AGUSTA A119 MK II KOALA Model Guide

AGUSTA A119 MK II KOALA is listed in the library as a single-engine piston type, but registry data for the A119 family says turboshaft, so confirm the engine against the aircraft records. Family-level maxima: up to 9 passengers, 135 kt cruise, 350 nm range, 18500 ft ceiling, 2800 kg MTOW. The only document supplied is the Air Comm air conditioner service manual, so this guide mostly covers the cooling system.

KEY TAKEAWAYS

- A119 family data: up to 9 passengers, 135 kt cruise and 350 nm range. These are not confirmed for this exact variant.
- The Air Comm air conditioner (STC SR00463DE) fits the A119 and AW119 MKII. Service Bulletin SB A119-306 makes its maintenance manual mandatory.
- A blower failure reduces cooling but is no safety-of-flight issue. Compressor isolator mounts must be replaced every two years.
- The system holds 2.5 lbs of R134a and 8.0 fl oz of polyester oil. PAG or mineral oil damages the compressor.

HOW THE AIR CONDITIONING WORKS

A vapor-cycle system with a forward (cockpit) evaporator, an aft evaporator above the cabin and a condenser below the baggage floor. The compressor is belt-driven from the fan drive shaft aft of the aft main transmission. It works with engines running, on the ground and in flight. A binary switch protects against over- and under-pressure and stops operation below 50°F.

INSPECTION AND WEAR ITEMS

Check the compressor drive belt for tension, glazing, cracks and exposed fibers. Check the compressor mount for cracks (none allowed) and the plumbing for oil or refrigerant leaks. Blower motor TBO is 500 hrs for standard units and 1000 hrs for high-output units, though running to failure is acceptable. Kit serial numbers 28 thru 46 are standard, 47 thru 89 high output, and 90 onward use S-6501EC-3 blowers.

SERVICING AND LEAK CONTROL

The system must be leak free, because running on low charge shortens compressor life. Use an electronic leak detector. Use HSN O-rings, and replace them if a fitting still leaks. About one ounce per year of leakage past the compressor shaft seal is normal. Charge by weight where possible, using 2.5 lbs of R134a.

SAFETY NOTES

- Wear safety goggles when servicing the refrigerant system. If liquid refrigerant touches skin or eyes, seek medical attention immediately.
- Never weld, use a flame-type leak detector, torch or steam clean near the refrigerant supply tank. Do not use compressed air for leak checks.
- When charging with the compressor running, use the Lo (blue) port only. Do not open the Hi (red) valve while the system operates.

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