AGUSTA A109A II Model Guide

The AGUSTA A109A II is a helicopter in the Agusta A109 family. Its service documents name two Allison/Rolls-Royce 250-C20B or 250-C20R/1 engines. The library row calls it piston, but the documents and the family registry data point to turboshaft power. The documents give no variant-specific payload or performance figures. The main buyer issue in them is a third-stage turbine wheel limitation.

KEY TAKEAWAYS

- Family data for the A109 line: up to 8 passengers, 360 nm range, 126 kt cruise, 20,000 ft ceiling. Not confirmed for this variant.
- Engines are Allison/Rolls-Royce 250-C20B or 250-C20R/1. Check the logbook for third-stage turbine wheel P/N 23065833.
- Wheel P/N 23065833 carries N2 limits: minimum 97% continuous and 95% transient. It must be scrapped at the next turbine overhaul.
- Ask for proof of BT 109-129 compliance and any logged steady-state N2 avoidance-range time.

TURBINE WHEEL N2 LIMITATION

Agusta BT 109-129 (Feb 16, 2009) covers A109A, A109AII and A109C aircraft whose engines have third-stage wheel P/N 23065833. It requires a panel decal reading MIN. CONT. 97% N2 - MIN. TRANS. 95% N2. It also requires a Flight Manual limitations page. Avoid steady-state running in the 95-97% N2 range for more than 60 seconds.

ROLLS-ROYCE ENGINE BULLETIN (CEB A-1400 REV 3)

For the A109 (all models), the wheel needs a steady-state N2 avoidance range of 85.0-97.0%. A calibration check of the N2 indication system narrows it to 87-95%. Any time spent in the range must be logged. More than 60 seconds in total means the turbine unit comes out of service and the wheel is scrapped.

RECORDS AND COST TO CHECK

The wheel P/N is recorded in the engine logbook, Turbine Assembly (pink pages), Assembly Record, Part V. At turbine overhaul the wheel is replaced by a P/N 23001967 swap or an upgrade to the enhanced P/N 23065818 design. The upgrade needs new 3rd and 4th stage wheels and nozzles.

SAFETY NOTES

- Steady-state operation in the 95-97% N2 range for more than 60 seconds, single or cumulative, is to be avoided on affected engines.
- Engines with wheel P/N 23065833 used in an A109 must not be re-used in any other application without scrapping the wheel.
- Ask the seller to show the wheel part numbers and the logbook entries for any time in the avoidance range.

AI-aggregated guide for the AGUSTA A109A II · sources: Bollettino Tecnico N° 109-129 (#100029) · Instructions for Continued Airworthiness (#102797) · generated 2026-11-24 · Reference only, not for flight. Check the original documents before relying on this guide.