DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A9SO
Revision 10
Piper Aircraft, Inc

PA-36-285
PA-36-300
PA-36-375

August 7, 2006

TYPE CERTIFICATE DATA SHEET A9SO

This data sheet which is a part of Type Certificate No. A9SO, prescribes conditions and limitations under which the product for which the 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 A9SO to Piper Aircraft, Inc on August 7, 2006.

I. - Model PA-36-285, 1 PCLM (Normal Category), Approved May 31, 1972.

Engine

1 Teledyne Continental 6-285-B or 6-285-C with CMC injector with fuel flow schedule per curve No. 71-12, or
1 Teledyne Continental 6-285-BA or 6-285-CA (See NOTE 9 for -BA and -CA engines) with CMC injector with fuel flow schedule per curve No. 77041. Propeller drive ratio to crankshaft 0.500:1.

Fuel

100/130 minimum grade aviation gasoline

Engine Limits

For all operations, 4000 r.p.m. (2000 propeller r.p.m.) (285 hp)

Propeller and Propeller Limits

1 Hartzell, Hub Model HC-C2YF-1 ( )F, Blade Model F9587A
Pitch Setting: High 27° to 29°, Low 18° ± 0.2° at 30" station.
Diameter: Not over 95", not under 93".
No further reduction permitted.
Spinner: Hartzell A4203 Spinner Assembly is required.
Propeller Governor: Hartzell Model F-4-6A
OR
1 Hartzell, Hub Model HC-C3YF-1 ( )F, Blade Model F9684-1
Pitch Setting: High 29° to 31 °, Low 16.3° to 16.5° at 30" station.
Diameter: Not over 95", not under 93".
No further reduction permitted.
Spinner: Hartzell A4203-1 (See NOTE 5 for data on spinner.)
Propeller Governor: Hartzell Model F-4-6A

Propeller Limitations

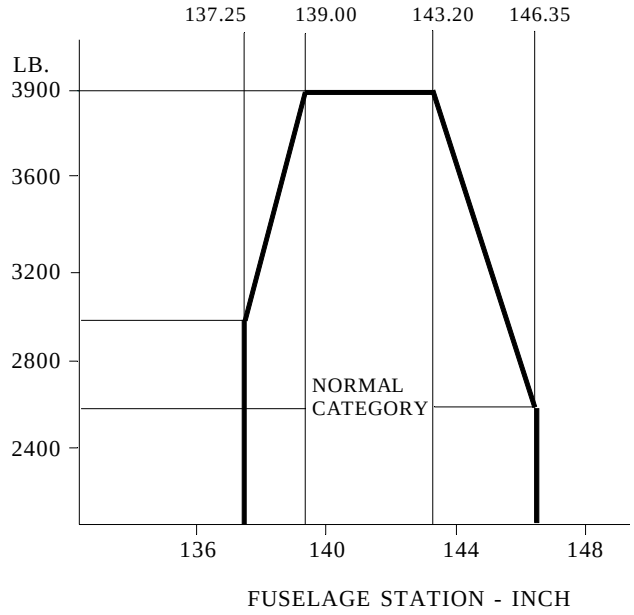
Hartzell Model HC-C2YF-1 ( )F only.
Avoid continuous operation on the ground between 950 and 1150 propeller r.p.m. in wind above 15 mph.

Airspeed Limits (CAS)

V_{ne}	Never exceed	182 mph	(158 knots)
V_{no}	Maximum structural cruising	150 mph	(130 knots)
V_{p}	Maneuvering	136 mph	(118 knots)
V_{fe}	Flaps Extended	115 mph	(100 knots)

Center of Gravity Range	(+137.25)	at	3000 lb. or less
	(+139.00) to (+143.20)	at	3900 lb.
	(+146.35)	at	2600 lb. or less

Straight line variation between points given.



Empty Weight C.G. Range: None

Maximum Weight: 3900 lb.

No. of Seats: 1 (+196.0)

Maximum Baggage: None

Fuel Capacity: 89 gallons at (+138.4) (2 wing tanks) (87 gallons usable)
See NOTE 1 for data on unusable fuel.

Oil Capacity: 9 quarts (5 quarts usable)
See NOTE 1 for data on system oil.

Manufacturer's Serial Numbers: 36-7360001 through 36-7660135 (See NOTE 6 for airworthiness certification eligibility in the United States)

II. - Model PA-36-300, 1 PCLM (Normal Category), Approved November 22, 1974.

Same as Model PA-36-285 except engine installation.

Engine: 1 Lycoming IO-540-K1G5 with one 5th order and one 6th order pendulum damper.

Fuel: 100/130 minimum grade aviation gasoline

Engine Limits: For all operations, 2700 r.p.m. (300 hp)

Propeller and Propeller Limits

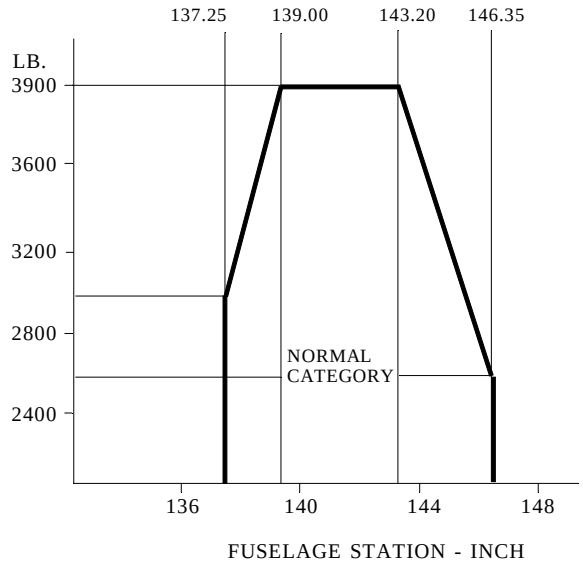
1 Hartzell, Hub Model HC-C2YF-1 ( )F, Blade Model F8475R
Pitch Setting: High 29° ± 1°, Low 12.0° ± 0.2° at 30" station.
Diameter: Not over 84", not under 82.3".
No further reduction permitted.
Spinner: Piper Drawing 99374 (See NOTE 5 for data on spinner.)
Propeller Governor: Hartzell Model F-4-11A
OR
1 Hartzell, Hub Model HC-C3YR-1 ( )F, Blade Model F8468A-6
Pitch Setting: High 26° ± 1°, Low 11.8° ± 0.2° at 30" station.
Diameter: Not over 80", not under 78".
No further reduction permitted.
Spinner: Hartzell 835-36 (See NOTE 5 for data on spinner.)
Propeller Governor: Hartzell Model F-4-11A

Airspeed Limits

V_{ne}	Never exceed	182 mph CAS,	177 m.p.h. IAS
V_{no}	Maximum structural cruising	150 mph CAS,	146 m.p.h. IAS
V_p	Maneuvering	136 mph CAS,	132 m.p.h. IAS
V_{fe}	Flaps Extended	115 mph CAS,	116 m.p.h. IAS

Center of Gravity Range

(+137.25) at 3000 lb. or less
(+139.00) to (+143.20) at 3900 lb.
(+146.35) at 2600 lb. or less
Straight line variation between points given.



Empty Weight C.G. Range

None

Maximum Weight

3900 lb.

No. of Seats

1 (+196.0)

Maximum Baggage

None

Fuel Capacity

89 gallons at (+138.4) (2 wing tanks) (87 gallons usable)
See NOTE 1 for data on unusable fuel.

Oil Capacity

12 quarts (9¼ quarts usable)
See NOTE 1 for data on system oil.

Manufacturer's Serial Numbers: 36-7560001 through 36-8160023 (See NOTE 6 for airworthiness certification eligibility in the United States).

III. - Model PA-36-375, 1 PCLM (Normal Category), Approved October 4, 1977.

Engine: 1 Lycoming IO-720-D1CD or IO-720-D1C with one 3.5 order, six 4th order and one 5th order pendulum damper.

Fuel: 100/130 minimum grade aviation gasoline

Engine Limits: For all operations, 2500 r.p.m. (375 hp)

Propeller and Propeller Limits: 1 Hartzell , Hub Model HC-C3YR-1 ( )F, Blade Model F8475R
Pitch Setting: High 27° ± 1°, Low 13.3° ± 0.2° at 30" station.
Diameter: Not over 86", not under 84".
No further reduction permitted.
Spinner: Hartzell 835-36 (See NOTE 5 for data on spinner.)
Propeller Governor: Hartzell Model F-4-23

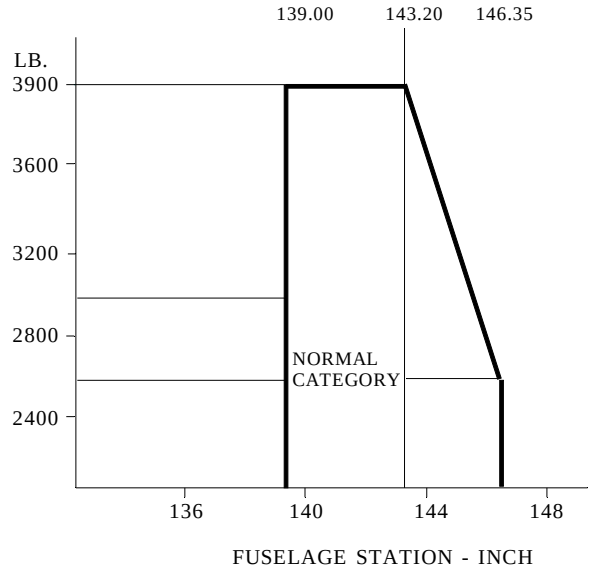
Airspeed Limits:

V_{ne}	Never exceed	189 mph CAS,	184 mph IAS
V_{no}	Maximum structural cruising	150 mph CAS,	147 mph IAS
V_p	Maneuvering	136 mph CAS,	134 mph IAS
V_{fe}	Flaps Extended	120 mph CAS,	121 mph IAS

Center of Gravity Range:

(+139.00)	at	3900 lb. or less
(+139.00) to (+143.20)	at	3900 lb.
(+146.00)	at	2740 lb. or less

Straight line variation between points given.



Empty Weight C.G . Range: None

Maximum Weight: 3900 lb.

No. of Seats: 1 (+196.0)

Maximum Baggage: None

Fuel Capacity 89 gallons at (+138.4) (2 wing tanks) (87 gallons usable)
See NOTE 1 for data on unusable fuel.

Oil Capacity 17 quarts (14 quarts usable)
See NOTE 1 for data on system oil.

Manufacturer's Serial Numbers 36-7802001 through 36-8302025 (See NOTE 6 for airworthiness certification eligibility in the United States).

DATA PERTINENT TO ALL MODELS

Datum 126.0 inches forward of the wing leading edge at the intersection of the straight and tapered section.

Leveling Means Two screws right side fuselage, inside below window.

Control Surface Movements

Aileron	(± 1°)	Up	20°	Down	17°		
Elevator	(± 1°)	Up	30°	Down	20°		
Elevator Tabs	(+3°, -1°)	Up	15.5°	Down	22.5°	Elevator Neutral	
Rudder	(± 1°)	Left	25°	Right	25°		
Flaps	(± 1°)	Up	0°	Down	30°	for PA-36-285 and PA-36-300	
	(± 1°)	Up	0°	Down	20°	for PA-36-375	

See NOTE 7 for flap travel restriction.

Certification Basis FAR Part 23, effective February 1, 1965; and including Amendments 23-1 through 23-6 dated August 1, 1967.

Application for Type Certificate dated April 30, 1969.
Type Certificate issued May 31, 1972. Obtained by the manufacturer under delegation option procedures.

Production Basis Approved for manufacture of spare parts only under Production Certificate No. 206.

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:

1. VB-645 approved August 19, 1974, for Model PA-36-285, S/N 36-7360001 through 36-7460041.

2. VB-682 approved January 31, 1975, for Model PA-36-285, S/N 36-7560001 through 36-7660135.

3. Piper Report 2032 issued November 22, 1974, and Piper Report 2035 issued November 20, 1974, for Model PA-36-300, S/N 36-7560001 through 36-8160023.

4. Piper Report 2114 issued October 11, 1977, and Piper Report 2115 issued October 11, 1977, for Model PA-36-375, S/N 36-7802001 through 36-8302025.

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:

PA-36-285:
Fuel: 12.0 lb. at +138.4
Oil: 7.5 lb. at +87.0
PA-36-300:
Fuel: 18.0 lb. at +138.4
Oil: 3.5 lb. at +88.5
PA-36-375:
Fuel: 18.0 lb. at +138.4
Oil: 3.5 lb. at +90.5

NOTE 2 All placards required in the approved Airplane Flight Manual and approved Airplane Flight Manual Supplements must be installed in the appropriate locations.

NOTE 3 The PA-36-285 engine installation consists of the basic Teledyne Continental Motors Model 6-285-B, 6-285-BA, 6-285-C, or 6-285-CA engine with Teledyne Continental Customer Specifications No. 2.

NOTE 4 Model PA-36-285, S/N 36-7360001 through 36-7460041 are eligible for multiple airworthiness certification in the Restricted and Normal Categories in accordance with FAR 21.187. Conversion between categories may be accomplished in accordance with Piper Report VB-592.

NOTE 5 PA-36-285 aircraft may be operated with Hartzell A4201-1 spinner dome removed. Spinner backup plate must remain installed.

PA-36-300 two-blade propeller aircraft may be operated with spinner dome and forward bulkhead removed. Piper aft bulkhead P/N 67791 is required for flight.

PA-36-300 three-blade propeller aircraft may be operated with spinner dome and filler plates removed. Hartzell aft bulkhead P/N C-885-3 is required for flight.

PA-36-375 three-blade propeller aircraft may be operated with spinner dome and filler plate removed. Hartzell aft bulkhead P/N C-885-3 or P/N C-4549 is required for flight.

NOTE 6 The following serial numbered aircraft are not eligible for import certification to the U.S.:

Model PA-36-285:
36-7360050, 36-7460011, 36-7460012, 36-7460013, 36-7460014, 36-7460015, 36-7560088, 36-7660085, 36-7660088, 36-7660091, and 36-7660094.

Model PA-36-300:
36-7760018, 36-7760034, 36-7760047, 36-7760051, 36-7760055, 36-7760120, 36-7760121, 36-7760123, 36-7760125, 36-7760129, 36-7760132, 36-7860010, 36-7860011, 36-7860012, 36-7860043, 36-7860045, 36-7860047, 36-7860049, 36-7860050, 36-7860051, 36-7860069, 36-7860071, 36-7860073, 36-7860089, 36-7860090, 36-7860091, 36-7860092, 36-7860093, 36-7860094, 36-7860095, 36-7860096, 36-7860097, 36-7860098, 36-7860102, 36-7860103, 36-7860104, 36-7860105, 36-7860109, 36-7860111, 36-7860112, 36-7860122, 36-7860123, 36-7960001, 36-7960007, 36-7960008, 36-7960009, 36-7960010, 36-7960011, 36-7960012, 36-7960013, 36-7960014, 36-7960015, 36-7960016, 36-7960017, 36-7960018, 36-7960019, 36-8060002, 36-8060003, 36-8060007, 36-8060010, 36-8060015, 36-8060020, 36-8060021, 36-8060022, and 36-8060023.

Model PA-36-375:
36-7802034, 36-7802050, 36-7802061, 36-7802062, 36-7802063, 36-7802074, 36-7902001, 36-7902002, 36-7902003, 36-7902020, 36-7902022, 36-7902024, 36-7902033, 36-7902035, 36-7902037, 36-7902048, 36-7902049, 36-7902050, 36-7902051, 36-8002005, 36-8002006, 36-8002011, 36-8002013, 36-8002016, 36-8002018, and 36-8002025.

NOTE 7 Wing flap travel on Models PA-36-285 and PA-36-300, S/N 36-7360001 through 36-7460041, is 0° (± 1°) Up, and 20° (± 1°) Down.

NOTE 8 The following life limits are required:

For all PA-36 models:
The wing main spar lower attachment bolts, Piper P/N 77245-00, must be replaced upon the accumulation of 2000 hours time-in-service (TIS) and every 2000 hours TIS thereafter (Ref. Piper Service Bulletin No. 501).
The wing main spar upper attachment bolts, Piper P/N 77245-00, must be replaced upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter (Reference Piper Service Bulletin 744).
The wing carry-through spar fittings, Piper P/N 97713-00, 97713-02 or 97713-03, must be replaced upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter with P/N 97713-03 (Reference Piper Service Bulletin 744).
The wing spar fittings, Piper P/N 97712-00, must be replaced upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter (Reference Piper Service Bulletin 744).

For Models PA-36-285 and PA-36-300, S/N 36-7360001 through 36-7560003 and 36-7660123 through 36-8160023, and Model PA-36-375, S/N 36-7802001 through 36-8302025:
The spar carry-through assembly, Piper P/N 97370-00 or P/N 76824-02, as applicable, must be replaced upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter with P/N 76824-02 (Reference Piper Service Bulletins 552 and 744).

For Models PA-36-285 and PA-36-300, S/N 36-7560056 through 36-8160023 and Model PA-36-375, S/N 36-7802001 through 36-8302025:
The spar assembly, Piper P/N 97701-00 (Rev. P) and P/N 97701-01 (Rev. P) must be replaced with Piper Kit 764 393, left spar assembly, and Kit 764 394, right spar assembly, upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter (Reference Piper Service Bulletin 744).

For Models PA-36-285 and PA-36-300, S/N 36-7560004 through 36-7660122:
The spar carry-through assembly, Piper P/N 76767-00 must be replaced upon the accumulation of 4000 hours TIS with Piper P/N 76824-02; and P/N 76824-02 must be repalced every 4100 hours TIS thereafter (Reference Piper Service Bulletin 744).

For Models PA-36-285 and PA-36-300, S/N 36-7360001 through 36-7560055:
The spar assemblies, Piper P/N 97701-00 (Rev. N or earlier) and P/N 97701-01 (Rev. N or earlier) must be replaced upon the accumulation of 3100 hours TIS with Piper Kit 764 393 (left spar assembly) and Kit 764 394 (right spar assembly), as applicable; and Kits 764 393 and 764 394 must be replaced every 4100 hours TIS thereafter (Reference Piper Service Bulletin 744).

NOTE 9 Field installation of Teledyne Continental engines 6-285-BA and 6-285-CA require the following:

(a) Engine installed in accordance with instruction per Teledyne Continental Kit EQ6534, EQ6535, EQ6539 or EQ6540 (Ref. Teledyne Continental Newsletter dated April 4, 1977).
(b) Engine cowl modified in accordance with Piper Service Letter No. 774 (Applicable to S/N 36-7360001 through 36-7660102).
(c) The following Airplane Flight Manual (AFM) required:

Aircraft Serial Numbers	AFM
36-7360001 through 36-7460041	VB-645
36-7560001 through 36-7660102	VB-682

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