

INSTRUCTIONS FOR THE HANDLING OF WELINGTON AIRCRAFT.

GENERAL.

These instructions are issued in simplification of those contained in No. 3 Group Crew Order Book, Part 1, and are to be adhered to by pilots.

PREPARATION FOR FLIGHT.

1. See that the main petrol cocks are in the "ON" position.
2. Turn on petrol cocks in pilots cockpit.
3. Prime petrol system with Zwicky.
4. Plug in starting trolley.
5. Engines doped at 3000, 15 - 30 strokes.
6. Switch on Hand Magneto.
7. Set air screw control in coarse pitch.
8. Set 2 speed blower in "DOWN" position.
9. Set gills at position "10" on dial.
10. Put air intake in "cold" position.
11. Put mixture control in "NORMAL" position.
12. Set throttle 1/3rd open in slow steady motion.
13. Contact Starboard.
14. Press Starboard Starter Button.
15. Contact Port.
16. Press Port Starter Button.
17. Observe oil pressure 150 lbs.
18. Put air intake lever in "WARN".
19. On increase of oil temperature, put airscrews in fine pitch.
20. Run up 200 r.p.m. stages to 1000 r.p.m.; allow oil pressure to drop to 100 lbs.
21. Put air intake in "COLD" and throttle back.
22. Open throttle till r.p.m. are 2500; draw back airscrew control to give 2250 r.p.m. open throttle, give plus 2 1/2 lbs boost, and check oil pressure at 80 lbs.
23. Throttle back to 1800 r.p.m. and check magnetos, check blower by snapping from H to S (oil pressure should drop to 50 lbs and regain normal in about 3 secs. r.p.m. should drop in S blower).
24. Return blower to K gear and airscrew control to fully fine.
25. Open throttle fully to obtain plus 5 1/2 lbs boost, and adjust airscrew control to give 3475 r.p.m.
26. Check cylinder head temperature at not more than 1800C.
27. Check fuel contents gauges.

28. Check brake pressure.
29. Turn hydraulic power valve on.
30. Check functioning of flaps and return to "UP" position.
31. Check Oil Temperature gauges.
32. Check oil pressure gauges.
33. Check fuel pressure.
34. Check undercarriage warning device by pressing (KLAXON) button.
35. Checking warning lights on dashboard.
36. Set gills at position 10 for taxiing.
37. Set actuating lever 2/3rds forward.
38. Open equalising cock (UP).
39. Tighten throttle clutch if necessary.
40. Check cock on pipeline to instruments is in "PUMP" position.
41. Ensure that crew are in position and hatch closed.
42. Check controls for excessive stiffness or slackness.

BEFORE TAKE-OFF.

1. Aircraft are to be taxied around the perimeter of the Aerodrome to the position for take-off. On arrival at this position the aircraft is to be stopped in a position at right angles to the direction of the wind and facing the direction of circuit.
2. Check equalising cock for "ON" (UP).
3. Check friction clamp on throttles.
4. Check airscrew control for five pitch, i.e. position for 2475 r.p.m.
5. Check flaps for fully UP position.
6. Check hydraulic power valve for "ON". (Mark 1A only).
7. Switch pressure head heater "ON".
8. Set gills to position 2. (light load).
9. Check blower in "H" blower.

TAKE-OFF.

Having ascertained that no aircraft are approaching to land, turn the aircraft into wind and run the engines up to about 1800 revs at approximately 1 boost. When engines are running smoothly release the brakes and allow aircraft to roll gently forward for a few yards, and then open to full throttle for final take-off. When throttle is full open glance to see that plus 5 1/2 boost is being obtained.

For the take-off get the tail right up until the aircraft is approx. 2 to 3 degrees above the horizontal. Allow to run for 500 or 600 yards and then gently ease it off the ground, taking care not to depress the tail.

IN THE AIR.

1. As soon as airborne raise undercarriage (UP).
2. The nose of the aircraft is to be kept down until a minimum speed of 110 m.p.h. has been attained, after which a climb can be commenced.
3. On attaining a speed of 110 m.p.h. throttle back the engines to + 2 boost, and immediately adjust V.P. air screw controls to give 2000 r.p.m.
4. Climb to 500 feet, at the same time synchronising the engines and closing balance cock.
5. On attaining 500 feet throttle back the engines to - 1 boost, and adjust mixture control to "weak mixture" and climb at 130 m.p.h.
6. Particular attention is to be taken to ensure that the aircraft is flown in the "weak mixture" position with all boost pressures of less than zero.
7. Switch off hydraulic power valve. (Mark 1A only).
8. Adjust gills according to temperature.

LANDING.

1. Circle aerodrome at 500 to 1000 feet.
2. Open equalising cock (UP) and CAUSE directional CYRO.
3. Turn hydraulic power valve to "ON". (Mark 1a only).
4. Throttle back to -4 boost, and when speed falls below 150 m.p.h. lower undercarriage.
5. Lose height in such a manner that the aircraft will be approx. 500 feet in a position 1,000 yards down wind of the aerodrome.
6. Turn into wind.
7. On completion of the turn lower the flaps full. In a wind over 30 m.p.h. or with a full load the flaps should only be lowered to 500. The actuating gear to be operated as required. Flaps are not to be lowered at speed in excess of 110 m.p.h.
8. Put aircrews in fully fire pitch.
10. If night flying when the speed is reduced to 100 m.p.h. the landing light should be wound out and switched on.

AFTER LANDING.

1. Raise flaps before taxiing in UP.
2. Turn hydraulic power valve to "OFF". (Mark 1A only).
3. Taxi to boundary of aerodrome and move round perimeter. Check brakes before approaching hangars or other aircraft.

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STOPPING ENGINES.

1. Move airscrew controls to coarse pitch. (Note that airscrews have gone into coarse pitch prior to switching off).
2. Switch off engines and pull up "cut-out" and hold it up until engine ceases firing.
3. Turn off petrol.
4. Switch off pitot head heater.
5. Switch off all electrical instruments.

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13/7/40.

Wing Commander, Commanding
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