TYPE CERTIFICATE DATA SHEET Nº EA-9113

Type Certificate Holder:

PIPER AIRCRAFT, INC.
2926 Piper Drive
Vero Beach, Florida 32960
USA

EA-9113
Sheet 01

PIPER AIRCRAFT

PA-36-300
PA-36-375

05 APR 2016

This data sheet, which is part of Type Certificate No. 9113, prescribes conditions and limitations under which the product, for which the Type Certificate was issued, meets the airworthiness requirements of the Brazilian Aeronautical Regulations.

I - Model PA-36-300, 1 PCLM (Normal Category), approved 03 December 1991.

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 rpm, 223.7 kW (300 hp).

PROPELLER AND PROPELLER LIMITS

1 Hartzell, Hub Model HC-C3YR-1( )F, Blade Model F8468A-6.

Pitch Setting:	High 26º ±1º, Low 11.8º ± 0.2º at 762 mm (30 in) station.
Diameter:	Not over 2032 mm (80 in), not under 1981mm (78 in). No further reduction permited.
Spinner:	Hartzell 835-36 (See Note 5 for data on spinner.)
Propeller Governor:	Hartzell Model F-4-11A.

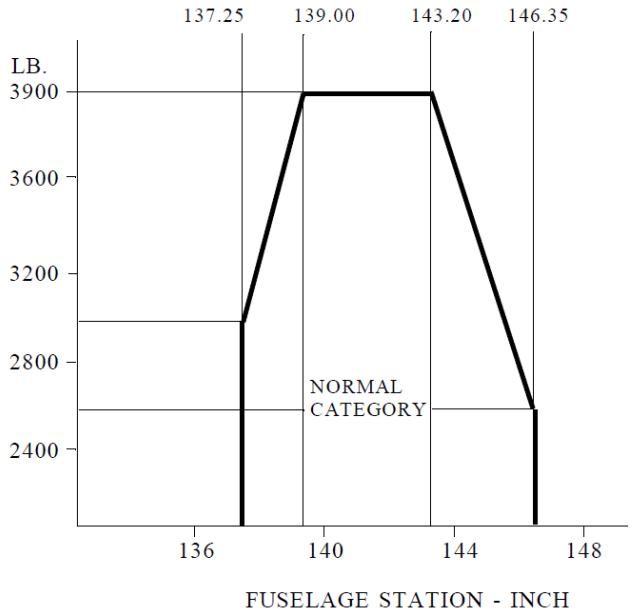
AIRSPEED LIMITS

		CAS kt (mph)	IAS kt (mph)
V_{ne}	Never exceed	158 (182)	154 (177)
V_{no}	Maximum structural cruising	130 (150)	127 (146)
V_p	Maneuvering	118 (136)	115 (132)
V_{fe}	Flaps Extended	100 (115)	101 (116)

C. G. RANGE

+3486.15mm (+137.25 in)	at	1360.77 kg (3000 lb) or less.
+3530.6 mm (+139.00 in) to +3637.28 mm (+143.20 in)	at	1769.01 kg (3900 lb).
+3641.09 mm (+146.35 in)	at	1179.34 kg (2600 lb) or less.

Straight line variation between points given.



EMPTY WEIGHT C.G. RANGE None.

MAXIMUM WEIGHT 1769.01 kg (3900 lb). (See Note 6).

NUMBER OF SEATS 1 at +4978.4 mm (+196.0 in).

MAXIMUM BAGGAGE None.

FUEL CAPACITY 336.9 L (89 gallons) at 3515.36 mm (+138.4) (2 wings tanks), 329.33 L (87 gallons) usable.
See Note 1 for data on unusable fuel.

OIL CAPACITY 11.36 L (12 quarts), 8.75 L ($9^{1/4}$ quarts) usable.
See Note 1 for data on system oil.

SERIAL NUMBERS ELIGIBLE 36-7560001 through 36-8160023 (See Note 9 for airworthiness certification elegibility in Brazil).

IMPORT ELEGIBILITY A Brazilian Certificate of Airworthiness may be issued on the basis of on a FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by Brazilian Type Certificate nº 9113 and in condition of safe operation".

II - <u>Model PA-36-300, 1 PCLM (Restricted Category Only), approved 03 December 1991.</u>

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 rpm, 223.7 kW (300 hp).

PROPELLER AND PROPELLER LIMITS

1 Hartzell, Hub Model HC-C3YR-1( )F, Blade Model F8468A-6.

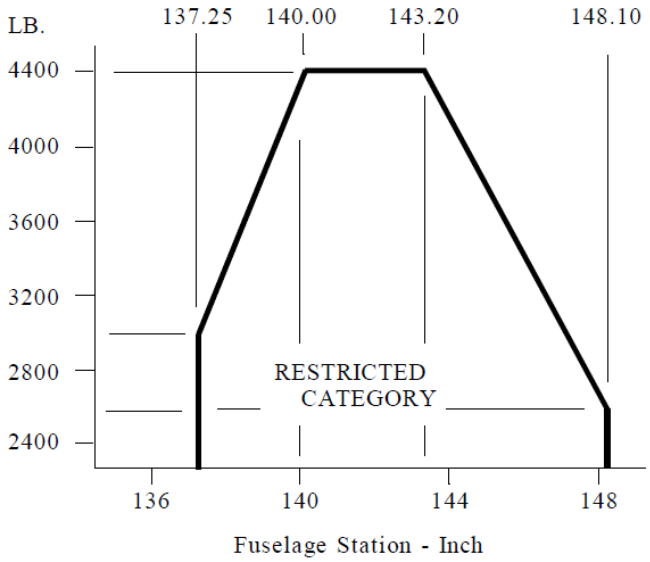
Pitch Setting:	High 26º ±1º, Low 11.8º ± 0.2º at 762 mm (30 in) station.
Diameter:	Not over 2032 mm (80 in), not under 1981mm (78 in). No further reduction permited.
Spinner:	Hartzell 835-36 (See Note 5 for data on spinner.)
Propeller Governor:	Hartzell Model F-4-11A.

AIRSPEED LIMITS

	CAS kt (mph)	IAS kt (mph)
Maximum operating	117 (135)	114 (131)
V_{fe} Flaps Extended	100 (115)	101 (116)

C. G. RANGE

+3486.15mm (+137.25 in) at 1360.77 kg (3000 lb) or less.
+3556.00 mm (+140.00 in) to +3637.28 mm (+143.20 in) at 1995.80 kg (4400 lb).
+3761.74 mm (+148.10 in) at 1179.34 kg (2600 lb) or less.
Straight line variation between points given.



EMPTY WEIGHT C.G. RANGE None.

MAXIMUM WEIGHT 1995.80 kg (4400 lb). (See Note 6).

NUMBER OF SEATS 1 at +4978.4 mm (+196.0 in).

MAXIMUM BAGGAGE None.

FUEL CAPACITY 336.9 L (89 gallons) at 3515.36 mm (+138.4) (2 wings tanks), 325.55 L (86 gallons) usable.
See Note 1 for data on unusable fuel.

OIL CAPACITY 11.36 L (12 quarts), 8.75 L ($9^{1/4}$ quarts) usable.
See Note 1 for data on system oil.

SERIAL NUMBERS ELIGIBLE 36-7560001 through 36-8160023 (See Note 9 for airworthiness certification elegibility in Brazil).

IMPORT ELEGIBILITY A Brazilian Certificate of Airworthiness may be issued on the basis of on a FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by Brazilian Type Certificate nº 9113 and in condition of safe operation".

III - Model PA-36-375, 1 PCLM (Normal Category), approved 03 December 1991.

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 rpm, 279.6 kW (375 hp).

PROPELLER AND PROPELLER LIMITS 1 Hartzell, Hub Model HC-C3YR-1( )F, Blade Model F8475R

Pitch Setting:	High 27º ±1º, Low 13.3º ±0.2º at 762 mm (30 in) station.
Diameter:	Not over 2184.4 mm (86 in), not under 2133.6 mm (84 in). No further reduction permited.
Spinner:	Hartzell 835-36 (See Note 5 for data on spinner.)
Propeller Governor:	Hartzell Model F-4-23

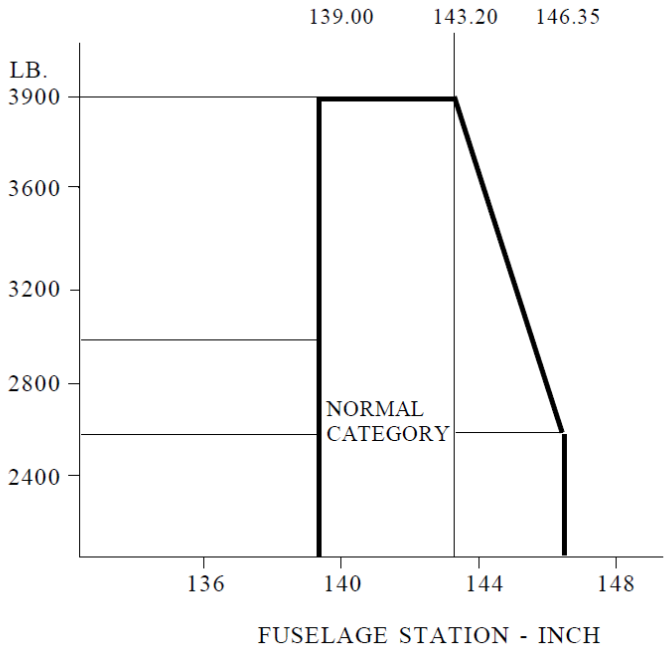
AIRSPEED LIMITS

		CAS kt (mph)	IAS kt (mph)
V_{ne}	Never exceed	164 (189)	160 (184)
V_{no}	Maximum structural cruising	130 (150)	128 (147)
V_p	Maneuvering	118 (136)	116 (134)
V_{fe}	Flaps Extended	140 (120)	105 (121)

C. G. RANGE

+3530.6 mm (+139.00 in)	at	1769.01 kg (3900 lb) or less.
+3530.6 mm (+139.00 in) to +3637.28 mm (+143.20 in)	at	1769.01 kg (3900 lb).
+3708.4 mm (+146.00 in)	at	1242.84 kg (2740 lb) or less.

Straight line variation between points given.



EMPTY WEIGHT C.G. RANGE	None.
MAXIMUM WEIGHT	1769.01 kg (3900 lb). (See Note 6).
NUMBER OF SEATS	1 at +4978.4 mm (+196.0 in).
MAXIMUM BAGGAGE	None
FUEL CAPACITY	336.9 L (89 gallons) at 3515.36 mm (+138.4) (2 wings tanks), 329.33 L (87 gallons) usable. See Note 1 for data on unusable fuel.
OIL CAPACITY	16.08 L (17 quarts), 13.25 L (14 quarts) usable. See Note 1 for data on system oil.
SERIAL NUMBERS ELIGIBLE	36-7802001 through 36-8302025 (See Note 9 for airworthiness certification elegibility in the Brazil).
IMPORT ELEGIBILITY	A Brazilian Certificate of Airworthiness may be issued on the basis of on a FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement: “The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by Brazilian Type Certificate nº 9113 and in condition of safe operation”.

IV - <u>Model PA-36-375, 1 PCLM (Restricted Category), approved 03 December 1991.</u>

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 rpm, 279.6 kW (375 hp).

PROPELLER AND PROPELLER LIMITS

1 Hartzell, Hub Model HC-C3YR-1( )F, Blade Model F8475R

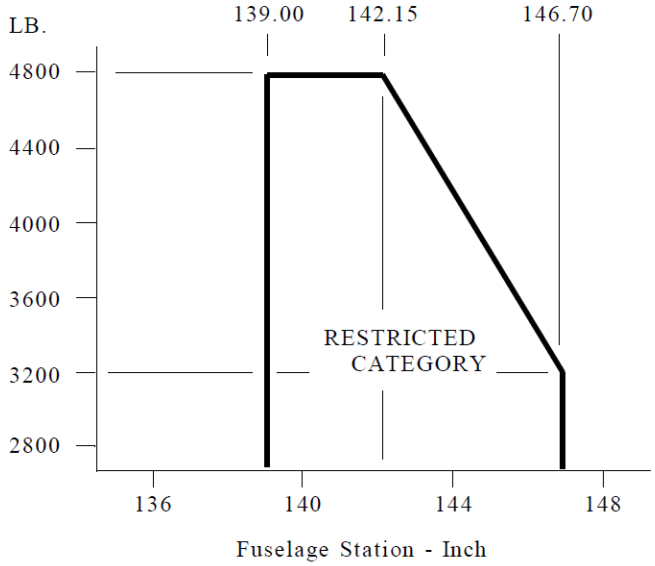
Pitch Setting:	High 27º ±1º, Low 13.3º ±0.2º at 762 mm (30 in) station.
Diameter:	Not over 2184.4 mm (86 in), not under 2133.6 mm (84 in). No further reduction permited.
Spinner:	Hartzell 835-36 (See Note 5 for data on spinner.)
Propeller Governor:	Hartzell Model F-4-23

AIRSPEED LIMITS

	CAS kt (mph)	IAS kt (mph)
Maximum operating	117 (135)	117 (135)
V_{fe} Flaps Extended	104 (120)	108 (124)

C. G. RANGE

+3530.6 mm (+139.00 in) at 2177.24 kg (4800 lb) or less.
+3530.6 mm (+139.00 in) to +3610.61 mm (+142.15 in) at 2177.24 kg (4800 lb).
+3726.18 mm (+146.70 in) at 1451.50 kg (3200 lb) or less.
Straight line variation between points given.



EMPTY WEIGHT C.G. RANGE

None.

MAXIMUM WEIGHT

2177.24 kg (4800 lb). (See NOTE 6).

NUMBER OF SEATS

1 at +4978.4 mm (+196.0 in).

MAXIMUM BAGGAGE

None

FUEL CAPACITY

336.9 L (89 gallons) at 3515.36 mm (+138.4) (2 wings tanks), 325.54 L (86 gallons) usable.
See Note 1 for data on unusable fuel.

OIL CAPACITY

16.08 L (17 quarts), 13.25 L (14 quarts) usable.
See Note 1 for data on system oil.

SERIAL NUMBERS ELIGIBLE 36-7802001 through 36-8302025 (See Note 9 for airworthiness certification elegibility in the Brazil).

IMPORT ELEGIBILITY A Brazilian Certificate of Airworthiness may be issued on the basis of on a FAA Export Certificate on Airworthiness (or a third country Export Certificate on Airworthiness, in case of used aircraft imported from such country), including the following statement:

"The aircraft covered by this certificate has been inspected, tested and found to be in conformity with the Brazilian approved type design as defined by Brazilian Type Certificate nº 9113 and in condition of safe operation".

DATA PERTINENT TO MODELS:

DATUM 3200.4 mm (126.0 in) forward of the wings edge at the intersection of the straight and tapered section.

LEVELINGS MEANS Two Screws Right Side Fuselage, Inside Below Window.

CONTROL SURFACE MOVEMENTS

Aileron	(± 1º)	Up	20º	Down	17º	
Elevator	(± 1º)	Up	30º	Down	20º	
Elevator Tabs	(+3º, -1º)	Up	15,5º	Down	22,5º	Elevator Neutral
Rudder	(± 1º)	Left	25º	Right	25º	
Flaps	(± 1º)	Up	0º	Down	30º	for PA-36-300
	(± 1º)	Up	0º	Down	20º	for PA-36-375

See Note 10 for flaps travel restriction.

CERTIFICATION BASIS

For models PA-36-300 (Normal Category) and PA-36-375 (Normal Category). RBAC 23 (Brazilian Airworthiness Regulation) corresponding to 14 CFR Part 23, effective 1 February, 1965; and including Amendments 23-1 through 23-6 dated 1 August, 1967.
Application for Type Certificate dated 30 April, 1969.
Type Certificate issued 31 May, 1972. Obtained by the manufacturer under delegation option procedures.

For models PA-36-300 (Restricted Category) and PA-36-375 (Restricted Category). RBAC 21 (Brazilian Airworthiness Regulation) corresponding to 14 CFR Part 21, effective 1 February, 1965; including Amendments 21-1 through 21-24 dated 9 February, 1969; and RBAC 23 (Brazilian Airworthiness Regulation) corresponding to 14 CFR Part 23 dated 1 August, 1967; including Amendments 23-1 through 23-6 dated 1 August, 1967, with exception to RBAC 23 per RBAC 21.25(a)(1). (See NOTE 7).
Application for Type Certificate dated 30 April, 1969.
Type Certificate issued 31 May, 1972. Obtained by the manufacturer under delegation option procedures.

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:

For models PA-36-300 (Normal Category) and PA-36-375 (Normal Category)

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

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

For models PA-36-300 (Restricted Category) and PA-36-375 (Restricted Category)

3. Piper Report 2077 issued 4 February, 1977, for model PA-36-300, S/N 36-7560001 through 36-8160023, and for model PA-36-300, S/N 36-7360001 through 36-7460041 with Piper Power Plant Conversion Kit 761 134 per Piper Service Spares Letters Nº 346. See NOTE 12.

4. Piper Report 2125 issued February 7, 1978, for model PA-36-375, S/N 36-7802001 through 36-8302025.

NOTES

NOTE 1 Weight and Balance. 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:

Unusable Fuel & Oil Quantity

For models PA-36-300 (Normal Category) and PA-36-375 (Normal Category)

PA-36-300:			
Fuel:	8.16 kg (18.0 lb)	at	3515.36 mm (+138.4 in)
Oil:	3.41 kg (7.5 lb)	at	2209.8 mm (+87.0 in)
PA-36-375:			
Fuel:	8.16 kg (18.0 lb)	at	3515.36 mm (+138.4 in)
Oil:	1.59 kg (3.5 lb)	at	2298.7 mm (+90.5 in)

For models PA-36-300 (Restricted Category) and PA-36-375 (Restricted Category)

PA-36-300:			
Fuel:	8.16 kg (18.0 lb)	at	3515.36 mm (+138.4 in)
Oil:	3.41 kg (3.5 lb)	at	2247.9 mm (+88.5 in)
PA-36-375:			
Fuel:	8.16 kg (18.0 lb)	at	3515.36 mm (+138.4 in)
Oil:	1.59 kg (3.5 lb)	at	2298.7 mm (+90.5 in)

NOTE 2 Marks and Placards. The aircraft must be operated according to the Brazilian Approved Flight Manual (Brazilian Airplane Flight Manual):
1 – Report 2032 for PA-36-300 Normal Category;
2 – Report 2077 for PA-36-300 Restricted Category;
3 – Report 2114 for PA-36-375 for Normal Category; and
4 – Report 2125 for PA-36-375 Restricted Category.
For the approved marking and placards translations contact the TC holder and/or ANAC at the following address: ggcp-gr@anac.gov.br.

NOTE 3 Continuing Airworthiness. Service bulletins, maintenance manual, and any other related documents which contain a statement that the documents are FAA approved, are accepted by the ANAC and are considered ANAC approved. These approvals pertain to the Type Design only.

NOTE 4 The differences of the Brazilian airplanes in relation to the basic FAA Type Design are summarized below:
1. The Brazilian Airplane Flight Manual front page; and
2. Markings and placards.

NOTE 5 For Normal and Restricted Categories.
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 Normal Category maximum takeoff and landing weight is 1769.01 kg (3900 lb). Since the hopper load is disposable, landing in excess of this weight should not be required. If it is necessary to make a landing at weight over 1769.01 kg (3900 lb), the pilot must exercise caution to prevent structural damage to the landing gear and airframe. The takeoff weight should be adjusted also, to suit the runway surface to prevent over-stressing the structure.

PA-36-300 has demonstrated satisfactory operation at 1995.80 kg (4400 lb), and PA-36-375 at 2177.24 kg (4800 lb), in the Restricted Category envelope at sea level under standard day conditions. Further weight increases should not be accomplished in the field.

NOTE 7 The following exceptions to RBAC 23 (Brazilian Airworthiness Regulation) corresponding to 14 CFR Part 23, were granted based on the Restricted Category operating limitations:
RBAC 23.25(a); 23.77(b); 23.335; 23.337; 23.1505; 23.1507; 23.1545 and 23.1583(a).

The following portions of RBAC 23 (Brazilian Airworthiness Regulation) corresponding to 14 CFR Part 23, were considered inappropriate for the intended agricultural operations:
RBAC 23.65(b); 23.221; 23.473; 23.479; 23.481; 23.497(a); 23.561(d); 23.721; 23.723, 23.725; and 23.727.

NOTE 8 Only for models PA-36-300 (Restricted Category) and PA-36-375 (Restricted Category).
PA-36-300 airplane climb performance at sea level, standard day, 1995.80 kg (4400 lb) gross weight, 0° flaps and with Piper Dry Materials Dispersal System installed is 322 fpm (two-blade propeller), 349 fpm (three-blade propeller).
PA-36-375 airplane climb performance at sea level, standard day, 2177.24 kg (4800 lb) gross weight, 0° flaps and with Piper Dry Materials Dispersal System installed is 425 fpm.

NOTE 9 The following serial numbered aircraft are not eligible for import certification to Brazil.

Model PA-36-300 (Normal and Restricted Categories).

36-7760018, 36-7760034, 36-7760047, 36-7760051, 36-7760055, 36-7760120, 36-7760121, 36-7760123, 36-7760125, 36-7760129, 36-7760132, 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 (Normal and Restricted Categories).

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 10 For Normal and Restricted Categories.

Wing flap travel on Model PA-36-300, S/N 36-7360001 through 36-7460041 is 0º (± 1º) Up, and 20º (± 1º) Down.

NOTE 11 The following life limits are required (applicable to Normal and Restricted Categories):

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 (Ref. Piper Service Bulletin Nº 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 (Ref. Piper Service Bulletin Nº 744).

The wing spar fitting, Piper P/N 97712-00, must be replaced upon the accumulation of 4100 hours TIS and every 4100 hours TIS thereafter (Ref. Piper Service Bulletin Nº 744).

For Model 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 TIS hours thereafter with P/N 76824-02 (Ref. Piper Service Bulletins 552 and 744).

For Model 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 (Ref. Piper Service Bulletin 744).

NOTE 11 (CONT.) 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 Model 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 (Ref. Piper Service Bulletin 744).

NOTE 12 For Restricted Category only:
PA-36-285, S/N 36-7360001 through 36-7660135, may be converted to a PA-36-300 upon the installation of Piper Power Plant Conversion Kit 761 134 as specified in Piper Service Spares Letter No. 346. Airplane Flight Manual, Piper Report 2077 approved February 4, 1977, is required for this installation.

MÁRIO IGAWA
Gerente Geral de Certificação de Produto Aeronáutico
(General Manager, Aeronautical Product Certification)