



TH-55A HELICOPTER

COMPLETE PREFLIGHT

INSPECTION



Complete Preflight Inspection

1. Preflight Inspection.

a. Cockpit Right Side CHECK:

(1) Untie main rotor blades and insure 20 yards clearance (hub to hub).

(2) Mags and master switch "OFF".

(3) Connect battery.

(4) Dash 12, 13 and 14 of 2408 insert date on dash 12 & 13.

(5) Mixture full lean.

(6) Fuel valve on.

(7) Battery on, check fuel quantity gauge.

(8) Beacon, position lights on, fuel boost on.

(9) Check Beacon, position lights for operation. Turn off switches.

(10) Check first aid kit, fire extinguisher, for security.

(11) Shoulder harness and seat belt for security.

(12) Right upper canopy, slat for condition and security.

(13) Heater motor, and right door attaching pins.

b. Exterior Inspection Right Side, Front and Left Side.

(1) Inspect right front strut for inflation one inch minimum, right position light (green).

(2) Right front half of skid and ground handling wheel for locking pin and inflation.

(3) Bubble for cracks and security.

(4) Pitot tube and front cowl for condition.

(5) Air filter safetied and air inlet clear of obstructions.

(6) Lower beacon for security and condition.

(7) Front cross bar and supports for condition and security.

(8) Left ground handling wheel for safety and inflation.

(9) Inspect left skid front half, left front strut for inflation one inch minimum, and left position light (red).

c. Cockpit Left Side, CHECK:

(1) Left shoulder harness and seat belt for security.

(2) Left door and attaching pins for condition and security.

d. Left Rear Exterior, CHECK:

(1) Fuel tank for security, quantity and fuel cap for security.

- (2) Check fuel overflow pan for security.
- (3) Drain fuel sump.
- (4) Drain fuel strainer.
- (5) Check rosebud fitting for top cap.
- (6) Oil level (6 - 7½ qts).
- (7) Drain plug for safety.
- (8) Left side engine for general condition, oil leaks, chafing wires and lines.
- (9) Left skid, rear half, left rear strut for inflation, 3/8 inch minimum.
- (10) Left drag brace for freedom and alignment.
- (11) Generator/alternator drive belt for tension.
- (12) Lower mounting bolts, impeller shroud and six impeller bolts for security and safety.
- (13) Check fore and aft play in short shaft.
- (14) Check belt drive pulley strut.
- (15) Landing light for security and condition and rear cross bar for deflection.

e. Damper Alignment and Fluid Level.

- (1) If dampers align between 4½ to 5, no adjustment is necessary. If necessary to realign the blades, hold the tail rotor blade and push main rotor blade opposite to normal rotation until stopped by the damper, then gently push main rotor blade in direction of rotation until stopped by damper. Bolts on each damper arm should line up at 4¾ to 5 mark and all blades should be nearly identical. Do not attempt to force the dampers into position by using excessive force.
- (2) Align the tail rotor drive shaft by aligning the mark on the shaft with the mark on the tail boom.

f. Tail Boom, Tail Rotor and Connecting Controls.

- (1) Tail boom supports and boom left side for condition and security.
- (2) Aft rotating beacon support for cracks in fiberglass.
- (3) Antenna and mount for security.
- (4) Left side upper and lower fin for condition.
- (5) T/R gear box attaching bolts for safety and security.
- (6) Tail rotor blade for condition pitch change links, teetering hinge and security of attaching nut.
- (7) Tail skid for condition and security.
- (8) T/R gear box for leaks, oil level and plugs for safety.
- (9) T/R pitch control rod and bell crank for freedom of movement.
- (10) Check aft inspection cap for tail rotor drive shaft alignment.

(11) Aft position light for condition (clear) and security of rivets to stabilizer.

(12) Inspect fixed stabilizer for condition and security of attachment (do not press).

(13) Right side upper and lower fin for condition and security.

(14) Center inspection cap check tail rotor drive shaft damper assembly block, press with finger to feel contact with shaft.

(15) Right tail boom for condition and boom supports for security.

(16) Tail rotor, control rod, bell crank, control cables and turn buckles for safety and condition.

(17) Battery for security and condition.

g. Main Rotor (V) Belt Drive Assembly.

(1) Inspect idler pulley for freedom and smoothness by rotating pulley.

(2) Inspect clutch belts (8) for condition.

(3) Check for radial freedom of lower pulley shaft extension.

(4) Inspect V-belt cover for condition and security.

(5) Visually inspect clutch actuator (fully disengaged), clutch actuator turn buckle, pulley and cable. Inspect turn buckle eye and upper actuator attachment lug for cracks and bends. Check cable for fraying by compressing the actuator spring with a straight pull on the actuator cable below the spring assembly. Do not pull the cable forward of the cable pulley. Avoid any side loading of the spring or actuator assemblies during inspection to prevent bending of the upper attachment lug or the turn buckle eye.

h. Main Transmission and Main Rotor Head.

(1) Inspect main transmission for leaks, check oil level, safeties on drain and filter plugs and check air vents.

(2) All push pull tubes for condition and rod end bearings for freedom.

(3) Rotor head for general condition and security of the attaching nuts (avoid dephasing main rotor blades).

(4) Main rotor blades for condition (top side and bottom side for cracks, dents, and wrinkles).

i. Right Side Engine, Exterior, CHECK:

(1) Heater hose and shroud for condition.

- (2) Oil cooler and lines for condition and security.
 - (3) Right side of engine for condition and leaks, chafing wires and lines.
 - (4) Right rear strut for proper inflation 3/8 min.
 - (5) Right drag brace for freedom and condition and rod ends.
 - (6) Inspect right rear half of skid.
- Make applicable entries on DA Form 2408-12-13.

Secondary Preflight Inspection
(To be used only after Initial Preflight)

- 1. Switches "OFF" - 2408-13.
- 2. Helicopter Exterior - Front.
- 3. Fuel and Oil Quantity - Drain sump.
- 4. Exterior Inspection (Left Side).
- 5. Strainer.
- 6. Tail Rotor Drive System.
- 7. Exterior Inspection (Right Side).
- 8. Inspect idler pulley for freedom and smoothness by rotating pulley.
- 9. Transmission.
- 10. Main Rotor System.

BEFORE TAKEOFF

FUEL PUMP * ON	TRIM * SELECT
MAGNETOS * BOTH	DOORS * SECURED
MIXTURE * RICH	FRICTION * UNLOCK
FUEL * ON	RPM * 2900
RADIOS * SET	TIP PATH PLANE CHECK
INSTRMS * GREEN	CYCLIC TRIM * CHECK
WARNING LGTS * OFF	AIRCRAFT * CLEAR
TAKEOFF TIME * CHECK	
ALTIMETER * RESET	

SHUTDOWN PROCEDURE

RPM * 1850	COMP MIXTURE CHECK
COLL PITCH * DWN-FRCT	MIXTURE * FULL RICH
LEVEL TIP PATH PLANE	FUEL PUMP * OFF
CYCLIC * ALIGN-FRCT	COOL ENGINE
BEACON * OFF	MIXTURE * FULL LEAN
RPM * 2900	MAGNETOS * OFF
MAGNETOS * CHECK	ALL SWITCHES * OFF
THROTTLE * CLOSED	COLL PITCH * LOCKED
CLUTCH * DISENGAGE	MAIN ROTOR * SECURE
MAG GROUNDING CHECK	POST FLIGHT
ROTOR RPM BELOW ENGINE RPM	COMPLETE 2408 13-13
ENGINE TACH NEEDLE	
MINIMUM BOUNCE	

TH - 55A COCKPIT PROCEDURE

2408 * SECURE
PEDALS * ADJUST
BELTS * SECURE
CONTROLS * FREE
CYCLIC * ALGN-FRCT
THROTTLE * CLOSED
COLL PITCH * DWN-FRCT
FUSES * TIGHT
SWITCHES * OFF
FUEL * ON
MIXTURE * LEAN
INSTRMS * STATIC CHECK
ALTIMETER * SET
COMPASS * CHECK

MAP LGTS * OFF
BATTERY * ON
INSTRMS * CHECK
GEAR BOX LGT * ON
FUEL WRNG LGT * TEST
CHIP DETECT LGT * TEST
CLUTCH LGT * ON
SWTCH RELEASE POSITION
FUEL PUMP * ON
THROTTLE * OPEN 1/8"
MAGNETOS * BOTH
PRIME * AS REQUIRED
THROTTLE * CLOSED
GLOVES * ON
BLADE * POSITIONED

STARTER * ENGAGE
RPM * 1200-1600
OIL PRESSURE * CHECK
GEN/ALTN * ON
RADIO * ON
HELMET * ON
INTERPHONE * CHECK
OIL PRESSURE * CHECK
RPM * 1600
COLL PTCH * DWN-FRCT
VISUALLY CLEAR &
CALL OUT * CLEAR
BLADE * POSITIONED
BEACON * ON
ROTOR * ENGAGE

NEEDLES JOINED
CLUTCH SWITCH ENGAGE
CLUTCH LGT * OUT
RPM * 1850
GEAR BOX LGT * OUT
GEN/ALTN * CHECK
FUEL PUMP * CHECK
RPM * 2900
MAGNETOS * CHECK
SPLIT NEEDLES
IDLE CHECK * 1200-1400
RPM * 1850