

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A19SO
Revision 19
Piper Aircraft, Inc

PA-44-180
PA-44-180T

October 27, 2021

TYPE CERTIFICATE DATA SHEET NO. A19SO

This data sheet, which is part of Type Certificate No. A19SO, prescribes conditions and limitations under which the product for which type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960

Type Certificate Holder Record The New Piper Aircraft, Inc transferred TC A19SO to Piper Aircraft, Inc on August 7, 2006.

IA. - Model PA-44-180, Seminole, 4 PCLM (Normal Category), Approved March 10, 1978.

Engine 1 Lycoming O-360-E1A6D with carburetor setting 10-5092, 10-5219, or 10-6019 (Left Side)
1 Lycoming LO-360-E1A6D with carburetor setting 10-5092, 10-5219, or 10-6019 (Right Side)

Fuel 100 or 100LL aviation grade fuel

Engine Limits For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits Left Engine:
1 Hartzell, Hub Model HC-C2Y(K, R) -2CEUF, Blade Model FC7666A-2R
or Hub Model HC-C3YR-2EUF, Blade Model FC7663-5R

Right Engine:
1 Hartzell, Hub Model HC-C2Y(K, R) -2CLEUF, Blade Model FJC7666A-2R
or Hub Model HC-C3YR-2LEUF, Blade Model FJC7663-5R

Pitch Setting at 30" Station:

Two-Blade
High 79° - 81°, Low 12.4° ± 0.2°
Diameter: Not over 74 inches
Not under 72 inches

Three-Blade
High 81° - 83°, Low 10.6° ± .1°
Diameter: Not over 73 inches
Not under 72 inches

Spinner:

Two-Blade
Hartzell P/N C-2285-3 Spinner Assy
(Left)
Hartzell P/N C-2285-3L Spinner Assy
(Right)
See NOTE 4.

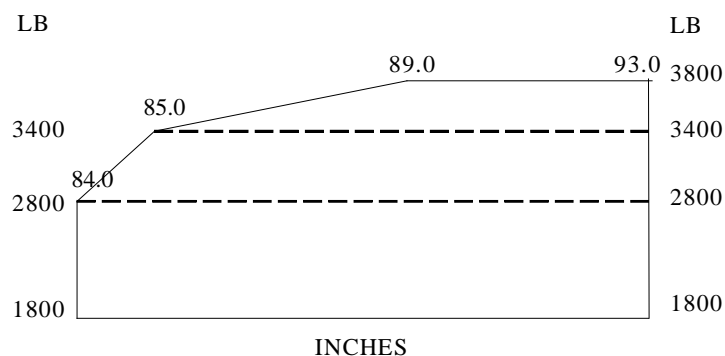
Three-Blade
Hartzell P/N C-4558 Spinner Assy
(Left)
Hartzell P/N C4-558 Spinner Assy
(Right)
See NOTE 4.

Governor Assembly: 1 Hartzell Hydraulic Governor Model E-3-2 (Left)
1 Hartzell Hydraulic Governor Model E-3-2L (Right)
or
1 Hartzell Hydraulic Governor Model E-8-2L (Right) with
synchrophaser (Piper Drawing No. 36889 Synchrophaser
Installation, S/N 44-7995278 and up)

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<u>Airspeed Limits</u>	V_{NE}	(Never Exceed)	202 KIAS
	V_{NO}	(Maximum Structural Cruise)	169 KIAS
	V_A	(Maneuvering 3800 lb.)	135 KIAS
	V_A	(Maneuvering 2700 lb.)	112 KIAS
	V_{FE}	(Maximum Flaps Extended)	111 KIAS
	V_{LO}	(Maximum Landing Gear Operation)	
		Extension	140 KIAS
		Retraction	109 KIAS
	V_{LE}	(Maximum Landing Gear Extended)	140 KIAS
	V_{MC}	(Minimum Control Speed)	56 KIAS

<u>C.G. Range</u>	(+89.0)	to	(+93.0)	at	3800 lb.
	(+85.0)	to	(+93.0)	at	3400 lb.
	(+84.0)	to	(+93.0)	at	2800 lb. or less
	Straight line variation between points given.				
	Moment change due to retracting landing gear (+819 in-lb.)				

Empty Weight C.G. Range

None

Maximum Weight

Ramp	3816 lb.
Takeoff	3800 lb.
Landing	3800 lb.

Number of Seats

4 (2 at +80.5, 2 at +118.1)

Maximum Baggage

200 lb. at +142.8

Fuel Capacity

110 gallons (2 nacelle tanks) at +95.0 (108 gallons usable)
 (See NOTE 1 for data on system fuel)

Oil Capacity

6 quarts per engine (4 quarts per engine usable)
 (See NOTE 1 for data on system oil)

Control Surface Movements

Ailerons	Up	23° ($\pm 2^\circ$)	Down	17° ($\pm 2^\circ$)
Stabilator	Up	15° ($\pm 1^\circ$)	Down	3° ($\pm 1^\circ$)
Rudder	Left	37° (+1°, -0°)	Right	37° (+1°, -0°)
Stabilator Trim Tab	Down	9° ($\pm 1^\circ$)	Up	4° ($\pm 1^\circ$)
		(Stabilator neutral)		
Wing Flaps	Up	0° ($\pm 1^\circ$)	Down	10°, 25°, 40° ($\pm 2^\circ$)
Rudder Trim Tab	Left	26° ($\pm 2^\circ$)	Right	26° ($\pm 2^\circ$)
		(Rudder neutral)		
Nose Wheel Travel	Left	30° ($\pm 1^\circ$)	Right	30° ($\pm 1^\circ$)

Manufacturer's Serial Numbers

44-7995001 through 44-8195026 (See NOTE 5 for airworthiness certification eligibility in the United States)

IB. - Model PA-44-180, Seminole, 4 PCLM (Normal Category). Approved March 10, 1978.

Engine (See Note 6)

1 Lycoming O-360-A1H6 with carburetor setting 10-5219 or 10-6019 (Left Side)
 1 Lycoming LO-360-A1H6 with carburetor setting 10-5219 or 10-6019 (Right Side)
 OR
 1 Lycoming IO-360-B1G6 (Left Side) with fuel injector model RSA-5AD1,
 (Lycoming Part Number 61J28856)
 1 Lycoming LIO-360-B1G6 (Right Side) with fuel injector model RSA-5AD1
 (Lycoming Part Number 61J28856)

Fuel 100 or 100LL aviation grade fuel

Engine Limits For all operations, 2700 r.p.m. (180 hp)

Propeller and Propeller Limits Left Engine:
 1 Hartzell, Hub Model HC-C2Y(K, R) -2CEUF, Blade Model FC7666A-2R
 or 1 Hartzell Hub Model HC-C2YR-2CEUFP, Blade Model FC7497
 *Hubs and blades must be both of same model both left and right; no intermixing

Right Engine:
 1 Hartzell, Hub Model HC-C2Y(K, R) -2CLEUF, Blade Model FJC7666A-2R
 or 1 Hartzell Hub Model HC-C2YR-2CLEUFP, Blade Model FJC7497
 *Hubs and blades must be both of same model both left and right; no intermixing

Pitch Setting at 30" Station:
 Blade Model FC7666A-2R Blade Model F(J)C7497
 High 79° - 81°, Low 12.4° ± 0.2° High 79° - 81°, Low 12.8° ± 0.2°
 Diameter: Not over 74 inches Diameter: Not over 74 inches
 Not under 72 inches Not under 72.5 inches

Spinner: Hartzell P/N C-2285-3 Spinner Assy (Left)*
 Hartzell P/N C-2285-3L Spinner Assy (Right)*
 *See Note 4 for carbureted engines only
 (no intermixing permitted)
 or
 Hartzell P/N D-6974-1P (Left & Right) **
 **no intermixing permitted with C-2285-3(L)

Governor Assembly: 1 Hartzell Hydraulic Governor Model U-3-15 (Left) with
 unfeathering accumulator
 1 Hartzell Hydraulic Governor Model U-3-15L (Right) with
 unfeathering accumulator

Airspeed Limits

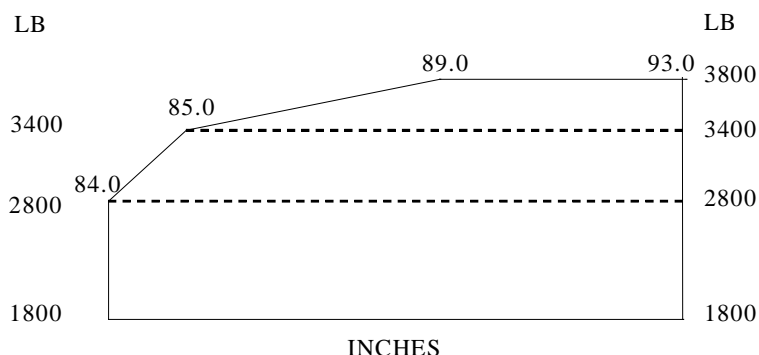
V _{NE}	(Never Exceed)	202 KIAS
V _{NO}	(Maximum Structural Cruise)	169 KIAS
V _A	(Maneuvering - 3800 lb.)	135 KIAS
V _A	(Maneuvering - 2700 lb.)	112 KIAS
V _{FE}	(Maximum Flaps Extended)	111 KIAS
V _{LO}	(Maximum Landing Gear Operation)	
	Extension	140 KIAS
	Retraction	109 KIAS
V _{LE}	(Maximum Landing Gear Extended)	140 KIAS
V _{MC}	(Minimum Control Speed)	56 KIAS

C.G. Range

(+89.0)	to	(+93.0)	at	3800 lb.
(+85.0)	to	(+93.0)	at	3400 lb.
(+84.0)	to	(+93.0)	at	2800 lb. or less

Straight line variation between points given.

Moment change due to retracting landing gear (+819 in-lb.)



<u>Empty Weight C.G. Range</u>	None			
<u>Maximum Weight</u>	Ramp	3816 lb.		
	Takeoff	3800 lb.		
	Landing	3800 lb.		
<u>Number of Seats</u>	4 (2 at +80.5, 2 at +118.1)			
<u>Maximum Baggage</u>	200 lb. at +142.8			
<u>Fuel Capacity</u>	110 gallons (2 nacelle tanks) at +95.0 (108 gallons usable) (See NOTE 1 for data on system fuel)			
<u>Oil Capacity</u>	8 quarts per engine (6 quarts per engine usable) (See NOTE 1 for data on system oil)			
<u>Control Surface Movements</u>	Ailerons	Up	23° (±2°)	Down 17° (±2°)
	Stabilator	Up	15° (±1°)	Down 3° (±1°)
	Rudder	Left	37° (+1°, -0°)	Right 37° (+1°, -0°)
	Stabilator Trim Tab	Down	9° (±1°)	Up 4° (±1°)
		(Stabilator neutral)		
	Wing Flaps	Up	0° (±1°)	Down 10°, 25°, 40° (±2°)
	Rudder Trim Tab	Left	26° (±2°)	Right 26° (±2°)
		(Rudder neutral)		
	Nose Wheel Travel	Left	30° (±1°)	Right 30° (±1°)
<u>Manufacturer's Serial Numbers</u>	4495001 through 4495013, and 4496001 and up			

II. - Model PA-44-180T, Turbo Seminole, 4 PCLM (Normal Category). Approved November 29, 1979.

<u>Engine</u>	1 Lycoming TO-360-E1A6D with carburetor setting 10-5256 1 Lycoming LTO-360-E1A6D with carburetor setting 10-5256
<u>Fuel</u>	100 or 100LL aviation grade fuel
<u>Engine Limits</u>	For all operations, 36.5 in. Hg at 2575 r.p.m. (180 hp)
<u>Propeller and Propeller Limits</u>	<u>Left Engine:</u> 1 Hartzell, Hub Model HC-C2YR -2C ()UF, Blade Model FC7666A-2R or FC7666AB-2R <u>Right Engine:</u> 1 Hartzell, Hub Model HC-C2YR-2CL () UF, Blade Model FJC7666A-2R or FJC7666AB-2R <u>Governor Assembly:</u>

- 1 Hartzell Hydraulic Governor Model E-3-5 (Left)
- or 1 Hartzell Hydraulic Governor Model U-3-10 (Left) with unfeathering accumulator
- 1 Hartzell Hydraulic Governor Model E-3-5L (Right)
- or 1 Hartzell Hydraulic Governor Model U-3-10L (Right) with unfeathering accumulator
- or 1 Hartzell Hydraulic Governor Model E-8-5L (Right) with Synchrophaser Installation, Piper Dwg. 86818-2
- or 1 Hartzell Hydraulic Governor Model U-8-10L (Right) with unfeathering accumulator and Synchrophaser Installation, Piper Dwg. 86818-2

Propeller and Propeller Limits
(continued)

Pitch Setting at 30" Station:
High 79° - 81°, Low 13.1° ± 0.2°
Diameter: Not over 74 inches
Not under 72 inches

Spinner: Hartzell P/N C-2285-3 Spinner Assy (Left)
Hartzell P/N C-2285-3L Spinner Assy (Right)
See NOTE 4.

Left Engine:

1 Hartzell, Hub Model HC-C3YR -2 () UF, Blade Model FC7663-5R or FC7663B-5R

Right Engine:

1 Hartzell, Hub Model HC-C3YR-2L () UF, Blade Model FJC7663-5R or FJC7663B-5R

Governor Assembly:

- 1 Hartzell Hydraulic Governor Model E-3-5 (Left)
- or 1 Hartzell Hydraulic Governor Model U-3-10 (Left) with unfeathering accumulator
- 1 Hartzell Hydraulic Governor Model E-3-5L (Right)
- or 1 Hartzell Hydraulic Governor Model U-3-10L (Right) with unfeathering accumulator
- or 1 Hartzell Hydraulic Governor Model E-8-5L (Right) with Synchrophaser Installation, Piper Dwg. 86818-2
- or 1 Hartzell Hydraulic Governor Model U-8-10L (Right) with unfeathering accumulator and Synchrophaser Installation, Piper Dwg. 86818-2

Pitch Setting at 30" Station:
High 81° - 83°, Low 11.2° ± 0.1°
Diameter: Not over 73 inches
Not under 72 inches

Spinner:

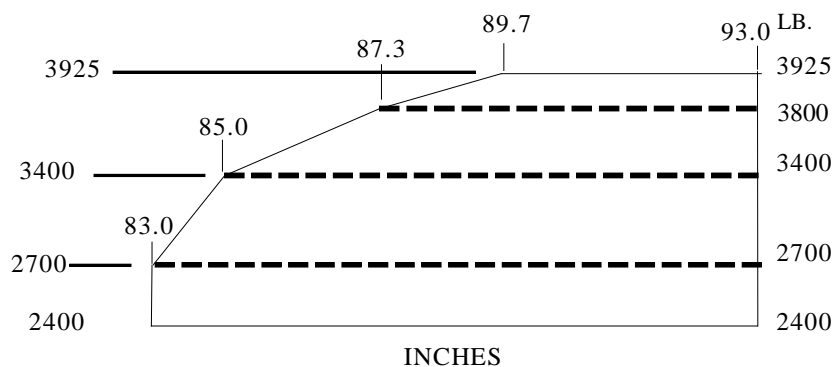
Hartzell P/N C-4558 Spinner Assy (Left)
Hartzell P/N C-4558 Spinner Assy (Right)
See NOTE 4.

"Avoid continuous operation at manifold pressures below 15" Hg above 12,000 feet altitude."

Airspeed Limits

V _{NE}	(Never Exceed)	202 KIAS
V _{NO}	(Maximum Structural Cruise)	170 KIAS
V _A	(Maneuvering - 3925 lb.)	137 KIAS
V _A	(Maneuvering - 2700 lb.)	112 KIAS
V _{FE}	(Maximum Flaps Extended)	111 KIAS
V _{LO}	(Maximum Landing Gear Operation)	
	Extension	140 KIAS
	Retraction	109 KIAS
V _{LE}	(Maximum Landing Gear Extended)	140 KIAS
V _{MC}	(Minimum Control Speed)	57 KIAS

<u>C.G. Range</u>	(+89.7)	to	(+93.0)	at	3925 lb.
	(+87.3)	to	(+93.0)	at	3800 lb.
	(+85.0)	to	(+93.0)	at	3400 lb.
	(+83.0)	to	(+93.0)	at	2700 lb. or less

Empty Weight C.G. Range

None

Maximum Weight

Ramp 3943 lb.
 Takeoff 3925 lb.
 Landing 3800 lb.

Number of Seats

4 (2 at +80.5, 2 at +118.1)

Maximum Baggage

200 lb. at +142.8

Fuel Capacity

110 gallons (2 nacelle tanks) at +95.0 (108 gallons usable)
 (See NOTE 1 for data on system fuel)

Oil Capacity

6 quarts per engine (4 quarts per engine usable)
 (See NOTE 1 for data on system oil)

Maximum Operating Altitude

20,000 feet

Control Surface Movements

Ailerons	($\pm 2^\circ$)	Up	23°	Down	17°
Stabilator	($\pm 1^\circ$)	Up	15°	Down	3°
Rudder	(+1°, -0°)	Left	37°	Right	37°
Stabilator Trim Tab	($\pm 1^\circ$)	Up	4°	Down	9°
(Stabilator neutral)					
Wing Flaps	($\pm 2^\circ$)	Up	0°	Down	40°
Rudder Trim Tab	($\pm 2^\circ$)	Left	26°	Right	26°
(Rudder neutral)					
Nose Wheel Travel	($\pm 1^\circ$)	Left	30°	Right	30°

Manufacturer's Serial Numbers

44-8107001 through 44-8207020

DATA PERTINENT TO ALL MODELSDatum

78.4" forward of wing leading edge at wing station 106.

Leveling Means

Two screws left side fuselage below window.

Certification Basis

Type Certificate No. A19SO issued March 10, 1978.

Date of application for Type Certificate, January 17, 1976.

PA-44-180: Federal Aviation Regulations (FAR) Part 23 effective February 1, 1965, through Amendment 23-16 effective February 14, 1975; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4, effective February 3, 1975.

Equivalent Safety Finding: FAR 23.1545(a).

PA-44-180T: FAR 23 effective February 1, 1965, through Amendment 23-16 effective February 14, 1975; FAR 23.207 and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201 and 23.203 as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 and 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; FAR 23.1545(a) as amended by Amendment 23-23 effective December 1, 1978; and FAR 36 effective December 1, 1969, through Amendment 36-9 effective April 3, 1978. Compliance with FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970, shown with optional supplemental oxygen.

For PA-44-180 aircraft equipped with Piper factory installed Avidyne Entegra Systems (see Piper Report VB-1940), the additional certification basis for installation specific items only is: FAR 23.1301, 23.1327, and 23.1335 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1501 and 23.1541(a)(b) as amended by Amendment 23-21 effective March 1, 1978; FAR 23.603 and 23.605(a) as amended by Amendment 23-23 effective October 10, 1978; FAR 23.1529 as amended by Amendment 23-26 effective October 14, 1980; FAR 23.1523 as amended by Amendment 23-34 effective February 17, 1987; FAR 23.1322, 23.1331 and 23.1357(a)(2)(b)(c)(d) as amended by Amendment 23-43 effective May 10, 1993; FAR 23.305, 23.613, 23.773(a)(1)(2), 23.1525 and 23.1549(a)(b)(c) as amended by Amendment 23-45 effective September 7, 1993; FAR 23.301, 23.337(a)(1)(b)(1), 23.341(a), 23.473, 23.561(b)(3)(e), 23.607 and 23.611 as amended by Amendment 23-48 effective March 11, 1996; FAR 23.1303(a)(b)(f), 23.1307, 23.1309(a)(1)(3)(b)(c)(1)(2)(i)(iii)(3)(d)(e), 23.1311, 23.1321, 23.1323(a)(c), 23.1329(d)(e)(f)(g)(h), 23.1351(a)(1)(2)(i)(b)(1)(i)(2)(3)(d), 23.1353(d)(h), 23.1359(c), 23.1361(a)(b), 23.1365(a)(b)(d)(e)(f) and 23.1431(a)(b)(d)(e) as amended by Amendment 23-49 effective March 11, 1996; FAR 23.1325(a)(b)(1)(2)(i)(3), 23.1543(b)(c), 23.1545(a)(b), 23.1553, 23.1555(a)(b), 23.1581(a)(b)(2)(3)(f), 23.1583(m) and 23.1585(j) as amended by Amendment 23-50 effective March 11, 1996; FAR 23.777(a)(b), 23.955(a)(3) and 23.1337(a)(b)(1)(4)(c) as amended by Amendment 23-51 effective March 11, 1996; 23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(5) as amended by Amendment 23-52 effective July 25, 1996; and Special Condition for HIRF (Docket No. CE238, Special Condition 23-178-SC), January 13, 2006. Eligible Serial Numbers 4496174, 4496224 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin G500 (see Piper Report VB-2314), the additional certification basis for installation specific items only is:

{Unless otherwise noted in the table below, all sections are Amendment 23-16}

Section	Amendment	Section	Amendment
23.301 (a),(b),(c)	23-48	23.611	23-48
23.303		23.771(a)	
23.305(a)	23-45	23.773(a)(2)	23-45
23.307(a)		23.777(a),(b)	23-51
23.337	23-48	23.867(a),(b),(c)	23-49
23.561(a),(b)(3)	23-48	23.1301	23-20
23.603	23-23	23.1303(a),(b),(c),(f)	23-49
23.605(a)	23-23	23.1307	23-49
23.607(a)	23-48	23.1308(a),(b),(c)	23-57
23.609		23.1309(a)(1)(3),(b)(c),(d),(e)	23-49

Additional certification basis for installation specific items only (continued):
 {Unless otherwise noted in the table below, all sections are Amendment 23-16}

Section	Amendment	Section	Amendment
23.1311(a)(1)(2)(3)(4)(5)(6),(b),(c)	23-49	23.1367	
23.1321(a)(b)(c)(d)(e)(f)	23-49	23.1381(a),(b)	
23.1322(a),(b),(c),(d)(e)	23-43	23.1431(a),(b)	23-49
23.1323(a),(c)	23-49	23.1501	23-21
23.1325(b)(1),(b)(2)(i),(e)	23-50	23.1523	23-34
23.1327(a)	23-20	23.1525	23-45
23.1329(h)	23-49	23.1529	23-26
23.1331(a),(b)(1)	23-43	23.1541(a),(b)	23-21
23.1335	23-20	23.1543(b),(c)	23-50
23.1351(a)(1),(a)(2)(i)	23-49	23.1545(a),(b)	23-50
23.1353(h)	23-49	23.1559(c)	23-50
23.1357(a),(b),(d)	23-43	23.1581(a),(b),(c),(f)	23-50
23.1359(c)	23-49	23.1583(h),(m)	23-50
23.1365(a),(b),(d),(e)	23-49	23.1585(j)	23-50

Eligible Serial Numbers 4496325 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin G1000 Integrated Avionics System and 28 Volt Electrical System, the additional certification basis for installation specific items only is:

14 CFR Part 23 regulations: 23.21, 23.23(a), 23.25, 23.29, 23.207(a), 23.251, 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.421(a), 23.473, 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.613, 23.625, 23.627, 23.729(e)(f), 23.771(a), 23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1041, 23.1043(a)(b)(c)(d), 23.1047, 23.1163(a)(b)(d), 23.1301, 23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(b)(5), 23.1306, 23.1307, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(c)(d)(e), 23.1311, 23.1321, 23.1322, 23.1323(a)(c), 23.1325(a)(b)(1)(2)(i), 23.1326, 23.1327(a), 23.1329(d)(g)(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i)(b)(1)(i)(3)(c)(4)(d), 23.1353, 23.1357, 23.1359(c), 23.1361(a)(c), 23.1365, 23.1367, 23.1381, 23.1431(a)(b)(e), 23.1501, 23.1507, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1543(b)(c), 23.1545(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a)(b)(e)(1), 23.1563(a)(b), 23.1567(a), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589 as amended by Amdt. 23-61; 23.1303(a)(b)(c)(f) as amended by Amdt. 23-62.

Eligible Serial Numbers: 4496331, 4496339 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin GFC700 Autopilot, the additional certification basis for installation specific items only is:

14 CFR Part 23 regulations: 23.21(b), 23.23(a)(b)(3), 23.25(a)(b), 23.29, 23.143(a)(b), 23.207(a)(b)(c)(d)(e), 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.397, 23.399, 23.473, 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.613, 23.625, 23.627, 23.681, 23.683, 23.693, 23.771(a), 23.777(a)(b), 23.779(a)(2), 23.867, 23.1141(d), 23.1301(a)(b)(c)(d), 23.1306, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(1)(3)(c)(d)(e), 23.1321(c), 23.1322(a)(b)(c)(d)(e), 23.1329(a)(1)(b)(c)(d)(e)(f)(g)(h), 23.1335, 23.1351(a)(1)(2)(i), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1367(a)(b)(c)(d), 23.1431(a)(b)(e), 23.1501, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1555(a), 23.1581(a), 23.1583(g)(h)(m), 23.1585(a)(1)(j) as amended by Amdt. 23-61.

Eligible Serial Numbers: 4496331, 4496367 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin G1000NXi Phase I as installed by Piper drawing number 107600-002, the additional certification basis for installation specific items only is:

14 CFR Part 23 regulations: 23.21, 23.23(a), 23.25(a)(b), 23.29, 23.251, 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.421(a), 23.473, 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.613, 23.625, 23.627, 23.729(e)(f), 23.771(a), 23.773(a)(2), 23.777(a)(b), 23.867, 23.903(a), 23.1041, 23.1043(a)(b)(c), 23.1047, 23.1163(a)(b)(d), 23.1301(a)(b)(c)(d), 23.1305(a)(1)(2) (3)(b)(2)(3)(i)(4)(i)(5), 23.1306, 23.1307, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(6)(7)(b)(c), 23.1321(a)(b)(c)(d)(5)(e), 23.1322(a)(b)(c)(d)(e), 23.1323(a)(c), 23.1325(a)(b)(1)(2)(i), 23.1326(a), 23.1327(a), 23.1329(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i) (b)(1)(i)(3)(c)(4)(d), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1361(a), 23.1365, 23.1367(a)(b)(c)(d), 23.1381(a)(b)(c), 23.1383(a)(b)(c)(d), 23.1385(a)(b)(c)(d), 23.1387(a)(b)(c)(d)(e), 23.1389(a)(b)(c), 23.1391, 23.1393, 23.1395(a)(b), 23.1397(a)(b)(c), 23.1401(a)(b)(c)(d)(e)(f), 23.1431(a)(b), 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1543(b)(c), 23.1545(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a)(b)(e)(1), 23.1563(a)(b), 23.1567(a), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589 as amended by Amdt. 23-61.

14 CFR Part 23 Regulation 23.1303(a)(b)(c)(f) as amended by Amdt. 23-62

Eligible Serial Numbers: 4496395, 4496397 and up.

For PA-44-180 aircraft equipped with Piper Lycoming IO-360-B1G6 and LIO-360-B1G6 Fuel Injected Engines as installed by Piper drawing number 107600-003 the additional certification basis for installation specific items only is:

14 CFR Part 23 Regulations 23.33(a)(d), 23.865, 23.901(a)(1)(2)(b)(1)(2), 23.903(a)(c)(1)(2)(d),), 23.905(a)(b)(c), 23.907(a), 23.925(a)(c)(1)(2)(3), 23.951(a)(b)(1), 23.953(a), 23.954(a)(b)(c), 23.959, 23.961, 23.963, 23.965, 23.967, 23.969, 23.971, 23.973, 23.975(a), 23.977, 23.991(a)(1)(b), 23.993, 23.994, 23.995, 23.997, 23.999, 23.1011, 23.1017, 23.1019(b), 23.1021, 23.1023, 23.1027, 23.1091(a)(b)(1)(2)(3), 23.1103, 23.1121(a)(b)(c)(d)(e)(f), 23.1123, 23.1141(a)(b)(c)(d), 23.1143, 23.1145, 23.1147, 23.1149, 23.1153, 23.1182, 23.1183, 23.1189, 23.1191, 23.1193, 23.1521(a)(b)(1)(c)(1)(4)(d), as amended by Amdt. 23-16

14 CFR Part 23 Regulations 23.1101 as amended by Amdt. 23-43;

14 CFR Part 23 Regulations 23.955(a)(c)(1)(3)(e)(3), 23.1093(a)(5), 23.1107 as amended by Amdt. 23-51;

14 CFR Part 23 Regulations 23.21, 23.23, 23.25(a)(b), 23.29, 23.301, 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.473, 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.613, 23.625, 23.627, 23.777(a)(b), 23.779(b)(1), 23.1041, 23.1043, 23.1047, 23.1163, 23.1301(a)(b)(c)(d), 23.1305(a)(1)(2)(3)(4)(b)(2)(3)(i)(4)(i)(5), 23.1309(a)(1)(a)(3)(b)(f), 23.1337(a)(1)(2)(3)(b)(1)(4)(c)(d)(1), 23.1351(b)(1)(i), 23.1357(a)(b)(c), 23.1359(c), 23.1365(c), 23.1431(b), 23.1529, 23.1541(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a)(b)(c)(1)(3)(4)(d)(e)(1)(2), 23.1581(a), 23.1583(g)(h)(m), 23.1585(j), 23.1589 as amended by Amdt. 23-61;

Eligible Serial Numbers: 4496404, 4496417 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin G1000NXi Phase II as installed by Piper drawing number 107600-002 or 107600-003, the additional certification basis for installation specific items only is:

14 CFR Part 23 Regulation 23.903(d) as amended by Amndt. 23-16
14 CFR Part 23 Regulations 23.21, 23.23, 23.25(a)(b), 23.29, 23.251, 23.301(a)(b)(c), 23.303, 23.305(a)(b), 23.307(a), 23.337(a)(b), 23.341(a)(c), 23.473, 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.613, 23.625, 23.627, 23.729(e)(f), 23.771(a), 23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1301(a)(b)(c)(d), 23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(5), 23.1306, 23.1307, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(6)(7)(b)(c), 23.1321(a)(b)(c)(d)(5)(e), 23.1322(a)(b)(c)(d)(e), 23.1323(a)(c), 23.1325(a)(b)(1)(2)(i), 23.1326(a)(b), 23.1327(a), 23.1329(d)(e)(g)(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i)(b)(1)(i)(ii)(iii)(3)(c)(4)(d), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1361(a), 23.1365, 23.1367(c)(d), 23.1381(a)(b)(c), 23.1431(a)(b)(e), 23.1501, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1543(b)(c), 23.1545(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a)(b)(e)(1), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589(a) as amended by Amndt. 23-61
14 CFR Part 23 Regulation 23.1303(a)(b)(c)(f) as amended by Amndt. 23-62

Eligible Serial Numbers: 4496432, 4496447 and up.

For PA-44-180 aircraft equipped with Piper factory installed Garmin G5 Standby Instrument as installed by Piper drawing number 107600-002 or 107600-003, the additional certification basis for installation specific items only is:

14 CFR Part 23.303, 23.307(a), 23.1381(a)(b) as amended by Amndt. 23-0
14 CFR Part 23.771(a) as amended by Amndt. 23-14
14 CFR Part 23.1541(a)(b) as amended by Amndt. 23-21
14 CFR Part 23.601, 23.603, 23.605(a) as amended by Amndt. 23-23
14 CFR Part 23.1529 as amended by Amndt. 23-26
14 CFR Part 23.1322(a)(e), 23.1357(a)(b)(c)(d) as amended by Amndt. 23-43
14 CFR Part 23.305, 23.613(a)(b), 23.773(a)(2) as amended by Amndt. 23-45
14 CFR Part 23.301(a), 23.337(a)(b), 23.607(b) as amended by Amndt. 23-48
14 CFR Part 23.1307, 23.1309(b)(1)(e), 23.1321(c)(e), 23.1351(a)(1)(2)(i), 23.1359, 23.1365(a)(b)(c)(d)(e) as amended by Amndt. 23-49
14 CFR Part 23.1325(a)(b), 23.1543(b), 23.1581(a)(b)(d)(f) as amended by Amndt. 23-50
14 CFR Part 23.25(a)(b), 23.29 as amended by Amndt. 23-61
14 CFR Part 23.251(a), 23.561(a)(b)(3)(c), 23.777(a)(b), 23.853(a), 23.1301(a)(b)(c), 23.1303(a)(b)(c)(f), 23.1309(a)(1)(2), 23.1311(a)(1)(2)(3)(6)(7)(b), 23.1323(a)(b)(c), 23.1331(a)(b)(1)(c), 23.1353(h), 23.1431(a)(b), 23.1545(a)(b)(c), 23.1555(a)(b), 23.1583(m), 23.1585(a) as amended by Amndt. 23-62
14 CFR Part 23.2515(a)(b), 23.2520(a)(b) as amended by Amndt. 23-64

Eligible Serial Numbers: 4496471, 4496498, 4496502 and up.

For PA-44-180 aircraft equipped with Piper factory installed Hartzell HC-C2YR-2C(L)EUFP/F(J)C7497 propeller assemblies installed by 89360-010/89360-011 or 44P72A001-001/ 44P72A001-002 the additional certification basis for installation specific items only is:

14 CFR Part 23.33(a)(d), 23.251, 23.925(a)(c), 23.1521(a)(b)(1)(c)(1)(4) as amended by Amndt. 23-0
14 CFR Part 23.49, 23.65, 23.67, 23.75, 23.77, 23.149, 23.1041, 23.1043, 23.1047, 23.1501(a)(b)(c) as amended by Amndt. 23-7
14 CFR Part 23.1541(a)(b), 23.1559(a)(1)(b), 23.1581, 23.1583, 23.1585, 23.1587 as amended by Amndt. 23-13
14 CFR Part 23.201 as amended by Amndt. 23-14
14 CFR Part 23.51(b) as amended by Amndt. 23-16
14 CFR Part 23.1549 as amended by Amndt. 23-17

14 CFR Part 23.901 as amended by Amndt. 23-18
 14 CFR Part 23.1529 as amended by Amndt. 23-26
 14 CFR Part 23.905(a)(b)(c)(d), 23.907 as amended by Amndt. 23-59
 14 CFR Part 23.25(a)(b), 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c),
 23.361(a)(c), 23.363, 23.473, 23.601, 23.603, 23.605(a), 23.607, 23.609, 23.611, 23.627 as
 amended by Amndt. 23-61

Eligible Serial Numbers: 4496471, 4496517 and up.

Production Basis

Production Certificate No. 206. Production Limitation Record issued and the manufacturer authorized to issue airworthiness certificate under the Delegation Option provisions of FAR 21.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:

PA-44-180: POH and FAA Approved AFM, VB-860, approved March 23, 1978, for S/N 44-7995001 through 44-8195026.
 POH and FAA approved AFM, VB-1380, approved July 20, 1989, for S/N 4495001 through 4495013.
 POH, VB-1616, approved July 12, 1995, for S/N 4496001 and up.
 POH, VB-1942, approved May 26, 2006, for S/N 4496174 and 4496224 and up when Avidyne Entegra System (See Piper Report VB-1940) is installed
 POH, VB-2307, approved June 5, 2013, for S/N 4496331, 4496339 and up, when the Garmin G1000 Integrated Avionics System is installed
 POH, VB-2307 Rev 02 or later, approved October 28, 2014, for S/N: 4496331, 4496367 and up, when the Garmin G1000 and/or GFC700 autopilot installed
 POH, VB-2636 Rev 00 or later, approved November 3, 2016, for S/N: 4496395, 4496397 and up, when the Garmin G1000 is installed by Piper drawing number 107600-002
 POH, VB-2636 Rev 01 or later, approved December 15, 2017, for S/N: 4496404, 4496417 and up, when the Lycoming Fuel Injected Engines are installed.
 POH, VB-2636 Rev 03 or later, approved October 1, 2018, for S/N: 4496432, 4496447 and up, when Garmin G1000NXi is installed by Piper Drawing Number 107600-002 or 107600-003.
 POH, VB-2636, Rev 05 or later, approved April 2, 2020 for SN4496471, 4496517 and up when optional Hartzell 2-Blade Scimitar Propeller Model HC-C2YR-2C(L)EUF/F(J)C7497 propeller assembly installed by Piper Drawing Number 89360-010/89360-011 or 44P72A001-001/ 44P72A001-002.
 POH, VB-2636, Rev 05 or later, approved April 2, 2020 for SN4496471, 4496498, 4496502 and up, when Garmin G5 Standby instrument is installed by Piper Drawing Number 107600-002 or 107600-003.

PA-44-180T: POH and FAA approved AFM, VB-1100, approved March 14, 1980, for S/N 44-8107001 through 44-8207020.

- NOTE 1. Current Weight and Balance Report, including list of equipment included in certificated empty weight and loading instructions when necessary, must be provided for each aircraft at the time of original certification.
- The certificated empty weight and corresponding center-of-gravity locations must include undrainable system oil (not included in oil capacity) and unusable fuel as noted below:
- Fuel: 12.0 lb. at (+95.0)
Oil: 3.6 lb. at (+68.8)
- NOTE 2. All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.
- NOTE 3. The below life limits are based on general aircraft usage for this aircraft class:
- a) PA-44-180
For S/N 44-7995001 through 44-8195026
The service life of the wing, wing carry through and their attaching structure has been established as 14663 hours maximum.
For S/N 4495001 through 4495013, and 4496001 and up
The service life of the wing, wing carry through and their attaching structure has been established as 14663 hours maximum.
- b) PA-44-180T
For S/N 44-8107001 through 44-8207020
The service life of the wing, wing carry through and their attaching structure has been established as 16462 hours maximum.
- NOTE 4. The PA-44-180, S/N 44-7995001 through 44-8195026, may be operated without spinner domes or without spinner domes and rear bulkheads, except when equipped with three-bladed propellers and air conditioning, in which case only the spinner dome may be removed.
- The PA-44-180, S/N 4495001 through 4495013, and 4496001 and up, may be operated with only the spinner dome removed.
- NOTE 5. The following serial numbers are not eligible for airworthiness certification in the United States: 44-7995235 and 44-7995298.
- NOTE 6. Engines must be both carbureted or both fuel injected, mixing carbureted with fuel injected engines is prohibited as well as mixing spinners.

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