



Version 1.5  
Revised April, 2007  
Subject to the terms and conditions  
of the  
[End User License Agreement](#)

## Introduction

This handbook includes the material required to be furnished to the pilot by FAR Part, 23. It also contains supplemental data supplied by Cessna Aircraft Company. It provides basic data and information of general interest. It also contains definitions or explanations of symbols, abbreviations, and terminology commonly used.

This Pilot's Operating Handbook is designed for maximum utilization as an operating guide for the pilot. This handbook is not designed as a substitute for adequate and competent flight instruction, knowledge of current airworthiness directives, applicable federal air regulations or advisory circulars. It is not intended to be a guide for basic flight instruction or a training manual and should not be used for operational purposes unless kept in a current status.

Assurance that the airplane is in an airworthy condition is the responsibility of the owner. The pilot in command is responsible for determining that the airplane is safe for flight. The pilot is also responsible for remaining within the operating limitations as outlined by instrument markings, placards, and this handbook.

Although the arrangement of this handbook is intended to increase its in-flight capabilities, it should not be used solely as an occasional operating reference. The pilot should study the entire handbook to familiarize himself with the limitations, performance, procedures and operational handling characteristics of the airplane before flight.

The handbook consists of the following documents located in the same directory as this file. Please refer to these individual documents for information specifically pertaining to the topic on which you are seeking information:

[General description and operation](#)

[Instrument panel and controls](#)

[Limitations](#)

[Normal procedures](#)

[Normal procedures checklist](#)

[Aircraft specifications](#)

[ECS & Pressurization Control System](#)

[Load Manager documentation](#)

## General Aircraft Specifications

### DESCRIPTIVE DATA ENGINES

Number of Engines:	2
Engine Manufacture:	Teledyne Continental
Engine Model Number:	TSIO-360-C
Engine Type:	Turbocharged, direct-drive, air-cooled, horizontally opposed, fuel-injected, six-cylinder engine with 360 cu. in. displacement.
Horsepower Rating and Engine Speed:	225 rated BHP at 2800 RPM

### PROPELLERS

Number of Propellers:	2
Propeller Manufacturer:	McCauley Accessory Division
Model Number	
Front:	D2AF34C308/90DEA-12
Rear	D2AF34C305/L78CBA-2
Number of Blades Per Propeller:	2
Propeller Diameter, Front	
Maximum:	78 inches
Minimum	76.5 inches
Propeller Type, Front:	Constant speed, tractor type and hydraulically actuated, with a low pitch setting of 11.3° and a feathered setting of 82.3° (30 inch station).
Propeller Type, Rear:	Constant speed, pusher type and hydraulically actuated, with a low pitch setting of 12.5° and a feathered setting of 80° (30 inch station). 1-3

### FUEL

Approved Fuel Grades (and Colors): 100LL Grade Aviation Fuel (Blue).  
100 (Formerly 100/130) Grade Aviation Fuel (Green).  
Total Capacity: 150.6 gallons  
Total Capacity Each Tank: 75.3 gallons  
Total Usable: 148 gallons

### NOTE

To ensure complete filling of the interconnected tanks in each wing, fill the tanks slowly and re-top after filling.

### 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.  
Recommended Viscosity for Temperature Range: SAE 50 above 4°C (40°F).  
SAE 10W30 or SAE 30 below 4°C (40°F).  
Oil Capacity:  
Sump: 8 quarts each engine  
Total: 9 quarts each engine

### 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.

Continental Motors Specification MHS-24A, Ashless Dispersant Oil:  
This oil must be used after first 50 hours or oil consumption has stabilized.

### NOTE

Multi-viscosity oil with a range of SAE 10W30 is recommended for improved starting and turbocharger controller operation in cold weather.

### MAXIMUM CERTIFICATED WEIGHTS

Takeoff:	4700 lbs.
Landing:	4465 lbs.
Weight in Baggage Compartment (standard 4-place seating), Station 146 to 183:	160 lbs.
Secured by baggage net;	365lbs.

### NOTE

Refer to Section 6 of this handbook for loading arrangement options and for baggage net/tie-down requirements.



## Cessna 337 Skymaster

### Pilot Operating Handbook

#### STANDARD AIRPLANE WEIGHTS

Standard Empty Weight, Pressurized Skymaster:  
Maximum Useful Load, Pressurized Skymaster:

3072 lbs.  
1652 lbs.

This space left intentionally blank

## Glossary

### GENERAL AIRSPEED TERMINOLOGY

CAS	Calibrated airspeed means the indicated speed of an aircraft, corrected for position and instrument error. Calibrated airspeed is equal to true airspeed in standard atmosphere at sea level.
KCAS	Calibrated airspeed expressed in knots.
GS	Ground speed is the speed of an aircraft relative to the ground.
IAS	Indicated airspeed is the speed of an aircraft as shown on the airspeed indicator when corrected for instrument error. IAS values published in this handbook assume zero instrument error.
KIAS	Indicated airspeed expressed in knots.
TAS	True airspeed is the airspeed of an aircraft relative to undisturbed air which is the CAS corrected for altitude, temperature, and compressibility.
KTAS	True airspeed expressed in knots.
VA	Maneuvering speed is the maximum speed at which application of full available aerodynamic control will not overstress the aircraft.
VFE	Maximum flap extended speed is the highest speed permissible with wing flaps in a prescribed extended position.
VLE	Maximum landing gear extended speed is the maximum speed at which an aircraft can be safely flown with the landing gear extended.
VLO	Maximum landing gear operating speed is the maximum speed at which the landing gear can be safely extended or retracted.
VMCA	Air minimum control speed is the minimum flight speed at which the airplane is directionally controllable as determined in accordance with Federal Aviation Regulations. Airplane certification conditions include one engine becoming inoperative and windmilling; not more than a 5° bank towards the operative engine; takeoff power on operative engine, landing gear up, flaps in takeoff position, and most rearward center of gravity.
VNU/MNE	Maximum operating limit speed is the speed limit that may not be deliberately exceeded in normal flight. V is expressed in knots and M in a mach number
Vs	Stalling speed or the minimum steady flight speed at which the airplane is controllable.
Vso	Stalling speed or the minimum steady flight speed at which the aircraft is controllable in the landing configuration.

### GENERAL DEFINITIONS

Accelerate-Stop Distance	The distance required to accelerate an aircraft to a specified speed and, assuming failure of an engine at the instant that speed is attained, to bring the aircraft to a stop.
Accelerate-Go Distance	The distance required to accelerate an aircraft to a specified speed and, assuming failure of an engine at the instance that speed is attained, continue takeoff on the remaining engine to a height of 50 feet.
Arm	The horizontal distance from the reference datum to the center of gravity (C.G.) of an item.
Basic Empty Weight	Standard empty weight plus optional equipment.
Center of Gravity (CG)	The point at which an airplane would balance if suspended. Its distance from the reference datum is found by dividing the total moment by the total weight of the airplane.
Climb Gradient	The demonstrated ratio of the change in height during a portion of a climb, to the horizontal distance traversed in the same time interval
Demonstrated Crosswind Velocity	The demonstrated crosswind velocity $v_x$ ; the velocity of the crosswind component for which adequate control of the airplane during takeoff and landing was actually demonstrated during certification tests.
Directional Gyro (DG)	Directional Gyro is a gyroscopic navigation instrument capable of providing the pilot with a constant directional reference not subject to temporary errors characteristic of a magnetic compass. Occasional Magnetic Variation (MAG-VAR) must still be adjusted. The vacuum type is operated by the air flow generated by the aircraft vacuum system while electrical type is operated by aircraft power supply.
Engine Speed (RPM) Gauge	Indicates engine rotational speed based on a figure of 100% at 1540 propeller rpm.
Flight Director	A flight director system (FDS) combines many of the primary navigation instruments to provide an easily interpreted display of the aircraft's flight path. The pre-programmed path, automatically computed, furnishes the steering commands necessary to obtain and hold a desired path. The computed path is controlled by the autopilot (AP), and is slaved to the current AP mode of operation (HDG/NAV/ALT). In case of ILS approach, the FDS computer is slaved to the ILS navigation beam for lateral and vertical steering directions.
Inlet Turbine Temperature Gauge (ITT)	Indicates operating temperature in the turbine. The red line is used to indicate maximum allowable temperature.
Indicated Pressure Altitude	The number actually read from an altimeter when the barometric subscale has been set to 29.92 inches of mercury (1013.2 millibars).
International Standard Atmosphere (ISA)	<ol style="list-style-type: none"><li>(1) The air is a dry perfect gas.</li><li>(2) The temperature at sea level is 15° Celsius (59° Fahrenheit).</li><li>(3) The pressure at sea level is 29.92 inches of mercury (1013.2 millibars).</li></ol>

(4) The temperature gradient from sea level to the altitude at which the temperature is  $-56.5^{\circ}\text{C}$  ( $-69.7^{\circ}\text{F}$ ) is  $-0.00198^{\circ}\text{C}$  ( $-0.003564^{\circ}\text{F}$ ) per foot and zero above that altitude.

Maximum Climb Power	Maximum power permissible continuously during climb.
Maximum Continuous Power	Maximum power permissible continuously during flight.
Maximum Cruise Power	Maximum power permissible continuously during the cruise phase of flight.
Maximum Ramp Weight	Maximum weight approved for ground maneuver. (It includes weight of start, taxi and run up fuel.)
Maximum Takeoff Weight (MTOW)	Maximum weight approved for the start of the takeoff run.
Maximum Zero Fuel Weight	Maximum weight exclusive of usable fuel.
Moment	The product of the weight of an item multiplied by its arm. (Moment divided a constant is used to simplify balance calculations by reducing the number digits.)
Outside Air Temperature (OAT)	The free air static temperature obtained either from in-flight temperature indications or ground meteorological sources, adjusted for instrument error and compressibility.
Payload	Weight of occupants, cargo and baggage.
Pressure Altitude	Station Pressure Altitude measured from standard sea level pressure (29.92 inches of mercury) (1013.2 millibars) by a pressure or barometric altimeter. It is the indicated pressure altitude corrected for position and instrument error. In this handbook, altimeter instrument errors are assumed to be zero. Actual atmospheric pressure at field elevation.
Reference Datum	An imaginary vertical plane from which horizontal distances are measured for balance purposes.
Route Segment	A part of a route. Each end of that part is identified by: ((1), a geographical location; ~r (2) a point at which a definite radio fix can be established.
Station	A location along the airplane fuselage usually given in terms of distance from reference datum.
Standard Empty Weight	Weight of a standard airplane including unusable fuel, full operating fluids and oil
Station Pressure	Actual atmospheric pressure at field elevation.
Takeoff Power	Maximum power permissible for takeoff.

Temperature Recovery	(Ram Rise) Indicated Pressure Altitude Aerodynamic heating which occurs to a temperature probe and increases as a function of Mach number. Indicated Outside Air Temperature (OAT) must be reduced by the Ram Rise to derive the true OAT, also referred to as Static Air Temperature. The number actually read from an altimeter when the barometric subscale has been set to 29.92 inches of mercury (1013.2 millibars).
Usable Fuel	Fuel remaining after a runout test has been completed in accordance with governmental regulations.
Useful Load	Difference between takeoff weight, or ramp weight if applicable, and basic empty weight.

This space left intentionally blank