

## - Chapter 3 -

## DESCRIPTION OF COCKPIT CONTROLS and EQUIPMENT

3.1 Canopy (Plate 3.1)

The one piece canopy slides on three rails and can be locked in any one of several positions. The lock is operated by two handles which are accessible from either inside or outside the aircraft and located in the roof of the canopy.

A flap with an emergency release is provided in the roof to assist in opening the canopy at high speeds. This is on early aircraft.

A "break-out" panel is provided for each cockpit on the starboard side of the canopy.

3.2 Instrument Panel (Plate 3.2)

The duplicate instrument panels are shock mounted and in addition to flight and engine placards, each contains the following standard instruments: airspeed indicator, altimeter, turn and bank indicator, compass, tachometer, oil pressure gauge. An oil temperature gauge is provided on the front panel only.

Additional items listed in Chapter 5 may be installed as required.

3.3 Control Column

A standard type of removable joy-stick is provided in duplicate. A locking pin is provided at the base of the column.

3.4 Rudder Pedals

Rubber covered pedals are mounted on a rudder bar with a parallel link arrangement. Ground adjustment is provided to accommodate pilots of various leg lengths.

3.5 Brakes (Plate 3.3)

The brakes are operated by a hand lever on the port side of each cockpit. The differential action is controlled by the rudder pedals.

3.6 Flaps (Plate 3.4)

The flap lever is located on the starboard side of the cockpit. Three settings are provided.

3.7 Elevator Trimming Tab Control

The control wheel is on the port side and rotates in the correct sense, i.e. a nose-down change in trim is produced by pushing the top of the wheel forward.

### 3.8 Seats

The bucket type tandem seats accommodate seat pack parachutes. The seats may be removed to provide access to the rear fuselage or to the structure below the floor level in the front cockpit.

### 3.9 Control Locks

Control locks are provided as special order equipment.

### 3.10 Safety Harness

An adjustable Borden, Sutton or "QL" type harness is attached to each seat.

### 3.11 Luggage Compartment

A compartment in the rear fuselage is accessible from the rear cockpit and provides space for small items of baggage or a battery if the latter is supplied. A tray for small items of baggage is also provided in the front cockpit. Standard equipment includes a map case.

### 3.12 Fire Extinguisher

A hand operated Pyrene extinguisher of one pint capacity is mounted on a quick release bracket on the front seat diaphragm.

### 3.13 Engine Controls

Throttle and altitude controls are on a quadrant on the port side of each cockpit. An adjustable friction damper is included in each quadrant.

There are two sets of magneto switches, one on the front instrument panel or on the front fuselage deck, the other on the port side of the fuselage deck between the two cockpits.

### 3.14 Carburettor Heating

Warm, sheltered air is supplied to the carburettor by an automatically controlled shutter at engine speeds below 1850 rpm.

### 3.15 Electrical Equipment

Aircraft may be equipped with an electrical system as required. A typical installation has a 24-volt system with master control panels in the front cockpit, and provision for cockpit and navigation lamps, landing light and radio.

### 3.16 Intercommunication Systems

The electrical intercommunication system, for carbon or magnetic microphone, as specified, may be installed on the starboard side of the fuselage.

3.17 Day-Night Two-Stage Equipment

Two-stage equipment for day-night flying training can be provided to meet special order requirements.

3.18 Heating and Ventilation

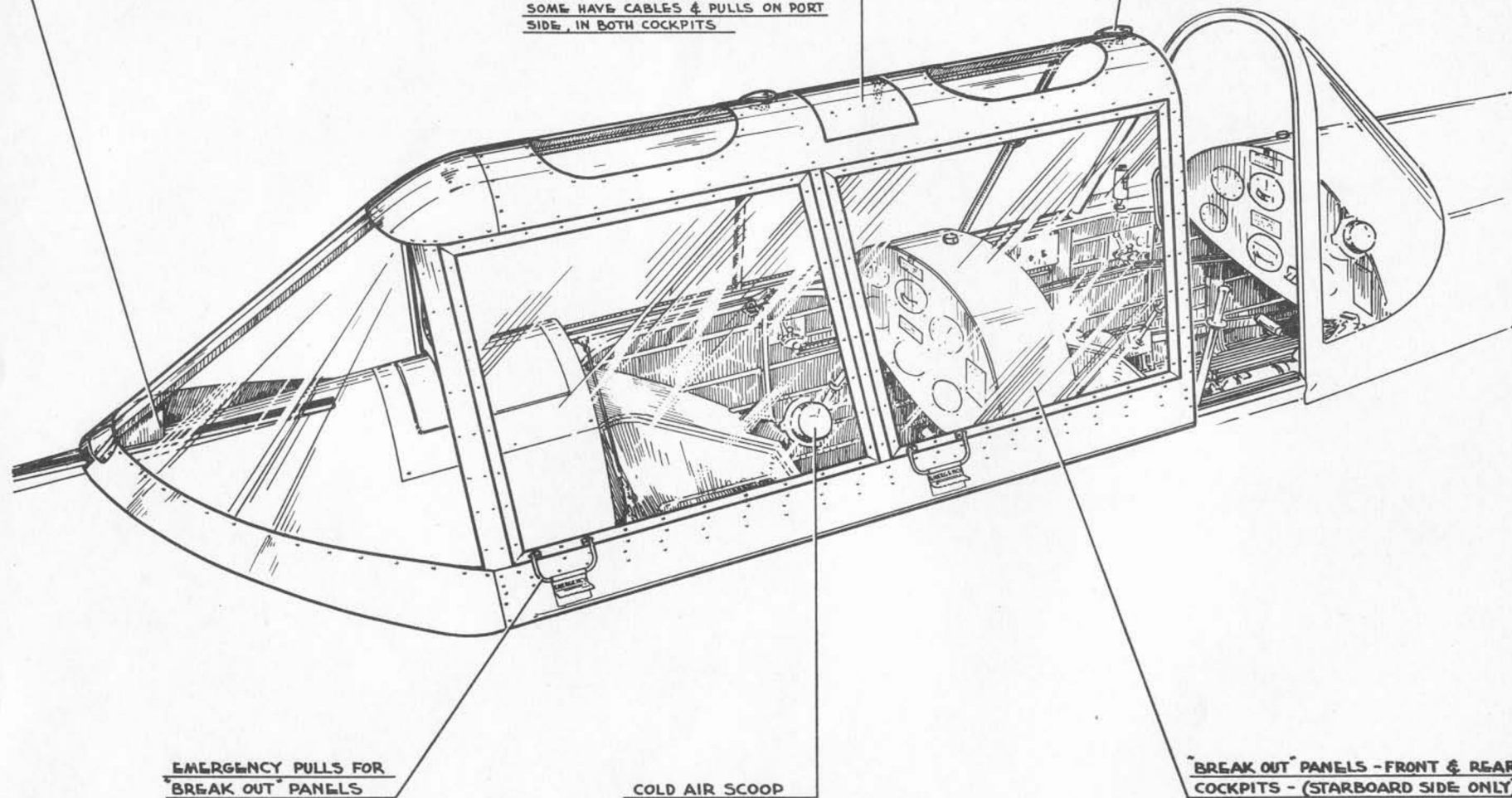
An exhaust muff type heater can be installed if required, with an "on-off" cockpit control. Ventilation is provided by controllable scoops in the windscreen and canopy.

LOCKING PIN ENGAGES HOLES  
IN CENTER RAIL -- SEVERAL  
POSITIONS PROVIDED

EMERGENCY FLAP -- MAY BE RELEASED  
\*BY TURNING LOCK ON INSIDE -- THIS FLAP  
IS TO ASSIST IN SLIDING CANOPY BACK  
WHEN TRAVELLING AT HIGH SPEEDS.

LOCK HANDLES, INSIDE & OUT, OPERATE  
SPRING LOADED LOCKING PIN AT REAR  
OF CANOPY

\*TYPE OF RELEASE MAY VARY  
SOME HAVE CABLES & PULLS ON PORT  
SIDE, IN BOTH COCKPITS

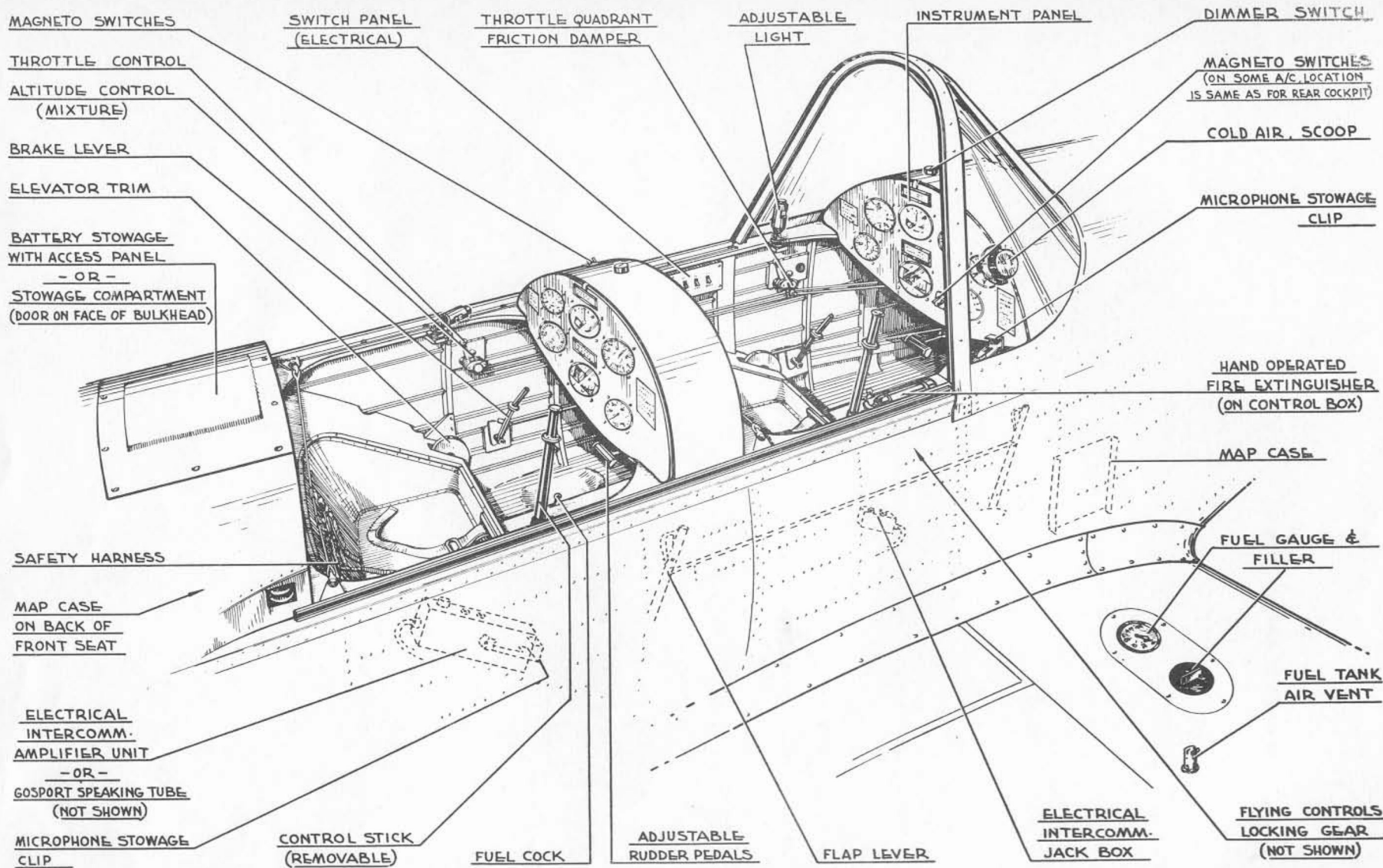


EMERGENCY PULLS FOR  
BREAK OUT PANELS

COLD AIR SCOOP

BREAK OUT PANELS - FRONT & REAR  
COCKPITS - (STARBOARD SIDE ONLY)

J.W.S.



J.W.S.

**DHC 1-CHIPMUNK... COCKPIT LAYOUT**      **PLATE No 3.2**

DIFFERENTIAL PULLEY  
ARRANGEMENT, ATTACHED  
TO FRONT RUDDER BAR

QUADRANT ON  
FUSELAGE SIDE

BRAKE CONTROL LEVERS  
IN FRONT AND REAR  
COCKPITS .. ON PORT SIDE

CONNECTING ROD

MASTER  
CYLINDERS

CONTROL CABLE

COUNTERBALANCED PAWL

WHEN LEVERS PULLED BACK  
- BOTH PAWLS AUTOMATICALLY  
DISENGAGE  
TO RE-LOCK, DISC ON EITHER  
HANDLE IS PUSHED DOWN  
(ONLY ONE OF THE TWO PAWLS  
IS REQ<sup>d</sup> TO LOCK BRAKES)

HYDRAULIC LINE

DIFFERENTIAL BRAKING & FULL  
BRAKING DEPENDS ON POSITION OF  
CONTROL LEVER.  
WHEN LEVER SET BACK APPROXIMATELY  
4 NOTCHES - PROPER CONTROL ON  
WHEEL BRAKES IS OBTAINED.  
(MORE TENSION MAY BE REQUIRED  
IN A HIGH WIND)

NOTE  
THIS DRAWING IS DIAGRAMATIC  
& DOES NOT SHOW CONNECTIONS,  
FITTINGS, ETC.

BRAKE DISC ON INBOARD  
SIDE OF MAIN WHEEL

BRAKE DRUM

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FLAP CONTROL LEVERS  
FRONT & REAR COCKPITS  
ON STARBOARD SIDE

CONNECTING ROD

FLAP DOWN

HAND GRIP, LOCK RELEASE  
CONNECTED TO FRONT  
LEVER BY CABLE.

FLAP UP

CABLE TO PORT FLAP  
CABLE TO STBD FLAP

SPRING LOADED LOCK

QUADRANT ON FUSELAGE  
SIDE

FLAP LOCKS ITSELF INTO "UP  
POSITION" WHEN CURVED END  
OF CONTROL ARM MOVES PAST  
DEAD CENTER ON LAYSHAFT.  
IT IS RELEASED AS SOON AS  
THE FLAP CONTROL LEVER IS  
PULLED BACK.

TENSION SPRING  
ATTACHED TO CAM BY  
CABLE - PULLS FLAP  
INTO "UP POSITION"

CAM (IN WING)

LAYSHAFT

CONTROL ARM

NOTE  
THIS DRAWING IS DIAGRAMATIC  
& DOES NOT SHOW TURNBUCKLES,  
FITTINGS, ETC.

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**DHC 1 - CHIPMUNK . . . FLAP SYSTEM - PLATE NO 3.4**

MAGNETO SWITCHES

ELECTRICAL  
JUNCT<sup>n</sup> BOX

HAND OPERATED  
FIRE EXTINGUISHER  
(ON FRONT OF SEAT)

ADJUSTABLE LIGHT  
WITH DIMMER SWITCH  
ON INSTRUMENT PANEL

VOLT-AMMETER  
& SWITCH PANEL  
(MASTER, STARTER, GEN<sup>s</sup>)

MAGNETIC COMPASS  
(SPECIAL ORDER ITEM)  
(NOT REQ<sup>d</sup> WITH PB)

BLIND FLYING  
INSTRUMENT PANELS

P8 COMPASS

BATTERY STOWAGE  
WITH ACCESS PANEL

RADIO UNIT, BELOW --  
ACCESS THRU REMOVABLE  
REAR SEAT

ELECTRICAL  
SWITCH PANEL  
(LIGHTS & RADIO)

SUTTON OR "QL"  
SAFETY HARNESS

LUGGAGE TRAY

\* RADIO CONTROL UNIT  
(ON FRONT SEAT DIAPHRAGM)

\* VOLUME CONTROL  
& SELECTOR SWITCH  
FOR INTERCOM OR RADIO

\* RADIO & INTERCOM CONTROLS  
& LOCATIONS MAY VARY --  
ACCORDING TO TYPE OF INSTALL<sup>n</sup>

HEAD SET  
SOCKET

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# DHC 1B - CHIPMUNK ... COCKPIT LAYOUT PLATE 3.5

ISSUED WITH A.L.1

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