

OFFICIAL A2A PILOT'S CHECK LIST

Supermarine Spitfire Mk.IIa and Mk.IIb, Merlin XII Engine

For detailed instructions see Pilot's Handbook AP 1565B

BEFORE STARTING

1. Ignition Switches --- OFF.
2. Undercarriage Lever --- DOWN.
3. Flaps --- UP.
4. Emergency Gear Lever --- Vertical
--- Wire locked.
5. Landing Lamps --- UP.
6. Wheel Brakes --- ON.
7. Indicator Lights --- DOWN.
8. Fuel Tanks contents --- Check.
9. Flying Controls --- Check.
10. Boost Cut-out Override --- OFF.

STARTING ENGINE

1. Mixture Control --- RICH.
2. Pitch Control --- FINE.
3. Radiator Shutter --- OPEN.
4. Fuel Cock Levers --- ON.
5. Throttle --- OPEN ¼".
6. Unscrew Primer --- Prime Engine.
7. Airscrew Clear --- OK --- "CLEAR".
8. Magnetos --- ON.
9. Generator --- ON.
10. Starter Button --- ON.
11. Priming Pump --- LOCKED.
12. Throttle --- Set --- 800-1,000 RPM.
13. OIL Pressure --- Check.
14. Warm-up at 1,200 RPM. until
 - a. Oil --- 40 °C min.
 - b. Radiator --- 60 °C.

TESTING INSTALLATIONS

During warming up

1. Fuel pressure --- 2½-3 lb.
2. Brake pressure --- at least 80 lb.
3. Pneumatic System --- Flaps DOWN
and UP.
4. Altimeter --- Set.
5. Directional Gyro --- Set.
6. Pitot Heat - ON if required.
7. Harness Release --- 'Fixed' position.
8. Parking Brakes --- Released ---
Hold brakes manually.

During running up

9. Throttle --- Set +2 psi.
10. Exercise airscrew control --- Set
2,400 RPM.
11. Airscrew RPM check --- Throttle
down --- OK --- Set FINE.

12. Throttle --- Set +4 psi.
13. Magneto RPM drop --- less than 80
14. Oil Pressure --- Check 60-80 lb.
15. Hood open, door latch half-cock.
16. Wave away Chocks.

BEFORE TAKE OFF

1. Radiator Shutter --- FULLY OPEN.
2. Brake Pressure --- 80 psi minimum.
3. Throttle Friction --- Check.
4. **Trim**
 - Elevator --- 1 division Nose Down.
 - Rudder --- Fully right.
5. Mixture Control --- RICH.
6. Pitch Control --- FINE.
7. **Flaps** --- UP.

AFTER TAKE OFF

1. Undercarriage Lever --- UP.
 - Indicator Lights --- UP.
2. Speed --- Check min 140 mph ASI
3. Power (Throttle) --- Set.
4. Airscrew Control --- Set.
5. Oil Pressure --- Check around 60 lb.
6. Door and Hood --- Close and lock.
7. Radiator Shutter --- NORMAL.

BEFORE LANDING

1. Hood open, door latch half-cock.
2. Harness Release --- 'Fixed' position.
3. Mixture Control --- RICH.
4. Radiator Shutter --- NORMAL.
5. Speed check --- less than 160 mph
6. Undercarriage Lever --- DOWN.
 - Indicator Lights --- DOWN.
7. **Pitch** --- FINE.
8. Speed check --- less than 120 mph
9. **Flaps** --- DOWN.

AFTER LANDING

1. Flaps --- UP.
2. Radiator Shutter --- OPEN.
3. Pitot Heat --- OFF.
4. Throttle --- Set 800-1000 RPM.
5. Fuel Cock Levers --- OFF.
6. Run for 1 minute until rough running.
7. Slow Running Cut-out --- Pull out.
8. Generator --- OFF.
9. Indicator Lights and all electrical
switches --- OFF.
10. Wheel Brakes --- ON.

OPERATING DATA

Operational limitations

	Desired	Maximum	Minimum
Oil Pressure	60 lb.	110 lb.	45 (30) lb.
Oil Temperature	70°C - 80°C	90°C	15°C
Coolant Temp	100°C - 110°C	120°C	60°C
Fuel Pressure	2½-3 lb.		
Maximum IAS	Dive 310 mph.	Gear down 160 mph.	Flaps down 120 mph.
Maximum G	+4 positive	NO negative G	

Use Of Power

	Boost	RPM	Mixture Control
Take-off	+7 lb.	2850	RICH
Climb	+4 lb.	2400	RICH
Cruise	+4 lb.	1800	LEAN
- Clear engine for 1 min. every 20 min.		2600	

Best Speeds

Climbing	
- Up to 13,000 ft	185 mph ASI.
- Up to 15,000 ft	180 mph ASI.
- Up to 20,000 ft	160 mph ASI.
- Up to 25,000 ft	140 mph ASI.
- Up to 30,000 ft	125 mph ASI.
- Up to 35,000 ft	110 mph ASI.
Cruise	180-200 mph ASI.
Landing	85 mph ASI.

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This list supersedes pilot's check lists of previous dates.



by erikx