

DIAMOND DA40 Model Guide

The DIAMOND DA40 is a single-engine piston aircraft from Diamond Aircraft. The registry family covers the DA 40, DA 40 NG and DA 40F. The supplied documents describe Lycoming-powered DA 40 and DA 40 F airplanes and diesel-powered DA 40 D / NG airplanes (TAE engines). Many have Garmin G1000 avionics. Limits differ by variant, so confirm exactly which one you are buying.

KEY TAKEAWAYS

- Family-level maxima across DA 40, DA 40 NG and DA 40F: up to 590 nm range, 127 kt cruise, 16000 ft service ceiling. Not figures for one variant.
- DA 40 NG briefing: max takeoff 1310 kg, max landing 1216 kg, baggage up to 45 kg (max 18 kg in the aft compartment).
- DA 40 NG speeds (KIAS): VNO 130, VNE 172, VFE 110 (takeoff flaps) and 98 (landing flaps). Stall is 66 KIAS at 1310 kg.
- Mandatory bulletin MSB 40NG-064 Rev. 3 requires replacing certain fuel tank interconnect hoses on the DA 40 NG at the next 100 flight hour check.

VARIANTS AND ENGINES

The maintenance manual covers the DA 40 (Lycoming IO-360-M1A), DA 40 D (TAE diesel) and DA 40 F (Lycoming O-360-A4M). Checklists exist for the DA40-180 G1000, DA40 TDI, DA40 NG and DA40 NG NXi. The G1000 supplement covers the DA 40 and DA 40 F. Jet fuel is heavier than avgas: 0,8 versus 0,72 kg per litre.

WEIGHTS AND PAPERWORK

The AFM carries temporary revisions that override the manual. Two are TR-MAM-40-227 (1200 kg maximum take-off mass) and TR-MAM-40-123/d (1150 kg maximum landing mass). Check which ones apply to the airframe. The AFM introduction is Revision 5 (09-Sep-2001). It says second-hand owners should give Diamond their address to receive current publications.

PREFLIGHT POINTS TO CHECK

The DA40-180 checklist calls for main tire pressure of 2,5 bar and nose tire pressure of 2,0 bar. It also calls for engine oil of at least 5 qts, fuel sump and strainer drains, a stall warning check and a pitot heat check. The DA40 NG checklist adds an alert for low fuel temperature, below -25°C.

PERFORMANCE

Family Max Range Nm	590
Family Max Cruise Speed Kt	127
Family Max Service Ceiling Ft	16000

V-SPEEDS

Vno Kt	130
Vne Kt	172
Vfe Takeoff Flaps Kt	110
Vfe Landing Flaps Kt	98
Stall Speed 1000kg Kt	58
Stall Speed 1310kg Kt	66

WEIGHT & BALANCE

Max Takeoff Weight Kg	1310
Max Landing Weight Kg	1216
Max Baggage Kg	45
Max Aft Baggage Kg	18

SAFETY NOTES

- MSB 40NG-064 Rev. 3: S/N 40.NC007 through 40.NC053 and 40.N345 through 40.N375 need checking. If hose origin is unknown, replace the fuel tank hoses.
- The Diamond Flight Training checklists are reference only and do not replace the Airplane Flight Manual or its supplements.