

Pre-Buy Inspection For LifeStyle Aviation

Burlington, VT - September 26-27, 2025

Inspection was performed by Aero Affinity, Technical Partner, AOG Service and Maintenance Training provider of Tecnam in the Americas.

Aircraft: Tecnam P-Mentor

Tail Number: N223PM

Serial Number: 1085

Total Time: 198.0 hours



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Engine Inspection

Compression Test

- Target: 87 PSI
- Cylinder 1: 86/87
- Cylinder 2: 86/87
- Cylinder 3: 86/87
- Cylinder 4: 86/87

Result: uniform readings across all cylinders, within tolerance.

Borescope

- Strong cross-hatch pattern, no scoring or corrosion.
- Minor lead deposits consistent with Avgas use.
- Valves and seats clean, geometry intact.
- Overall: excellent cylinder condition.

Spark Plugs

- Good condition, normal coloration, correct mixture indication.

Engine Bay & Systems

- Tecnam Job Card for engine mount tube protection complied with. No chafing present; protective sleeves undamaged.
- Engine exceptionally clean and dry. No oil leaks observed anywhere.
- Oil cooler in excellent condition. Fire sleeved hoses appear nearly new.
- Exhaust system: muffler replaced as per logbooks; no active leaks. Old lead staining present only as historical residue.
- Cooling system: radiators in excellent condition, coolant clean. No evidence of past or current leaks.
- Fuel system: lines secure, pumps operational, filter serviceable. No leaks.

- Electrical: additional alternator installed per Tecnam Job Card, workmanship to high standard. Output confirmed during run-up.
- Engine Rubber Mounts: minor cracks noted on forward mounts (left > right). Serviceable, monitor for progression.
- Cowling intact, secure.



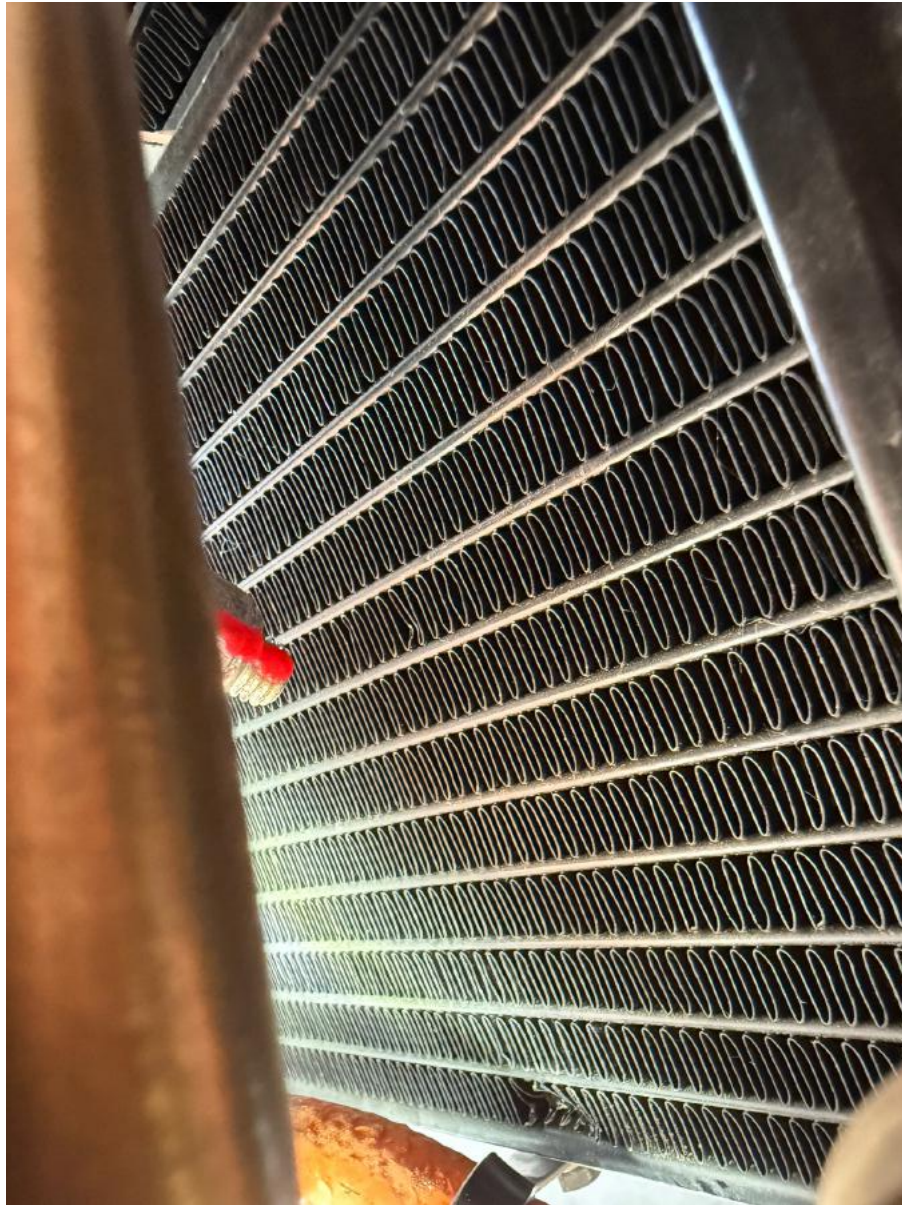


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Computer Diagnostics

- Full ECU/EngineBox diagnostic performed.
- No critical faults found in stored history.
- No evidence of overheating, over-torque, or major failures.
- Logged errors limited to low-voltage events and temporary sensor faults, not operationally significant.

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Airframe (Side Panels)

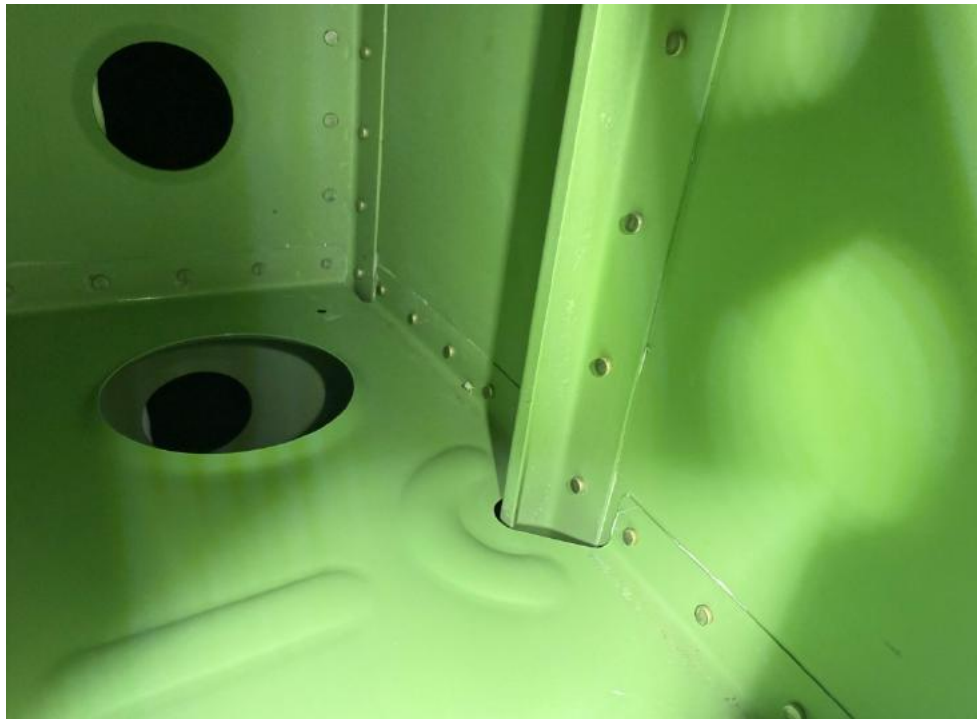
- Brake cylinders and lines inspected: dry, no leaks.
 - Avionics bay wiring factory-standard, no corrosion, no unauthorized modifications.
 - Ventilation duct hose on left side shows slight abrasion; replacement recommended in the near future.
 - No evidence of corrosion or structural repairs inside fuselage panels.
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Interior & Flight Controls

- Plastics excellent, windows clear, free of cracks (only minor cosmetic scuffs).
 - Seats: earlier-generation rails installed; per Tecnam AED, replacement is "on-condition." Current rails in good condition with no elongation of locking holes. Seats secure in all positions. Monitoring recommended.
 - Flight control system inspected with panels removed: rods, cables, pulleys, bellcranks lubricated. No wear, no corrosion.
 - Autopilot servos tested: free motion, no binding, fully operational.
 - Slight notchiness in control feel observed – consistent with fleet characteristics, not a defect.
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Wings & Fuel Tanks

- Exterior surfaces (left & right): excellent, no scratches, cracks, or dents.
 - Ailerons and flaps: free play within limits. Linkages properly lubricated, no looseness.
 - Internal structure: no corrosion or evidence of repairs.
 - Wet-wing fuel tanks inspected: sealant intact, no cracks.
 - Interiors clean, no corrosion or staining.
 - Fuel caps in excellent condition, seals tight.
 - Vents unobstructed.
 - Carbon fiber leading edges (both wings) free of cracks or abrasions.
 - Structural bolts and spar attachments inspected: tight, corrosion-free.
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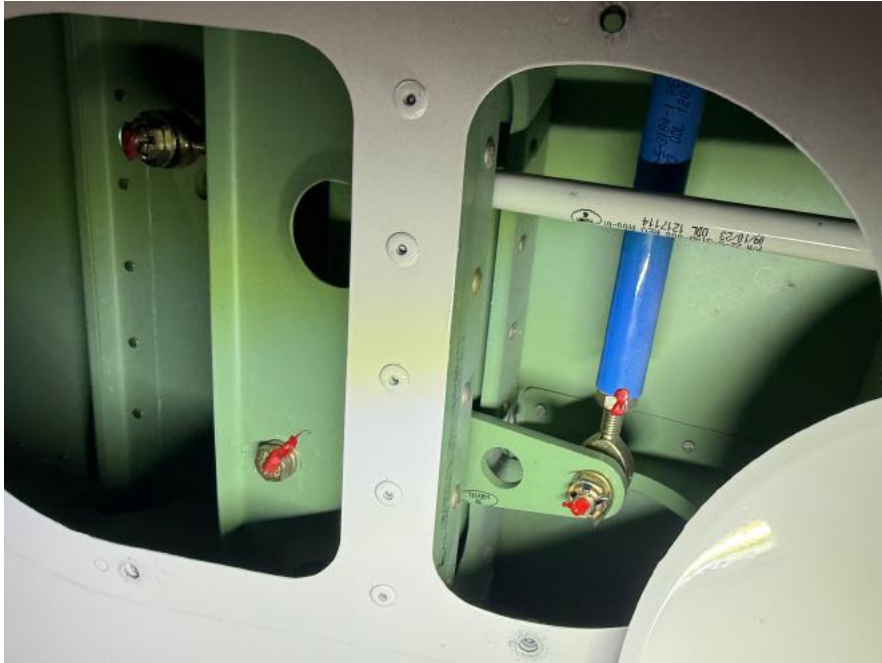


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Propeller & Governor

- Propeller blades excellent, no nicks or dents.
- Hub and blade roots free of leaks.
- Governor linkage tested – smooth operation, no leaks.
- Run-up confirmed full operational range.

Landing Gear & Brakes

- Nose Gear: replaced in full as per logbooks; excellent condition. No looseness. Elastomer discs serviceable.
- Main Gear: both struts inspected; no cracks, deformation, or looseness.
- Decorative plastic covers show micro-cracks; cosmetic only, no effect on airworthiness.
- Brakes: Beringer system, lines intact, no leaks. Brake pads ~60% remaining. Discs smooth.



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Control Cables & Linkages

- Control cables correctly tensioned. No slack, corrosion, or fraying.
- Elevator pushrod inspected: no wear.
- Pulleys and bell cranks lubricated, no abnormal play.



Empennage & Trim

- All-moving stabilizer: no cross-axis play. Hinges and linkages secure, lubricated.
- Trim connector relocation Job Card complied with; connector now protected from water ingress.
- Surfaces clean, no dents, scratches, or corrosion.
- Trim rods tight, no backlash.



Elevator Surface

Surface in excellent condition.

Cabin & Safety Equipment

- Cabin equipped with fire extinguisher, emergency hammer, and first aid kit.
 - ELT present, battery in date.
 - Seat belts and locks excellent.
 - Cabin plastics intact, no cracks.
 - Transparencies clear, only minor scuffs.
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Avionics & Electrical

- All avionics fully functional.
 - Radios, intercom, transponder/ADS-B tested – normal operation.
 - Navigation, strobe, landing, and taxi lights tested – operational.
 - Engine monitoring instruments accurate and responsive.
 - Alternator and charging system working within limits.
 - New ECU was installed under warranty by Rotax in February 2025
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Logbooks & Records

- Complete, continuous logbooks for airframe, engine, and propeller.
 - Entries neat, thorough, and carefully maintained.
 - All discrepancies (e.g. muffler, nose gear replacement) properly signed off.
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AD/SB Review

- All mandatory ADs completed.
 - All relevant Tecnam and Rotax Service Bulletins complied with.
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Conclusion

The Tecnam P-Mentor N223PM (S/N 1085US, TT 1998 hrs) presents in exceptional condition.

- Airframe, engine, and systems show minimal wear.
- Only minor findings noted (engine rubber mount cracks, seat rails of earlier generation, small cosmetic crack near rivet on elevator skin, slightly abraded duct hose). None are airworthiness-limiting.
- ECU diagnostics confirm no history of overheating, over-torque, or critical failures.
- Logbooks are complete, clear, and accurately maintained.
- All ADs and SBs complied with.

Overall Assessment:

Aircraft is very close to new in technical condition.

Recommendation: Highly recommended for purchase.