position over the firing handle of the ejection seat and secured with the safety pin, or that the safety pin is fitted in the hole in the seat.

Introduction

1. This chapter gives the location of the controls and instruments used by the pilot, the items being grouped as indicated in the illustrations. It will be found that certain items are not referenced as they are regarded as standard features in all aircraft. Where the operation of a control or any feature of an instrument is not obvious, the necessary information is given in the key to the illustration. For more detailed information of the operation of certain controls, reference should be made to A.P.4347D, Pilot's Notes.

Emergency controls

2. The function and operation of the emergency controls and instruments indicated in the illustrations are described in detail in Sect. 1, Chap. 3 of this volume.

Sliding hood

Operation from inside

3. The sliding hood is normally operated by an electric actuator, but provision is also made for manual operation. The actuator is controlled by a three-position switch marked OPEN, OFF and SHUT, which is contained in a combined hood and clutch control box mounted in the cabin on the port side above the throttle lever. The clutch lever moves in a gate marked FREE and LOCKED; when in the FREE position, the actuator clutch is disengaged by a Bowden cable interconnection and the hood control switch is moved to the OFF position by a mechanical linkage within the control box. With the actuator de-clutched, the hood may be moved in the required direction by the handgrips, and as the control switch is in the OFF position the actuator cannot be operated under no-load conditions.

WARNING

When the aircraft is ready for take-off, a check must always be made to ensure that

the hood rail lock indicators, which are located two on each side of the cabin and marked LOCKED are pointing to the centres of the lock pins, thus indicating that the hood rail locks are correctly set to lock the rails and hood to the airframe.

Operation from outside

4. Before leaving the cabin, the actuator clutch lever should be placed in the FREE position, thus leaving the hood free to slide. The hood may then be pushed open or closed from the outside as desired. For details of the emergency operation of the hood, reference should be made to Sect. 1, Chap. 3 of this volume.

Note . . .

The hood must NOT be opened or closed by pushing on the transparent plastic.

Operation by external control switch

5. A three-position, centre-off switch located at the bottom of the forward face of the first fuselage frame inside the fuselage nose piece, is provided for external operation of the hood during cabin pressurization checks. This switch is normally OFF and disconnected from the electrical system. To use the switch it is first necessary to disconnect the control from the plug and socket break in the cabin on the port shelf, remove the external control switch socket from its stowage above the shelf and connect it to the plug on the shelf. The actuator clutch should then be placed in the LOCKED position and the fuselage nose piece removed, as described in Sect. 3, Chap. 1, to gain access to the external switch.

WARNING

Before using the switch, ensure that the hood is clear, and after use re-connect the cabin switch to the plug on the shelf and return the external switch socket to its stowage.

KEY TO FIG. 1 (FLYING CONTROLS AND INSTRUMENTS)

- | | | |
|---|---|--|
| <p>1 UNDERCARRIAGE INDICATOR
Light sequence:—
GREEN Undercarriage locked down
RED Undercarriage in process of retraction or extension
ALL OFF Undercarriage locked up</p> <p>2 UNDERCARRIAGE WARNING LIGHT
Lights when throttle is approximately one-third open and undercarriage locked down</p> <p>3 UNDERCARRIAGE CONTROL
Interlocking push-buttons. Top for UP, bottom for DOWN
Note.—Clockwise rotation of outer ring of UP button overrides safety lock</p> <p>4 FLAP CONTROL</p> <p>5 AILERON POWER ASSISTANCE INDICATOR
Indicates power off</p> <p>6 ELEVATOR POWER ASSISTANCE INDICATOR
Indicates power off</p> <p>7 AILERON POWER ASSISTANCE SWITCH
Use to disengage power</p> <p>8 ELEVATOR POWER ASSISTANCE SWITCH
Use to disengage power</p> <p>9 MACH METER</p> <p>10 TAIL PLANE POSITION INDICATOR</p> <p>11 AIRSPEED INDICATOR</p> <p>12 ARTIFICIAL HORIZON</p> | <p>13 RATE OF CLIMB INDICATOR</p> <p>14 TURN AND SLIP INDICATOR</p> <p>15 STANDBY COMPASS</p> <p>16 DE-ICING PUMP SWITCH</p> <p>17 CLOCK</p> <p>18 ACCELEROMETER</p> <p>19 HYDRAULIC PRESSURE AUDIO WARNING SWITCH
Use to cut-out audio warning</p> <p>20 CABIN PRESSURE WARNING LIGHT</p> <p>21 CABIN ALTIMETER</p> <p>22 H.P. OXYGEN CONTENTS GAUGE</p> <p>23 OXYGEN DEMAND REGULATOR</p> <p>24 COMPASS CONTROL UNIT
Ground use only. Light indicates installation operative</p> <p>25 TEST BUTTON ON ANTI-G SUIT VALVE
Depress to test installation</p> <p>26 ANTI-G PRESSURE GAUGE</p> <p>27 ANTI-G SUIT CONTROL</p> <p>28 TAIL PLANE INCIDENCE CONTROL (NORMAL)
Move up to increase tailplane incidence and down to decrease</p> <p>29 HYDRAULIC BRAKE CONTROL</p> | <p>30 BRAKE PARKING LOCK
For temporary parking</p> <p>31 PRESSURE HEAD HEATER SWITCH</p> <p>32 RUDDER BAR CONTROL
For adjustment of rudder bar</p> <p>33 GYRO COMPASS</p> <p>34 ALTIMETER</p> <p>35 FLAP POSITION INDICATOR</p> <p>36 AIR BRAKE INDICATOR
Indicates flaps out</p> <p>37 TAIL PLANE STANDBY CONTROL</p> <p>38 AIR BRAKE CONTROL</p> <p>39 AILERON AND RUDDER TAB POSITION INDICATORS</p> <p>40 AILERON AND RUDDER TRIM TAB CONTROL SWITCH
Operation in natural sense (i.e. the aircraft responds to the attitude of the silhouette on the switch knob)</p> <p>41 TRIM SWITCH LOCK
Engage when flying with ailerons power operated</p> <p>42 CABIN TEMPERATURE SELECTOR</p> <p>43 CABIN TEMPERATURE CONTROL</p> <p>44 CABIN PRESSURE SWITCH</p> <p>45 CABIN PRESSURE WARNING TEST
Ground use only</p> <p>46 TAIL PLANE MOTOR CIRCUIT BREAKER</p> |
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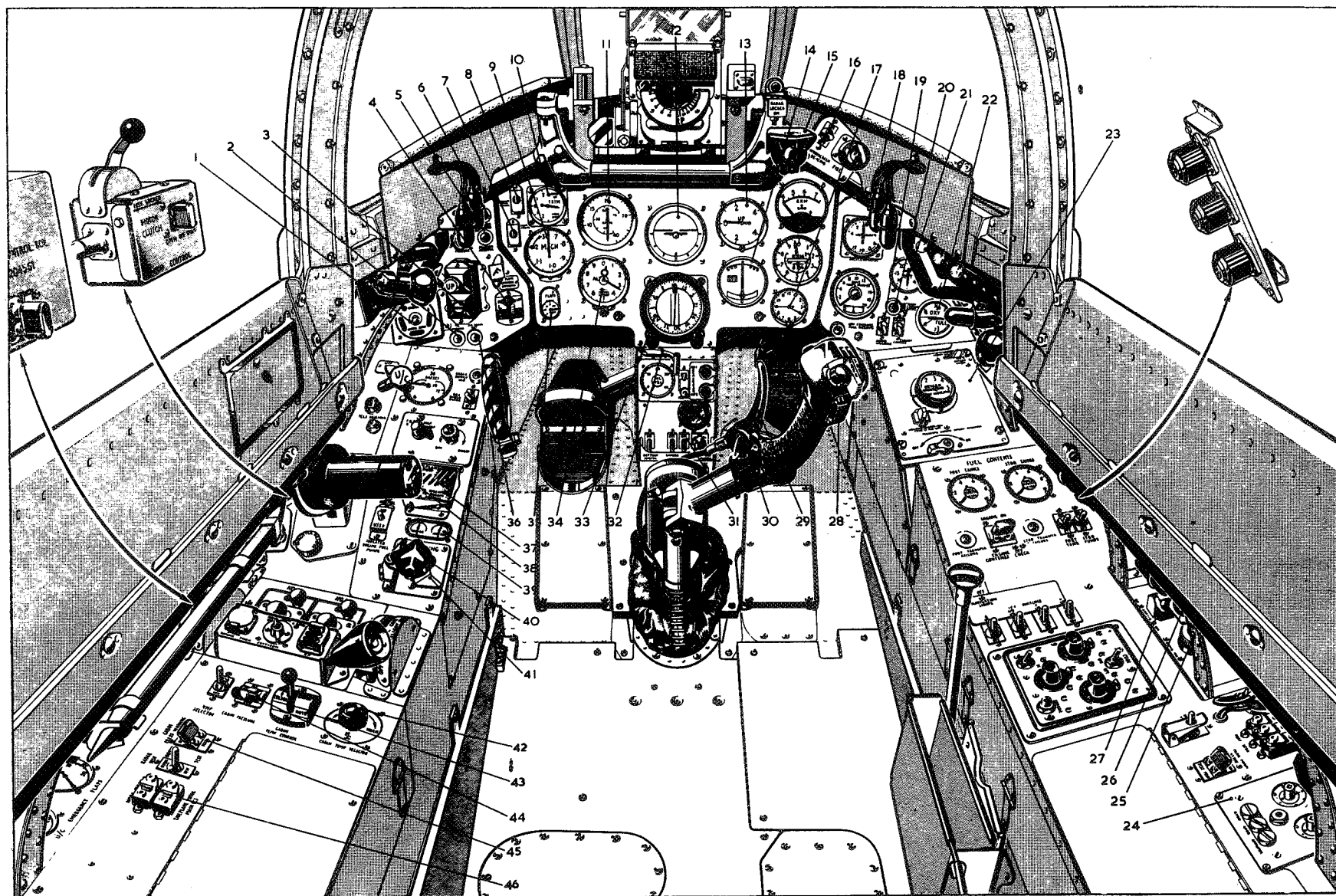


Fig. 1. Flying controls and instruments

KEY TO FIG. 2 (ENGINE CONTROLS AND INSTRUMENTS)

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|--|---|---|
| <p>1 HIGH PRESSURE FUEL COCK CONTROL
Moved forward from OFF to ON</p> <p>2 LOW PRESSURE FUEL COCK CONTROL
Moved forward from OFF to ON</p> <p>3 RELIGHT SWITCH
Press with ignition switch (item 9) on for relight</p> <p>4 THROTTLE DAMPER</p> <p>5 THROTTLE
Aft for idling, forward for full throttle</p> <p>6 EMERGENCY ENGINE FUEL PUMP ISOLATING SWITCH
(Inoperative pending introduction of modified engine fuel pump)</p> <p>7 EMERGENCY ENGINE FUEL PUMP ISOLATED WARNING LIGHT</p> <p>8 OIL PRESSURE GAUGE</p> | <p>9 IGNITION SWITCH
When off, isolates igniter units</p> <p>10 ENGINE MASTER SWITCH
Controls flight instruments, tank pumps, fuel pressure and emergency fuel pump circuits</p> <p>11 STARTER PUSH-BUTTON
Actuates engine starting cycle</p> <p>12 EXHAUST GAS THERMOMETER</p> <p>13 TACHOMETER</p> <p>14 FUEL PRESSURE WARNING INDICATOR
Indicates fuel pressure is low at engine inlet</p> <p>15 ENGINE ANTI-icing SWITCH AND INDICATOR</p> <p>16 FUEL GAUGE—PORT TANKS</p> <p>17 FUEL GAUGE—STARBOARD TANKS</p> | <p>18 FUEL TRANSFER FAILURE INDICATOR—PORT</p> <p>19 ENGINE OFF—CONTENTS CHECK
Used to check total fuel content when engine is not running</p> <p>20 FUEL TRANSFER FAILURE INDICATOR—STARBOARD</p> <p>21 FUEL TANK BOOSTER PUMP SWITCH—PORT
Used for manual balancing of fuel contents.</p> <p>22 FUEL TANK BOOSTER PUMP SWITCH—STARBOARD
Used for manual balancing of fuel contents</p> <p>23 AMMETER TEST SOCKET
Used for test prior to flight</p> <p>24 CIRCUIT BREAKER, BOOSTER PUMP—PORT</p> <p>25 CIRCUIT BREAKER, BOOSTER PUMP—STARBOARD</p> <p>26 TANK PUMPS TEST SWITCH
Used for test prior to flight</p> <p>27 CIRCUIT BREAKER, STARTER</p> |
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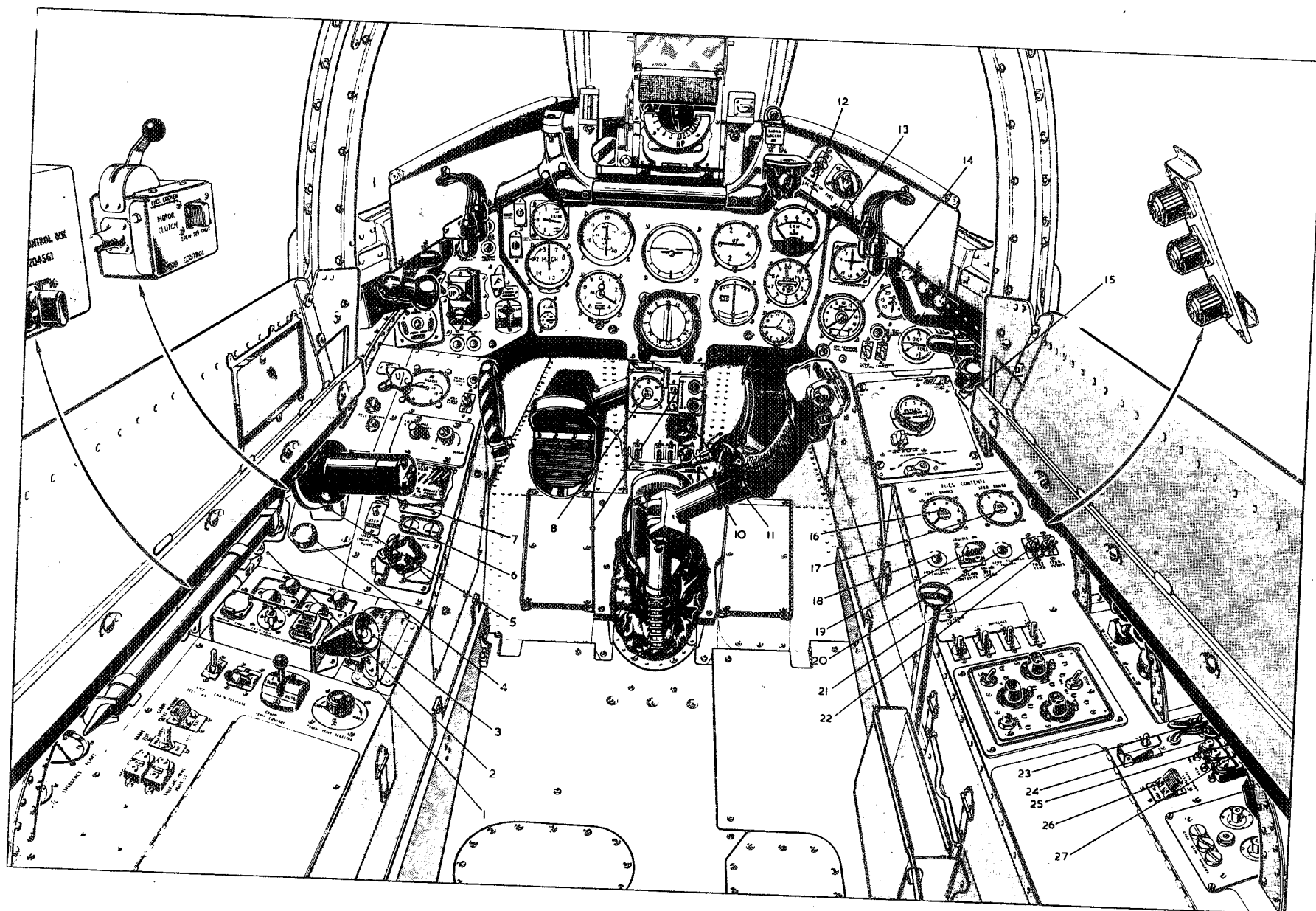


Fig. 2. Engine controls and instruments

(KEY TO FIG. 3 ARMAMENT, NAVIGATION, SIGNALLING, RADIO AND MISCELLANEOUS)

- 1 CROWBAR
- 2 AIRBRAKE RELAY BOX AND TEST SWITCH
- 3 HOOD RAIL LOCK INDICATORS—Port and Starboard
- 4 HOOD CONTROL AND CLUTCH LEVER
When clutch lever is in FREE position to de-clutch motor, hood control switch is moved to the OFF position automatically
- 5 MULTI-CHANNEL CARD HOLDER
- 6 TELE-BRIEFING PUSH SWITCH
- 7 TELE-BRIEFING LIGHT
- 8 EMERGENCY UNDERCARRIAGE CONTROL
Grasp the control between the fingers, press the centre button with thumb and pull control to operate
- 9 TRIPLE PRESSURE GAUGE
Brakes and main hydraulic system pressure
- 10 TARGET REJECTION SWITCH
- 11 HYDRAULIC FAILURE WARNING LIGHT
- 12 HOOD JETTISON CONTROL
Refer to Sect. 1, Chap. 3
- 13 EMERGENCY FLAPS CONTROL
Grasp the control between the fingers, press the centre button with thumb and pull control to operate
- 14 EMERGENCY GYRO GUN SIGHT MANUAL RETRACTION CONTROL
- 15 RETRACTABLE GYRO GUN SIGHT MOUNTING
- 16 GYRO GUN SIGHT
- 17 GYRO GUN SIGHT AND MOUNTING CONTROL SWITCH
- 18 RADAR LOCKED ON INDICATOR LIGHT
- 19 FIRE WARNING LIGHT AND EXTINGUISHER PUSH SWITCH
Pull knob to test bulb before take-off. Light indicates when temperature in engine bay and accessories bay exceeds 300 ± 30 deg. C. Pushing the knob will operate the fire extinguisher. The flame switches are of the re-setting type and indicate temporary surges of excessive heat, thus, flickering of the light in flight and during an engine run on the ground may occur. Refer to Sect. 4, Chap. 5
- 20 D.M.E. INDICATOR
- 21 RED INSTRUMENT LIGHTS—Port and Starboard
- 22 RED INSTRUMENT STANDBY LIGHTS—Port and Starboard
- 23 CAMERA EXPOSURE SWITCH
- 24 SPARE BULB HOLDER
- 25 RED INSTRUMENT LIGHTS—Port and Starboard
- 26 RED STANDBY LIGHT SWITCH
- 27 ULTRA VIOLET INSTRUMENT LIGHTS—Port and Starboard
- 28 ULTRA VIOLET INSTRUMENT LIGHTS, DIMMER SWITCH
- 29 RED INSTRUMENT LIGHTS, DIMMER SWITCH
- 30 RED SHELF LIGHTS, DIMMER SWITCH
- 31 GYRO GUN SIGHT RECORDER STOWAGE
- 32 MAP AND NOTE CASE
- 33 ACCUMULATOR, EMERGENCY COCKPIT LIGHTS
- 34 BUTT TEST SWITCH
- 35 D.M.E. CONTROL UNIT
- 36 I.F.F. SWITCHES
- 37 AFT RED SHELF LIGHTS—Port and Starboard
- 38 NAVIGATION LIGHTS SWITCH
- 39 EMERGENCY OXYGEN RELEASE
- 40 FORWARD RED SHELF LIGHTS—Port and Starboard
- 41 CAMERA GUN PUSH SWITCH
- 42 GUN FIRING TRIGGER
- 43 GENERATOR WARNING LIGHTS
- 44 GYRO GUN SIGHT CIRCUIT BREAKER
- 45 CAMERA MASTER SWITCH
- 46 BATTERY MASTER SWITCH
On for flight, switch off to isolate all electrical services except fire extinguisher
- 47 RADAR SUPPLY INDICATOR
- 48 GYRO GUN SIGHT MANUAL AUTOMATIC SWITCH
- 49 GYRO GUN SIGHT CONTROL UNIT
- 50 PRESS TO TRANSMIT SWITCH
- 51 GYRO GUN SIGHT RANGE CONTROL
- 52 V.H.F. RADIO CONTROL UNITS
- 53 BOMB/R.P. CONTROL PANEL
- 54 V.H.F. SELECTOR SWITCH
- 55 BRAKE ACCUMULATOR PRESSURE GAUGE
- 56 RADAR TEST SWITCH
- 57 HOOD CIRCUIT BREAKER
- 58 EMERGENCY AIR GAUGE, FLAPS
- 59 EMERGENCY AIR GAUGE, UNDERCARRIAGE

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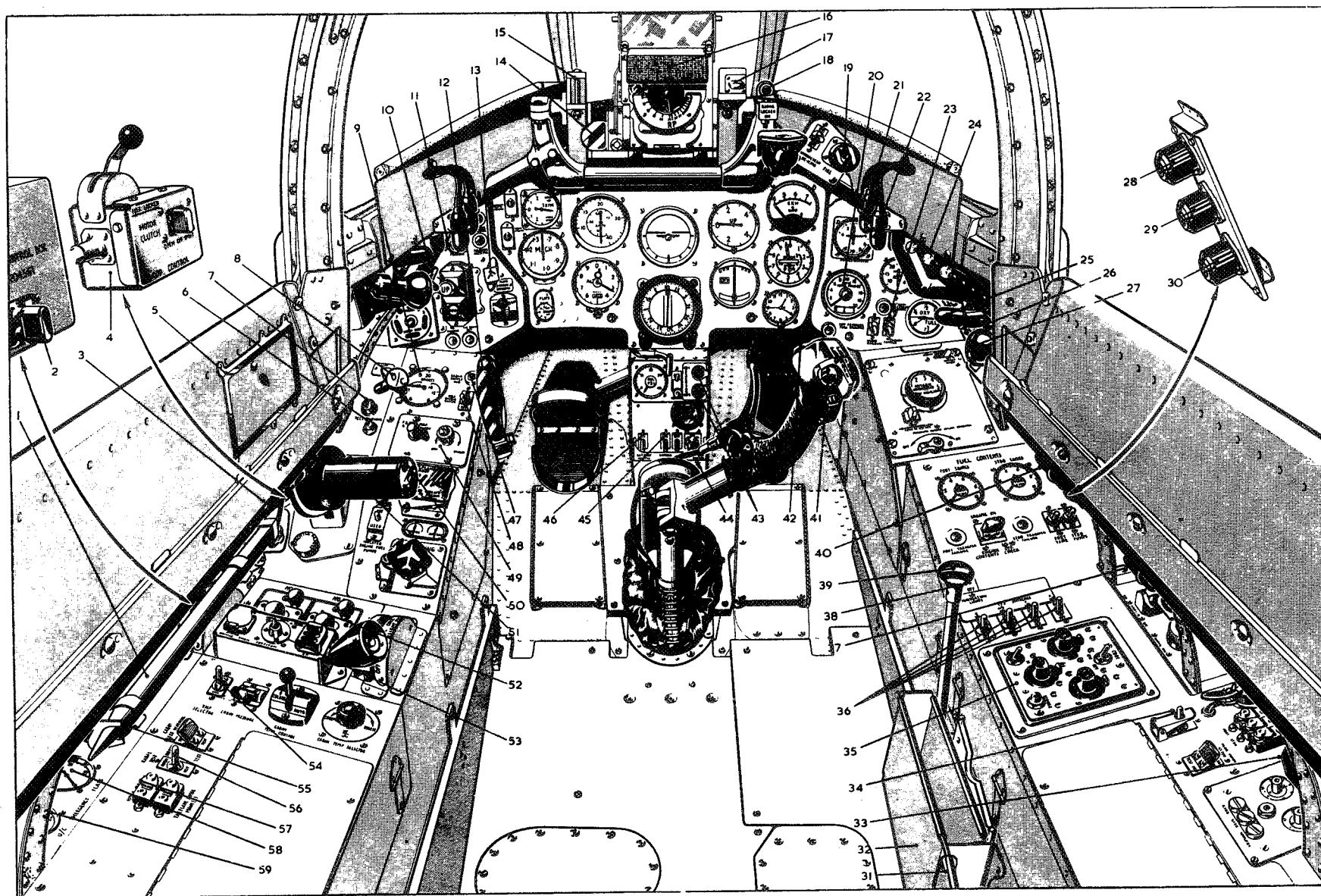



Fig. 3. Armament, navigation, signalling, radio and miscellaneous



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