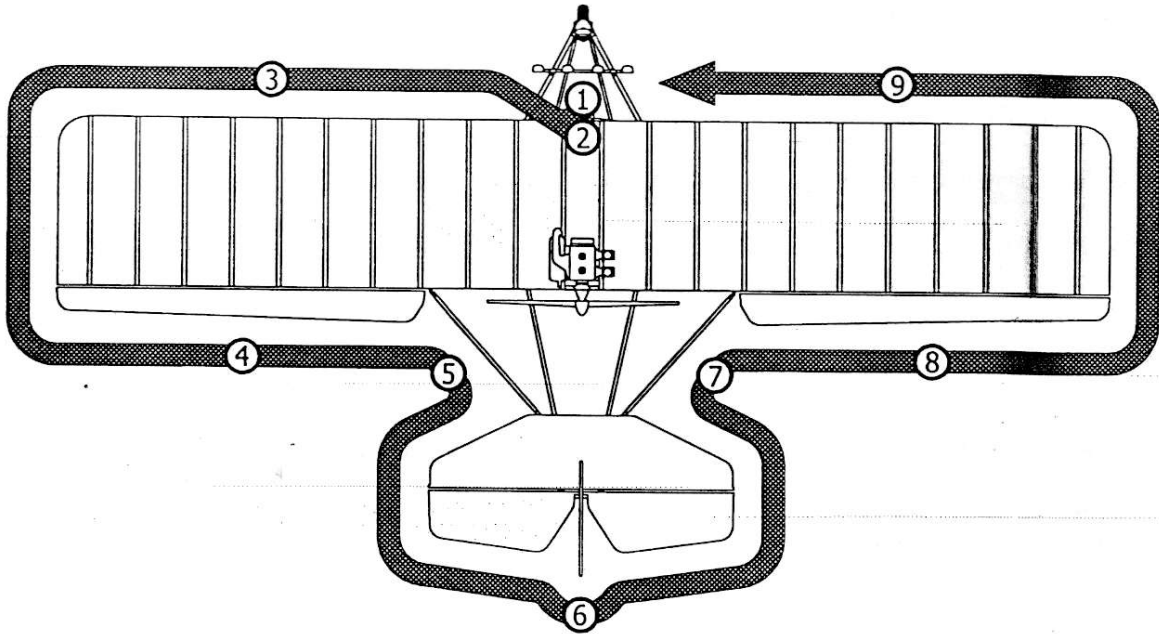


**OPERATIONAL PROCEDURES CHECKLISTS (continued)**

**PREFLIGHT INSPECTION SEQUENCE**



**FIGURE 4-1. Preflight Inspection Sequence**

**NOTE:** Visually inspect the aircraft for its general condition during the walk around. **In addition** to the items listed on the preflight checklist, look for signs of visible moisture or ice if applicable. **The** presence of moisture especially ice or frost on the aircraft wings and tail will adversely affect **its performance**. **In all** cases, remove the moisture **BEFORE** beginning any flight operations. Always ~~exercise~~ due care and good judgment. Flight should only be attempted in acceptable and safe weather **conditions** and when you and your vehicle are in an airworthy condition.

**OPERATIONAL PROCEDURES CHECKLISTS (continued)**

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**PREFLIGHT INSPECTION CHECKLIST PROCEDURES****(1) CABIN**

- (1) Ensure the ignition switch is OFF.
- (2) Inspect SEAT attachment hardware for integrity and security.
- (3) PLACE helmet bag or headsets on pilots seat.
- (4) Adjust pilot and passenger seats for position and ensure locking pins are secured (refer to SECTION 6, WEIGHT AND BALANCE).
- (5) CHECK seat belts for security. Seat belts and shoulder harnesses **MUST** be secured even if not occupied.
- (6) INSPECT the upper end of the forward tri-bar assembly, the forward section of the root tube, the forward wing spar channels, and attachment hardware.
- (7) INSPECT the control stick, aileron push/pull control cable, and attachment hardware.
- (8) Check control stick for proper movement (forward, aft, right, and left) for free travel in all directions. Ensure all flight control surfaces move in the correct corresponding directions.
- (9) Ensure the brake lever on the control stick is secure. Inspect the brake cable housing. Squeeze the brake lever and verify the brakes are operational.
- (10) Inspect the ELEVATOR push/pull tubes, pivot bolts, trim system, trim lever, and attachment hardware.
- (11) INSPECT the nose gear support assembly: nose struts, tension struts, nose plates, fittings, and attachment hardware. Sight down the tension struts to ensure they are straight.
- (12) INSPECT the rudder pedals, pedal mounts, cables, pulleys, pushrods, and attachment hardware.
- (13) Move the rudder pedals and ENSURE the rudder moves in the corresponding direction.
- (14) INSPECT the nose gear assembly: nose fork, nose stem, fork stop, axle, wheel, tire, and attachment hardware. Verify proper tire inflation and proper turning direction for corresponding pedal deflection.
- (15) CHECK fuel quantity.
- (16) CHECK wing gap cover security.
- (17) CHECK instrumentation security.
- (18) INSPECT the airspeed indicator. Ensure the pitot tube is properly oriented and both pitot and static ports are clear from obstruction and blockage.

**OPERATIONAL PROCEDURES CHECKLISTS (continued)****PREFLIGHT INSPECTION CHECKLIST PROCEDURES (continued)****(2) FUEL TANK**

- (1) Fuel tank sump - Visually check for contaminated fuel. DRAIN fuel sump if contaminants are present.
- (2) Check fuel line and clamps for SECURITY.
- (3) Fuel tank cap - CHECK vent for obstructions and secure cap.
- (4) Check fuel tank valve is in the ON position.
- (5) Check fuel tank mounting for SECURITY

**(3) LEFT WING**

- (1) Run your hand along the left leading edge WING SPAR checking for dents, bends, and kinks in the spar.
- (2) INSPECT the forward strut attachment and hardware for security.
- (3) Inspect the lift struts and jury struts for integrity. SIGHT down the lift struts to ensure they are straight.
- (4) Inspect the left wing tip. SIGHT down the leading edge wing spar to ensure it is straight.
- (5) Move under the left wing. Unzip the wing inspection ports. At each port, thoroughly inspect the INTERIOR of the wing. INSPECT each compression strut and diagonal strut for security and integrity. Visually and physically INSPECT the junction of each strut at the leading and trailing edge spar.
- (6) INSPECT the aileron bellcrank, pushrods, cables, clevis pins, cotter pins, turnbuckles, safety clips, and all related hardware. Inspect the struts attached to the leading edge wing spar for security.
- (7) CLOSE the left wing inspection ports and stow the Zipper handles.
- (8) Inspect the wing cover tension buckles at the left wing root. ENSURE they are properly tensioned and locked. Secure loose ends and keep them away from moving parts.
- (9) INSPECT the root tube bellcrank, aileron push/pull control cable integrity, aileron cables, clevis pins, cotter pins, and all related hardware.
- (10) INSPECT the center section of the root tube.
- (11) INSPECT the choke cable and choke handle on the aft tri-bar assembly.

**OPERATIONAL PROCEDURES CHECKLISTS (continued)****PREFLIGHT INSPECTION CHECKLIST PROCEDURES (continued)****(3) LEFT WING (continued)**

- (12) INSPECT the left aft tri-bar downtube, the left axle strut, the upper end of the left nose strut, related fittings, and attachment hardware.
- (13) INSPECT the lower end of the forward tri-bar. Inspect the forward and aft lift strut connections, attachment points, fittings, and attachment hardware.
- (14) INSPECT the upper end of the aft tri-bar assembly, the seat support downtube at both **upper** and lower attachment locations, and all related hardware.
- (15) INSPECT the upper end of the landing gear downtubes, the left shoulder harness assembly, the lower end of the left landing gear downtube, and attachment hardware.
- (16) INSPECT the landing gear assembly: wheel, tire, and attachment hardware. Verify proper **tire** inflation
- (17) INSPECT the left brake arm, band, drum, cable, conduit, and hardware for integrity and **security**.
- (18) Wing tie down - DISCONNECT.

**(4) LEFT WING - TRAILING EDGE**

- (1) Go to the left wing tip and SIGHT down the trailing edge to ensure that the trailing edge **spar** is straight.
- (2) Run your hand along the left trailing edge wing spar and CHECK its integrity.
- (3) Inspect the left aileron, hinges, horn, pushrod, and related hardware for INTEGRITY. **Check** the aileron for proper movement.
- (4) INSPECT the aft strut attachment points, cotter pin security, and related hardware.
- (5) INSPECT the left upper tail boom, tail brace, channel, fitting, and hardware for integrity **and** security.
- (6) INSPECT the landing gear side wires for integrity and the related attachment hardware for **security**.
- (7) Inspect the trailing edge wing spar channels and attachment hardware for INTEGRITY **and** security.
- (8) INSPECT the aft section of the root tube.
- (9) INSPECT the axle for integrity.
- (10) INSPECT the left lower tail boom for integrity and the related attachment hardware for **security**.

**OPERATIONAL PROCEDURES CHECKLISTS (continued)**

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**PREFLIGHT INSPECTION CHECKLIST PROCEDURES (continued)****(5) ENGINE, GEAR BOX, AND PROPELLER - LEFT**

- (1) INSPECT the engine mounts, left side.
- (2) INSPECT the exhaust system and ensure the exhaust coupling springs are safety wired and **intact**.
- (3) CHECK the oil injection tank (if installed) for proper oil quantity and ensure the cap is **securely** in place.
- (4) CHECK the starter housing, handle, and pull rope.
- (5) INSPECT the gear reduction drive for oil leaks and/or loose bolts.
- (6) INSPECT the propeller for damaged blades and/or loose bolts.

**(6) EMPENNAGE**

- (1) INSPECT the left upper tail boom and tail mount attachment.
- (2) INSPECT the horizontal stabilizer leading edge and rudder brace attachment to the tail **mount** on the left.
- (3) INSPECT the horizontal stabilizer for an appropriate angle of incidence setting.
- (4) INSPECT the elevator, hinges, stops, and attachment hardware on the left. Check proper **movement**.
- (5) INSPECT the tail skid to tail mount and rudder brace attachment, tail brace tubes and **lower** tail booms to tail skid attachment, rudder brace integrity, and the security of the related hardware.
- (6) INSPECT the forward portion of the rudder and its hinges. Check proper movement.
- (7) INSPECT the elevator, hinges, stops, and attachment hardware on the right. Check proper **movement**.
- (8) INSPECT the elevator horn, push/pull tube, fitting, and attachment hardware.
- (9) INSPECT the horizontal stabilizer leading edge and rudder brace attachment to the tail **mount** on the right.
- (10) INSPECT the rudder cables, rudder horns, hinges, and attachment hardware.
- (11) INSPECT the rudder, elevator, and horizontal stabilizer for integrity.
- (12) INSPECT the right upper tail boom and tail mount attachment.
- (13) Tail tie down - **DISCONNECT**.

**OPERATIONAL PROCEDURES CHECKLISTS (continued)**

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**PREFLIGHT INSPECTION CHECKLIST PROCEDURES (continued)****(7) ENGINE, GEAR BOX, AND PROPELLER - RIGHT**

- (1) INSPECT the engine mounts, right side.
- (2) INSPECT the fuel lines and fuel clamps.
- (3) INSPECT the carburetors and air filters for attachment and ensure filters are clean.
- (4) INSPECT the electrical wiring for loose or damaged wires.
- (5) INSPECT the throttle and choke cables. If applicable, inspect the oil injection cable.
- (6) Check the radiator for ADEQUATE fluid. Check hoses, radiator cap and attachment hardware for security.
- (7) Check the rotary intake valve oil tank for ADEQUATE oil quantity and quality as well as security.
- (8) INSPECT the gear reduction drive for oil leaks and/or loose bolts.
- (9) INSPECT the propeller for damaged blades and/or loose bolts

**(8) RIGHT WING - TRAILING EDGE**

- (1) INSPECT the right lower tail boom for integrity and the related attachment hardware for security.
- (2) INSPECT the axle for integrity.
- (3) INSPECT the aft section of the root tube.
- (4) Inspect the trailing edge wing spar channels and attachment hardware for INTEGRITY and security.
- (5) INSPECT the landing gear side wires for integrity and the related attachment hardware for security.
- (6) INSPECT the right upper tail boom, tail brace, channel, fitting, and hardware for integrity and security.
- (7) INSPECT the aft strut attachment points, cotter pin security, and related hardware.
- (8) Inspect the right aileron, hinges, horn, pushrod, and related hardware for INTEGRITY. Check the aileron for proper movement.
- (9) Run your hand along the right trailing edge wing spar and CHECK its integrity.
- (10) Go to the right wing tip and SIGHT down the trailing edge to ensure that the trailing edge spar is straight

## OPERATIONAL PROCEDURES CHECKLISTS (continued)

PREFLIGHT INSPECTION CHECKLIST PROCEDURES (continued)

## (9) RIGHT WING

- (1) Run your hand along the right leading edge WING SPAR checking for dents, bends, and kinks in the spar.
- (2) INSPECT the forward strut attachment and hardware for security.
- (3) Inspect the lift struts and jury struts for integrity. SIGHT down the lift struts to ensure they are straight.
- (4) Inspect the right wing tip. SIGHT down the leading edge wing spar to ensure it is straight.
- (5) Move under the right wing. Unzip the wing inspection ports. At each port, thoroughly inspect the INTERIOR of the wing. INSPECT each compression strut and diagonal strut for security and integrity. Visually and physically INSPECT the junction of each strut at the leading and trailing edge spar.
- (6) INSPECT the aileron bellcrank, pushrods, cables, clevis pins, cotter pins, turnbuckles, safety clips, and all related hardware. Inspect the struts attached to the leading edge wing spar for security.
- (7) CLOSE the right wing inspection ports and stow the Zipper handles.
- (8) Inspect the wing cover tension buckles at the right wing root. ENSURE they are properly tensioned and locked. Secure loose ends and keep them away from moving parts.
- (9) INSPECT the root tube bellcrank, aileron push/pull control cable integrity, aileron cables, clevis pins, cotter pins, and all related hardware.
- (10) INSPECT the center section of the root tube.
- (11) INSPECT the right aft tri-bar downtube, the right axle strut, the upper end of the right nose strut, related fittings, and attachment hardware.
- (12) INSPECT the lower end of the forward tri-bar. Inspect the forward and aft lift strut connections, attachment points, fittings, and attachment hardware.
- (13) INSPECT the upper end of the aft tri-bar assembly, the seat support downtube at both upper and lower attachment locations, and all related hardware.
- (14) INSPECT the upper end of the landing gear downtubes, the right shoulder harness assembly, the lower end of the right landing gear downtube, and attachment hardware.
- (15) INSPECT the landing gear assembly: wheel, tire, and attachment hardware. Verify proper inflation.
- (16) INSPECT the right brake arm, band, drum, cable, conduit, and hardware for integrity and security.
- (17) Wing tie down - DISCONNECT.