Data Sheet - Cessna 182

Weights

Aircraft Number	Empty Weight	Empty Moment	Useful Load
294MA	1912.8 lbs.	71,303	1187.2 lbs.

Maximum Weights	Normal
Ramp Weight	3110 lbs.
Takeoff Weight	3100 lbs.
Landing Weight	2950 lbs.
Baggage Weight	200 lbs.
Area A	120 lbs.
Area B	80 lbs.
Area C	80 lbs.

Powerplant

Engine: Lycoming IO-540, 230BHP @ 2400 RPM. Six cylinders, direct drive, horizontally opposed, air cooled, fuel-injected.

Oil:		
	Full	8 qt.
	Min. for Local Flight	6 qt.
	Min. for X-Country	7 qt.
	Grade and Type	Summer - 100W50 wt.
		Winter - 65W30 wt.

Fuel System

Fuel:		
	Approved Grades	100LL (blue), 100 (green)
	Total Fuel	92.0 Gal.
	Total Usable	88.0 Gal.

System Description: The airplane is equipped with a standard fuel system consisting of two vented fuel tanks, a fuel tank selector valve, fuel strainer, and auxiliary fuel pump. Fuel flows by gravity from one or both tanks to the fuel selector, through a fuel strainer to the injector manifold. From the injector manifold, the fuel flows to the cylinders and is mixed with air at the intake port. The fuel selector should be in the BOTH position for takeoff, climb, descent, landing, and maneuvers that involve prolonged slips or skids. Operation from either the LEFT or RIGHT position is reserved for level cruising flight only.

Landing Gear and Brakes

System Description: Landing gear is fixed in the tricycle configuration with a steerable nosewheel. Nosewheel is steerable through a 11 degree arc each side of center. Differential braking increases the turning arc to 29 degrees each side of center. Nose strut is an air-oil type shock. Each main gear is equipped with a hydraulically activated single disk brake on the inboard side of each wheel.

Tire Inflation: Mains 42 psi.
Nose 49 psi.

Electrical System

Alternator - 28 volt, 60 ampere
Battery- 24 volt

System Description: Power is supplied to most general electrical items through a split primary bus bar, with an essential bus wired between the two primaries to provide power for the master switch and annunciator circuits. Each primary bus bar is also connected to an avionics bus bar via a single avionics power switch. The avionics power switch should be turned off prior to starting the engine to prevent harmful transient voltages from damaging the avionics equipment. The ammeter shows a charge or discharge on the battery and should remain at or near the zero indication after a brief charging period.

Pitot-Static System

System Description: The system is standard with a heated pitot head under the left wing and two static ports on either side of the nose cowling. The alternate static source is located on the panel above the throttle and supplies static pressure from inside the cockpit.

Speeds

BEST GLIDE SPEED	75 KIAS	
Stall in landing configuration	Vso	36 KIAS
Stall in cruise configuration	Vs1	43 KIAS
Rotate Speed	Vr	65 KIAS
Best angle of climb	Vx	63 KIAS
Best rate of climb	Vy	80 KIAS
Maneuvering Speed	Va	
	2000 lbs.	88 KIAS
	3100 lbs.	110 KIAS
Flaps extended	Vfe	
	0-10°	140 KIAS
	10-20°	120 KIAS
	20-30°	100 KIAS

Max. Structural Cruising Speed	Vno	140 KIAS
Enroute Climb Speed		85-95 KIAS
Approach Speed		60-70 KIAS
Never Exceed	Vne	175 KIAS
Demonstrated Crosswind Component		15 knots