

Cessna 210 Prebuy Examination—Scope and Detail

NOTE: This is a two-phase checklist. Please perform “Phase 1” items first and report results before proceeding with “Phase 2” items. If there are any high-cost issues noted during Phase 1, we may need to terminate the prebuy examination early.

NOTE: Estimated labor hours to complete both phases of this checklist:

- 10 – 15 hours depending on equipment installed.

PHASE 1

1.1 Operational and Functional Check

- 1.1.1 Perform “Airplane Operational and Functional Check run-up”.

1.2 Engine and Propeller

- 1.2.1 Check cylinder compressions hot. Report compression readings, master orifice reading, and location of audible air leakage (rings, exhaust valve).
- 1.2.2 Check cylinder heads for cracks, with concentration on the area between the fuel injector nozzle boss and the top spark plug boss. If a suspected crack is found, verify with dye penetrant and please provide a high- resolution photograph of the results.
- 1.2.3 Check pushrod housing seals, cylinder bases, and rocker covers for oil leaks.

- 1.2.4 Borescope examination of all cylinders. For each cylinder, report appearance of exhaust valve (particularly asymmetric appearance indicating hot spots), appearance of barrel (loss of crosshatch, vertical scoring, aluminum smearing at 3 or 9 o'clock position suggesting piston pin plug scuffing, excessive oil in combustion chamber).
- 1.2.5 Spark plug examination. Report any abnormal color or appearance, particularly top spark plugs.
- 1.2.6 Remove oil filter, cut open and inspect for metal. If significant metal is found, please provide one or more high-resolution photographs of filter media, check with a magnet to determine whether metal is ferrous or non-ferrous, and save filter media in a zip-lock plastic bag in the event we need to send it out to a lab for microscopic examination.
- 1.2.7 Check crankcase for cracks and oil leaks. Check front crankshaft seal for oil leaks. If any cracks or leaks are found, please provide high-resolution photographs.
- 1.2.8 Check all fuel and oil lines, wire bundles and ignition harness leads for chafing and security. Check engine transducers (CHT, EGT, etc.) for lead chafing at strain-relief springs. Check all Molex connectors to ensure that they have blue weather seals.
- 1.2.9 Check engine baffles for cracks, particularly the side baffles. Check inter-cylinder baffles for proper position. Check flexible baffle seals for condition and proper orientation.
- 1.2.10 Check engine mount for corrosion, heat signatures, and damage to paint or powder coating.
- 1.2.11 Exhaust system examination for exhaust leaks, cracks, bulges.
- 1.2.12 Check propeller hub for cracks and leaks. Check prop blades for nicks, corrosion, areas of excessive filing. Check propeller spinner and spinner backplate for cracks. If electric heat, check operation.

1.2.13 Check cowling for damage and repairs,

1.3 Maintenance Records

1.3.1 Check for complete airframe, engine and propeller logbooks.

1.3.2 Provide AD compliance list. Report any applicable ADs for which compliance is not well-documented.

1.3.3 Provide SB compliance list. Report any applicable SBs for which compliance is not well-documented, and identify whether mandatory, recommended or optional.

1.3.4 Check for compliance with all Airworthiness Limitations in Section 4 of AMM. If applicable, check for compliance with Airworthiness Limitations in any installed STC's.

1.3.5 Report any Airworthiness Limitations for which compliance is not well-documented.

1.3.6 Check for compliance with overhaul/replacement schedule in Section 5 of AMM, report any items for which compliance with recommended overhaul/replacement times is not well-documented. (ex. Mag 500 hour)

1.3.7 Verify date of most recent 91.411/91.413 biennial certifications (static system, altimeter/encoder, and transponder).

IMPORTANT: Please report your Phase 1 findings to Savvy and obtain authorization to proceed with Phase 2.

PHASE 2

2.1 Landing Gear, Wheels, Brakes

- 2.1.1 Check tires for condition.
- 2.1.2 Check condition of nose gear actuator hoses and type.
- 2.1.3 Check nose strut extension and no tire marks in wheel well.
- 2.1.4 Check nose gear actuator knuckle pins.
- 2.1.5 Check for nose gear down-lock steel spring guide type.
- 2.1.6 Check nose gear door roller bearing for condition and existence of Nylon.
- 2.1.7 Check nose gear steering limit pin for damage
- 2.1.8 Check nose gear upper trunion for cracks per SEB (visually only)
- 2.1.9 Check condition of any push/pull rod boots.
- 2.1.10 Check main gear leg well bumper pads for condition.
- 2.1.11 Check main gear down-locks for rigging. (hand check only)
- 2.1.12 Check main gear saddle and security of gear saddles and spacers.
- 2.1.13 Check for hydraulic leaks at main gear pivot leg retaining bolt.
- 2.1.14 Check for hydraulic leak at main gear swivel fitting.
- 2.1.15 Check condition of brake calipers for leaks and damage to brake line near brake disc.

2.2 Cabin

- 2.2.1 Check date of brake master hoses if accessible and brake master cylinder mount structure as well as master cylinders for leaks.
- 2.2.2 Check windows for security, water leak evidence, cracks or scratches etc.
- 2.2.3 Check all interior lights (including instrument lighting) for proper operation.
- 2.2.4 Check fuel quantity indicators for proper operation. (Functional checks only; please do not defuel the aircraft for this check.)
- 2.2.5 Check headliner for evidence of leaks at door or windows.
- 2.2.6 ELT, remove batteries, look for leaks and corrosion. Perform functional check.
- 2.2.7 Fire extinguishers, check for proper weight or pressure.
- 2.2.8 Check condition of seat rails and latch per AD 2011-10-09. Condition of seat belts.
- 2.2.9 Check oxygen bottle or generators for dates.
- 2.2.10 Operation of inflatable door seal if installed.
- 2.2.11 Check condition of pressurization controller filter if applicable.
- 2.2.12 Check baggage door hinge for bond or rivets. Has mod been done per SB.
- 2.2.13 Check cowl flap operation and rigging.
- 2.2.14 Check rudder pedals and rudder center when nose gear centers at extension.
- 2.2.15 Check for cracks at 208 and 230 bulkheads.
- 2.2.16 Wing spar carry thru at headliner for corrosion.

2.2.17 Wing spar carry thru at wing attach where air vent hoses pass over, for corrosion. (NA on pressurized)

2.2.18 Check lead panels on cabin side walls and belly for corrosion.

2.3 Airframe / Wings / Flight controls

2.3.1 Check entire exterior of airframe for significant cosmetic flaws (e.g. cracks, missing or discolored paint), hail damage on top surfaces.

2.3.2 General corrosion check.

2.3.3 Placards installed and legible.

2.3.4 Check status of horizontal attachment upgrades.

2.3.5 Check underside of wings for evidence of fuel leaks, inboard wing bay for leaks as well as tanks.

2.3.6 Note fuel cap type.

2.3.7 Check wing flap leading edge for wing root fairing screw damage.

2.3.8 Elevators- determine if foam filled trailing edges. (corrosion check)

2.3.9 Flight controls make all stops.

2.3.10 Check pitot heat for proper operation.

2.3.11 Check smooth operation of elevator trim and rudder trim thru full range.

2.3.12 Check elevator hinge brackets for cracks and type per AD.

2.3.13 Check condition of rivets at inboard lower spar cap under side of wing.

2.3.14 Perform wing spar inspection per AD 2012-10-04.

- 2.3.15 Verify that aircraft cabin contains airworthiness certificate, registration certificate, POH, current W&B, applicable avionics operating manuals, and mic.

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