

As Amended

OH-13S PILOTS CHECKLIST

PRE-FLIGHT INSPECTION

1. DA Form 2408 - check status of aircraft.
2. Fuel shutoff - IN.
3. Emergency equipment - STOWED-
Loose equipment clear of controls.
4. First aid kit - INSTALLED.
5. Switches - OFF (After fuel level check).
6. Left cabin door - condition and security.
7. Left forward cross tube - security and condition.
8. Left skid - condition.
9. Pitot tube - defects and obstruction.
10. Landing & grimes light - condition and security (set for night flight).
11. Bubble - cleanliness.
12. Front rotor blade - defects.
13. Right landing gear - condition and security.
14. Right cabin door - condition and security.
15. Right navigational light - security and condition.
16. Right fuel tank - quantity (secure tank cap).
17. Heater - obstruction - security.
18. Junction box assembly - security.

. Sprage mount installation, sprage safety cables and fittings - attachment.

20. Throttle and flight control linkage - condition and security.

21. Magneto, engine tachometer and starter motor - security and oil leaks.

22. Ignition harness assembly - security and conduits for damage due to chafing or overheating.

23. Fan shroud and shroud retaining ring - condition, proper seating and security.

24. Oil cooler - security, leakage, damage or clogged cores.

25. Generator - security, cracked or broken mounting flange and electrical connections for tightness.

26. Engine mount installation - condition and proper installation. (Inspect support brackets on center frame structure for evidence of mount clamps striking inside surface of bracket during engine operation.)

27. Fuel drain - right tank - carburetor & fuel strainer - check for condition of fuel.

28. Air induction system - security and condition. (Especially red stains on carb.)

29. Forward shaft assembly (short shaft) - dust covers and the lack of metal to metal contact.

30. Tail boom attachment bolts - slippage and condition.

31. Drive shaft hanger and bearing - lube and security.

32. Tubing and tail rotor drive shaft - dents, cracks, and security.

. Battery - placement, security, condition, and connections.

34. Tail rotor control cables - tension and condition.

35. Directional gyro & UHF antenna - condition and security.

36. Homing group antenna (right side) - condition, security, and cleanliness.

37. Synchronized elevator - condition and security.

38. Ventral fin - condition and security.

39. Aft shaft assembly - dust cover, universal joint for side play.

40. Extension drive assembly - elongation of tail boom attachment bolt holes. (Check tail light for condition and security.)

41. Tail rotor blades for cracks, sharp dents and scratches; to see that the abrasion strip is not worn through or ripped; (insure the leading edge of blades are facing direction of rotation).

42. Check pitch change mechanism - completeness and for full free travel. (Check for quadrant hitting stop instead of pitch mechanism bottoming out.)

43. Clearance between tail rotor blades and tail rotor guard.

44. Tail rotor gear box - oil level and safety.

45. Tail rotor cable and drum - condition and that cable "follows" the drum.

46. Extension drive assembly - same as right side.

Untie the main rotor blade and after inspecting it swing it in the plane of rotation. Go to the engine compartment immediately and insure that the cooling fan can be stopped while the rotor blades are turning (stow mooring block in cockpit).

48. Return to the aft shaft assembly and check the following as you move forward:

a. Drive shaft hanger and bearing - same as right side.

b. Tubing and tail rotor shaft - same as right side.

c. Synchronized elevator - same as right side.

d. Homing group antenna - same as right side.

e. Turnbuckles - position and safety.

f. Pulleys and guides - condition and cable wear.

g. Tail boom attachment bolts - same as right side.

49. Aft cross tube (left side) - security and condition.

50. Oil level - check & cap secure.

51. Proceed to the transmission.

52. Rotor tachometer drive assembly - security and proper electrical fittings.

53. Swashplate assembly and connecting linkage, stablizer bar assembly, damper and frame assembly, main rotor mast assembly and main rotor hub and blade assembly - wear, damage security, safeties, and lubrication, oil level of dampers.

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54. Coming down operate all drains, fuel tank, oil sump, density controller - evidence of water or foreign matter.

55. Ignition harness assembly - same as right side.

56. Hydraulic pump for security and proper connection of lines.

57. Air filter housing - security.

58. Turbine housing and density controller - security, general appearance.

59. Magneto - same as right side.

60. Cooling system to include:

a. Cooling shroud - installation and condition.

b. Fan "V" belts for adjustment and condition.

c. Belt driven cooling fan - missing, misaligned, cracked or dented blades.

d. Hydraulic boost and flight controls (servo) - fluid level, fluid leaks and security.

e. Visually check fuel quantity in left fuel tank. (secure tank cap)

f. Left navigational light - security.

PRE-STARTING PROCEDURE

1. Adjust and check travel of anti-torque pedals - freedom from obstacles.

2. Fasten shoulder harness and safety belt.

3. Check operation of harness lock.

4. Fuel shutoff - CHECK IN.

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Collective pitch full down, throttle closed landing light switch off, then actuate coll pitch through its full travel. (Coll pitch friction should be adjusted before actuating control.)

6. Loosen friction on cyclic control and move it through its full travel, then adjust friction to held cyclic firmly in a neutral position.

→ 7. Check all circuit breaker fuses - IN except radio & flight instrument.

8. Oil Temp switch - Engine.

9. Proceeding upward on the right side of the console check static readings on all instruments, set altimeter, check clock, heater off, starter vibrator normal, hydraulic system - ON, mag - OFF.

10. Check FM radio is set to proper freq and off.

11. Proceed across the top of the radio console checking all radios off.

12. Move carburetor air mixture through its full travel, then place in "full" rich position.

13. Move carburetor heat control through its full travel, then place it in "COLD" position.

14. Battery and generator switch - ON (Battery OFF if APU is used).

15. Check all instrument on left side of console for marking and static indications.

16. Adjust radio and instrument light rheostats - as desired.

STARTING AND WARM-UP PROCEDURE

1. Prime by opening and closing throttle as needed - CAUTION: abrupt movement may twist throttle torsion bar.

2. Visually check that the main rotor blades are untied and the tail rotor is clear, call "CLEAR".

3. Check throttle in detent position.

4. Fuel pressure - approximately 4 lbs.

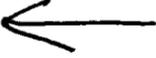
5. Engage starter, when engine has turned one or two revolutions, turn ignition switch to BOTH position, release starter button as soon as engine starts - (Check to insure engine oil pressure rises within 30 seconds, if not shut engine off).

6. Adjust to and maintain 1700 engine RPM until needles join at 1500-1700 RPM.

7. Once joined increase engine to 2300 RPM for warm-up.

8. Fuel pressure - approximately 6 lbs.

RUN-UP PROCEDURE

1. While waiting for the minimum engine eng and transmission temperature (40°C for both) 100°C cyl lead temp - purge the mani-fold pressure drain and check operation of radios. 

2. Ignition system check (high speed) - Increase RPM to 3200 and check both magnets. (Allowable drop 200 RPM.)

3. Carburetor heat - check for definite rise, then adjust to maintain indication in green area.

4. Carburetor air mixture check - NOT required.

Controls check: (engine at 3200 RPM with collective pitch full down).

6. Friction controls - adjust as desired.

7. Cyclic stick - check for freedom of movement by noting tip path plane and synchronized elevator, freedom from obstacles.

8. Hydraulic boost system - turn off and check same as for cyclic stick - turn on.

NOTE: Proper operation of the boost system and by-pass valve will be evident by the higher than normal force required to move cyclic stick.

9. Freewheeling unit - reduce throttle to full off. (tachometer needles should split freely.)

10. Ignition system check (low speed) - check will be accomplished when the needles are split. Move ignition through all positions noting the eng stops with the switch in the off position.

11. Throttle override - with the throttle in the override position move the coll pitch through its full travel and return it to full down position. (Check should not be made above 200 rotor RPM.)

12. Increase engine RPM to 3200 and contact tower for hover or taxi instruction.

PRE-TAKEOFF CHECK

1. Carburetor air mixture - rich.

2. Carburetor heat - direct.

3. Ignition switch - both.

4. Engine and transmission instruments in green area, temp switch - Transmission.

5. Slowly raise the helicopter to a hover and check freedom and movements of controls, and the required power to hover.

PRE-LANDING CHECK

1. Carburetor air mixture - rich.
2. Carburetor heat - direct on short final.
3. Engine and transmission instrument in green area.

SHUTDOWN PROCEDURE

1. Adjust friction to firmly hold controls in desired position.
2. All radios off, heater off.
3. Make normal high speed ignition check.
4. Reduce RPM to 2300 for cooling (5 min minimum) and drop in cylinder head temp to 150°.

5. Split needles and make low speed ignition check.

6. Carburetor air mixture - OFF.

7. When engine tachometer indicates zero - all switches off.

8. Radio and flight instrument circuit breakers - OUT.

9. DO NOT - slow main rotor with pitch or by grabbing stabilizer bar.

10. Secure main rotor blades

11. Complete DA Form 2408