SENECA III

In this case, product improvement got more than lip service

BY EDWARD G. TRIPP

PHOTOGRAPHY BY ART DAVIS

SENECA III

Already a hit with passengers, the Seneca now aims to please pilots and accountants as well.

continued

Gone are the windshield post and the plastic panel. The new metal panel has an improved arrangement of instruments and good lighting.

SENECA III

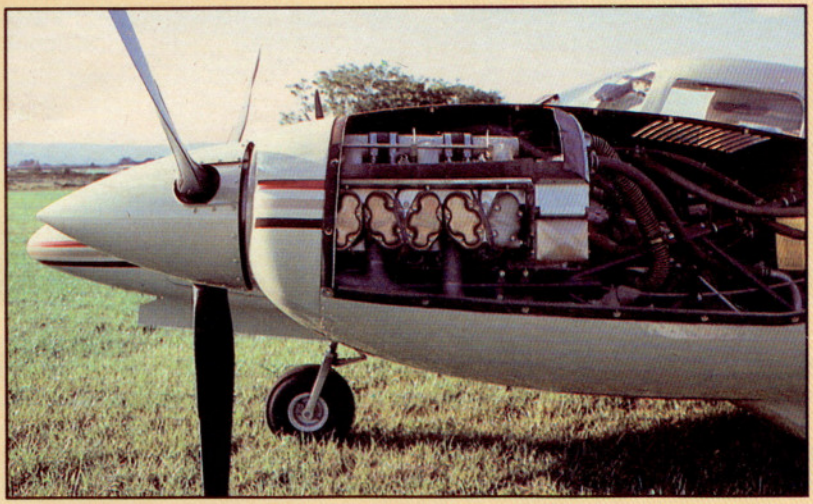
PIPER PA-34-220T SENECA III
Base price: 1981 $138,250
1982 $156,220
Price as tested $209,090 (1981 est)
Current market value $185,000
AOPA Pilot Operations/Equipment Category: IFR*

Specifications

Powerplants	Teledyne Continental TSIO-360-KB and LTSIO-360-KB
Max takeoff (5 min limit)	220 hp @2,700 rpm, 40 in mp
Max continuous	200 hp @2,600 rpm, 40 in mp
	Recommended TBO 1,800 hr
Propellers	Hartzell 2 blade, constant speed, full feathering, 76 in (opt: 3 blade)
Wingspan	38 ft 10.8 in
Length	28 ft 7.2 in
Height	9 ft 10.8 in
Wing area	208.7 sq ft
Wing loading	22.8 lb/sq ft
Power loading	10.8 lb/hp
Seats	6
Cabin length	10 ft 5 in
Cabin width	4 ft 1 in
Cabin height	4 ft 1 in
Empty weight	2,857 lb
Empty weight (as tested)	3,224 lb
Useful load	1,916 lb
Useful load (as tested)	1,549 lb
Payload w/full fuel (std tanks)	1,358 lb
Payload w/full fuel (as tested)	811 lb
Max ramp weight	4,773 lb
Max takeoff weight	4,750 lb
Max landing weight	4,513 lb
Zero fuel weight	4,470 lb
Fuel capacity, std	588 lb/98 gal (558/93 usable)
Fuel capacity w/opt tanks	768 lb/128 gal (738/123 usable)
Oil capacity ea engine	8 qt
Baggage capacity	
forward	100 lb/15.3 cu ft
aft	100 lb/17.3 cu ft

Performance

Takeoff distance (ground roll)	920 ft
Takeoff over 50-ft obst	1,210 ft
Accelerate/stop distance w/heavy-duty tires and brakes	2,088 ft
Max demonstrated crosswind component	15 kt
Rate of climb, sea level	1,400 fpm
Single-engine ROC, sea level	240 fpm
Max level speed, sea level	170 kt



Max level speed, 14,000 ft	196 kt
Cruise speed, 75% power	
10,000 ft	179 kt
17,000 ft	193 kt
Fuel consumption, ea engine	174 pph/ 29 gph
Cruise speed, 65% power	
10,000 ft	175 kt
17,000 ft	187 kt
Fuel consumption, ea engine	139.8 pph/ 23.3 gph
Cruise speed, 55% power	
10,000 ft	159 kt
17,000 ft	174 kt
Fuel consumption, ea engine	112.2 pph/ 18.7 gph
Range @ 75% cruise w/45-min rsv, opt fuel, best economy	
10,000 ft	640 nm
17,000 ft	665 nm
Range @ 65% cruise w/45-min rsv, opt fuel, best economy	
10,000 ft	760 nm
17,000 ft	780 nm
Range @ 55% cruise w/45-min rsv, opt fuel, best economy	
10,000 ft	860 nm
17,000 ft	895 nm
Max operating altitude	25,000 ft
Single-engine service ceiling	12,300 ft
Landing over 50-ft obst	2,160 ft
w/heavy-duty tires and brakes	1,978 ft
Landing distance (ground roll)	1,400 ft
w/heavy-duty tires and brakes	1,218 ft

Limiting and Recommended Airspeeds

Vmca (Minimum control w/one engine inoperative)	66 KIAS
Vsse (Minimum intentional one-engine inoperative)	85 KIAS
Vx (Best angle of climb)	76 KIAS
Vy (Best rate of climb)	92 KIAS
Vxse (Best single-engine angle of climb)	78 KIAS
Vyse (Best single-engine rate of climb)	92 KIAS
Va (Design maneuvering)	140 KIAS
Vfe (Max flap extended)	115 KIAS
Vle (Max gear extended)	130 KIAS
Vlo (Max gear operating)	
extend	130 KIAS
retract	108 KIAS
Vno (Max structural cruising)	166 KIAS
Vne (Never exceed)	205 KIAS
Vs1 (Stall clean)	67 KIAS
Vso (Stall in landing configuration)	64 KIAS

All specifications are based on manufacturer's calculations. All performance figures are based on standard day, standard atmosphere, at sea level and gross weight, unless otherwise noted. Operations/Equipment Category for aircraft as tested: see June 1981 Pilot, p. 103;
**Seneca III capable of all-weather operations category with addition of weather detection/avoidance equipment and with anti-icing, deicing package. However, the icing package, available for $13,770 in 1981, limits the aircraft to light to moderate icing conditions.*