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Many portions were omitted for brevity.

PERFORMANCE - SPECIFICATIONS

SPEED:			
Maximum at 20,000 Ft	.....	187	KNOTS
Cruise, 75% Power at 20,000 Ft	.....	173	KNOTS
Cruise, 75% Power at 10,000 Ft	.....	158	KNOTS
CRUISE: Recommended lean mixture with fuel allowance for engine start, taxi, takeoff, climb and 45 minutes reserve at 45% power.			
75% Power at 20,000 Ft	.....	Range	875 NM
88 Gallons Usable Fuel	.....	Time	5.3 HRS
75% Power at 10,000 Ft	.....	Range	845 NM
88 Gallons Usable Fuel	.....	Time	5.4 HRS
Maximum Range at 20,000 Ft	.....	Range	1010 NM
88 Gallons Usable Fuel	.....	Time	8.1 HRS
Maximum Range at 10,000 Ft	.....	Range	1030 NM
88 Gallons Usable Fuel	.....	Time	8.5 HRS
RATE OF CLIMB AT SEA LEVEL	.....		1040 FPM
CERTIFICATED MAXIMUM OPERATING ALTITUDE	.....		20,000 FT
TAKEOFF PERFORMANCE:			
Ground Roll	.....		820 FT
Total Distance Over 50-Ft Obstacle	.....		1570 FT
LANDING PERFORMANCE:			
Ground Roll	.....		600 FT
Total Distance Over 50-Ft Obstacle	.....		1320 FT
STALL SPEED (CAS):			
Flaps Up, Power Off	.....		54 KNOTS
Flaps Down, Power Off	.....		50 KNOTS
MAXIMUM WEIGHT:			
Ramp	.....		3112 LBS
Takeoff or Landing	.....		3100 LBS
STANDARD EMPTY WEIGHT:			
Turbo Skylane RG	.....		1764 LBS
Turbo Skylane RG II	.....		1815 LBS
MAXIMUM USEFUL LOAD:			
Turbo Skylane RG	.....		1348 LBS
Turbo Skylane RG II	.....		1297 LBS
BAGGAGE ALLOWANCE			
	.....		200 LBS
WING LOADING: Pounds/Sq Ft			
	.....		17.8
POWER LOADING: Pounds/HP			
	.....		13.2
FUEL CAPACITY: Total			
	.....		92 GAL
OIL CAPACITY			
	.....		9 QTS
ENGINE: Turbocharged Avco Lycoming			
	.....		O-540-L3C5D
	.....		235 BHP at 2400 RPM
PROPELLER: Constant Speed, Diameter			
	.....		82 IN

■ Performance with an optional 3-bladed propeller is essentially the same as shown above.

INTRODUCTION

This handbook contains 9 sections, and includes the material required to be furnished to the pilot by CAR Part 3. It also contains supplemental data supplied by Cessna Aircraft Company.

Section 1 provides basic data and information of general interest. It also contains definitions or explanations of symbols, abbreviations, and terminology commonly used.

DESCRIPTIVE DATA

ENGINE

Number of Engines: 1.

Engine Manufacturer: Avco Lycoming.

Engine Model Number: O-540-L3C5D.

Engine Type: Turbocharged, direct-drive, air-cooled, horizontally-opposed, carburetor equipped, six-cylinder engine with 541.5 cu. in. displacement.

Horsepower Rating and Engine Speed: 235 rated BHP at 31 inches Hg and 2400 RPM.

PROPELLER (2-BLADED)

Propeller Manufacturer: McCauley Accessory Division.

Propeller Model Number: B2D34C217/90DHB-8.

Number of Blades: 2.

Propeller Diameter, Maximum: 82 inches.

Minimum: 80.5 inches.

Propeller Type: Constant speed and hydraulically actuated, with a low pitch setting of 15.8° and a high pitch setting of 31.9° (30 inch station).

PROPELLER (3-BLADED)

Propeller Manufacturer: McCauley Accessory Division.

Propeller Model Number: B3D32C407/82NDA-3.

Number of Blades: 3.

Propeller Diameter, Maximum: 79 inches.

Minimum: 78 inches.

Propeller Type: Constant speed and hydraulically actuated, with a low pitch setting of 16.0° and a high pitch setting of 31.7° (30 inch station).

FUEL

Approved Fuel Grades (and Colors):

100LL Grade Aviation Fuel (Blue).

100 (Formerly 100/130) Grade Aviation Fuel (Green).

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Revision 3 - 10 February 1981

SECTION 1
GENERAL

CESSNA
MODEL TR182

Total Capacity: 92 gallons.
Total Capacity Each Tank: 46 gallons.
Total Usable: 88 gallons.

NOTE

To ensure maximum fuel capacity when refueling and minimize cross-feeding when parked on a sloping surface, place the fuel selector valve in either LEFT or RIGHT position.

OIL

Oil Grade (Specification):

MIL-L-6082 Aviation Grade Straight Mineral Oil: Use to replenish supply during first 25 hours and at the first 25-hour oil change. Continue to use until a total of 50 hours has accumulated or oil consumption has stabilized.

NOTE

The airplane was delivered from the factory with a corrosion preventive aircraft engine oil. This oil should be drained after the first 25 hours of operation.

MIL-L-22851 Ashless Dispersant Oil: This oil **must be used** after first 50 hours or oil consumption has stabilized.

Recommended Viscosity For Temperature Range:

MIL-L-6082 Aviation Grade Straight Mineral Oil:

SAE 50 above 16°C (60°F).
SAE 40 between -1°C (30°F) and 32°C (90°F).
SAE 30 between -18°C (0°F) and 21°C (70°F).
SAE 20 below -12°C (10°F).

MIL-L-22851 Ashless Dispersant Oil:

SAE 40 or SAE 50 above 16°C (60°F).
SAE 40 between -1°C (30°F) and 32°C (90°F).
SAE 30 or SAE 40 between -18°C (0°F) and 21°C (70°F).
SAE 30 below -12°C (10°F).

Oil Capacity:

Sump: 8 Quarts.
Total: 9 Quarts.

CESSNA
MODEL TR182

SECTION 1
GENERAL

MAXIMUM CERTIFICATED WEIGHTS

Ramp: 3112 lbs.

Takeoff: 3100 lbs.

Landing: 3100 lbs.

Weight in Baggage Compartment:

Baggage Area "A" (or passenger on child's seat) - Station 82 to 110: 120 lbs. See note below.

Baggage Area "B" - Station 110 to 134: 80 lbs. See note below.

NOTE

The maximum combined weight capacity for baggage areas A and B is 200 lbs.

STANDARD AIRPLANE WEIGHTS

Standard Empty Weight, Turbo Skylane RG: 1764 lbs.

Turbo Skylane RG II: 1815 lbs.

Maximum Useful Load, Turbo Skylane RG: 1348 lbs.

Turbo Skylane RG II: 1297 lbs.

CABIN AND ENTRY DIMENSIONS

Detailed dimensions of the cabin interior and entry door openings are illustrated in Section 6.

BAGGAGE SPACE AND ENTRY DIMENSIONS

Dimensions of the baggage area and baggage door opening are illustrated in detail in Section 6.

SPECIFIC LOADINGS

Wing Loading: 17.8 lbs./sq. ft.

Power Loading: 13.2 lbs./hp.

1 October 1978

AIRSPEED LIMITATIONS

Airspeed limitations and their operational significance are shown in figure 2-1.

	SPEED	KCAS	KIAS	REMARKS
V _{NE}	Never Exceed Speed	175	179	Do not exceed this speed in any operation.
V _{NO}	Maximum Structural Cruising Speed	155	157	Do not exceed this speed except in smooth air, and then only with caution.
V _A	Maneuvering Speed: 3100 Pounds 2600 Pounds 2100 Pounds	111 101 91	112 102 91	Do not make full or abrupt control movements above this speed.
V _{FE}	Maximum Flap Extended Speed To 10° Flaps 10° - 40° Flaps	138 97	140 95	Do not exceed these speeds with the given flap settings.
V _{LO}	Maximum Landing Gear Operating Speed	139	140	Do not extend or retract landing gear above this speed.
V _{LE}	Maximum Landing Gear Extended Speed	139	140	Do not exceed this speed with landing gear extended
	Maximum Window Open Speed	175	179	Do not exceed this speed with windows open.

Figure 2-1. Airspeed Limitations

AIRSPEED INDICATOR MARKINGS

Airspeed indicator markings and their color code significance are shown in figure 2-2.

MARKING	KIAS VALUE OR RANGE	SIGNIFICANCE
White Arc	43 - 95	Full Flap Operating Range. Lower limit is maximum weight V_{SO} in landing configuration. Upper limit is maximum speed permissible with flaps extended.
Green Arc	43 - 157	Normal Operating Range. Lower limit is maximum weight V_S at most forward C.G. with flaps retracted. Upper limit is maximum structural cruising speed.
Yellow Arc	157 - 179	Operations must be conducted with caution and only in smooth air.
Red Line	179	Maximum speed for all operations.

Figure 2-2. Airspeed Indicator Markings

POWER PLANT LIMITATIONS

Engine Manufacturer: Avco Lycoming.

Engine Model Number: O-540-L3C5D.

Engine Operating Limits for Takeoff and Continuous Operations:

Maximum Power: 235 BHP rating.

Maximum Engine Speed: 2400 RPM.

Maximum Manifold Pressure: 31 in. Hg.

Maximum Cylinder Head Temperature: 500°F (260°C).

Maximum Oil Temperature: 245°F (118°C).

Oil Pressure, Minimum: 25 psi.

Maximum: 100 psi.

Fuel Pressure, Minimum: *0.5 psi.

Maximum: 30.0 psi.

Propeller Manufacturer: McCauley Accessory Division.

Propeller Model Number, 2-Bladed: B2D34C217/90DHB-8

3-Bladed: B3D32C407/82NDA-3.

Propeller Diameter, 2-Bladed Maximum: 82 inches.

2-Bladed Minimum: 80.5 inches.

3-Bladed Maximum: 79 inches.

3-Bladed Minimum: 78 inches.

Propeller Blade Angle at 30 Inch Station, 2-Bladed Low: 15.8°.

2-Bladed High: 31.9°.

3-Bladed Low: 16.0°.

3-Bladed High: 31.7°.

*3.0 psi on airplanes with Serials R18200926, R18201078, R18201080, R18201099 and R18201263, or airplanes modified by Service Kit SK182-69.

POWER PLANT INSTRUMENT MARKINGS

Power plant instrument markings and their color code significance are shown in figure 2-3.

INSTRUMENT	RED LINE	GREEN ARC	RED LINE
	MINIMUM LIMIT	NORMAL OPERATING	MAXIMUM LIMIT
Tachometer	---	2100 2400 RPM	2400 RPM
Manifold Pressure	---	17 - 25 in. Hg	31 in. Hg
Oil Temperature	---	100° - 245°F	245°F
Cylinder Head Temperature	---	200° - 500°F	500°F
Fuel Pressure	* 0.5 psi	* 0.5 - 30.0 psi	30.0 psi
Oil Pressure	25 psi	60 - 90 psi	100 psi
Fuel Quantity	E (2 Gal. Unusable Each Tank)	---	---
Suction	---	4.5 - 5.4 in. Hg	---

Figure 2-3. Power Plant Instrument Markings

WEIGHT LIMITS

Maximum Ramp Weight: 3112 lbs.

Maximum Takeoff Weight: 3100 lbs.

Maximum Landing Weight: 3100 lbs.

Maximum Weight in Baggage Compartment:

Baggage Area "A" (or passenger on child's seat) - Station 82 to 110: 120 lbs. See note below.

Baggage Area "B" - Station 110 to 134: 80 lbs. See note below.

*3.0 psi on airplanes with Serials R18200926, R18201078, R18201080, R18201099 and R18201283, or airplanes modified by Service Kit SK182-89.

NOTE

The maximum combined weight capacity for baggage areas A and B is 200 lbs.

CENTER OF GRAVITY LIMITS

Center of Gravity Range:

Forward: 33.0 inches aft of datum at 2250 lbs. or less, with straight line variation to 35.5 inches aft of datum at 2700 lbs., with straight line variation to 40.9 inches aft of datum at 3100 lbs.

Aft: 47.0 inches aft of datum at all weights.

Moment Change Due To Retracting Landing Gear: +3052 lb.-ins.

Reference Datum: Front face of firewall.

MANEUVER LIMITS

This airplane is certificated in the normal category. The normal category is applicable to aircraft intended for non-aerobatic operations. These include any maneuvers incidental to normal flying, stalls (except whip stalls), lazy eights, chandelles, and steep turns in which the angle of bank is not more than 60°.

Aerobatic maneuvers, including spins, are not approved.

FLIGHT LOAD FACTOR LIMITS

Flight Load Factors:

*Flaps Up: +3.8g, -1.52g

*Flaps Down: +2.0g

*The design load factors are 150% of the above, and in all cases, the structure meets or exceeds design loads.

KINDS OF OPERATION LIMITS

The airplane is equipped for day VFR and may be equipped for night VFR and/or IFR operations. FAR Part 91 establishes the minimum required instrumentation and equipment for these operations. The reference to types of flight operations on the operating limitations placard reflects equipment installed at the time of Airworthiness Certificate issuance.

Flight into known icing conditions is prohibited.

FUEL LIMITATIONS

2 Standard Tanks: 46.0 U.S. gallons each.
Total Fuel: 92.0 U.S. gallons.
Usable Fuel (all flight conditions): 88 U.S. gallons.
Unusable Fuel: 4.0 U.S. gallons.

NOTE

To ensure maximum fuel capacity when refueling and minimize cross-feeding when parked on a sloping surface, place the fuel selector valve in either LEFT or RIGHT position.

Takeoff and land with the fuel selector valve handle in the BOTH position.

Operation on either left or right tank is limited to level flight only.

With 1/4 tank or less, prolonged uncoordinated flight is prohibited when operating on either left or right tank in level flight.

Approved Fuel Grades (and Colors):
100LL Grade Aviation Fuel (Blue).
100 (Formerly 100/130) Grade Aviation Fuel (Green).

MAXIMUM OPERATING ALTITUDE LIMIT

Certificated Maximum Operating Altitude: 20,000 Ft.

OTHER LIMITATIONS

FLAP LIMITATIONS

Approved Takeoff Range: 0° to 20°.
Approved Landing Range: 0° to 40°.