

ANNEX A TO AC 43-02 V1.0

Part 43 Annual and 100-hour inspections - checklist preparation guide

100 Hour/Annual inspection checklist guide

How to use this guide

Registered Operator

- a. The inspection checklist for an eligible aircraft must, as a minimum, be based on the inspection actions in this guide as they relate to the individual aircraft.
- b. Delete sections that are not relevant to a particular aircraft (for instance, floats and skis in the case of an aircraft with wheel landing gear).
- c. In consultation with the inspecting LAME/IA holder, review the aircraft details, its equipment fit, operational environment and any known failure history and adjust the checklist accordingly.
- d. Insert extra lines as necessary to include items on a particular aircraft that are not listed in this guide, such as high-lift devices, role equipment, external cargo pods or external video cameras.
- e. For turbine engines, insert or attach the recommended engine inspection schedule or checklist sourced from, in order of precedence:
 - i. the aircraft manufacturers ICAs
 - ii. the engine manufacturers ICAsor
 - iii. a schedule or a checklist provided in a service instruction, service bulletin or any other document provided by the aircraft or engine manufacturer.

Note: *Eligible aircraft* means a:

- helicopter
- small aeroplane
- single engine turbine-powered aeroplane.

LAME/IA

- a. Refer to manufacturers ICAs for inspection limits for each item being inspected.
- b. Using the inspection checklist provided by the registered operator, tick off item as it is completed.
- c. List any defects or other matters requiring attention.
- d. Should a defect be found in an item of equipment that is not listed in the checklist, insert an extra line, record the item and describe the defect.
- e. For 100-hour inspections, delete the document review section.

Aircraft details (to be completed by LAME/IA completing the inspection)

Note: It is a requirement that the maintenance record for an inspection must include details of each person involved in the inspection. Add or delete lines from the table below to meet your requirements.

Inspection checklist VH-			
Aircraft Make:		Model:	Serial Number:
Date inspection completed:		Airworthy: Yes/No	
If not airworthy - List of defects provided to registered operator: Yes/No			
Inspector 1:	ARN:	Licence:	IA:
Inspector 2:	ARN:	Licence:	IA:
Inspector 3:	ARN:	Licence:	IA:
Inspector 4:	ARN:	Licence:	IA:

Annual/100-hour inspection items (amend as required for each aircraft)

Cabin and cockpit

Generally inspect the cabin and cockpit of the aircraft for uncleanliness that might foul the controls or loose equipment that might interfere with the controls.

Inspect the following components and systems of the cabin and cockpit of the aircraft as follows:

- a. Seats and safety belts (for poor condition and apparent defects).
- b. Windows and windshields (for deterioration and breakage).
- c. Instruments (for poor condition, mounting, marking, and (where practicable) improper operation).
- d. Flight and engine controls (for improper installation and improper operation).
- e. Batteries (for improper installation and improper charge).
- f. All systems (for improper installation, poor general condition, apparent and obvious defects, and insecurity of attachment).

Flight controls

Inspect flight control systems as follows:

- a. All control systems for proper operation.
- b. Cables for wear, fraying, and proper adjustment.
- c. Cable ends for corrosion, cracking and missing or improper safetying.
- d. Cable pulleys for binding, inspect fairleads for wear.
- e. Pushrods for binding or fretting, rod ends for insecurity, wear, corrosion and cracking.
- f. Quadrants and bellcranks for wear, looseness, binding, and corrosion.

Engines general

Inspection items:

- a. Engine section (for visual evidence of excessive oil, fuel, or hydraulic leaks, and sources of such leaks).
- b. Studs and nuts (for improper torquing and obvious defects).
- c. Internal engine (for cylinder compression and for metal particles or foreign matter on screens and sump drain plugs). If there is weak cylinder compression, for improper internal condition and improper internal tolerances
- d. Engine mount (for cracks, looseness of mounting, and looseness of engine to mount).
- e. Flexible vibration dampeners (for poor condition and deterioration).
- f. Engine controls (for defects, improper travel and improper safetying).
- g. Lines, hoses, and clamps (for leaks, unsafe condition and looseness).
- h. Exhaust stacks (for cracks, defects, and unsafe attachment).
- i. Accessories (for apparent defects in security of mounting).
- j. All systems (for unsafe installation, poor general condition, defects, and insecure attachment).
- k. Cowling (for cracks and defects).

Turbine Engine

Inspect in accordance with aircraft or engine manufacturers ICAs.

Landing gear

Inspection items:

- a. All units (for poor condition and insecurity of attachment).
- b. Shock absorbing devices (for deterioration of rubber components and, if the landing gear has oleo struts, improper oleo fluid level).
- c. Linkages, trusses, and members (for undue or excessive wear fatigue, and distortion).
- d. Retracting and locking mechanism (for improper operation).
- e. Hydraulic lines (for leakage).
- f. Electrical system (for chafing and improper operation of switches).
- g. Wheels (for cracks, defects, and condition of bearings).
- h. Tires (for wear and cuts).
- i. Brakes (for wear and improper adjustment).
- j. Floats and skis (for insecure attachment and obvious or apparent defects).

Wings and centre section

Inspection items:

- a. All components of the wing and centre section of the aircraft for poor general condition, fabric or skin deterioration, distortion, evidence of failure, and insecurity of attachment.
- b. Attached components including flaps, control surfaces, struts for wear at attachment points, damage and missing fastenings or rivets.
- c. Generally for unsafe component installation and unsafe component operation.

Empennage

Inspection item:

- a. Inspect all components and systems that make up the complete empennage of the aircraft for poor general condition, fabric or skin deterioration, distortion, evidence of failure, insecure attachment, unsafe component installation, and unsafe component operation.

Propellers

Inspection items:

- a. Propellers (for cracks, nicks, binds, and oil leakage).
- b. Bolts (for improper torqueing and safetying).
- c. Anti-icing devices (for unsafe operation and obvious defects).
- d. Control mechanisms (for operation, insecure mounting, and restricted travel).

Helicopter rotors and controls

Using manufacturer's inspection instructions, inspect rotors and systems as follows:

- a. Main rotor for improper installation or insecurity.
- b. Hub for damage, cracks or fretting.
- c. Blades for damage, insecurity.
- d. Mast for damage.
- e. Transmissions for obvious defects and leaks.
- f. Drive shafts and flexible couplings for damage.
- g. Auxiliary rotor for defects, binding, blade damage or fretting.
- h. Flight controls for damage, safetying, wear or fretting and proper function.

Radio communication and navigation systems

Inspect the following components of the radio communication and navigation systems of the aircraft as follows:

- a. Radio and electronic equipment (for unsafe installation and insecure mounting).
- b. Wiring and conduits (for unsafe routing, insecure mounting, and obvious defects).
- c. Bonding and shielding (for unsafe installation and poor condition).
- d. Antenna including trailing antenna (poor condition, insecure mounting, and unsafe operation).

Other installed items

Inspect each installed miscellaneous item that is not otherwise covered by this guide for unsafe installation and unsafe operation.

Document review

Conduct a review of the maintenance records for the aircraft to check that:

- a. the aircraft continues to comply with its type certification basis as properly modified
- b. applicable ADs have been complied with

- c. if a major modification or major repair has been carried out on the aircraft, aircraft engine, or aircraft propeller:
 - i. the major modification or major repair has been certified by a person who holds an inspection authorisation or by a Part 145 organisation as conforming to the technical data approved by CASA under Part 21 of CASR for the major modification or major repair
 - ii. the certification provides details of the technical data approved under Part 21 of CASR under which the major modification or major repair was carried out.