

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: N224PM

Serial Number: 1086

Total Time: 202.6 hours



AERO AFFINITY

921 Biscayne Blvd E20, DeLand, FL, 32724

Email: doma@aeroaffinity.com

Phone: +1 (386) 852-9988



AERO AFFINITY

921 Biscayne Blvd E20, DeLand, FL, 32724

Email: doma@aeroaffinity.com

Phone: +1 (386) 852-9988

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

- Cylinder walls show strong cross-hatch pattern, no scoring.
- Minor lead deposits consistent with Avgas.
- Valves and seats clean, geometry intact.
- Overall: condition close to ideal.

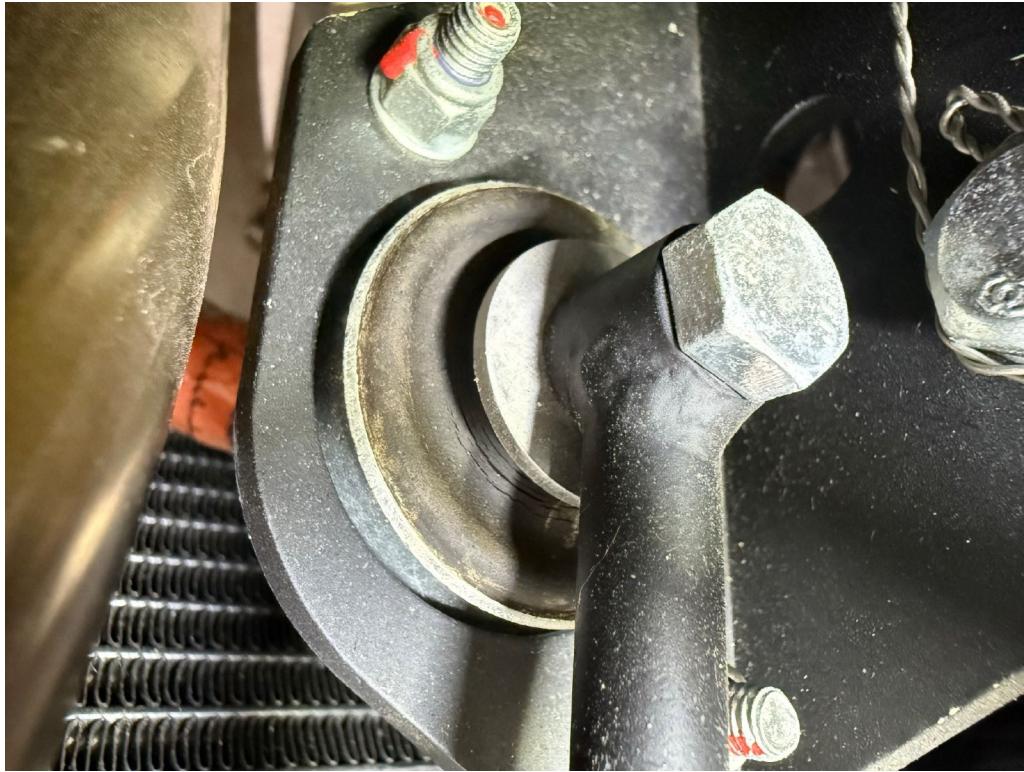
Spark Plugs

- Good condition, normal coloration, correct mixture indication.

Engine Bay & Systems

- Tecnam SB for engine mount tube protection complied with. No chafing or damage.
- Engine exceptionally clean and dry. Oil clear, filter not cut but no concerns.
- Oil cooler in excellent condition.
- Exhaust System: per logbooks, the **entire muffler assembly was replaced** due to leakage. Old white lead deposits remain but no active leaks. Current system in excellent condition.
- Cooling system: radiators excellent, coolant clean, thermostat confirmed.
- Fuel system: lines secure, no leaks, pump tested and operational.
- Alternator SB complied with, output normal at run-up.

- **Engine Rubber Mounts:** minor cracks observed (front, left more than right). Non-critical; monitor for progression.
- Cowling intact, fire-sleeved hoses nearly new.



Computer Diagnostics & Engine Data Logs

- Full digital diagnostic download performed from engine ECU, including complete operational history.
- Analysis shows **no critical errors recorded**.
- No evidence of engine overheating, over-revving, or exceedance of critical parameters.
- Logged errors limited to minor issues such as battery voltage drops and occasional sensor faults.
- Data confirms engine has been properly operated and not subjected to misuse or abnormal stress.

Airframe (Inspection via Side Panels)

- Brake cylinders and lines inspected: no leaks, excellent condition.
 - Instrument bay wiring secure, factory-standard, no modifications.
 - Corrosion-free, all properly routed.
-

Interior & Flight Controls

- Plastics excellent, windows clear with minor scuffs only.
 - SB on seat locking stops complied with; seat rails remain original type, no current issues but monitor long-term.
 - Flight control system inspected with panels removed: rods and linkages lubricated, no wear.
 - Slight "notchiness" in travel consistent with fleet characteristics, not a defect.
-

Wings & Fuel Tanks

- Wing structures and surfaces excellent, no corrosion inside cavities.
- Pushrods, bellcranks, linkages excellent, no play.
- Carbon fiber leading edges (both wings) excellent, no cracks or abrasions.
- Wet wing sealant pliable, intact, no leaks.
- Fuel tanks and ribs free of seepage.
- Right wing condition identical to left.
- Structural and connection bolts (wings and stabilizer) tight, corrosion-free.



Propeller & Governor

- Propeller in good condition, no leaks or surface damage.
 - Run-up verified proper operation, governor functional.
 - No oil leaks on hub, governor, or control linkages.
-

Landing Gear & Brakes

- **Nose Gear:** logbooks confirm complete replacement of nose gear assembly. No play or vibration. Elastomer discs in good condition.
 - Main gear: no cracks, looseness, or structural issues.
 - Brakes: Beringer system installed, lines intact, no leaks.
 - Brake pads approx. 60% remaining, discs smooth.
-

Control Cables & Linkages

- Tension correct, no slack.
- No corrosion or fraying.
- Elevator pushrod good, no wear.
- Pulleys, bellcranks lubricated, free of play.



Empennage & Trim System

- Trim connector relocation/insulation job card complied with.
- Stabilizer pivot inspected: no cross-axis play.
- Hinges, linkages, trim rods lubricated, no wear.
- Surfaces straight, no dents.
- Trim system tight, no backlash.



Elevator Surface

- Small hairline crack near a rivet on **right elevator skin**.
- Non-critical, no propagation.
- Remainder of surface excellent.
- Recommendation: monitor at future inspections.



Fuel System (External)

- Fuel caps and seals good.
 - Tank vents unobstructed.
 - Selector operational, tested at run-up.
 - No leaks anywhere, including electric fuel pump area.
-

Cabin & Safety Equipment

- Seat belts and locks excellent.
 - ELT present, battery in date.
 - Cabin fully equipped: fire extinguisher and emergency hammer present.
-

Avionics & Electrical

- All avionics functional at time of inspection.
 - Radios, intercom, transponder/ADS-B tested – normal operation.
 - Navigation and strobe/position lights operational.
 - Landing and taxi lights operational.
 - Engine monitoring instruments accurate and responsive.
 - Alternator and charging system working as expected.
-

Logbooks & Records

- Logbooks complete and continuous for airframe, engine, and propeller.
 - Entries detailed, properly maintained, and professionally signed.
 - All mandatory inspections and service actions documented.
 - Previous discrepancies (e.g., nose gear installation) fully corrected and signed off.
 - Record-keeping shows careful, accurate maintenance tracking.
-

AD/SB Review

- All applicable **Airworthiness Directives** complied with.
 - All relevant **Service Bulletins** (Tecnam and engine/propeller manufacturers) completed and current.
-

Conclusion

The Tecnam P-Mentor N224PM (S/N 1086US, TT 202.6 hrs) presents in **outstanding condition**, comparable to a near-new demonstration aircraft.

- Airframe, engine, and systems are exceptionally clean and well maintained.
- Engine diagnostics confirm no history of abuse, overheating, or critical exceedances.
- Logbooks are complete, accurate, and carefully maintained.
- All mandatory ADs and SBs are complied with.
- Minor items to monitor (engine rubber mounts, original seat rails, small rivet-area crack on right elevator) are noted but non-critical and expected under normal operation.

Overall Assessment:

This aircraft is essentially as close as possible to new in both condition and documentation.

Recommendation: Highly recommended for purchase.