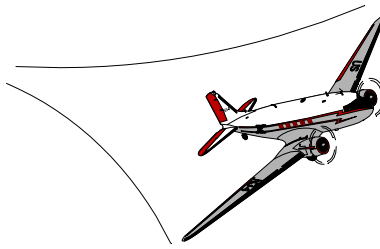


# SPECIAL AIRWORTHINESS INFORMATION BULLETIN



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

No. CE-03-52  
September 4, 2003

Aircraft Certification Service  
Washington, DC

*We post SAIBs on the internet at "av-info.faa.gov"*

*This is information only. Recommendations are not mandatory.*

## **Introduction**

This Special Airworthiness Information Bulletin (SAIB) advises you, a registered owner of a small airplane manufactured prior to 1974, of a guide to help you maintain your aging airplane.

## **Background**

A team of experienced small airplane mechanics and engineers wrote the enclosed *Best Practices Guide for Maintaining Aging General Aviation Airplanes*. It provides tips for researching your airplane's records and maintenance history and finding out about age related modifications that may be wise to make to your airplane. The guide includes a baseline checklist of items to inspect on an older airplane beyond those of an annual inspection. The guide also describes the role type clubs take regarding maintenance and inspection of aging airplanes.

## **Recommendation**

We recommend that you read the guide and find out as much as you can about the history of your airplane. It is a good idea to share the checklist with your mechanic to determine which items should be accomplished for your airplane. We recommend that you adjust the checklist to fit your airplane and situation. An editable version of the checklist is available at your local FDSO and at the FAA website:

[www.faa.gov/certification/aircraft/aceagingchecklist.doc](http://www.faa.gov/certification/aircraft/aceagingchecklist.doc).

We also recommend you use the resources in the guide to contact the type club for your airplane model. You will find that they are a valuable source of information.

## **For Further Information:**

This guide and checklist are available at your local FSDO. They are also available at the these websites:

**FAA:** [www.faa.gov/certification/aircraft/aceagingbestpractices.pdf](http://www.faa.gov/certification/aircraft/aceagingbestpractices.pdf)

[www.faa.gov/certification/aircraft/aceagingchecklist.doc](http://www.faa.gov/certification/aircraft/aceagingchecklist.doc)

**Antique Airplane Association (AAA):** [www.aaa-apm.org](http://www.aaa-apm.org)

**Aircraft Owners and Pilots Association (AOPA):** [www.aopa.org](http://www.aopa.org)

**Experimental Aircraft Association (EAA):** [www.eaa.org](http://www.eaa.org)

**Aging Airplane Inspection & Maintenance Baseline Checklist  
for Airplanes Without a Type Specific Checklist  
(this list is not all inclusive or mandatory, to be used as a guide only)**

<i>COMPONENT</i>	<i>SERVICE LETTERS AND/OR ADVISORY MATERIAL</i>	<i>DATE LAST INSPECTED/ REPLACED</i>	<i>FINDINGS/NOTES</i>
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<b>GENERAL</b>
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Weigh aircraft for actual weight and balance report			
Special attention for corrosion of magnesium parts (i.e., control surfaces, castings, etc.)			

<b>AVIONICS</b>
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Antenna (requires removal) - corrosion - electrical characteristics			
Coax cable condition in inaccessible areas			
Connectors			
Static dischargers - resistance check			
Bonding - resistance check			
ELT - bench check for power output and proper frequency			

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<b>CONTROLS</b>			
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Control surface - balance and rigging			
Inaccessible areas of control surfaces - corrosion - cracking			
Attach points - corrosion - cracking			
Inaccessible control cable runs - condition - corrosion of terminal ends			
Control surface balance weights - corrosion - security of fasteners - condition of attach points			

<b>ELECTRICAL</b>			
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Wires (especially inaccessible wiring bundles and wiring behind the control panel)			
Circuit breakers (check for proper operation at rating)			
Capacity check of aircraft battery			

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<b>EMPENNAGE</b>			
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Condition of stabilizer attachment structures			
Inaccessible areas of stabilizers - corrosion - cracking			

<b>ENGINE</b>			
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Accuracy of engine indicating gauges - tachometer - oil pressure - fuel flow - manifold pressure - exhaust gas temp (EGT) - cylinder head temp (CHT) - oil temperature - fuel pressure			
Engine mounts - fatigue - cracking - condition of vibration isolators			
Internal condition of exhaust piping			
Condition of exhaust clamps and hardware			
Turbocharge wastegate controller bench - check for proper operation			

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<b>ENGINE (CONTINUED)</b>
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Accuracy of turbocharger system indicators			
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<b>FUEL SYSTEM</b>
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Plumbing - rubber hoses			
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Fuel quantity - gauging accuracy			
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Fuel tank installation - corrosion - leakage - plumbing - attachment			
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<b>FUSELAGE</b>
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Seat tracks - wear - cracking - positive locking of seats			
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Fuselage attach points - wing - stabilizer - landing gear			
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Inaccessible areas (remove all interior items, including headliner, side upholstery panels, carpeting, etc.) - corrosion - cracks			
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<b>INSTRUMENTS</b>
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Plumbing - condition of rubber hoses			
Instrument panel shock mounts			
Pitot/static system - leak check per 91.411			
Airspeed/vertical airspeed calibration			
Altimeter calibration			
Stall warning system calibration			
Magnetic compass calibration			

<b>LANDING GEAR</b>
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Attach bolts NDT			
Axle/attach NDT			
Inaccessible areas of wheel well - corrosion - cracking			

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<b>MODIFICATIONS</b>
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Records review for proper approval of all modifications including weight and balance revisions			
Additional continued airworthiness inspection/maintenance requirements for modifications that do not include instructions for continued airworthiness			

<b>PROPELLER</b>
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<b>REPAIRS</b>
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Records review for proper approval of all repairs including weight and balance revisions			

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<b>SYSTEMS</b>			
Cabin pressure control accuracy			
Heater muff type heating system - pressure test of exhaust system for leaks			
Seat belts (certify or replace)			
Cargo restraints (certify or replace)			
Fire extinguisher (certify)			
Hydraulic system plumbing in inaccessible areas			
Hydraulic system gauging accuracy			
Proper operation of oxygen regulator			
Hydrostatic check of oxygen bottle			
Calibration check of oxygen auto dispensing system			
Pneumatic plumbing - rubber hoses			
Pneumatic gauging accuracy			



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<b>SYSTEMS (Continued)</b>			
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Calibration check of pneumatic de-ice system pressure indication (switches or gauges)			
Vacuum plumbing - rubber hoses			
Vacuum regulation - accuracy check - proper operation			
Vacuum gauging accuracy			

<b>WING</b>			
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Wing attach bolts			
Strut attach fittings (wood spar)			
Strut attach fittings (metal spar)			
Front strut			
Rear strut			
Strut attach bolts			
Spar (metal)			

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<b>WING (Continued)</b>			
Spar (wood)			
Nails (wood spar)			
Compression struts			
Drag wire assembly			
Ribs/wingtip			
Fabric			
Inspection holes			
Drains			
Wing general			