

READ BEFORE FLIGHT – PREFLIGHT CHECKLIST

While there is no such thing as an “all-inclusive” preflight checklist, this list can be used as a guideline for items to be checked on the Commander Gyroplane before the first flight of the day. **Items with an asterisk (*) should be checked before subsequent flights.**

(447/503) applies only to aircraft equipped with Rotax 447 and 503 engines.

(582) applies only to aircraft equipped with Rotax 582 engines.

- [] **Fiberglass Enclosure** (if installed): Check condition and security.
- []* **Pitot Tube**: Check for obstructions and security.
- [] **Nose Wheel Tire**: Check proper inflation and condition.
- [] **Nose Gear**: Check general condition and security hardware.
- [] **Nose Wheel Steering**: Check proper operation, condition, springs, and security of hardware.
- []* **Instrument Pod** (if installed): Check security and proper installation of instruments.
- [] **Rudder Pedals**: Check for absence of binding, proper operation, and security of hardware.
- [] **Rudder Cables**: (Pedal end) Check security of hardware, nico clamps, and cables for fraying and kinking. (Rub cables with nylon stocking to check fraying.)
- [] **Windshield** (if installed): Check security and cleanliness.
- []* **Instrument Panel** (if installed): Check security and proper operation of instruments, and check KILL SWITCH for proper operation.
- []* **Seat Tank**: Check security and condition, ensure absence of leakage, check cap for seal and security, check sight gauge, check fuel level, check fuel shut-off valve for proper operation.
- []* **Extended Range Tanks** (if installed): Check security and condition, check fuel lines for security, cuts, dry rot, and kinks, check selector valve for proper operation, check caps for seal and security, check operation of level indicators, and check fuel levels. NOTE: Ensure valve on RIGHT CAP (as viewed from AFT) is OPEN and valve on LEFT CAP is CLOSED.
- []* **Joystick Assembly**: Check condition and security, check all oilite bushings for excessive play, check security of handgrip, check prerotator engagement handle (if installed) for security and proper operation.
- [] **Airframe Forward of Mast**: Check condition and security of hardware. NOTE: Pay particular attention to structural integrity of strut tube plates located in approximate center of keel.
- []* **Throttle Plate and Throttle**: Check security and operation of throttle, and check KILL SWITCH for proper operation.
- [] **Left Side Main Gear**: Check condition and security of all tubes and hardware, and check tire for proper inflation and condition. Check wheel pants (if installed) for security and condition, and lack of mud and debris inside. Check brakes (if installed) and brake lines and calipers for security and leakage, and check pucks for condition.

- []* **Fuel Lines, Filter, and Primer Bulb**: Check for condition and security, check filter for cleanliness and lack of water, and primer for proper operation.
- []* **Engine – Left Side**: (This is for PLUGS-DOWN engine configuration)
 (ALL) Check condition and security of fuel pump, condition and security of carburetor(s) and fuel lines, check choke(s) for proper operation, check air filter(s) for security and cleanliness, check reduction drive for leakage.
 (447/503) Check security of mounts, check fan, fan belt, and cooling shrouds.
 (582) Check security of oil tank, check oil level, check condition of coolant tank and cap, check coolant level, check condition of all left-side radiator hoses.
- []* **Propeller**: Check condition and security, check safety wire on attach bolts.
- []* **Radiator**: (582) Check condition, security and leakage. NOTE: If using soldered radiator, check solder joints for evidence of cracking.
- [] **Airframe Aft of Mast**: Check security and condition of all tubes and hardware. NOTE: Inspect the four 2-inch saddles on rear keel for cracks.
- []* **Rudder**: Check condition and security, check surface for delamination, check rudder cables (rudder end) for fraying and nico clamps for security.
- []* **Engine – Right Side**: (This is for PLUGS-DOWN engine configuration)
 (ALL) Check exhaust manifold, check muffler for condition and security on mounts, check muffler springs for safety wire and silicone, check condition of pull starter rope, check security of spark plug wires, and check prerotator lower unit (if installed) for security and condition.
 (447/503) Check security and condition of cooling shroud.
 (582) Check all right-side radiator hoses for condition and security.
- [] **Mast**: Check security and condition, check trim spring adjuster for ease of operation.
- [] **Left Side Main Gear**: Check condition and security of all tubes and hardware, and check the tire for proper inflation and condition. Check wheel pants (if installed) for security and condition, and lack of mud and debris inside. Check brakes (if installed) and brake lines and calipers for security and leakage, and check pucks for condition.
- []* **Rotor Head**: Check security and condition of all hardware, check oilite bushings for excessive play, check main rotor bearing for smoothness of operation, check condition and security of push tube rod ends, check prerotator upper end (if installed) for security, condition, and lubrication.
- []* **Rotor Blades**: Check security, condition, and cleanliness of rotor blades.
- []* **Ballistic Recovery System** (if installed): Check security, condition of all hardware, and no obstructions in case of in-flight deployment.
- [] **FAA Paperwork** (if applicable): Check aircraft for airworthiness certificate and other paperwork required to be carried on Experimental rotorcraft.
- []* **Pilot**: Check for health condition, helmet and safety equipment, proper dress for weather, knowledge of current weather forecast and current field conditions, flight planning for cross-country flight, current aviation charts, pilot's license and logbook if applicable.

This preflight checklist may be copied for reference and pilot use.

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While there is no such thing as an “all-inclusive” preflight checklist, this list can be used as a guideline for items to be checked on the Air Command Basic Commander and Single-Seat Elite Gyroplanes before the first flight of the day. **Items with an asterisk (*) should be checked before subsequent flights.**

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- [] **Nose Wheel Steering**: Check proper operation, condition, springs, and security of hardware.
- []* **Instrument Pod** (if installed): Check security and proper installation of instruments.
- [] **Rudder Pedals**: Check for absence of binding, proper operation, and security of hardware.
- [] **Rudder Cables**: (Pedal end) Check security of hardware, nico clamps, and cables for fraying and kinking. (Rub cables with nylon stocking to check fraying.)
- [] **Windshield** (if installed): Check security and cleanliness.
- []* **Instrument Panel** (if installed): Check security and proper operation of instruments, and check KILL SWITCH for proper operation.
- []* **Seat Tank**: Check security and condition, ensure absence of leakage, check cap for seal and security, check sight gauge, check fuel level, check fuel shut-off valve for proper operation.
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- []* **Joystick Assembly**: Check condition and security, check all oilite bushings for excessive play, check security of handgrip, check prerotator engagement handle (if installed) for security and proper operation.
- [] **Airframe Forward of Mast**: Check condition and security of hardware. NOTE: Pay particular attention to structural integrity of strut tube plates located in approximate center of keel.
- []* **Throttle Plate and Throttle**: Check security and operation of throttle, and check KILL SWITCH for proper operation.
- [] **Left Side Main Gear**: Check condition and security of all tubes and hardware, and check tire for proper inflation and condition. Check wheel pants (if installed) for security and condition, and lack of mud and debris inside. Check brakes (if installed) and brake lines and calipers for security and leakage, and check pucks for condition.

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- [] **Airframe Aft of Mast**: Check security and condition of all tubes and hardware. NOTE: Inspect the four 2-inch saddles on rear keel for cracks.
- []* **Rudder**: Check condition and bolt security, check surface for delamination, check rudder cables (rudder end) for fraying and nico clamps for security.
- []* **Engine – Right Side**: (This is for PLUGS-DOWN engine configuration)
 (ALL) Check exhaust manifold, check muffler for condition and security on mounts, check muffler springs for safety wire and silicone, check condition of pull starter rope, check security of spark plug wires, and check prerotator lower unit (if installed) for security and condition.
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- [] **Mast**: Check security and condition, check trim spring adjuster for ease of operation.
- [] **Left Side Main Gear**: Check condition and security of all tubes and hardware, and check the tire for proper inflation and condition. Check wheel pants (if installed) for security and condition, and lack of mud and debris inside. Check brakes (if installed) and brake lines and calipers for security and leakage, and check pucks for condition.
- []* **Rotor Head**: Check security and condition of all hardware, check oilite bushings for excessive play, check main rotor bearing for smoothness of operation, check condition and security of push tube rod ends, check prerotator upper end (if installed) for security, condition, and lubrication.
- []* **Rotor Blades**: Check security, condition, and cleanliness of rotor blades.
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