

CESSNA CARAVAN 208 FLOATPLANE Model Guide

The CESSNA CARAVAN 208 FLOATPLANE is a single-engine turboprop utility aircraft on Wipaire 8750 amphibious/seaplane floats. The library data lists a maximum takeoff weight of 8750 lbs, an empty weight of 5585 lbs and a useful load of 3200 lbs. The type certificate data sheet gives the engine as a 675 shp Pratt & Whitney PT6A-114A. The fixed-wing Model 208 is certificated for 11 passengers (11 PCLM / 11 PCSM). This guide uses the library figures and the supporting documents. It does not give model years or seat counts, because the inputs have none.

KEY TAKEAWAYS

- Library data gives 8750 lbs maximum takeoff weight, 5585 lbs empty weight and 3200 lbs useful load. The useful load is not exactly maximum takeoff weight minus empty weight, so confirm the real weight and balance of the specific airplane.
- Library performance figures: 159 kts max speed, 939 fpm rate of climb, 1431 ft takeoff distance and 2422 ft to clear 50 ft. Range is 875 nm.
- The library row lists a TPE331-12JR engine. The type certificate data sheet lists PT6A-114 and PT6A-114A engines. Verify the installed engine and propeller in the logbooks and the data plate.
- Amphibian-specific limits apply: maneuvering speed is 141 KIAS at 7600 lbs, with its own CG envelope. Check which POH supplement and float STC apply to the airplane.
- An ATSB investigation of a Caravan amphibian accident found that the float POH supplement's engine limits were inconsistent with other publications. Make sure the airplane carries the current supplement.

WEIGHTS, SIZE AND PERFORMANCE (LIBRARY DATA)

Maximum takeoff weight is 8750 lbs. Empty weight is 5585 lbs and useful load is 3200 lbs. Dimensions are 38.08 ft long, 52.08 ft wingspan and 17.58 ft high. Engine power is listed at 675 hp, with a McCauley 3GFR34C703-B propeller. Listed performance is 159 kts max speed, 939 fpm climb, 1431 ft takeoff distance, 2422 ft over a 50 ft obstacle, and 875 nm range. The inputs do not say what conditions these figures assume, so do not treat them as guaranteed for your loading and water conditions.

CERTIFICATION LIMITS (TYPE CERTIFICATE DATA SHEET A37CE)

The PT6A-114A is rated at 675 shp for S/N 20800277 and on, and the earlier PT6A-114 at 600 shp. The sheet shows a McCauley three-blade, constant-speed, full-feathering reversible propeller for S/N 20800001 and on. Vmo is 175 KIAS. Flap limit speeds are 175 KIAS to 10 degrees, 150 KIAS from 10 to 20 degrees, and 125 KIAS from 20 to 30 degrees. For amphibian S/N 20800014 and on, Va is 141 KIAS at 7600 lbs. The amphibian takeoff and flight CG range is 172.83 to 182.68 at 7600 lbs and 165.47 to 182.68 at 5200 lbs, with a straight-line variation between the two. Landing CG is 171.91 to 182.68 at 7300 lbs.

FLOAT SYSTEM INSPECTION (WIPAIRE 8750 ICA)

The Wipaire 8750 amphibious/seaplane float manual covers the 208 and 208B. Its chapters cover nose gear, main gear and brakes, gear retraction, hydraulics, water rudder, electrical, TKS-equipped aircraft requirements, inspection checklists and troubleshooting. Its revision log shows added corrosion limits, oil bath wheel information, a note about leaking fluid in the main gear oleo, and updated bolt torque tables. Ask for records showing the float checklists were done at current revision. Inspect the oleos, water rudder, hydraulic system and corrosion condition closely.

INTERIOR AND MODIFICATIONS

A Wipaire executive interior STC allows up to eight passenger seats in 15 approved seating configurations. Configuration -1 has four club seats and a divan cabinet with two additional seats on top. Verify any installed interior against the approved drawing and the current weight and balance. A rudder gust lock kit is also covered by an ICA, which includes a weight and balance step.

SPECIFICATIONS

Range Nm	875
Engine Hp	675
Length Ft	38.08
Wingspan Ft	52.08
Height Ft	17.58
Max Speed Kts	159

PERFORMANCE

Rate Of Climb Fpm	939
Takeoff Distance Ft	1431
Takeoff Over 50ft Ft	2422
Max Speed Kts	159
Range Nm	875

V-SPEEDS

Vmo Kts	175
Va Amphibian Kts	141
Vfe To 10 Deg Kts	175
Vfe 10 To 20 Deg Kts	150
Vfe 20 To 30 Deg Kts	125

WEIGHT & BALANCE

Max Takeoff Weight Lbs	8750
Empty Weight Lbs	5585
Useful Load Lbs	3200

SAFETY NOTES

- ATSB report AO-2016-007: a Caravan amphibian carrying 10 passengers bounced three times on a water landing, then clipped trees during a go-around and was destroyed. The pilot and passengers exited with minor injuries.
- The ATSB found the aircraft was flown beyond the landing area boundary before the first bounce, and the go-around was delayed. It also found the float POH supplement's engine limits were inconsistent with other publications. The supplement has since been amended.
- Brief and decide on a go-around early, and know the engine limits in the current POH supplement before water operations.

Check that the logbook and weight and balance reflect any such kit installed or removed.