

Cessna 152 Model Guide

The Cessna 152 is a two-seat, single-engine piston trainer built from 1978 to 1985. It has fixed tricycle gear and a 110 hp Avco Lycoming engine (O-235-L2C) driving a fixed-pitch propeller. Maximum takeoff weight is 1670 lbs, and it cruises at about 107 knots. It suits a buyer who wants a simple, economical two-seater for training or local flying. It is not a heavy hauler. The Cessna 152 has known inspection items on the tail and flap actuators, so buy it with a records and airworthiness-directive review.

KEY TAKEAWAYS

- The Cessna 152 carries two people and a limited load. The 1980 handbook gives a maximum useful load of 566 lbs for the standard 152 and 533 lbs for the 152 II. Baggage is limited to 120 lbs.
- Handbook performance is 715 fpm rate of climb at sea level, a 14,700 ft service ceiling, and a 725 ft takeoff ground roll. Cruise at 75% power at 8000 ft is 107 knots.
- Fuel is 24.5 gallons usable in the standard tanks. The handbook lists a 39 gallon long-range option. Approved fuels are 100LL and 100.
- Check airworthiness-directive compliance. The NZ schedule for Cessna 150 and 152 series lists items such as the rudder spar, flap actuator, exhaust and muffler, nose gear fork, seat frame and vertical fin attachments.
- Vertical fin fittings are prone to cracking, and replacing both together is recommended. Confirm their condition and the related nutplate inspection before purchase.

WHAT YOU ARE BUYING

The Cessna 152 was built from 1978 to 1985 as a two-seat piston single. The engine is a four-cylinder, air-cooled, carburetted Avco Lycoming O-235-L2C rated at 110 BHP at 2550 RPM. The propeller is a two-blade, fixed-pitch McCauley with a 69 inch maximum diameter. The gear is fixed tricycle with a steerable nosewheel and hydraulic single-disk brakes. Standard empty weight in the handbook is 1109 lbs for the 152 and 1142 lbs for the 152 II. Wing area is 159 1/2 square feet. Some aircraft may be modified under STC SA4795SW (Del-Air), which allows a Lycoming O-360 or O-320 engine and a higher gross weight, so check the installed engine and paperwork.

PERFORMANCE AND RANGE

The 1980 handbook lists a maximum speed at sea level of 110 knots and a 75% power cruise at 8000 ft of 107 knots. The figures are for an airplane with optional speed fairings, which add about 2 knots. With 24.5 gallons usable, range at 75% power is 320 NM (3.1 hours). With 37.5 gallons usable it is 545 NM (5.2 hours). Maximum range at 10,000 ft is 415 NM with 24.5 gallons and 690 NM with 37.5 gallons. Rate of climb is 715 fpm and service ceiling is 14,700 ft. Takeoff takes 725 ft ground roll and 1340 ft over a 50 ft obstacle. Landing takes 475 ft ground roll and 1200 ft over a 50 ft obstacle. Stall speed (CAS) is 48 knots flaps up and 43 knots flaps down.

LOADING AND WEIGHT AND BALANCE

Maximum takeoff and landing weight is 1670 lbs and maximum ramp weight is 1675 lbs. Baggage area 1 holds up to 120 lbs. Area 2 holds up to 40 lbs, and the two areas together are limited to 120 lbs. Fuel is calculated at 6 lbs per gallon, with 24.5 gallons usable in standard tanks. Always use the aircraft's own current empty weight and moment. The sample weight and balance sheet for N49827 uses a basic empty weight of 1173 lbs, and the dealer data sheet shows individual aircraft at 1171.9 lbs and 1141.8 lbs. Empty weights differ from airplane to airplane, so a heavy empty weight directly cuts what you can carry.

WHAT TO INSPECT

Ask for the airworthiness-directive compliance list. The NZ CAA schedule for the 150 and 152 series includes rudder spar inspection and modification, landing gear bulkhead inspection, flap actuator and ball nut assembly items, exhaust and muffler inspection, nose gear fork inspection and modification, seat frame modification, vertical fin attachment inspection and fuel cap

SPECIFICATIONS

Engine Hp	110
Engine Model	Avco Lycoming O-235-L2C
Propeller Diameter Inches	69
Total Fuel Gal	26
Usable Fuel Gal	24.5

PERFORMANCE

Max Speed Kts	110
Cruise Speed Kts	107
Rate Of Climb Fpm	715
Service Ceiling Ft	14700
Takeoff Ground Roll Ft	725
Takeoff Distance Over 50ft Ft	1340
Landing Ground Roll Ft	475
Landing Distance Over 50ft Ft	1200
Range Nm	320
Max Range Nm	415

V-SPEEDS

Best Glide Kts	60
Vso Kts	35
Vs1 Kts	40
Vr Kts	50
Vx Kts	55
Vy Kts	67
Va Kts	104
Vfe Kts	85
Vno Kts	111
Vne Kts	149
Demonstrated Crosswind Kts	12

WEIGHT & BALANCE

Max Takeoff Weight Lbs	1670
Max Ramp Weight Lbs	1675
Standard Empty Weight Lbs	1109
Max Useful Load Lbs	566
Baggage Allowance Lbs	120
Baggage Area 2 Max Lbs	40

SAFETY NOTES

- The handbook copy in the inputs (1980 model, dated 1 July 1979) is marked for flight training reference only and is not kept current. Use the official handbook for the specific airplane.
- Emergency procedures list best glide at 60 KIAS. For an emergency landing the checklist calls for a MAYDAY on 121.5 and squawk 7700.
- For an engine fire in flight, the checklist sets mixture to idle cut-off, fuel selector off and master switch off. Practise these steps before flying the airplane.

modification. The McFarlane service document says the vertical fin fittings are prone to cracking at the aft outer leg-base interface because of cyclic loading, and recommends replacing both fittings if one needs replacing. It also points to the nutplate inspection in Cessna Service Letter SE79-49 Revision 1. PMA airbox seal assemblies are available for the 152. Look at the airbox seals, the tail fittings and the flap system first.

- Do not exceed 1670 lbs at takeoff. Keep baggage within 120 lbs combined, with no more than 40 lbs in area 2.