

25 and 50-Hour Long Form Inspection Guide For Jabiru J170, J230, and J250 Models

The 25-hour service and inspection is done only one time, at the end of the engine break-in period at 25 hours total time. The break-in oil must be removed, head bolts torqued to 24 ft-lbs (cold engine), and a general inspection logged.

At each 50-hour interval after the initial 25-hour inspection, the oil should be changed and the 50-hour inspection should be completed and logged. The 50-hour may be performed by the owner/operator of the aircraft and is an opportunity to check over the basic airframe and engine compartment for obvious issues. The 100-hour/annual inspection is a more comprehensive inspection that must be completed by a certificated A&P mechanic or LSA Repairman. Note: It is recommended that owner/operators wishing to perform 50-hour maintenance on their aircraft attend a Jabiru USA engine seminar. It is required that they be equipped with a properly calibrated torque wrench and follow the procedures outlined in the Jabiru J230-SP/J250-SP Aircraft Service Manual for all tasks in this inspection guide including engine head bolt tension and propeller bolt tension checks. See www.usjabiru.com for a link to the Aircraft Service Manual and information on upcoming engine seminars.

Owner's Name: _____

Address: _____

City/State/Zip: _____

Registration Number: _____

Airframe Serial Number: _____

Engine Serial Number: _____

Hours: _____

Date Inspection Completed: _____

Servicing Agency: _____

Address: _____

City/State/Zip: _____

Phone Number: _____

Name of Repairman: _____

Inspection Intervals: The time periods for the inspections noted in this schedule are based on normal usage under average environmental conditions. Airplanes operated in humid tropics, cold damp climates, etc. may need more frequent inspections for wear, corrosion, lubrication, and or lack of maintenance. Under these adverse conditions, perform periodic inspections in compliance with this guide at more frequent intervals until the owner or operator can set his or her own inspection periods based on the contingencies of experience.

Airplanes operated commercially less than 100 hours per year must have a 100-hour inspection performed no later than 12 months following the date of the preceding 100-hour inspection. The 100-hour interval between performances of the procedures specified herein should NEVER be exceeded by more than 10 hours which can be used only if the additional time is required to reach a place where the inspection can be satisfactorily accomplished. However, any extension of the 100-hour interval must be subtracted from the following 100-hour interval, with no time extension permitted. For example, if an inspection is done at 110 hours, the next inspection is due 90 hours later with no extension allowed.

In addition to the inspections prescribed by this schedule, the altimeter, static system and ATC transponder MUST be tested and inspected at 24-month intervals in compliance with the requirements specified in FAR Part 91.

Placards: Ensure that all placards are in place and legible whenever the airplane has been repainted or touched up after repairs. Replace any placards that have been inadvertently defaced or removed.

Airworthiness Responsibility: Jabiru USA Sport Aircraft's recommended inspection program in accordance to FAR Parts 43 and 91 consists of, but is not limited to, inspection items listed in this Inspection Guide, any applicable Airworthiness Directives issued against the airframe or any equipment installed therein, conformity to Type Certificate Data Sheet and Maintenance Manual Airworthiness Limitations Chapter as applicable.

The owner or operator is primarily responsible for maintaining the aircraft in an airworthy condition, including compliance with all applicable Airworthiness Directives as specified in Part 39 of the Federal Aviation Regulations. It is further the responsibility of the owner or operator to ensure that the airplane is inspected in conformity with the requirements of Parts 43 and 91 of the Federal Aviation Regulations. Jabiru USA Sport Aircraft, LLC, has prepared this inspection guide to assist the owner or operator in meeting the foregoing responsibilities. This inspection guide is not intended to be all-inclusive, for no such guide can replace the good judgment of a certified airframe and powerplant mechanic in the performance of his or her duties. As the one primarily responsible for the airworthiness of the airplane, the owner or operator should select only qualified personnel to maintain the aircraft.

Jabiru USA Sport Aircraft, LLC issues service information for the benefit of owners and operators. It is the responsibility of the owner/operator to review and act upon each service bulletin. It is the responsibility of the owner or operator to ensure that all service bulletins are complied with.

While this guide may be used as an outline, detailed information of the many systems and components in the airplane will be in the various section chapters of its shop maintenance manual and the pertinent vendor publications. It is also recommended that reference be made to the applicable Maintenance Handbooks, previously issued Service Instructions, Jabiru Service Bulletins, applicable FAA regulations and publications, Vendors Bulletins and specifications for torque values, clearances, settings, tolerances, and other requirements. It is the responsibility of the owner or operator to ensure that the airframe and powerplant mechanic inspecting the airplane has access to the previously noted documents as well as this inspection guide.

1. Operational Inspection

		Starter – Check for proper operation, unusual noises and dragging.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Fuel Pressure – Check for proper fuel pressure limits and fluctuations.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Cylinder Head Temperature – Check for proper operations, temperature and fluctuations.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Alternator – Check for proper output and unusual noises.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Propeller – Check for smoothness of operation.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Oil Pressure and Temperature – Check for proper pressure, temperature limits and unusual fluctuations.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Magnetos – Check the performance of the magneto as outlined under the heading NORMAL PROCEDURES in the appropriate Pilot's Operating Handbook.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Auxilliary Fuel Pump -- Check for proper operation, unusual noise and fluctuations.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		All Lights --Check for condition, attachment, cracked or broken lenses. Check switches, knobs and circuit breakers for looseness and operation.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Brakes --Check for condition and wear, ease of operation and proper release of parking brake. Check for unusual brake chatter.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Flight and Trim Controls --Check freedom of movement and proper operation through full travel with and without flaps extended. Check trim controls for proper operation.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

2. Powerplant: Refer to *Instruction & Maintenance Manual for Jabiru 3300 Aircraft Engine*

		Spinner and Spinner Flange: Check for deformation, security and cracks.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Propeller and mounting bolts: Check tension on all propeller bolts. Check propeller for condition and security. Inspect blades for cracks, dents, nicks, scratches, erosion, delamination (in the case of fiberglass sheathed propellers), security and movement in hub.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Induction Air Filter: Check for condition, cleanliness and security. Replace if necessary.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Induction System: Check the SCAT hose for damage and wear. Check the carburetor heat box for blockage, security, cracks, operation and wear.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Cooling Baffles: Check for cracks, worn areas and security.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Cylinders: Check cylinders and exhaust manifold for obvious leaks, security and cracks. Check cylinders for broken cooling fins and loose or missing base nuts.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Exhaust: Check for deformation, security, cracks, leaks, loose or missing nuts, springs and clamps. Check for thin wall condition which may occur due to normal internal erosion on stacks which have long service time.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Spark Plugs: Clean, inspect, regap, test and replace as necessary. Tighten spark plugs to proper torque and check ignition harness condition and for proper attachment.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Battery: Inspect, clean and tighten connections. Check for security and proper attachment. Check for corrosion. Make certain battery is clean. Water or dirt on battery surfaces can cause battery to discharge.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Engine Controls and Linkages: Check controls and associated equipment for condition, attachment, alignment and rigging. Check control operation.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Carburetor: Check overall condition. Inspect for leaks.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

Engine Sump: Check for cracks, leaks, proper fluid level, deformation and security.

Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Oil and filter: Remove and replace oil filter. Drain and replace engine oil.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Oil Cooler: Check oil cooler, lines and fittings for condition, security, chafing and leaks.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		All Drains and Plugs: Check for condition, cleanliness and security. Check for leaks and correct tension.
Pass	Fail	
<input type="checkbox"/>	<input type="checkbox"/>	

		Cowling skin: Check for deformation, delamination and obvious damage or cracks. Check for rub points on the interior surfaces.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Cowling structure: Check for cracks and delamination. Check hinge pin structure for loose rivets or deformation.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Head Bolt Tension: Torque head bolts to proper tension.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

3. Cabin and Baggage Compartment

		Rudder Pedals: Check for freedom of movement. Check push/pull cables for proper routing, condition and security. Check rudder pedal springs for condition and correct placement. Check pedal extensions for security if installed.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Instruments and Instrument Panel: Inspect instrument panel, placards and instruments for condition and attachment. Check all knobs for security.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

4. Wings and Carry-Through Structure

		Skin: Check for deformation and obvious damage. Check for cracks. If damage is found, check adjacent structure. Check for indications of excessive flight loading.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Wing Bolts: Check wing bolts for security. DO NOT overtighten.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Fuel Vents, Pitot Tube, and Stall Warning: Check for condition and obstructions.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

5. Nose Gear

		Wheel and Tire: Check wheel for cracks and tire for wear, damage, condition and proper inflation. Check wheel bearings for condition and wear.
Pass	Fail	
<input type="checkbox"/>	<input type="checkbox"/>	

6. Main Gear and Brakes

		Wheels and Tires: Check wheels for cracks and tires for wear, damage, condition and proper inflation. Check and repack wheel bearings.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Landing Gear Legs: Inspect legs for cracks, overextension or signs of delamination.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

7. Rear Fuselage and Empennage

		Skin: Check for deformation, cracks and obvious damage. If damage is found, check adjacent structure.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Control Surfaces: Check for deformation, cracks, security of hinges, freedom of movement and travel limits.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Static Port: Check for blockages. Check static probe for condition.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

8. General

		Airplane cleaned and serviced.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Inspect all placards to assure they are easily readable and securely attached.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	

		Ensure that all Airworthiness Directives, Jabiru Service Bulletins, and previously issued Service Instructions are reviewed and complied with as required.
Pass	Fail	Comments:
<input type="checkbox"/>	<input type="checkbox"/>	