

The 1985 Cessna Centurions



Advanced Product Sales Information



The 1985 Centurions have earned their leadership role through superior design and 25 years of continuous refinements. Dramatic improvements for 1985 have resulted in greatly increased performance and value. The basic airplane design incorporates a number of features that provide significant selling advantages:

Higher Flap Speeds

Descents and instrument approach procedures are easier in Centurions. The approach flap speeds are all significantly higher than the competition resulting in more flexibility on approach and less risk of overcooling the engine.



Higher Gear Speeds

The gear operating speed of 165 KCAS is 13 knots faster than the Beech competition and 35 knots higher than Piper. Higher gear speeds in combination with higher flap speeds allows Centurion pilots to be well on their way down with engine temperatures in the green while others are still at altitude, waiting for their airspeed to bleed off.

High Wing Benefits

The Cessna high wing has many advantages over a low wing:

Natural stability — the Cessna wing is above the center of gravity so the aircraft tends to fly in a wing — level attitude.



Gravity-flow fuel system — placing the fuel supply above the engine results in a more reliable fuel system. Easier fuel draining — no crawling around on the tarmac or in the dirt to perform the preflight fuel check on a Cessna.

Cooler Cabin — during warm weather, Cessna's high wing shades the cabin interior keeping it cooler. More comfort on the ground and more comfort in flight.

Weather protection — when loading or unloading during rain or snow, the Cessna high wing protects people and the cabin interior from the elements.

Better visibility — the Cessna high wing provides unmatched visibility of the ground enabling a pilot to pinpoint his location at all times. In addition, it allows a pilot a clear view of oncoming traffic during the turn from base leg to final. This view is blocked by the wing of a low wing airplane as the turn to final is made.

Organized Flight Deck

For everything from simple VFR flying to heavy IFR, the Centurion cockpit is organized to make the pilot's job easier.

The starter switch is located on the left hand side so the pilot can operate the throttle with his right hand.

The fuel tank selector on the Centurions is within easy reach of the pilot or copilot and the fuel gauges are near the selector.

The autopilot control on a Centurion is near the NAV radios, to which it couples. This also means it is operated with the right hand, so the pilot can fly the airplane normally with his left hand while setting up the autopilot.

The ADF indicator is located near the VOR Indicator for convenient use by the pilot. Tachometer and manifold gauges are high on the Centurion panel where they are easy to read.

Power controls on the Centurions are in the standard throttle - prop - mixture configuration making it easy to transition from other models.

Cessna shows attention to detail with the strip of velcro that is attached to the control wheel to secure the microphone and make access easy and quick.

The Centurions feature modern electrical wing flaps that are infinitely variable from 0 degree to 30 degrees. They also have a preselect feature that provides detents to enable a pilot to select 10 degree or 20 degree by feel without interrupting visual scan of the instruments or airspace.

These are just a few examples of the refinements built into the Centurion Series of aircraft...the first to offer turbocharging - the first with weather radar - the first successful pressurized single - the first certified for flight into icing conditions - the first single to provide dual vacuum systems - the first single to offer dual electrical systems.

The Centurion Series from Cessna — 25 years of development into the finest single engine aircraft on the market today - 25 years of experience in developing the best service parts support - 25 years of service experience - 25 years in which over 9000 owners, including 800 Pressurized Centurion owners, have enjoyed the comfort, convenience, and performance that only the Centurions can provide.



Centurions, Turbo Centurions, Pressurized Centurions 1985 PRODUCT IMPROVEMENTS

The following improvements have been incorporated in all three models of the Centurion Series:

Exterior Styling

The exterior styling for the 1985 Series of Centurions features a graphic treatment appropriate to the desired image of this fine line of aircraft. In addition, an advanced system of paint finishing consisting of an additional surface conditioning step, plus a new intermediate primer coat has been incorporated for improved quality.



New Empennage

The horizontal stabilizer and elevators feature an increased span and higher aspect ratio. These improvements result in a higher level of stability, more effective elevator power and less pitch changes during flap operations.



Firesleeved Hoses

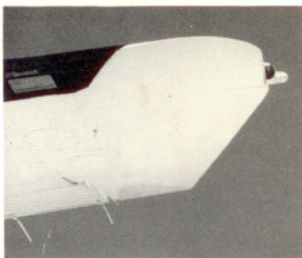
All flexible fuel and oil hoses will be silicone firesleeve coated in 1985 for additional safety and longer life.

Increased Fuel Capacity

30 gallons of additional fuel is available on the 1985 Centurions with the optional 15 gallon per side integral fuel tanks. These tanks are located outboard of wing station 172.00 and forward of the main spar. The tanks feed by gravity interconnect to the main tank. The fuel filler ports are located in the outboard tanks with this option and the fuel gauges reflect the increased capacity.

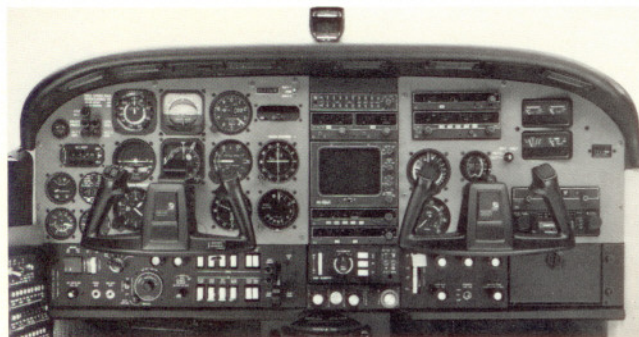
New Wing Tips

The wing tips have been completely restyled and extended. In addition to providing a new, good looking appearance, the tips extend the wing span to almost 39 feet and provide for improved flight characteristics in takeoff, climb, cruise and stall.



New Instrument Panel

A new all-metal instrument panel will be especially attractive to Centurion Series purchasers in 1985. Each panel will be custom fabricated to the particular aircraft requirement ordered, (no unused holes will be cut). In addition, the panel will include internally lit instruments, thereby eliminating the need for panel mounted post lights. This new panel presentation is standard equipment on the Pressurized Centurion and optional on the Centurion and Turbo Centurion. The panel is available in gray or black.



New Cowling

The skins on the forward fuselage deck and the side panels have been extended forward. The lower cowl skins are extended upward. The upper cowl skins will overlap the forward fuselage at the firewall and along the sides. This improvement results in an easier to fit cowl and a greatly improved appearance.



New Nose Gear Doors

The nose gear doors now nest on the outside of the lower cowl skins with an overlap of the skins when in a closed position. This provides a smoother installation, easier rigging and servicing, and improved appearance.

Second Vacuum System

An optional back-up vacuum system is available in 1985. This system consists of an electrically-driven vacuum pump that can be utilized in the event of a failure of the primary engine-driven pump.

New 300 Series DME

A new (RT-377A) panel mounted DME is available on the 1985 Centurion Series. Range, ground speed, and time-to-station are simultaneously read on a liquid crystal display.

Improved Electric Trim System

An improved electric trim system is installed with the 400B Autopilot System. This new trim system is also available as a separate option when 400B Autopilot or IFCS is not installed. The system features dual switches in the L.H. grip of the L.H. control wheel.

New Attitude Gyro

A G-549A Attitude Gyro with a 3-inch ATI case to match the G-504A Slaved Directional Gyro when it is installed with these options. The G-549A is internally lit and is similar in appearance to the G-550A Flight Director Gyro.



New Improved Handling Characteristics

The higher aspect ratio wings and horizontal stabilizer, the larger, more powerful elevators, the removal of the rudder-aileron interconnect as well as the downsprings and the bob weights combine to provide outstanding handling characteristics.

From the moment that you start to taxi out from the ramp it is obvious that major improvements have been incorporated. The reduced pressure on the rudder pedal when turning the aircraft on the ground - the smooth and responsive feel of the elevators as you leave the ground -

the gentle flare to touchdown - it's an experience that can only be appreciated when you are in the driver's seat.

In addition to the above improvements the Centurion Series aircraft will also feature an increased capacity fuel filter with improved internal fuel flow.

Fuel efficiency planning charts have also been added to the Pilot's Operating Handbooks.



Turbo Centurions and Pressurized Centurions 1985 PRODUCT IMPROVEMENTS

The Following improvements have been made to the Turbo Centurions and Pressurized Centurions for 1985.

New Powerplant Installation

A TCM TSIO-520-CE 325 bhp engine will be used in the Turbo and Pressurized Centurions in 1985. This engine is rated for 325 bhp at sea level. There is no time limit for takeoff power. Two single-stage intercoolers are installed on the upper right-hand side of the engine, providing greatly reduced induction air temperatures. Flow paths in and out of the intercoolers have been optimized. The exhaust system has been designed to match exhaust gas paths to the turbo inlet from the left and right-hand cylinder banks.

A Poly-V alternator drive-belt is now used on the rear alternator. This belt features increased reliability and is located for improved access.



Cooling drag has been reduced by combining all propulsion cooling inlets and removing external scoops. The oil cooler and cabin heat exchange cooling flows were combined inside the cowlings. A fairing has been added to the tailpipe which is directed aft to recover thrust.

The engine mount system has been changed from a four-point system to a six-point system to reduce mount loads and improve the engine location.

Gross Weight and Useful Load Increased

The gross weight for both the Turbo Centurion and the Pressurized Centurion has been increased 100 pounds to 4100 pounds for take-off and 3900 pounds for landing. The useful load has increased to 1798 pounds on the Turbo Centurion and to 1647 pounds on the Pressurized Centurion.



Pressurized Centurion 1985 PRODUCT IMPROVEMENT

The following product improvement applies only to the 1985 Pressurized Centurion:

New Oxygen System

A new optional (76 cu. ft.) 6-place oxygen system that utilizes the conventional oxygen bottle concept will be available. Its addition will allow for extended flight duration above 23,000 feet. The oxygen bottle is the new lightweight filament-wound type.

PERFORMANCE COMPARISONS Centurion

1985 Centurion compared to prior model:

- The maximum speed has increased from 175 knots in 1984 to 176 knots in 1985.
- Maximum cruise speed has increased from 168 to 169 knots.
- Range with the new optional fuel system has increased from 765 nm to 1070 nm in 1985.
- Rate of Climb at Sea Level has increased from 950 fpm to 980 fpm.

1985 Turbo Centurion compared to prior model:

- The maximum speed of the Turbo Centurion is 225 knots or 21 knots greater than the prior model for a 10.3% increase.
- The maximum cruise speed at 25,000 feet is up 16.7% to 217 knots or 31 knots over the 186 knots on the 1984 model.
- Range has been increased (with optional fuel) from 715 nm to 1,015 nm for a 42% increase.
- Climb is up from 930 to 1150 fpm for a 23.7% at Sea Level and from 515 to 810 fpm at 20,000 for a 57% increase in performance.

Turbo Centurion

	1985 MODEL	1984 MODEL	NET CHANGE
Max. Speed (kts)	225	204	+ 21
Max. Cruise (kts)			
25,000	217	186	+ 31
23,000	213	190	+ 23
20,000	207	193	+ 14
10,000	185	176	+ 9
Range 20,000 ft. Speed	1,015 204	715 193	+ 300 nm + 11
(recommended lean mixture)			
Climb (fpm)			
SL	1,150	930	+ 220
20,000	810	515	+ 295
Takeoff Roll	1,270	1,300	- 30
Over 50'	2,110	2,160	- 50
Landing Roll	825	765	+ 35
Over 50'	1,600	1,500	+ 100
Gross Weight			
Ramp	4,118	4,016	+ 102
Takeoff	4,100	4,000	+ 100
Fuel Burn @ Max.			
Cruise	18.4	18.7	- .3
NM per gal @ Max.			
Cruise	11.0	10.2	+ .8

1985 Pressurized Centurion

- The maximum speed of 225 knots is 24 knots or 11.9% greater than the prior year model.
- There is more than a 10% increase in cruise speed at 23,000 feet at 213 knots.
- Range at 1,015 nm is increased 355 nm, or 54%. (with optional fuel)
- Climb performance at Sea Level is 1,150 fpm compared to 945 fpm which represents a 21.7% increase. The performance increase is even higher at 20,000 feet with the aircraft maintaining 810 fpm or 39.7% better.

Pressurized Centurion

	1985 MODEL	PRIOR MODEL	NET CHANGE
Max. Speed (kts)	225	201	+ 24 kts
Max. Cruise Speed			
23,000	213	193	+ 20 kts
20,000	207	191	+ 16 kts
10,000	185	174	+ 11 kts
Range 20,000 ft. Speed (kts)	1,015 204	660 188	+ 355 nm + 16 kts
Climb (ft/min)			
S.L.	1,150	945	+ 205
20,000	810	580	+ 230
Takeoff Roll (ft)	1,270	1,300	- 30 ft
Over 50'	2,110	2,160	- 50 ft
Landing Roll (ft)	825	765	+ 60 ft
Over 50'	1,600	1,500	+ 100 ft
Gross Weight (lbs)			
Ramp	4,118	4,016	+ 102 lbs
Takeoff	4,100	4,000	+ 100 lbs
Fuel Burn at Max.			
Cruise	18.4	18.7	- .3
N.M. per gal. at Max.			
Cruise (20,000 ft)	11.0	10.2	+ .8

COMPETITIVE COMPARISONS

Turbo Centurion

	1985 T210	1984 B36TC	1984 T Saratoga
Max. Speed (kts)	225	213	195
Altitude	20,000	25,000	20,000
Max. Cruise (kts) @			
25,000	217	200	—
20,000 ft.	207	193	177
10,000 ft.	185	178	163
Range at			
20,000 ft. (NM)	1,015	931	844
Power Setting (recommended lean mixture)	76%	79%	75%
Speed (kts)	204	193	172
Total Time	5.2	5.0	5.0
Climb Rate (ft/min)			
at Sea Level	1,150	1,049	1,120
at 20,000 ft.	810	620	670
Time to Climb to 23,000 ft. (min.)	24	36	21 (20,000 ft.)
Takeoff Roll (ft.)	1,270	1,030	960
Over 50 ft. (ft.)	2,110	2,141	1,420
Landing Roll (ft.)	825	976	650
Over 50 ft. (ft.)	1,600	1,692	1,640
Stall Speed (kts.)			
Flaps Up	65	65	61
Flaps Down	55	57	56
Max. Weight (lbs.)			
Ramp	4,118	3,866	3,617
Takeoff	4,100	3,850	3,600
Landing	3,900	3,850	3,600
Empty Weight	2,320	2,363	2,078
Max. Useful Load	1,798	1,503	1,539
Baggage Allowance	240	470	200
Fuel Capacity (gals.)	90	120	102
Long Range Tanks	120		
Engine	TSIO-520-CE	TSIO-520-UB	TIO-540-SIAD
Propeller	McCauley, 80 in. dia., 3 blade	Hartzell, 78 in., 3 blade	Hartzell, 80 in., 3 blade avail.
Max. Altitude	30,000 ft.	25,000 ft.	20,000 ft.

Pressurized Centurion

	1985 P210	1984 Malibu
Max. Speed (kts)	225	234
Altitude	20,000	23,000
Max. Cruise Speed		
23,000 ft.	213	211
20,000 ft.	207	205
10,000 ft.	185	184
Range @ 20,000 ft.	1,015 (opt)	1,295
Power Setting	76%	75%
Speed (kts)	204	205
Climb Rate (ft/min)		
at Sea Level	1,150	1,143
at 20,000 ft.	810	925
Time to Climb to 23,000 ft. (min)	24	23
Takeoff Roll (ft.)	1,270	1,460
Over 50 ft. (ft.)	2,110	2,025
Landing Roll (ft.)	825	1,080
Over 50 ft. (ft.)	1,600	1,800
Stall Speed (kts)		
Flaps Up	65	69
Flaps Down	55	58
Maximum Weight (lbs)		
Ramp	4,118	4,118
Takeoff	4,100	4,100
Landing	3,900	3,900
Empty Weight (lbs)	2,471	2,460
Max. Useful Load (lbs)	1,647	1,658
Baggage Allowance (lbs)	200	200
Fuel Capacity (gal)	90	122
Long Range Tanks	120	
Engine	TSIO-520-CE	TSI-520-BE
TBO (hrs)	1,600	2,000
Propeller	3-blade, McCauley 80 in. diameter	3-blade, Hartzell 80 in. diameter
Max. Altitude	25,000 ft.	25,000 ft.

*All specifications and performance figures are preliminary and subject to change.