

Piper PA-38 Tomahawk Model Guide

The Piper PA-38 Tomahawk is a two-seat, single-engine piston trainer built from 1978 to 1982. It has a 112 hp Lycoming O-235 four-cylinder engine and a fixed-pitch Sensenich propeller. The handbook is FAA approved in the Normal and Utility categories. The source material is mostly maintenance and accident information, so a buyer should focus on airworthiness directives, takeoff performance and spin awareness.

KEY TAKEAWAYS

- The Piper PA-38 Tomahawk seats two. It is powered by a 112 hp Lycoming O-235-L2C (Slick magnetos) or O-235-L2A (Bendix magnetos) at 2600 rpm, with a fixed-pitch propeller.
- Maximum takeoff weight and maximum landing weight are both 1670 lbs in the Normal and Utility categories. Baggage is limited to 100 lbs.
- Piper Service Bulletin 1284B lists all PA-38-112 aircraft. It requires compliance with Lycoming SB 622A on Slick magnetos at the next maintenance event, not to exceed 50 hours.
- Fatigue life limits apply to the vertical fin forward spar attachment plate (Piper P/N 77553-05). Check the serial number and whether Piper Kit 764421 is installed.
- Several accident reports involve poor takeoff performance from short or grass strips, an engine failure after a magneto fault, and a spin during slow-flight training.

WHAT IT IS AND WHAT IT CARRIES

The Piper PA-38 Tomahawk was built from 1978 to 1982 and seats two. Its engine is a four-cylinder, air-cooled Lycoming O-235-L2C (Slick magnetos) or O-235-L2A (Bendix magnetos). It is rated at 112 hp at 2600 rpm, displaces 233.3 cubic inches and has an 8.5:1 compression ratio. The propeller is a fixed-pitch Sensenich 72CK-0-56, 72 in maximum and 70 in minimum diameter. Maximum takeoff weight and landing weight are 1670 lbs, and the baggage compartment is limited to 100 lbs. Fuel is 100/130 green, with 100LL blue listed as an alternate. Use the empty weight and useful load in the individual airplane's weight and balance records, because the handbook says standard values vary from one aircraft to another.

TAKEOFF PERFORMANCE CAUTIONS

The recommended rotation speed in the handbook is 53 kt for a normal or short-field takeoff, with one notch of flap (21 degrees) for short or soft fields. One UK report (G-BTOD) describes a departure at about maximum takeoff weight (1,670 lb) from a damp grass runway with a takeoff run available of 490 metres. The aircraft failed to accelerate and the pilot lifted off close to a hedge. Another report (G-OLFC) notes that a CAA change sheet to the handbook says to add 5% to takeoff field lengths. A third (G-RVRG) describes an aircraft that left a hump in a grass runway at 53 kt, did not accelerate and climb, and stalled at about 50 feet. Plan grass and short-field departures with margin.

AIRWORTHINESS DIRECTIVES AND BULLETINS TO CHECK

The Australian AD/PA-38/21 Amdt 1 sets replacement life limits for the vertical fin forward spar attachment plate (P/N 77553-05). For S/N 38-81A0001 to 38-82A0101 without Piper Kit 764421, the limit is 3000 hours time in service. With the kit, or on S/N 38-82A0102 to 38-82A0122, it is 5000 hours. The New Zealand CAA AD schedule lists 26 items for the type, including the aft fuselage, rudder hinges, control wheel, engine mount, main landing gear attachment, wing skin, throttle control, oil pressure line fitting, and gascolator valve. Confirm the status of each AD against the aircraft's logbooks. Also confirm that Piper SB 1284B (Slick magneto bulletin) has been complied with.

PRE-PURCHASE AND PREFLIGHT POINTS

A club preflight checklist for the type includes checking brake fluid, oil level (club checklist: minimum 4, maximum 5), the alternator belt, the fuel strainers and sumps, the nose gear, and the flow strips on the wings. It also includes the

SPECIFICATIONS

Seats	2
Engine Model	Lycoming O-235-L2C or O-235-L2A
Engine Power Hp	112
Propeller Model	Sensenich 72CK-0-56
Propeller Diameter Max In	72
Propeller Diameter Min In	70
Min Turning Radius Ft	26

V-SPEEDS

Rotation Speed Kts	53
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WEIGHT & BALANCE

Max Takeoff Weight Lbs	1670
Max Landing Weight Lbs	1670
Max Baggage Lbs	100

SAFETY NOTES

- Spin risk: the G-BODP accident involved a spin during slow-flight training at an estimated 2,000 to 3,000 ft. The May 2012 handbook revision added advice on the altitudes at which slow flight and stall manoeuvres should be started.
- Magneto faults: in the G-BGBN accident the engine ran roughly after a magneto problem and failed after takeoff. Do not accept an unresolved magneto drop on the run-up check.
- Takeoff performance: add the 5% field-length margin from the CAA change sheet where it applies, and allow extra distance for grass, damp surfaces and obstacles.
- Comply with Piper SB 1284B (Lycoming SB 622A) on Slick magnetos by the next maintenance event, not to exceed 50 hours.

pitot tube holes, the stabilator and rudder, and the door latches. Check the handbook revision status: the handbook was issued January 20, 1978 and revised May 2, 2012, and it must be kept current. Ask for the engine history, especially magneto condition and the maintenance records for the airworthiness directives.

AI-aggregated guide for the Piper PA-38 Tomahawk · sources: TOMAHAWK PILOT'S OPERATING HANDBOOK AND FAA APPROVED AIRPLANE FLIGHT MANUAL (#11985) · V-Speeds Reference for the Piper PA-38 Tomahawk (#12016) · SERVICE BULLETIN NO. 1284B (#9362) · AIRWORTHINESS DIRECTIVE AD/PA-38/21 Amdt 1 (#11994) · Airworthiness Directive Schedule (#12003) · AAIB Bulletin: 9/2007 G-OLFC EW/G2007/06/14 (#11988) · AAIB Bulletin: 7/2013 (#11990) · AAIB Bulletin: 3/2014 G-BGBN EW/C2013/06/01 (#11997) · AAIB Bulletin: 7/2009 G-RVRG EW/C2008/07/03 (#12005) · AAIB Bulletin No: 4/2003 Ref: EW/G2002/11/07 (#12012) · PA38-112 PIPER TOMAHAWK PREFLIGHT (#11992) · generated 2026-10-14 · Reference only, not for flight. Check the original documents before relying on this guide.