European Aviation Safety Agency

EASA

TYPE-CERTIFICATE DATA SHEET

Piper Model PA-32

Type Certificate Holder:

Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960
U.S.A.

Manufacturer:

Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960
U.S.A.

For Variants: PA-32R-301 Saratoga II HP
PA-32R-301T Saratoga II TC
PA-32-301FT Piper 6X
PA-32-301XTC Piper 6XT

Issue 01: 6 April 2009

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Issue 01: Initial EASA Issue

SECTION A: PA-32R-301 Saratoga II HP

A.I. General

Data Sheet No.: EASA IM.A.239 Issue: 01 Date: 6 April 2009

1. a) Type: b) Variant:	PA-32 PA-32R-301 Saratoga II HP
2. Airworthiness Category:	Normal Category
3. Type Certificate Holder:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
4. Manufacturer:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
5. EASA Certification Application Date:	N/A
6. EASA Type Certification Date:	28 September 2003 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

A.II. Certification Basis

1. Reference date for determining the applicable requirements: Date of application for FAA TC for Model PA-32R-301, Saratoga II HP: 21 January 1993

2. (Reserved)

3. (Reserved)

4. Certification Basis:

   a) For the basic PA-32R-301 Saratoga II HP aeroplane the applicable certification basis is based on CAR 3 and FAR23 (for details on the applicable amendments and paragraphs see A.V., note 5).

   b) For PA-32R-301 Saratoga II HP aeroplanes equipped with the factory installed Avidyne Entegra System option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see A.V., note 6).

5. Airworthiness Requirements:

   a) CAR 3 and FAR 23 for the basic PA-32R-301 Saratoga II HP aeroplane (for applicable amendments see A.II.4)

   b) CAR 3, FAR 23 and JAR-23 for PA-32R-301 Saratoga II HP aeroplanes equipped with the factory installed Avidyne Entegra System option (for applicable amendments see A.II.4)

6. Requirements elected to comply: None

7. Special Conditions:

a) None for the basic PA-32R-301 Saratoga II HP aeroplane

b) CRI-F01, Protection from the Effects of HIRF
CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
CRI-F05, Human Factors in Integrated Avionic Systems,

for PA-32R-301 Saratoga II HP aeroplanes equipped with the factory installed Avidyne Entegra System option

8. Exemption: None

9. Equivalent Safety Findings:

a) CAR 3.757, CAR 3.777 for the basic PA-32R-301 Saratoga II HP aeroplane

b) CRI-F03, Powerplant Instruments for PA-32R-301 Saratoga II HP aeroplanes equipped with the factory installed Avidyne Entegra System option

10. Environmental Standards: ICAO Annex 16, Volume 1, Chapter 6

A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Piper Report number VB-1417

2. Description: Single engine, normally aspirated, fuel injected, all-metal, six-place, low wing airplane, retractable tricycle landing gear.

3. Equipment: For minimum equipment required by certification see applicable AFM/POH, section 2.
For approved additional equipment, see applicable AFM/POH, section 6.
(For applicable AFM/POH see A.IV.)

4. Dimensions:

Span	11.03 m	(36.2 ft)
Length	8.50 m	(27.9 ft)
Height	2.59 m	(8.5 ft)
Wing Area	16.56 m²	(178.3 sqf)

5. Engines: 1 Lycoming IO-540-K1G5
1 Lycoming IO-540-K1G5D, for S/N 3213029 only

The EASA Engine Type Certification standard includes that of FAA TCDS 1E4 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

5.1 Engine Limits: For all operation: 2700 RPM, full throttle

For other powerplant limitations refer to the applicable AFM/POH, section 2

6. Propellers: Hartzell, Hub HC-I3YR-1RF, Blade F7663DR( )
   - Pitch: High 32.0°±1°, Low 12.4°±0.2° at 0.762 m (30") station
   - Diameter: Not over 1.981 m (78"), not under 1.956 m (77")
   - Governor: Hartzell Model V-5-4
   - Spinner Assy: Hartzell C-3575-1P
   - Dome: Hartzell C-3532-16P (with TKS Ice Protection only)

   Do not exceed 23" manifold pressure below 2100 rpm.

   The EASA Propeller Type Certification standard includes that of FAA TCDS P33EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

7. Fluids:
   - 7.1 Fuel: 100/100LL minimum grade aviation gasoline, for alternate fuels see latest revision of Lycoming SI 1070
   - 7.2 Engine Oil: in accordance with latest revision of Lycoming SI 1014

8. Fluid capacities:
   - 8.1 Fuel: Total: 405 liters (107 US gal) in 2 wing tanks; Usable: 386 liters (102 US gal) in 2 wing tanks
   - 8.2.Oil: Maximum: 11.4 liters (12 qts); Usable: 8.8 liters (9.25 qts)

9. Air Speeds:

S/N 3213029, 3213042 through 3213103, and 3246001 through 3246017:

Design Manoeuvring Speed, v_A (1633 kg (3600 lb))	132 KIAS
Never Exceed Speed v_{NE}	193 KIAS
Maximum Structural Cruising Speed, v_{NO}	160 KIAS
Maximum Flap Extend Speed, v_{FE}	108 KIAS
Maximum Landing Gear Operating Speed, v_{LO}	
Extension	130 KIAS
Retraction	108 KIAS
Maximum Landing Gear Extended Speed, v_{LE}	130 KIAS

S/N 3246018 and up:

Design Manoeuvring Speed, v_A (1633 kg (3600 lb))	134 KIAS
Never Exceed Speed v_{NE}	191 KIAS
Maximum Structural Cruising Speed, v_{NO}	160 KIAS
Maximum Flap Extend Speed, v_{FE}	110 KIAS
Maximum Landing Gear Operating Speed, v_{LO}	
Extension	132 KIAS
Retraction	110 KIAS
Maximum Landing Gear Extended Speed, v_{LE}	132 KIAS

10. Maximum Operating Altitude: N/A

11. Operational Capability: VFR Day and Night; IFR Day and Night

12. Maximum Masses: Ramp: 1640 kg (3615 lb); Take-Off: 1633 kg (3600 lb); Landing: 1633 kg (3600 lb)

13. Centre of Gravity Range (gear extended):

linear variation between given points

Weight	Fwd. Limit	Aft Limit
kg (lb)	m (in) aft of datum	m (in) aft of datum
1633 (3600)	2.322 (91.4)	2.413 (95.0)
1452 (3200)	2.121 (83.5)	2.413 (95.0)
1089 (2400) or less	1.981 (78.0)	2.413 (95.0)

see also A.V. note 3

14. Datum: 1.991 m (78.4") forward of wing leading edge

15. (Reserved)

16. Levelling Means: Two screws left side fuselage below window

17. Minimum Flight Crew: 1 (Pilot)

18. Maximum Passenger Seating Capacity: 5, for passenger seating locations see applicable AFM/POH

19. Baggage / Cargo Compartments: 45 kg (100 lb) at +1.067 m (+42.0) (fwd)
45 kg (100 lb) at +4.539 m (+178.7) (aft)

20. Wheels and Tires:
20.1 Nose Wheel Tire Size: 5.00x5, 6 ply
20.2 Main Wheel Tire Size: 6.00x6, 8 ply

21. (Reserved)

22. Control Surface Movements: For approved control surface deflections see applicable Airplane Maintenance Manual (A.IV.).

A.IV. Operating and Service Instructions

Airplane Flight Manual (AFM) and Pilot´s Operating Handbook (POH):

a) POH/ FAA approved Airplane Flight Manual VB-1551, latest approved revision, for Model PA-32R-301 Saratoga II HP S/N 3213029, 3213042 through 3213103

b) POH/ FAA approved Airplane Flight Manual VB-1614, latest approved revision, for Model PA-32R-301 Saratoga II HP S/N 3246001 through 3246017

c) POH/ FAA approved Airplane Flight Manual VB-1600, latest approved revision, for Model PA-32R-301 Saratoga II HP S/N 3246018 through 3246087

d) POH/ FAA approved Airplane Flight Manual VB-1669, latest approved revision, for Model PA-32R-301 Saratoga II HP S/N 3246088 and up
Limitations and information for the Avidyne Entegra option are published in POH/AFM-Supplement 19, latest revision

Airplane Maintenance Manual (AMM):

a) P/N 761-719, latest approved revision
S/Ns 3213029, 3213042 through 3213103

b) P/N 761-879, latest approved revision
S/Ns 3246001 and up

Service Bulletins and Service Letters

A.V. Notes

1. Applicable Manufacturer´s S/N:
   a) Basic aeroplane: S/Ns 3213029, 3213042 through 3213103, 3246001 and up
   b) Avidyne Entegra option: S/Ns 3246218 and up

   In addition for import into EASA-countries following requirements have to be met:
   - Piper SB1162, latest revision, has to be complied with.
   - PFD set-up has to be configured to display hPa (mbar) altimeter units.
   - Pointer type altimeters (including stand-by altimeters) have to be either factory installed or installed in accordance with an approved change, and have to have a hPa (mbar) barometric pressure setting scale.

   PFD/MFD fuel quantity and fuel flow units can be configured either in metric or US units.

2. Approved Noise Levels:
   See EASA Noise Database (http://www.easa.eu.int/ws_prod/c/c_tc_noise.php)

3. 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 certified 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:13.61 kg (30.0 lb), at +2.418 m (+95.2 in)
   Oil: 1.36 kg (3.0 lb), at +0.584 m (+23.0 in)

4. Placards:
   All placards required in the POH and/or AFM and/or AFM-Supplements must be installed in the appropriate locations.
   The following placard must be displayed in clear view of the pilot:

   "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED."

5. Certification Basis for the basic PA-32R-301 Saratoga II HP:

   PA-32R-301, S/N 3213029, 3213042 through 3213103, and 3246001 through 3246087:
   CAR 3, effective May 15, 1956, through Amendment 3-8, effective December 18, 1962. In addition, FAR 23.207, 23.221, 23.959, and 23.1091 as amended by Amendment 23-7, effective September 14, 1969; FAR 23.201, 23.203, and 23.967(e)(2) 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 23.1327 and 23.1547 as amended by Amendment 23-20, effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21, effective March 1, 1978; Equivalent Safety Finding for CAR 3.757 and 3.777.

   PA-32R-301, S/N 3246088 and up:
   CAR 3, effective May 15, 1956, through Amendment 3-8, effective December 18, 1962. In addition, FAR 23.207, 23.221, 23.959, and 23.1091 as amended by Amendment 23-7, effective September 14, 1969; FAR 23.201, 23.203, and 23.967(e)(2) as amended by Amendment 23-14, effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-18, effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20, effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21, effective March 1, 1978; FAR 23.1545 as amended by Amendment 23-23, effective December 1, 1978; FAR 23.1529 as amended by Amendment 23-26, effective October 14, 1980; FAR 23.1557(c)(1) as amended by Amendment 23-45, effective September 7, 1993; FAR 23.561(b)(3) as amended by Amendment 23-51, effective March 11, 1996; FAR 23.1305 as amended by Amendment 23-52, effective July 25, 1996.

6. For aircraft S/N 3246218 and up equipped with Piper factory installed optional Avidyne Entegra system and Mid-Continent Model 4300-411 Electric Attitude Indicator in addition to the certification basis defined in CRI-A01, latest revision, the applicable paragraphs are listed below. These JAR requirements substitute the corresponding paragraphs of note 5.
   JAR 23 (basic release):
   JAR 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.853, 23.867, 23.1191, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1501, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1549, 23.1555, 23.1563, 23.1581, 23.1583, 23.1585.

7. Type Design Definition of TCDS relevant changes:
   a) Factory installed Avidyne Entegra option: New Piper report number VB-1885

8. In the following serial numbered aircraft the rear seat location is farther aft as shown and the center seats may be removed and replaced by CLUB SEATS INSTALLATION, which has a more aft C.G. location as shown:

   PA-32R-301 3213029, 3213042 through 3213103, and3246001 and up

SECTION B: PA-32R-301T Saratoga II TC

B.I. General

Data Sheet No.: EASA IM.A.239 Issue: 01 Date: 6 April 2009

1. a) Type:	PA-32
b) Variant:	PA-32R-301T Saratoga II TC
2. Airworthiness Category:	Normal Category
3. Type Certificate Holder:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
4. Manufacturer:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
5. EASA Certification Application Date:	N/A
6. EASA Type Certification Date:	28 September 2003 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

B.II. Certification Basis

1. Reference date for determining the applicable requirements:	Date of application for FAA TC for Model PA-32R-301T Saratoga II TC: 22 August 1996
2. (Reserved)	
3. (Reserved)	
4. Certification Basis:	

a) For the basic PA-32R-301T Saratoga II TC aeroplane the applicable certification basis is based on CAR 3 and FAR23 (for details on the applicable amendments and paragraphs see B.V., note 5).

b) For PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Avidyne Entegra System option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see B.V., note 6).

c) For PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see B.V., note 7).

5. Airworthiness Requirements:

   a) CAR 3 and FAR 23 for the basic PA-32R-301T Saratoga II TC aeroplane (for applicable amendments see B.II.4)

   b) CAR 3, FAR 23 and JAR-23 for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Avidyne Entegra System option (for applicable amendments see B.II.4)

   c) CAR 3, FAR 23 and CS-23 for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option (for applicable amendments see B.II.4)

6. Requirements elected to comply: None

7. Special Conditions:

   a) None for the basic PA-32R-301T Saratoga II TC aeroplane

   b) CRI-F01, Protection from the Effects of HIRF
   CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
   CRI-F05, Human Factors in Integrated Avionic Systems,

   for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Avidyne Entegra System option

   c) CRI-F01, Protection from the Effects of HIRF
   CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
   CRI-F05, Human Factors in Integrated Avionic Systems,

   for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option

8. Exemption: None

9. Equivalent Safety Findings:

   a) None for the basic PA-32R-301T Saratoga II TC aeroplane

   b) CRI-F03, Powerplant Instruments for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Avidyne Entegra System option

   c) CRI-F03, Powerplant Instruments for PA-32R-301T Saratoga II TC aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option

10. Environmental Standards: ICAO Annex 16, Volume 1, Chapter 10

B.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: New Piper Report number VB-1652

2. Description: Single engine, turbocharged, fuel injected, all-metal, six-place, low wing airplane, retractable tricycle landing gear.

3. Equipment: For minimum equipment required by certification see applicable AFM/POH, section 2.
For approved additional equipment, see applicable AFM/POH, section 6.
(For applicable AFM/POH see B.IV.)

4. Dimensions:

Span	11.03 m	(36.2 ft)
Length	8.50 m	(27.9 ft)
Height	2.90 m	(9.5 ft)
Wing Area	16.56 m²	(178.3 sqf)

5. Engines: 1 Lycoming TIO-540-AH1A

The EASA Engine Type Certification standard includes that of FAA TCDS E14EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

5.1 Engine Limits: For all operation:
2500 rpm, 38.0" Hg MAP, sea level to 12.000 ft altitude

Do not operate above 26.0" MAP below 2100 rpm.

For other powerplant limitations refer to the applicable AFM/POH, section 2

6. Propellers: Hartzell, Hub HC-I3YR-1RF, Blade F7663DR( )

Pitch:	High 34.0°±0.5°, Low 15.2°±0.2° at 0.762 m (30") station
Diameter:	Not over 1.981 m (78"), not under 1.930 m (76")
Governor:	Hartzell V-5-6
Spinner Assy:	Piper P/N PS50077-90 or Hartzell C-3575-1(P)
Dome:	Hartzell C-3532-16P (with TKS Ice Protection only)

The EASA Propeller Type Certification standard includes that of FAA TCDS P33EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

7. Fluids:

7.1 Fuel: 100/100LL minimum grade aviation gasoline,
for alternate fuels see latest revision of Lycoming SI 1070

7.2 Engine Oil: in accordance with latest revision of Lycoming SI 1014

8. Fluid capacities:

8.1 Fuel:

Total:	405 liters (107 US gal) in 2 wing tanks
Usable:	386 liters (102 US gal) in 2 wing tanks

8.2.Oil:

Maximum:	11.4 liters (12 qts)
Usable:	8.8 liters (9.25 qts)

9. Air Speeds:

S/N 3257001 and up:

Design Manoeuvring Speed, v_A (1633 kg (3600 lb))	134 KIAS
Never Exceed Speed v_{NE}	191 KIAS
Maximum Structural Cruising Speed, v_{NO}	167 KIAS
Maximum Flap Extend Speed, v_{FE}	110 KIAS
Maximum Landing Gear Operating Speed, v_{LO}	
Extension	132 KIAS
Retraction	110 KIAS
Maximum Landing Gear Extended Speed, v_{LE}	132 KIAS

10. Maximum Operating Altitude: 20,000 ft

11. Operational Capability: VFR Day and Night
IFR Day and Night

12. Maximum Masses:

Ramp:	1640 kg (3615 lb)
Take-Off:	1633 kg (3600 lb)
Landing:	1633 kg (3600 lb)

13. Centre of Gravity Range (gear extended):

linear variation between given points

Weight	Fwd. Limit	Aft Limit
kg (lb)	m (in) aft of datum	m (in) aft of datum
1633 (3600)	2.322 (91.4)	2.413 (95.0)
1452 (3200)	2.121 (83.5)	2.413 (95.0)
1089 (2400) or less	1.981 (78.0)	2.413 (95.0)

see also B.V. note 3

14. Datum: 1.991 m (78.4") forward of wing leading edge

15. (Reserved)

16. Levelling Means: Two screws left side fuselage below window

17. Minimum Flight Crew: 1 (Pilot)

18. Maximum Passenger Seating Capacity: 5, for passenger seating locations see applicable AFM/POH

19. Baggage / Cargo Compartments: 45 kg (100 lb) at +1.067 m (+42.0) (fwd)
45 kg (100 lb) at +4.539 m (+178.7) (aft)

20. Wheels and Tires:

20.1 Nose Wheel Tire Size	5.00x5, 6 ply
20.2 Main Wheel Tire Size	6.00x6, 8 ply

21. (Reserved)

22. Control Surface Movements: For approved control surface deflections see applicable Airplane Maintenance Manual (B.IV.).

B.IV. Operating and Service Instructions

Airplane Flight Manual (AFM) and Pilot´s Operating Handbook (POH):

a) POH/ FAA approved AFM, VB-1647, latest approved revision, for Model PA-32R-301T Saratoga II TC S/N 3257001 and up

Limitations and information for the Avidyne Entegra option are published in POH/AFM-Supplement 20 or 24, latest revision

b) POH/ FAA approved AFM, VB-1975, latest approved revision, for Model PA-32R-301T Saratoga II TC with the Garmin G1000 Integrated Flight Deck system factory installed S/N 3257447, 3257455 and up

Airplane Maintenance Manual (AMM):

a) P/N 761-879, latest approved revision S/Ns 3257001 and up

Service Bulletins and Service Letters

B.V. Notes

1. Applicable Manufacturer´s S/N:
   a) Basic aeroplane: S/Ns 3257001and up
   b) Avidyne Entegra option: S/Ns 3257339 and up
   c) Garmin G1000 option: S/Ns 3257447, 3257455 and up

   In addition for import into EASA-countries following requirements have to be met:
   - For Avidyne equipped PA-32 Piper SB1162, latest revision, has to be complied with.
   - PFD set-up has to be configured to display hPa (mbar) altimeter units.
   - Pointer type altimeters (including stand-by altimeters) have to be either factory installed or installed in accordance with an approved change, and have to have a hPa (mbar) barometric pressure setting scale.

   PFD/MFD fuel quantity and fuel flow units can be configured either in metric or US units.

2. Approved Noise Levels:
   See EASA Noise Database (http://www.easa.eu.int/ws_prod/c/doc/Design_Appro/Noise)

3. 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 certified 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:13.61 kg (30.0 lb), at +2.418 m (+95.2 in)
   Oil: 1.36 kg (3.0 lb), at +0.584 m (+23.0 in)

4. Placards:
   All placards required in the POH and/or AFM and/or AFM-Supplements must be installed in the appropriate locations.
   The following placard must be displayed in clear view of the pilot:

   "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED."

5. Certification Basis for the basic PA-32R-301T Saratoga II TC:

   PA-32R-301T, S/N 3257001 and up:
   CAR 3, effective May 15, 1956, through Amendment 3-8, effective December 18, 1962. In addition, FAR 23.965 of FAR 23, effective February 1, 1965; FAR 23.207, 23.221, 23.901, 23.909, 23.959, 23.1041, 23.1043, 23.1047, 23.1091, and 23.1527 as amended by Amendment 23-7, effective September 14, 1969; FAR 23.201, 23.203, and 23.967(e)(2) as amended by Amendment 23-14, effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-18, effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20, effective September 1, 1977; FAR 23.1581 as amended by Amendment 23-21, effective March 1, 1978; FAR 23.1545 as amended by Amendment 23-23, effective December 1, 1978; FAR 23.1529 as amended by Amendment 23-26, effective October 14, 1980; FAR 23.1557(c)(1) as amended by Amendment 23-45, effective September 7, 1993; FAR 23.1305 as amended by Amendment 23-52, effective July 25, 1996.
   Compliance with FAR 23.1441 as amended by Amendment 23-9, effective June 17, 1970, has been shown with optional supplemental oxygen.

6. For aircraft S/N 3257339 and up equipped with Piper factory installed optional Avidyne Entegra system and Mid-Continent Model 4300-411 Electric Attitude Indicator in addition to the certification basis defined in CRI-A01, latest revision, the applicable paragraphs are listed below. These JAR requirements substitute the corresponding paragraphs of note 5.
   JAR 23 (basic release):
   JAR 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.853, 23.867, 23.1191, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1501, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1549, 23.1555, 23.1563, 23.1581, 23.1583, 23.1585.

7. For aircraft S/Ns 3257447, 3257455 and up equipped with Piper factory installed optional Garmin G1000 in addition to the certification basis defined in CRI-A01, latest revision, , the applicable paragraphs are listed below. These CS requirements substitute the corresponding paragraphs of note 5.
   CS 23 (basic release):
   CS 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.473, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1326, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1547, 23.1549, 23.1553, 23.1555, 23.1563, 23.1567, 23.1581, 23.1583, 23.1585.

8. Type Design Definition of TCDS relevant changes:
   a) Factory installed Avidyne Entegra option: New Piper report number VB-1885
   b) Factory installed Garmin G1000 option: Piper report number VB-1965

SECTION C: PA-32-301FT Piper 6X

C.I. General

Data Sheet No.: EASA IM.A.239	Issue: 01	Date: 6 April 2009

1. a) Type: b) Variant:	PA-32 PA-32-301FT Piper 6X
2. Airworthiness Category:	Normal Category
3. Type Certificate Holder:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
4. Manufacturer:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
5. EASA Certification Application Date:	N/A
6. EASA Type Certification Date:	28 September 2003 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

C.II. Certification Basis

1. Reference date for determining the applicable requirements:	Date of application for FAA TC for Model PA-32-301FT Piper 6X: 23 January 2003
2. (Reserved)	
3. (Reserved)	
4. Certification Basis:	

a) For the basic PA-32-301FT Piper 6X aeroplane the applicable certification basis is based on CAR 3 and FAR23 (for details on the applicable amendments and paragraphs see C.V., note 5).

b) For PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Avidyne Entegra System option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see C.V., note 6).

c) For PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see C.V., note 7).

5. Airworthiness Requirements:

   a) CAR 3 and FAR 23 for the basic PA-32-301FT Piper 6X aeroplane (for applicable amendments see C.II.4)

   b) CAR 3, FAR 23 and JAR-23 for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Avidyne Entegra System option (for applicable amendments see C.II.4)

   c) CAR 3, FAR 23 and CS-23 for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option (for applicable amendments see C.II.4)

6. Requirements elected to comply: None

7. Special Conditions:

   a) None for the basic PA-32-301FT Piper 6X aeroplane

   b) CRI-F01, Protection from the Effects of HIRF
   CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
   CRI-F05, Human Factors in Integrated Avionic Systems,

   for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Avidyne Entegra System option

   c) CRI-F01, Protection from the Effects of HIRF
   CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
   CRI-F05, Human Factors in Integrated Avionic Systems,

   for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option

8. Exemption: None

9. Equivalent Safety Findings:

   a) None for the basic PA-32-301FT Piper 6X aeroplane

   b) CRI-F03, Powerplant Instruments for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Avidyne Entegra System option

   c) CRI-F03, Powerplant Instruments for PA-32-301FT Piper 6X aeroplanes equipped with the factory installed Garmin G1000 Integrated Flight Deck option

10. Environmental Standards: ICAO Annex 16, Volume 1, Chapter 10

C.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: New Piper Report number VB-1846

2. Description: Single engine, normally aspirated, fuel injected, all-metal, six-place, low wing airplane, fixed tricycle landing gear.

3. Equipment: For minimum equipment required by certification see applicable AFM/POH, section 2.
For approved additional equipment, see applicable AFM/POH, section 6.
(For applicable AFM/POH see C.IV.)

4. Dimensions:

Span	11.03 m	(36.2 ft)
Length	8.50 m	(27.9 ft)
Height	2.90 m	(9.5 ft)
Wing Area	16.56 m²	(178.3 sqf)

5. Engines: 1 Lycoming IO-540-K1G5

The EASA Engine Type Certification standard includes that of FAA TCDS 1E4 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

5.1 Engine Limits: For all operation: 2700 rpm, full throttle

For other powerplant limitations refer to the applicable AFM/POH, section 2

6. Propellers: Hartzell, Hub HC-I3YR-1RF, Blade F7663DR( )

Pitch:	High 32.0°±1°, Low 12.4°±0.2° at 0.762 m (30") station
Diameter:	Not over 1.981 m (78"), not under 1.956 m (77")
Governor:	Hartzell Model V-5-4
Spinner Assy:	Hartzell C-3575-1P
Dome:	Hartzell C-3532-16P (with TKS Ice Protection only)

Do not exceed 23" manifold pressure below 2100 rpm.

The EASA Propeller Type Certification standard includes that of FAA TCDS P33EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

7. Fluids:

7.1 Fuel: 100/100LL minimum grade aviation gasoline,
for alternate fuels see latest revision of Lycoming SI 1070

7.2 Engine Oil: in accordance with latest revision of Lycoming SI 1014

8. Fluid capacities:

8.1 Fuel:

Total:	405 liters (107 US gal) in 2 wing tanks
Usable:	386 liters (102 US gal) in 2 wing tanks

8.2.Oil:

Maximum:	11.4 liters (12 qts)
Usable:	8.8 liters (9.25 qts)

9. Air Speeds:

S/N 3232001 amd up:

Design Manoeuvring Speed, v_A (1633 kg (3600 lb))	132 KIAS
Never Exceed Speed v_{NE}	189 KIAS
Maximum Structural Cruising Speed, v_{NO}	150 KIAS
Maximum Flap Extend Speed, v_{FE}	113 KIAS

10. Maximum Operating Altitude: N/A

11. Operational Capability: VFR Day and Night
IFR Day and Night

12. Maximum Masses:

Ramp:	1640 kg (3615 lb)
Take-Off:	1633 kg (3600 lb)
Landing:	1633 kg (3600 lb)

13. Centre of Gravity Range (gear extended):

linear variation between given points

Weight	Fwd. Limit	Aft Limit
kg (lb)	m (in) aft of datum	m (in) aft of datum
1633 (3600)	2.286 (90.0)	2.413 (95.0)
1452 (3200)	2.121 (83.5)	2.413 (95.0)
1089 (2400) or less	1.981 (78.0)	2.413 (95.0)

see also C.V. note 3

14. Datum: 1.991 m (78.4") forward of wing leading edge

15. (Reserved)

16. Levelling Means: Two screws left side fuselage below window

17. Minimum Flight Crew: 1 (Pilot)

18. Maximum Passenger Seating Capacity: 5, for passenger seating locations see applicable AFM/POH

19. Baggage / Cargo Compartments: 45 kg (100 lb) at +1.067 m (+42.0) (fwd)
45 kg (100 lb) at +4.539 m (+178.7) (aft)

20. Wheels and Tires:

20.1 Nose Wheel Tire Size	6.00x6, 8 ply
20.2 Main Wheel Tire Size	6.00x6, 8 ply

21. (Reserved)

22. Control Surface Movements: For approved control surface deflections see applicable Airplane Maintenance Manual (C.IV.).

C.IV. Operating and Service Instructions

Airplane Flight Manual (AFM) and Pilot´s Operating Handbook (POH):

a) POH/ FAA approved AFM, VB-1850, latest approved revision, for Model PA-32-301FT Piper 6X
S/N 3232001 and up

Limitations and information for the Avidyne Entegra option are published in POH/AFM-Supplement 10 or 14, latest revision

b) POH/ FAA approved AFM, VB-1976, latest approved revision, for Model PA-32-301FT Piper 6X with the Garmin G1000 Integrated Flight Deck system factory installed
S/N 3232068 and up

Airplane Maintenance Manual (AMM):

a) P/N 766-854, latest approved revision
S/Ns 3232001 and up

Service Bulletins and Service Letters

C.V. Notes

1. Applicable Manufacturer´s S/N:
   a) Basic aeroplane: S/Ns 3232001and up
   b) Avidyne Entegra option: S/Ns 3232014 and up
   c) Garmin G1000 option: S/Ns 3232068 and up

   In addition for import into EASA-countries following requirements have to be met:
   - For Avidyne equipped PA-32 Piper SB1162, latest revision, has to be complied with.
   - PFD set-up has to be configured to display hPa (mbar) altimeter units.
   - Pointer type altimeters (including stand-by altimeters) have to be either factory installed or installed in accordance with an approved change, and have to have a hPa (mbar) barometric pressure setting scale.

   PFD/MFD fuel quantity and fuel flow units can be configured either in metric or US units.

2. Approved Noise Levels:
   See EASA Noise Database (http://www.easa.eu.int/ws_prod/c/doc/Design_Appro/Noise)

3. 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 certified 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:13.61 kg (30.0 lb), at +2.418 m (+95.2 in)
   Oil: 1.36 kg (3.0 lb), at +0.584 m (+23.0 in)

4. Placards:
   All placards required in the POH and/or AFM and/or AFM-Supplements must be installed in the appropriate locations.
   The following placard must be displayed in clear view of the pilot:

   "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED."

5. Certification Basis for the basic PA-32-301FT Piper 6X:

   PA-32-301FT, S/N 3232001 and up:
   CAR 3, effective May 15, 1956, through Amendment 3-8, effective December 18, 1962. In addition, FAR 23.965 of FAR 23, effective February 1, 1965; FAR 23.207, 23.221, 23.901, 23.909, 23.959, 23.1091, and 23.1527 as amended by Amendment 23-7, effective September 14, 1969; FAR 23.201, 23.203, and 23.967(e)(2) as amended by Amendment 23-14, effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-18, effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20, effective September 1, 1977; FAR 23.1581 as amended by Amendment 23-21, effective March 1, 1978; FAR 23.1545 as amended by Amendment 23-23, effective December 1, 1978; FAR 23.1529 as amended by Amendment 23-26, effective October 14, 1980; FAR 23.853(a) and (c)(1) as amended by Amendment 23-34, effective January 15, 1987; FAR 23.1309 as amended by Amendment 23-41 for the communication and navigation LRUs only; FAR 23.1557(c)(1) as amended by Amendment 23-45, effective September 7, 1993; FAR 23.561(b)(3) as amended by Amendment 23-48, effective March 11, 1996; FAR 23.1041, 23.1043, and 23.1047 as amended by Amendment 23-51, effective March 11, 1996; FAR 23.1305 as amended by Amendment 23-52, effective July 25, 1996.

   For aircraft equipped with Piper factory installed S-Tec system 55X autopilot installations, the additional certification basis for installation specific items only is: 14 CFR Part 23 regulations FAR 23.609, 23.627 issued on 02/01/65; FAR 23.611, 23.619, 23.625 as amended by Amdt. 23-7 Eff. 09/14/69; FAR 23.603 as amended by Amdt. 23-23, Eff. 12/01/78; FAR 23.1309 as amended by 23-41 Eff. 11/26/90; FAR 23.572(a)(1), 23.613(a)(b)(d) as amended by Amdt. 23-45, Eff. 09/07/93; FAR 23.561(b)(3)(e) as amended by Amdt. 23-48, Eff. 03/11/96; FAR 23.1329 as amended by Amdt. 23-49 Eff. 02/09/96.

6. For aircraft S/N 3232014 and up equipped with Piper factory installed optional Avidyne Entegra system and Mid-Continent Model 4300-411 Electric Attitude Indicator in addition to the certification basis defined in CRI-A01, latest revision, the applicable paragraphs are listed below. These JAR requirements substitute the corresponding paragraphs of note 5.
   JAR 23 (basic release):
   JAR 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.853, 23.867, 23.1191, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1501, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1549, 23.1555, 23.1563, 23.1581, 23.1583, 23.1585.

7. For aircraft S/Ns 3232068 and up equipped with Piper factory installed optional Garmin G1000 in addition to the certification basis defined in CRI-A01, latest revision~~,~~, the applicable paragraphs are listed below. These CS requirements substitute the corresponding paragraphs of note 5.
   CS 23 (basic release):
   CS 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.473, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1326, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1547, 23.1549, 23.1553, 23.1555, 23.1563, 23.1567, 23.1581, 23.1583, 23.1585.

8. Type Design Definition of TCDS relevant changes:
   a) Factory installed Avidyne Entegra option: New Piper report number VB-1885
   b) Factory installed Garmin G1000 option: Piper report number VB-1965

SECTION D: PA-32-301XTC Piper 6XT

D.I. General

Data Sheet No.: EASA IM.A.239 | Issue: 01 | Date: 6 April 2009

1. a) Type: b) Variant:	PA-32 PA-32-301XTC Piper 6XT
2. Airworthiness Category:	Normal Category
3. Type Certificate Holder:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
4. Manufacturer:	Piper Aircraft, Inc 2926 Piper Drive Vero Beach, Florida 32960 U.S.A.
5. EASA Certification Application Date:	N/A
6. EASA Type Certification Date:	28 September 2003 (in accordance with EC 1702/2003, Article 2, para. 3. (a))

D.II. Certification Basis

1. Reference date for determining the applicable requirements: Date of application for FAA TC for Model PA-32-301XTC Piper 6XT: 17 February 2003

2. (Reserved)

3. (Reserved)

4. Certification Basis:

   a) For the basic PA-32-301XTC Piper 6XT aeroplane the applicable certification basis is based on CAR 3 and FAR23. (for details on the applicable amendments and paragraphs see D.V., note 5).

   b) For PA-32-301XTC Piper 6XT aeroplanes equipped with the factory installed Avidyne Entegra System option the additional certification basis for installation specific items only is defined in CRI-A01 (for details on applicable paragraphs see D.V., note 6).

5. Airworthiness Requirements:

   a) CAR 3 and FAR 23 for the basic PA-32-301XTC Piper 6XT aeroplane (for applicable amendments see D.II.4)

   b) CAR 3, FAR 23 and JAR-23 for PA-32-301XTC Piper 6XT aeroplanes equipped with the factory installed Avidyne Entegra System option (for applicable amendments see D.II.4)

6. Requirements elected to comply: None

7. Special Conditions:

a) None for the basic PA-32-301XTC Piper 6XT aeroplane

b) CRI-F01, Protection from the Effects of HIRF
CRI-F02, Protection from the Effects of Lightning Strike; Indirect Effects,
CRI-F05, Human Factors in Integrated Avionic Systems,

for PA-32-301XTC Piper 6XT aeroplanes equipped with the factory installed Avidyne Entegra System option

8. Exemption: None

9. Equivalent Safety Findings:

a) None for the basic PA-32-301XTC Piper 6XT aeroplane

b) CRI-F03, Powerplant Instruments for PA-32-301XTC Piper 6XT aeroplanes equipped with the factory installed Avidyne Entegra System option

10. Environmental Standards: ICAO Annex 16, Volume 1, Chapter 10

D.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: New Piper Report number VB-1853

2. Description: Single engine, turbocharged, fuel injected, all-metal, six-place, low wing airplane, fixed tricycle landing gear.

3. Equipment: For minimum equipment required by certification see applicable AFM/POH, section 2.
For approved additional equipment, see applicable AFM/POH, section 6.
(For applicable AFM/POH see D.IV.)

4. Dimensions:

Span	11.03 m	(36.2 ft)
Length	8.50 m	(27.9 ft)
Height	2.90 m	(9.5 ft)
Wing Area	16.56 m²	(178.3 sqf)

5. Engines: 1 Lycoming TIO-540-AH1A

The EASA Engine Type Certification standard includes that of FAA TCDS E14EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

5.1 Engine Limits: For all operation:
2500 rpm, 38.0" Hg MAP, sea level to 12.000 ft altitude

Do not operate above 26.0" MAP below 2100 rpm.

For other powerplant limitations refer to the applicable AFM/POH, section 2

6. Propellers: Hartzell, Hub HC-I3YR-1RF, Blade F7663DR( )
   - Pitch: High 34.0°±0.5°, Low 15.2°±0.2° at 0.762 m (30") station
   - Diameter: Not over 1.981 m (78"), not under 1.930 m (76")
   - Governor: Hartzell V-5-6
   - Spinner Assy: Piper P/N PS50077-90 or Hartzell C-3575-1(P)
   - Dome: Hartzell C-3532-16P (with TKS Ice Protection only)

   The EASA Propeller Type Certification standard includes that of FAA TCDS P33EA (in accordance with EC 1702/2003, Article 2, para. 3. (a))

7. Fluids:
   - 7.1 Fuel: 100/100LL minimum grade aviation gasoline, for alternate fuels see latest revision of Lycoming SI 1070
   - 7.2 Engine Oil: in accordance with latest revision of Lycoming SI 1014

8. Fluid capacities:
   - 8.1 Fuel: Total: 405 liters (107 US gal) in 2 wing tanks; Usable: 386 liters (102 US gal) in 2 wing tanks
   - 8.2.Oil: Maximum: 11.4 liters (12 qts); Usable: 8.8 liters (9.25 qts)

9. Air Speeds:

   S/N 3255001 amd up:

Design Manoeuvring Speed, v_A (1633 kg (3600 lb))	132 KIAS
Never Exceed Speed v_{NE}	189 KIAS
Maximum Structural Cruising Speed, v_{NO}	150 KIAS
Maximum Flap Extend Speed, v_{FE}	113 KIAS

10. Maximum Operating Altitude: 20,000 ft

11. Operational Capability: VFR Day and Night
    IFR Day and Night

12. Maximum Masses: Ramp: 1640 kg (3615 lb)
    Take-Off: 1633 kg (3600 lb)
    Landing: 1633 kg (3600 lb)

13. Centre of Gravity Range (gear extended):

linear variation between given points

Weight	Fwd. Limit	Aft Limit
kg (lb)	m (in) aft of datum	m (in) aft of datum
1633 (3600)	2.286 (90.0)	2.413 (95.0)
1452 (3200)	2.121 (83.5)	2.413 (95.0)
1089 (2400) or less	1.981 (78.0)	2.413 (95.0)

see also D.V. note 3

14. Datum: 1.991 m (78.4") forward of wing leading edge

15. (Reserved)

16. Levelling Means: Two screws left side fuselage below window

17. Minimum Flight Crew: 1 (Pilot)

18. Maximum Passenger Seating Capacity: 5, for passenger seating locations see applicable AFM/POH

19. Baggage / Cargo Compartments: 45 kg (100 lb) at +1.067 m (+42.0) (fwd)
45 kg (100 lb) at +4.539 m (+178.7) (aft)

20. Wheels and Tires:
20.1 Nose Wheel Tire Size: 6.00x6, 8 ply
20.2 Main Wheel Tire Size: 6.00x6, 8 ply

21. (Reserved)

22. Control Surface Movements: For approved control surface deflections see applicable Airplane Maintenance Manual (D.IV.).

D.IV. Operating and Service Instructions

Airplane Flight Manual (AFM) and Pilot´s Operating Handbook (POH):

a) POH/ FAA approved AFM, VB-1881, latest approved revision, for Model PA-32-301XTC Piper 6XT
S/N 3255001 and up

Limitations and information for the Avidyne Entegra option are published in POH/AFM-Supplement 11 or 14, latest revision

Airplane Maintenance Manual (AMM):

a) P/N 766-854, latest approved revision
S/Ns 3255001 and up

Service Bulletins and Service Letters

D.V. Notes

1. Applicable Manufacturer´s S/N:
   a) Basic aeroplane: S/Ns 3255001and up
   b) Avidyne Entegra option: S/Ns 3255015 and up

   In addition for import into EASA-countries following requirements have to be met:
   - For Avidyne equipped PA-32 Piper SB1162, latest revision, has to be complied with.
   - PFD set-up has to be configured to display hPa (mbar) altimeter units.
   - Pointer type altimeters (including stand-by altimeters) have to be either factory installed or installed in accordance with an approved change, and have to have a hPa (mbar) barometric pressure setting scale.

   PFD/MFD fuel quantity and fuel flow units can be configured either in metric or US units.

2. Approved Noise Levels:
   See EASA Noise Database (http://www.easa.eu.int/ws_prod/c/doc/Design_Appro/Noise)

3. 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 certified 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:13.61 kg (30.0 lb), at +2.418 m (+95.2 in)
   Oil: 1.36 kg (3.0 lb), at +0.584 m (+23.0 in)

4. Placards:
   All placards required in the POH and/or AFM and/or AFM-Supplements must be installed in the appropriate locations.
   The following placard must be displayed in clear view of the pilot:

   "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS. NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED."

5. Certification Basis for the basic PA-32-301XTC Piper 6XT:

   PA-32-301 XTC, S/N 3255001 and up:
   CAR 3, effective May 15, 1956, through Amendment 3-8, effective December 18, 1962. In addition, FAR 23.965 of FAR 23, effective February 1, 1965; FAR 23.207, 23.221, 23.901, 23.909, 23.959, 23.1091, and 23.1527 as amended by Amendment 23-7, effective September 14, 1969; FAR 23.201, 23.203, and 23.967(e)(2) as amended by Amendment 23-14, effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-18, effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20, effective September 1, 1977; FAR 23.1581 as amended by Amendment 23-21, effective March 1, 1978; FAR 23.1545 as amended by Amendment 23-23, effective December 1, 1978; FAR 23.1529 as amended by Amendment 23-26, effective October 14, 1980; FAR 23.853(a) and (c)(1) as amended by Amendment 23-34, effective January 15, 1987; FAR 23.1309 as amended by Amendment 23-41 for the communication and navigation LRUs only; FAR 23.1557(c)(1) as amended by Amendment 23-45, effective September 7, 1993; FAR 23.561(b)(3) as amended by Amendment 23-48, effective March 11, 1996; FAR 23.1041, 23.1043, and 23.1047 as amended by Amendment 23-51, effective March 11, 1996; FAR 23.1305 as amended by Amendment 23-52, effective July 25, 1996.
   Compliance with FAR 23.1441 as amended by Amendment 23-9, effective June 17, 1970, has been show with supplemental oxygen for the PA-32-301XTC only.

   For aircraft equipped with Piper factory installed S-Tec system 55X autopilot installations, the additional certification basis for installation specific items only is: 14 CFR Part 23 regulations FAR 23.609, 23.627 issued on 02/01/65; FAR 23.611, 23.619, 23.625 as amended by Amdt. 23-7 Eff. 09/14/69; FAR 23.603 as amended by Amdt. 23-23, Eff. 12/01/78; FAR 23.1309 as amended by 23-41 Eff. 11/26/90; FAR 23.572(a)(1), 23.613(a)(b)(d) as amended by Amdt. 23-45, Eff. 09/07/93; FAR 23.561(b)(3)(e) as amended by Amdt. 23-48, Eff. 03/11/96; FAR 23.1329 as amended by Amdt. 23-49 Eff. 02/09/96.

6. For aircraft S/N 3255015 and up equipped with Piper factory installed optional Avidyne Entegra system and Mid-Continent Model 4300-411 Electric Attitude Indicator in addition to the certification basis defined in CRI-A01, latest revision, the applicable paragraphs are listed below. These JAR requirements substitute the corresponding paragraphs of note 5.
   JAR 23 (basic release):
   JAR 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.561, 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.771, 23.773, 23.777, 23.853, 23.867, 23.1191, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1311, 23.1321, 23.1322, 23.1323, 23.1325, 23.1327, 23.1329, 23.1331, 23.1335, 23.1337, 23.1351, 23.1353, 23.1357, 23.1359, 23.1361, 23.1365, 23.1367, 23.1381, 23.1431, 23.1501, 23.1523, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1549, 23.1555, 23.1563, 23.1581, 23.1583, 23.1585.

7. Type Design Definition of TCDS relevant changes:
   a) Factory installed Avidyne Entegra option: New Piper report number VB-1885

Change Record

Issue 1 Initial issue to record EASA approval of Avidyne Entegra and G1000 PFD/MFD installations.

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