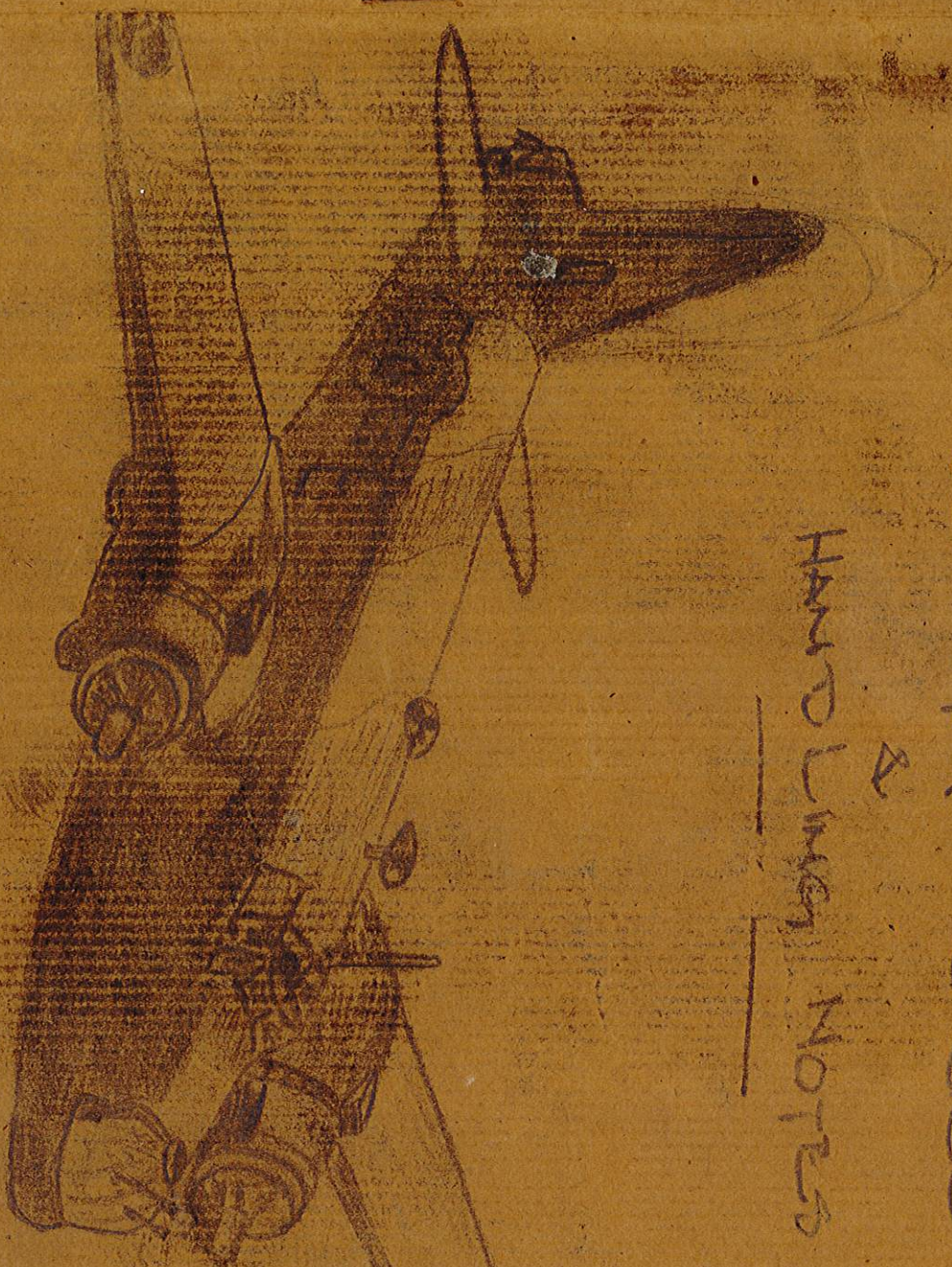


CTC

XLV

COCKPIT & DALL

HANDLING NOTES



COCKPIT DUTIL AND HANDLING NOTES.WILLINGTON MARKS 111 2-3

(to be followed in conjunction with A.P. 15700 and 11106 notes).

1. BEFORE FLYING AIRCRAFT, CHECK AS UNDER:-

1. FORM 700, and note :
 - (a) Serviceability.
 - (b) Fuel state.
 - (c) Flying hours.
2. All covers removed. (including PILOT SEAT)
3. Guns.
4. Turbops.
5. Chocks in place.
6. Tyres for cuts or splits.
7. Engines for obvious oil leaks.
8. Props have been turned two complete revolutions, by hand.
9. Patrol filling flaps closed.
10. No tears in fabric.
11. Free movement of ailerons and elevator.
12. Fire extinguishers at hand.
13. No obstructions in way for taxiing out.

2. IN ENTERING AIRCRAFT.BULKHEAD DOOR CLOSED AND LOCKED

1. Check fuel cock settings in fuselage.
O.S. & C.P. "ON"
Mecelle tanks "OFF"
Balance cock "ON" "OFF"
Overload tanks "OFF".
2. Check oil level in hydraulic header tank.
3. All equipment correct and securely fastened.

3. COCKPIT CHECK.

1. Climb into pilot's seat, adjust safety harness, seat and rudder bar for full control.
2. Ensure windscreen is clean.
3. Test flying controls for free movement.

P.T.O.

COCKPIT DRILL & HANDLING NOTES (Contd)

4. CLOCKWISE CHECK.

1. Balance cock "UP" down (OFF) - pull up and down once to check freedom of movement
2. Powerol cooling down (ON). LOCK STRAP OVER
3. SLOW RUNNING out-ports down.
4. Thrusting levers neutral.
5. Mover in "1" gear.
6. Cold Air.
7. O.B. controls fully fine (selected switches "ON" automatic)
8. Throttles closed.
9. Landing light UP.
10. Low Int. light switch "OFF".
11. Switch of undercarriage and flap indicators (safety bar) and check undercarriage lights.
12. Bomb door selector "closed".
13. Altimeter set at 60'.
14. Gills fully open. DECONTAMINATION LIGHTS OFF
15. Check movement of undercarriage lights and at night select DIM.
16. Check warning horn.
17. Check fuel gauges.
18. Undercarriage lever down and safety lights on.
19. Flap lever neutral.
20. Brake pressure 120 lbs. Min. Check each wheel for pressure and manipulation and lock brake lever ON
21. Navigation lights OFF by day, on by night.
22. Nose lights OFF.
23. Bomb bay lights OFF.
24. Pilot Head heater OFF.
25. Hydraulic emergency selector NO-HULL.
26. Loren and radio flaps 20° with hydraulic hand pump.
27. Oil cooler shutters closed (dark III only)
28. Pilots roof and floor escape hatches securely fastened.

5. STARTING UP

When ground crew have primed the induction system and signalled "All Clear".

Checks in front of unit/.....

COCKING PAUL AND HANDLING NOTES (Contd)

5. STARTING UP (Contd)

1. Set throttles $\frac{3}{4}$ inch open.
 2. Switch on ignition.
 3. Press port starter and booster button simultaneously (turning periods must not exceed 20 seconds, with a 50 second wait between each).
 4. Ground crows will operate, priming pump while engine is turning over.
 5. When engine is running, satisfactorily, release booster coil buttons.
 6. Open up engine to 1,000 revs.
- repeat for starboard engine.

Notes - "On no account catch engine on throttle".

6. WAKING UP

1. Run engines at 1,000 revs per minute.
 2. Check Flap.
 3. Check inter-con and call lights at all positions.
 4. Check R/T with ground station before leaving dispersal (cross country exercises only).
 5. Check PAROC PAROC PAROC PAROC.
- Note:- Runners check turret, operation and R/T operators check set.

7. RUNNING UP.

When the following temperatures and pressures are reached, engine can be run up.

Cylinders heads	100° C	MIN,
Oil temp:-	15° C	"
Oil pressures	20 lbs.	

8. LONG RUN UP

1. Brakes on and chocks under wheels.
2. Open up to 1400 revs and engage "S" slower. Note momentary drop in oil pressure and fluctuation in boost
3. Engage "S" slower.
4. Open throttle fully and check take-off boost and static revs (2350 revs @ $\frac{1}{2}$ lbs boost)
5. Throttle back to 0 lbs boost and test each magnet in turn. Drop should not exceed 50 r.p.m. and no vibration should occur.
6. Act etc O.S. levers and note drop and pick up in revs, which should return to original readings.

Contd/.....

Loose holdout
check u/c down visually
lights and horn. A/S 110.

COCKPIT DRILL AND HANDLING NOTES (Contd)

B. LONG RUN UP (Contd)

7. Throttle back slightly and on ego work mixture control. Note lever snaps out when throttle past zero boost position.
8. Throttle back to - 3 boost. Pressure warning air and note fluctuation in boost pressure. Return to cold air.
9. *Do not work mixture and close throttles. Pressure mixture lever withdrawn at - 3 boost.*
Gas warning light, then 1000 rev.
10. *On work XVI engine, mixture control is automatic.*

A. SMOKE RUN UP.

1. Open throttle to give zero boost (2800 revs)
2. Post detonator (lights as above)
3. Actuate constant speed levers to circulate oil.

Note :- Short run up is to be carried out only between flaps on circuits and landings, off prior to taxiing out before engines are warmed up.

10. CROSS WIND CHECK

Banked on.

- T - Elevator and rudder trim neutral - position throttle clutch, very slightly.
- M - Mixture controls normal - suporch rict ^{of} throttle air in cold.
- P - Pitch fully flaps - selector switches into auto.
- F - Fuel cocks down - check tank contents.
- F - Flaps 15° - 15°
- G - Gills open to 0 - clear engines
- G - Unclasp giro.

Obtain visual permission to taxi onto runway and line up aircraft for take-off - for circuits and landings check giro reading zero.

12. SHUTTING OFF ENGINES.

1. Check "S" slower once and return to "S" ratio.
2. Run engines up to - 2 boost slowly and throttle back slowly to 1,000 revs per minute.
3. Run at 1,000 R.P.M. for 2 minutes.
4. Close throttles and pull up slow running cut-out controls.
5. Switch off ignition after engines have stopped.
6. Close all coolers/switches (if III only)
7. Close directional gyro.

Contd/.....

Contd/.....

COCKPIT WITH HANDLING DEVICES (Cont'd)

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13. SINGLE ENGINE FLYING.Engine failure during flight.

1. Keep aircraft straight and under control. **Live engine** slightly down (7'). Airspeed 125 - 150 **m.p.h.**
2. Open balance cock "A".
3. Open up good engine to maximum climbing revs and boost. (Plus 4 boost 2400 r.p.m.)
4. Trim aircraft to fly straight and level.
5. If cause of failure is not discovered (petrol cock, pump, switches, etc) Feather airscrew on unserviceable engine and close balance cock "A".

14. FEATHERING AND L. (D.H. Hydraulic propeller)

1. Press feathering switch sharply and rel. sec.
2. Close throttle immediately, ditch fully reverse.
3. Switch off ignition when revs have dropped to 400 or lower.
4. Check pascoe pump for suction to instruments.
5. Adjust trim, revs and throttle settings to maintain height at 150 m.p.h. **I.A.S.**
6. Close gills on U/S engine and keep temperature constant on good engine.
7. Always turn towards the good engine.
8. Make for the nearest airfield and land.

15. EMERGENCY FEATHERING (For engine failure on take-off or at low altitude)

1. Press Feathering switch.
2. Full boost and throttle on live engine.
3. Throttle back dead engine. **I.A.S.**
4. Trim aircraft to fly at 110 m.p.h. with 15 - 20 **step**

16. UNDERCARRIAGE (D.H. Hydraulic propeller)

1. Pitcho lever same as good engine.
2. Set throttle about 1 inch open.
3. Ignition switches ON
4. Press feathering button and hold "in" until engine is firing.
5. Open throttle slowly and adjust to get and revs to normal flying conditions.

Cont'd/.....

Initials
of
Sender

17. SINGLE ENGINE LANDING.

1. If possible approach airfield at or above 2,000', and check wind direction and velocity in use.
2. Also check compass, the five engine, etc. If both engine is 1/2, a light buzz circuit is to be 100.
3. On circuit remain high of 1500'.
4. If not at available, select 1/2 again on downwind leg.
5. Use maximum cruising power (2400) and sufficient throttle to maintain height.
6. APPLY 20' flap.
7. Keep closer to airfield than normal on downwind leg, not be 1,000' approach 125 mph.
8. Turn into runway when available, otherwise wherever can be reached, throttle back, check wings, I.R.P. 110 m.p.h. select full flap.
9. Open throttle of good engine and approach at 100-105 m.p.h., checking wings, and take engine restricted approach, tending to overshoot at all times.

18. OVERSIGHTING PROCEDURE.

Make your decision at 300 feet and do not attempt to land if the following points have not been complied with at this height.

1. Cockpit drill completed.
2. Aircraft lined up with runway.
3. Angle of descent correct.
4. Speed of approach correct.

19. OVERSIGHTING.

1. Open up to take-off speed (about 2000 rpm)
2. Select an appropriate flap.
3. Also flap to between 50 & 40, being careful not to take up more than this amount.
4. On reaching 1,000 rpm 150 mph, and at least 500', re-align flap may be taken up gradually.
5. Proceed as for normal approach.

20. ACTING IN THE EVENT OF FIRE ON AIRCRAFT.

1. If engine has stopped:
 - (a) Turn off mixture.
 - (b) Turn off fuel.
 - (c) Turn off ignition.
 - (d) Turn off master battery disconnect switch.
 - (e) If fire continues use extinguisher.
2. If engine has not started and ground crew are unable to extinguish fire:

CHECK IT BUILT AND BUILDING THEM (C. 101)

page 7.

20. NOTE: IN EVENT OF FIRE ON GA. LTD (C. 101)

- (a) Turn off pilot's petrol cock.
- (b) Pull up slow running cut-out control.
- (c) Press starter button and hold on for turning until fire has been extinguished.

21. ACTION IN THE EVENT OF FIRE IN THE L.

- 1. Forthor airtower.
- 2. Turn off petrol.
- 3. Use fire extinguisher.
- 4. DO NOT ATTEMPT TO RESTART ENGINE.

Do not account use the extin aisher until engine has stopped.

Initials of Sender

1000 ft
nose (1) turn
90° port

1000 ft
nose back to
2 bank (1) 2000 ft
at 1000 ft and level off.

300 ft
A. a/c (1) turn
90° nose
align.

300 ft
Flaps up
trim aircraft
Adjust gills,
plus 2 boost.

1000 ft or
crossing
boundary

Square brake lever
unlone (1) 2000 ft
position to maintain
altitude boost and
7000 (plus 4 boost
2400 ft, r.m.)

After landing
turn off roll
clear of runway
flaps open, lift
pitch full fine
Rt 2/3 of runway

1000 ft.
Roll to
rest u/c
nose u/c
down.

INCREAS 2400 RPM.

1000 ft.
Neutral OR AF.
of neutral, A/S 120.
30 flap. Landing
to 2000 ft
to 2000 ft

Open
limiter
with pusher, or
necessary. Vision
through
upon light
turn
check
ZERO
Check gyro on 2000

1000 ft.
nose (1) turn
port.

700 ft.
pull flap or as
required. A/S 30
-95 power
throttle
lever fully
released.

800 ft.
nose (1) turn 90° port

90° ft.
visual panels

Ground-wind
Loose helmet
check u/c
nose and
horn, A/S 110.

Initials
of
Sender