

**OPERATOR'S AND CREWMEMBER'S
CHECKLIST
OH-58A/C HELICOPTER
1 April 2003**

**DISTRIBUTION STATEMENTS A: Approved for public release;
distribution is unlimited.**

**This manual supersedes TM 1-1520-228-CL,
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HELICOPTER AND SYSTEMS

BEFORE EXTERIOR CHECK

1. Publications – Check.
2. Covers, locking devices, tiedowns (except main rotor), and grounding cables – Removed and secured.
3. Ignition switch – On.
4. Cockpit – Check.

EXTERIOR CHECK

1. Cabin interior – Check.
2. Fuselage (Area 1) – Check.
3. Tailboom (Area 2) – Check, tiedown removed.
4. Main rotor blade (Area 2) – Check, tiedown removed.
5. Tail rotor gear box – Check.
6. Tail rotor – Check.
7. Tailboom (Area 3) – Check.
8. Fuselage (Area 4) – Check.
9. Main rotor blade (Area 4) – Check.
10. Fuselage top – Check.
11. Main rotor system – Check.
12. Fuselage (Area 5) – Check.
13. Cockpit – Check.
14. Fuselage (Area 6) – Check.
15. Crew and passenger briefing – Complete.

BEFORE STARTING ENGINES

1. Shoulder harness lock(s) – Check.
2. Overhead switches and circuit breakers – Set.
3. GPU – Connect for GPU – start.
4. Avionics – Off and set.
5. Instrument panel instruments & switches – Check and set.
6. Flight controls – Check and set.
7. Throttle – Check. Move to open, then to idle stop; press idle release and close.

STARTING ENGINE

1. Fireguard – Post if available.
2. Rotor Blades – Check clear and untied.
3. Engine – Start.
4. GPU – Disconnect; then BAT switch – BAT, if required.
5. N2 – Stabilized.
6. THROTTLE ADJUST – 70 percent N1.
7. GEN switch – GEN.
8. DC amps – Check 60 or less.
9. INV switch – INV.
10. Avionics – On.

ENGINE RUNUP

1. Engine and transmission instruments – Check.

2. Throttle – Slowly increase to open. Set N2 to 100 percent.
3. HEAT and DEICE systems – Check if use is anticipated; then set as required.
4. Avionics – Check as required.
5. Flight instruments – Check and set.
6. Doors, armor side panels: and seat belts – Secure.
7. Health indicator test (HIT) – Check.
8. Deceleration check – Perform if required.

BEFORE TAKEOFF

1. N2 – 100 percent.
2. Systems – Check.
3. Crew, passengers, mission equipment, and seat belts – Check.
4. Avionics – As required.

HOVER CHECK

1. Flight controls – Check.
2. Engine and transmission instruments – Check.
3. Flight instruments – Check as required.
4. Power – Check.

BEFORE LANDING

1. Crew, passenger, and mission equipment – Check.
2. Landing light – As required.

ENGINE SHUTDOWN

1. Throttle – Engine idle: stabilize TOT for two minutes.
2. FORCE TRIM switch – FORCE TRIM.
3. FUEL BOOST switch – OFF.
4. NGV/LDG LTS – OFF.
5. Control frictions – On.
6. Avionics – On.
- 7. Overhead switches and circuit breakers – Set.
8. Battery charge – Check.
9. Throttle – Close.
10. Overhead switches – OFF as required.
11. Ignition switch – OFF (Keys as required.)
- 12. Doors – Close immediately after exiting.

BEFORE LEAVING THE HELICOPTER

1. Main rotor blades – Tie down as required.
2. Walk-around – Complete.
3. DA Form 2408-12 and 2408-13-1-Complete.
4. Secure helicopter – As required.

THRU-FLIGHT CHECKLIST

PREFLIGHT

1. Covers, locking devices, tiedowns (except main rotor), and grounding cables – Removed and secured.
2. Ignition switch – On.
- 3. Cargo/loose equipment – Check.
- 4. Auxiliary fuel cell – Check.
5. Passenger and seat belts – Check.
6. Hydraulic reservoirs/servos and flight controls – Check.
7. Transmission compartment – Check.
8. Fuel – Check quantity.
9. Main rotor blade – Check, tiedown removed.
10. Tail rotor gearbox – Check.
11. Tail rotor – Check.

12. Engine Oil Level – Check.
13. Main rotor system – Check condition.
14. Crew and passenger briefing – Complete.

BEFORE STARTING ENGINE

1. ANTI COLL LTS switch – As required.
2. POS LTS switch – As required.
3. BAT switch – As required.
4. GPU – Connect for GPU start.
5. Flight control – Check and set.
6. Throttle – Check. Move to open, then to idle stop; press idle release and close.

STARTING ENGINE

1. Fireguard – Post if available.
2. Rotor Blades – Check clear and untied.
3. Engine – Start.
4. GPU – Disconnect; then BAT switch – BAT, if required.
5. N2 – Stabilized.
6. THROTTLE ADJUST – 70 percent N1.
7. GEN switch – GEN.
8. DC amps – Check 60 or less.
9. INV switch – INV.
10. Avionics – On.

ENGINE RUNUP

1. Engine and transmission instruments – Check.
2. Throttle – Slowly increase to open. Set N2 to 100 percent.
3. Flight instruments – Check and set.
4. Doors, armor side panels; and seat belts – Secure.

BEFORE TAKEOFF

1. N2 – 100 percent.
2. Systems – Check.
3. Crew, passengers, mission equipment, and seat belts – Check.
4. Avionics – As required.

By Order of the Secretary of the Army:

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EMERGENCY PROCEDURES

ENGINE MALFUNCTION

ENGINE FAILURE – HOVER

AUTOROTATE

ENGINE FAILURE – LOW ALTITUDE/LOW AIRSPEED OR CRUISE

1. AUTOROTATE.
2. EMER SHUTDOWN

ENGINE RESTART – DURING FLIGHT

1. Throttle – Close.
2. Attempt start.
3. LAND AS SOON AS POSSIBLE.

ENGINE COMPRESSOR STALL

1. Collective – Reduce.
2. ENG DEICE AND HTR switches – OFF.
3. LAND AS SOON AS POSSIBLE.

ENGINE OVERSPEED

1. Collective – Increase.
2. Throttle – Adjust.
3. LAND AS SOON AS POSSIBLE.

If RPM cannot be controlled manually:

4. AUTOROTATE.
5. EMER SHUTDOWN.

ENGINE UNDERSPEED

If powered flight with rotor in the green can be accomplished:

LAND AS SOON AS POSSIBLE.

If engine underspeed below 94% N2, then:

1. AUTOROTATE.
2. EMER SHUTDOWN.

ENGINE SURGES

If surges in engine RPM are experienced:

1. GOV RPM switch – INCR.
2. Throttle – Adjust to 98% N2.
3. LAND AS SOON AS POSSIBLE.

If engine surges are not controlled in steps 1 and 2 above:

4. AUTOROTATE.
5. EMER SHUTDOWN.

ROTORS, TRANSMISSION, AND DRIVE SYSTEMS MALFUNCTION

LOSS OF TAIL ROTOR EFFECTIVENESS (LTE)

1. Pedal – Full Left.
2. Cyclic – Forward.
3. As recovery is effected,, adjust controls for normal flight.

MAIN DRIVESHAFT FAILURE

1. AUTOROTATE – Establish power on autorotational glide.
2. EMER SHUTDOWN after landing.

CLUTCH FAILS TO DISENGAGE

1. Throttle – Open.
2. LAND AS SOON AS POSSIBLE.

MAST BUMPING

LAND AS SOON AS POSSIBLE.

FIRE

HOT START

1. STARTER switch – Press.
2. Throttle – Close.

ENGINE/FUSELAGE/ELECTRICAL FIRE – GROUND

EMER SHUTDOWN

ENGINE/FUSELAGE/FIRE –IN–FLIGHT

If Power–On landing:

1. LAND AS SOON AS POSSIBLE.
2. EMER SHUTDOWN after landing.

If Power – Off landing:

3. AUTOROTATE.
4. EMER SHUTDOWN.

ELECTRICAL FIRE – FLIGHT

1. BAT and GEN switches – OFF.
2. LAND AS SOON AS POSSIBLE.
3. EMER SHUTDOWN after landing.

SMOKE AND FUME ELIMINATION

1. Vents – Open.
2. DEFOG & vent SWITCH – ON.

ELECTRICAL SYSTEM MALFUNCTIONS

GENERATOR FAILURE – NO OUTPUT

1. GEN FIELD and GEN & BUS RESET circuit breakers – Check in.
2. GEN switch – RESET, then GEN – Do not hold the switch in the RESET position.

If the generator is not restored, or if it goes off the line again:

3. GEN switch – OFF.
4. Turn OFF all unnecessary electrical equipment.
5. LAND AS SOON AS PRACTICABLE.

OVERHEATED BATTERY

1. BAT switch – OFF.
2. LAND AS SOON AS POSSIBLE.
3. EMER SHUTDOWN after landing.

HYDRAULIC SYSTEM MALFUNCTION

HYDRAULIC POWER FAILURE

1. Airspeed – Adjust.
2. HYD BOOST SOL circuit breaker – Out.

If hydraulic power is not restored:

3. HYD BOOST SOL circuit breaker – in.
4. HYD BOOST switch – OFF.
5. LAND AS SOON AS PRACTICABLE.

LANDING AND DITCHING

DITCHING – POWER ON

1. Doors – Jettison at a hover.

2. Crew (except pilot) and passengers – Exit.
3. Hover at a safe distance away from personnel.
4. AUTOROTATE.
5. Pilot – Exit when the main rotor stops.

DITCHING – POWER OFF

1. AUTOROTATE.
2. Doors – Jettison.
3. Crew and passengers – Exit when the main rotor stops.

FLIGHT CONTROL MALFUNCTIONS

1. LAND AS SOON AS POSSIBLE.
2. EMER SHUTDOWN after landing.

LIGHTNING STRIKE

LAND AS SOON AS POSSIBLE.

IN-FLIGHT WIRE STRIKE

LAND AS SOON AS POSSIBLE.

WARNING PANEL LIGHTS

<u>WARNING LIGHT</u>	<u>CORRECTIVE ACTION</u>
ROTOR RPM	<u>Verify condition. Adjust collective.</u>
MASTER CAUTION	Check for Caution Panel segment light illumination. If none, <u>LAND AS SOON AS POSSIBLE.</u>
ENGINE OUT	<u>Verify condition. AUTOROTATE.</u>
XMSN OIL PRESS (Red)	<u>LAND AS SOON AS POSSIBLE.</u>
XMSN OIL HOT (Red)	<u>LAND AS SOON AS POSSIBLE.</u>

CAUTION PANEL LIGHTS

<u>CAUTION LIGHT</u>	<u>CORRECTIVE ACTION</u>
FUEL BOOST	<u>LAND AS SOON AS PRACTICABLE.</u>
20 min fuel	<u>LAND AS SOON AS PRACTICABLE.</u>
FUEL FILTER	<u>LAND AS SOON AS POSSIBLE.</u>
ENG OIL BYPASS	<u>LAND AS SOON AS POSSIBLE.</u>
ENG CHIP DET	<u>LAND AS SOON AS POSSIBLE.</u>
XMSN CHIP DET	<u>LAND AS SOON AS POSSIBLE.</u>
T/R CHIP DET	<u>LAND AS SOON AS POSSIBLE.</u>
INST INVERTER	Information/system status.
DC GENERATOR	Refer to emergency procedures.
HYD PRESS	Refer to emergency procedures.
IFF	Information/system status.
SPARE	<u>LAND AS SOON AS POSSIBLE.</u>

