



Aircraft Identification Mark : _____

This check list should form the basis of a thorough maintenance inspection of your aircraft

PROPELLER

Yes No

1. Blades

- Laminations not separated?
- Breaks scratches, nicks tipping?
- Loose rivets in tipping?
- Drain holes in tip clear?

2. Hub

- Any cracks or corrosion?
- Hub properly seated and safetied?

3. Control Mechanism

- Oil leaks?
- Worn bearings?
- Secure?

4. Attachment

- All bolt & nut threads undamaged?
- All bolts & nuts secured & safetied?

5. Spinner

- Cracks?
- Properly secured?
- Is spinner chafing into prop?

ENGINE & ENGINE COMPARTMENT

1. Fuel System

- All lines of approved type?
- All strainers clean?
- All lines secured against vibration?
- Gascolator bowl at low point in system when aircraft is in normal ground position?
- Fuel drains operative?
- All connections properly tightened?

2. Oil System

- All lines of approved type?
- All lines secured against vibration?
- Oil tank has no cracks or leaks?
- Tank properly secured & safetied?
- All plugs & strainers cleaned & safetied?

3. Ignition-Electrical System

- All wiring proper type and gauge?
- All fastenings secured & safetied?
- Magnetos properly grounded?
- Spark plugs cleaned & undamaged?
- Spark plugs properly torqued?
- Engine grounded to airframe?
- Starter/generator secured?

4. Exhaust Manifold

Yes No

Secured and safetied?.....
All gaskets in good condition?.....

All stacks in good condition-no cracks or rusted-out areas?.....
Carb heat and cabin heat mufflers removed and manifold inspected?.....

5. Controls

All secured and safetied?.....
No excessive play in any linkages?.....
No interference between any control and the structure throughout the full operating range?.....
Carb heater gate open & close fully?.....

6. Mount

Secured and safetied?.....
All joints inspected for cracks?.....
Any bends in mount tubes?.....
Bushings in good condition?.....

7. Cowlings

Secured and/or safetied?.....
All latches or fastenings working properly?.....
Any cracks properly checked or reinforced?.....
Cowlings clean?.....

8. Power Plant in General

All necessary safeties, palnuts, locknuts, etc. in place?.....
No fuel or oil leaks?.....
All accessories secured & safetied?.....

FUSELAGE-HULL

1. Structure

All welds sound?.....
All tubing straight and uncracked?.....
No rust or corrosion?.....
All attach fittings sound, no cracks, elongation of holes or worn threads?.....
All rivets properly installed?.....
Inspection openings for all vital areas?.....
Fuselage properly drained, that is, no built-in moisture traps?.....
Firewall of proper fireproof material?.....

2. Cover

Properly attached?.....
No tears, distortions, or abrasions?.....
Any breaks or ruptures properly repaired?.....

3. Control System

Properly secured and safetied?.....
Controls stops provided & adjusted?.....
All fittings of proper thread & size?.....

FUSELAGE-HULL

Yes No

- All pulleys of proper diameter for bends, proper size for cable, and guarded?.....
- All cable of proper size (1/8" min) and condition?.....
- Any parts in system subject to rotation for any reason properly secured and safetied?.....
- Return springs on rudder pedals?.....
- No interference between any control part (cable, tube or linkage) and any other part of the structure throughout full control movement?.....
- Adequate room for full control throw when aircraft is occupied?.....
- Controls arranged to minimize danger of blocking by foreign objects?.....
- Grip properly secured to control stick or wheel?.....

4. Electrical System

- All grommets, particularly in firewall, snug fitting and in good condition?.....
- All wires of proper gauge, insulated, and secured?.....
- Wires do not rest on abrasive surfaces?.....
- Battery installation of sufficient strength?.....
- Battery properly ventilated and drained?.....
- No corrosion at or around battery or its vents?.....
- Fuses of adequate amperage?.....

5. Fuel System-Tanks

- Drains properly located to discharge clear of aircraft?.....
- All outlets properly screened?.....
- Breather inlets clear?.....
- Fuel shut-off valve installed?.....
- Fuel shut-off valve easily reached by pilot?.....
- All fuel lines of proper approved type?.....
- All fuel lines secured against vibration?.....
- Is tank located so that sufficient head is available in maximum climb with minimum fuel? Placard if necessary?.....
- Has tank sufficient expansion area?.....
- Any tank overflow discharge clear of hazardous areas on aircraft?.....
- Is tank support sufficient to meet strength requirements?.....
- Does tank clear surrounding structure?.....
- Do tank supports minimize strain and chafing?.....

To insure its safe construction and operation, and to further emphasize the vital necessity for thorough consideration of every item which goes into your airplane, the following working check-list should be used, and it is suggested that it be made a part of the aircraft records.

EXITS

1. Can aircraft be cleared rapidly in case of emergency?.....

Are special precautions available during test period, such as jettisonable doors or canopy?.....
If parachute is to worn, does it clear all controls?.....

Baggage Compartment

1. Are walls and floors of sufficient strength to withstand flight loads?.....

Can anything escape from baggage compartment by accident?.....

Cabin-Cockpit

1. Instruments

- Are all instruments functioning and accurate?.....
- Are all instruments marked, max pressures, temperatures, speeds?.....
- Are all vital instruments easily visible to pilot?.....

2. Flight-Engine Controls

- Are all engine controls marked or easily identifiable?.....
- Are all engine controls smooth in operation, without excessive resistance, and easily available to pilot?.....

Are all flight controls arranged so that jamming by dropped gloves, etc. is impossible?.....

Yes No

3. Fuel Systems

Are all gas valves easily reached by pilot?.....
Are all gas valves marked ON, OFF, LEFT, RIGHT?.....
Are all gas valves in such a position that accidental operation is impossible or guarded
in such a way that accidental operation is impossible?.....

4. Seats

Are seats of sufficient strength for maximum flight loads contemplated?.....
Does seat flex enough at any time to interfere with flight controls?.....

5. Safety Belts and Shoulder Harness

Is installation and attachments of sufficient strength to meet 9G forward load minimum?.....
Does attachment connect directly to primary structure?.....
Are belts and harness in top condition?.....
Is belt of correct size, that is, no long over-tongue?.....
Is a separate belt and shoulder harness supplied for each occupant?.....

6. Heating-Ventilation

Is cabin or cockpit in negative pressure area and liable to suck in exhaust fumes?.....
Is any provision made for ventilating cabin other than normal leakage?.....

7. Windshield-Windows

Are windshield and windows of recognized aeronautical materials?.....
Is windshield braced against positive or negative pressures in flight, either by design or
extra bracing?.....

WING-TAIL SURFACES

1. Fixed Surfaces

Are all interior fastenings secured and/or safetied?.....
Is interior properly weatherproofed?.....
Have any mice been inside lately?.....

2. Movable Surfaces

Are stops provided, either at wing or somewhere else in the control system?.....
Are all hinges and brackets sound?.....
Are all hinge pins secured and safetied?.....
Is there any excessive play in hinges?.....
Is there any excessive play in control cables or tubes?.....

3. External Bracing

Is the interior of all struts weather protected?.....
Are all adjustable fittings locked, secured, and safetied?.....
Are struts undamaged by bends or dents?.....
Are all wires serviceable with proper end fittings?.....

4. Attach Fittings

Are bolts of proper size installed?.....
Are all bolts secured and safetied?.....
Have all bolts been examined for wear?.....

5. Flight Control Mechanism

All cables and tubes unbroken or unbent & with proper end fittings?.....
All control attachments secured and safetied?.....
All pulleys free from interference and guarded?.....
All torque tubes and bell cranks in good condition?.....
No interference with fuselage or wing structure throughout full control travel?.....

6. Fuel Tanks

(See Fuselage Section Also)

Yes No

Are drains supplied at low point in tank when aircraft is in normal ground position?.....
Fuel overflow drains clear of aircraft - no tendency for overflow to soak into aircraft structure?

7. LANDING GEAR

Properly lubricated?.....
Proper oleo inflation?.....
Shock cords or springs in good condition?.....
All attach fittings uncracked and sound?.....
All bolt holes not elongated?.....
All attach bolts secured and safetied?.....
Brake lines in good condition?.....
Brakes operating properly?.....
Correct hydraulic fluid in lines?.....
Wheels uncracked?.....
Tires unworn & properly inflated?.....
Excessive side play in wheel bearings?.....

GENERAL

ALL BOLTS WHEREVER POSSIBLE, HEAD UP AND FORWARD.

All exterior fastenings visible from cockpit or cabin should have safetied end toward pilot, wherever possible.

A complete walk-around inspection of the aircraft should be accomplished to check that every bolt visible on the exterior is secured and safetied. That there is no visible structural damage. That all inspection panels and covers are in place and attached. That all parts of the aircraft are in proper alignment.