



TYPE-CERTIFICATE DATA SHEET

No. EASA.IM.A.234

**for
Piper PA-28**

Type Certificate Holder:
Piper Aircraft, Inc.

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

For Models: PA-28-181 (Archer III)



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SECTION A: **Model PA-28-181 (Archer III)**

A.I. General

- | | |
|---|---|
| 1. a) Type: | PA-28 |
| b) Model: | PA-28-181 (Archer III) |
| c) Variant: | N/A |
| 2. Airworthiness Category: | Normal and Utility Category |
| 3. Manufacturer: | Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960
U.S.A., see note 9 |
| 4. EASA Certification Application Date: | N/A |
| 5. State of Design Authority: | FAA |
| 6. State of Design TC Date: | 30 August 1994 |
| 7. EASA Type Certification Date: | 28 September 2003 (in accordance with Commission Regulation (EU) No. 748/2012, Article 3, para. 1. (a)) |

A.II. Certification Basis

- | | |
|--|--|
| 1. Reference Date for determining the applicable requirements: | Date of application for FAA TC for Model PA-28-181 (Archer III)
08 November 1993 |
| 2. (Reserved) | |
| 3. (Reserved) | |
| 4. Certification Basis: | a) For the basic PA-28-181 (Archer III) aeroplane the applicable certification basis is CAR 3 and FAR 23. For details on the applicable CAR 3 and FAR 23 amendments see A.V., note 6.
b) For PA-28-181 (Archer III) aeroplanes equipped with the factory installed Avidyne Entegra System option the additional certification basis for installation specific items only is CS-23 as defined in CRI-A01 Avidyne, issue 2, or later revision (for details on applicable paragraphs see A.V., note 7).
c) For PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 Integrated Avionics System option the additional certification basis for installation specific items only is CS-23 as defined in CRI A-01 G1000, issue 1, or later revision (for details on applicable paragraphs see A.V., note 7).
d) For PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 NXI phase I and II the additional certification basis for installation specific items only is CS-23 as defined in CRI A-01 Annex A04 (for details on applicable paragraphs see A.V., note 7). |



- e) For PA-28-181 (Archer III) aeroplanes equipped with the factory installed Lycoming IO-360-B4A engine the additional certification basis for installation specific items only is CS-23 as defined in CRI A-01 Annex A05 (for details on applicable paragraphs see A.V., note 7).
- f) For PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G5 Standby Instrument option and G3X avionics (see note 10) the additional certification basis for installation specific items only is CS-23 as defined in A.V., note 7.
- g) For PA-28-181 (Archer III) aeroplanes equipped with main wing spar assembly defined by Piper drawing 28W57A013, the additional certification basis for installation specific items only is CS-23 as defined in A.V., note 7.
- h) For PA-28-181 (Archer III) aeroplanes (see note 10) with the hand-held halon free Fire Extinguisher, the additional certification basis for installation is CS-23 (for applicable amendments see A.V., note 11).
- i) For PA-28-181 (Archer III) aeroplanes with factory installed Garmin G1000NXi Integrated Avionics that incorporate System Software Release 7, the additional certification basis for installation is CS-23 (for applicable amendments see A.V., note 12).

5. Airworthiness Requirements:

- a) CAR 3 and FAR 23 for the basic PA-28-181 (Archer III) aeroplane (for applicable amendments see A.II.4).
- b) CAR 3 and FAR 23 and CS-23 for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Avidyne Entegra System option (for applicable amendments see A.II.4).
- c) CAR 3 and FAR 23 and CS-23 for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 Integrated Avionics System option (for applicable amendments see A.II.4)
- d) CAR 3 and FAR 23 and CS-23 for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 NXI (phase I and phase II & GFC700 AFCS) Integrated Avionics System option (for applicable amendments see A.II.4)
- e) CAR 3 and FAR 23 and CS-23 for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Lycoming IO-360-B4A engine option (for applicable amendments see A.II.4)
- f) CAR 3 and FAR 23 and CS-23 for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G5 Standby Instrument option and G3X avionics (see note 10) (for applicable amendments see A.II.4)
- g) CAR 3 and 14 CFR 23 and CS-23 for PA-28-181 Archer III aeroplanes with Garmin G1000NXi Integrated Avionics that incorporate System Software Release 7 (for applicable amendments see A.II.4.g).

6. Requirements elected to comply: None

7. Special Conditions:

- a) None for the basic PA-28-181 (Archer III) 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-28-181 (Archer III) aeroplanes equipped with the factory installed Avidyne Entegra System option.
- c) CRI B-52, Human Factors in Integrated Avionic Systems, FAR 23.1306, Amdt. 23-61, Protection of the effects of lightning strike, indirect effects (formerly CRI F-54), FAR 23.1308(a)(b)(c), Amdt. 23-61, Protection of the effects of HIRF (formerly CRI F-52), PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 Integrated Avionics System option.
 - d) SC-B23.div-01 (B-52), Human Factors in Integrated Avionic Systems, FAR 23.1306, Amdt. 23-61, Protection of the effects of lightning strike, indirect effects (formerly CRI F-54), FAR 23.1308(a)(b)(c), Amdt. 23-61, Protection of the effects of HIRF (formerly CRI F-52), CRI F-90, Security Protection of Aircraft Systems and Networks for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 NXI (Phase I and Phase II). In addition CRI F-14 Electronic Stability and Protection (ESP) only for aeroplanes equipped with G1000 phase II option and the autopilot GFC-700.
 - e) SC-B23.div-01 (B-52) Human Factors in Integrated Avionic Systems for PA-28-181 (Archer III) aeroplanes equipped with Garmin G5 Standby Instrument and G3X avionics (see note 10).

8. Exemption:

None

9. Equivalent Safety Findings:

- a) None for the basic PA-28-181 (Archer III) aeroplane
- b) CRI-F03, Powerplant Instruments for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Avidyne Entegra System option.
- c) CRI F-201, Flight Instruments, Stabilized Magnetic Compass, CRI F-203, Power Plant Instruments, Fuel Flow Indication, for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 Integrated Avionics System option.
- d) CRI F-201, Flight Instruments, Stabilized Magnetic Compass, CRI F-203, Power Plant Instruments, Fuel Flow Indication, for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G1000 NXI (Phase I and Phase II)
- e) F-201, Flight Instruments, Stabilized Magnetic Compass, for PA-28-181 (Archer III) for PA-28-181 (Archer III) aeroplanes equipped with the factory installed Garmin G5 Standby Instrument

10. Environmental Standards:

ICAO Annex 16, Volume 1, Chapter 10



A.III. Technical Characteristics and Operational Limitations

1. Type Design Definition: Piper Top Drawing No. 85191-002
For TDD of TCDS relevant changes see also note 8.
2. Description: Single engine reciprocating, all-metal, four-place, unpressurized, low wing aeroplane, fixed tricycle landing gear.
3. Equipment: For approved equipment, see applicable AFM/POH, section 6. (For applicable AFM/POH see A.IV.).
4. Dimensions:
- | | | |
|-----------|----------------------|------------------------|
| Span | 10.82 m | (35.5 ft) |
| Length | 7.32 m | (24.0 ft) |
| Height | 2.23 m | (7.3 ft) |
| Wing Area | 15.79 m ² | (170 ft ²) |
5. Engines:
- 5.1 Engine: 1 Lycoming O-360-A4M, carburetor setting 10-6102 or 10-5193 for aircraft prior to S/N 2843501
Or
1 Lycoming IO-360-B4A engine with injector model RSA-5AD1, Lycoming Part Number 61J28702, Avstar Part Number AV 2581600.
The EASA Engine Type Certification standard includes that of FAA TCDS E-286 (in accordance with EC 748/2012, Article 3, para. 1(a)).
- 5.2 Engine Limits: For all operations:
2700 RPM (180 HP)
For other powerplant limitations refer to the applicable AFM/POH, section 2.
6. Propellers:
- 6.1 Propeller: 1 Sensenich 76EM8S14-0-62
Static r.p.m. at maximum permissible throttle setting, not over 2340 r.p.m., not under 2240 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under non-standard conditions).
No additional tolerance permitted.
- Diameter: Not over or under 1.93 m (76")
- Spinner: Piper P/N 83349-12
The EASA Propeller Type Certification standard includes that of FAA TCDS P4EA (in accordance with EC 748/2012, Article 3, para. 1(a)).



7. Fluids:

7.1 Fuel: 100/100LL minimum grade aviation gasoline

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

8. Fluid capacities:

8.1 Fuel: Total: 189 liters (50 US gal) in 2 leading edge wing tanks
Usable: 182 liters (48 US gal) in 2 leading edge wing tanks

8.2.Engine Oil: Maximum: 7.6 liters (8 qts)
Usable: 5.7 liters (6 qts)

9. Air Speeds:

Design Manoeuvring Speed, v_A (1157 kg (2550 lb)) 113 KIAS
Design Manoeuvring Speed, v_A (742 kg (1634 lb)) 91 KIAS
Never Exceed Speed v_{NE} 154 KIAS
Maximum Structural Cruising Speed, v_{NO} 125 KIAS
Maximum Flap Extend Speed, v_{FE} 102 KIAS

10.Maximum Operating Altitude: no limitation specified

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

12.Maximum Masses:

12.1 Normal Category: Ramp: 1161 kg (2558 lb)
Take-Off: 1157 kg (2550 lb)

12.2 Utility Category: Ramp: 970 kg (2138 lb)
Take-Off: 967 kg (2130 lb)

13.Centre of Gravity Range (gear extended):

13.1 Normal Category:

linear variation between given points

Weight kg (lb)	Fwd. Limit m (in) aft of datum	Aft Limit m (in) aft of datum
1161 (2550)	2.250 (88.6)	2.362 (93.0)
930 (2050)	2.083 (82.0)	2.362 (93.0)

see also A.V. note 3

13.2 Utility Category:

linear variation between given points

Weight kg (lb)	Fwd. Limit m (in) aft of datum	Aft Limit m (in) aft of datum
967 (2130)	2.108 (83.0)	2.362 (93.0)
930 (2050)	2.083 (82.0)	2.362 (93.0)

see also A.V. note 3



14. Datum: 1.991 m (78.4") forward of inboard intersection of straight and tapered wing leading edge sections
- 15.(Reserved)
- 16.Levelling Means: Two screws at the left side fuselage below window.



17. Minimum Flight Crew:	1 (Pilot)
18. Max. Passenger Seating Capacity:	Normal Category 3 Normal Category 2 (for aircraft where the G3X avionics is installed; see notes 7 and 10) Utility Category 1 for passenger seating locations see applicable AFM/POH
19. Baggage / Cargo Compartments:	91 kg (200 lb) at 3.627 m (+142.8 in)
20. Wheels and Tyres:	
20.1 Nose Wheel Tyre Size	6.00x6, 4 ply
20.2 Main Wheel Tyre Size	6.00x6, 4 or 6 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) D.O.A. NO. SO-1 approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-1563 for Model PA-28-181 (Archer III), S/N 2890206 up to 2890231
- b) D.O.A. NO. SO-1 approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-1611, rev 13 or later revision, for Model PA-28-181 (Archer III), S/N 2843001 and up, and when equipped with the factory installed Avidyne Entegra option, S/N 2843598 and up
- c) ODA-510620-CE approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-2266, rev 2 or later revision, for Model PA-28-181 (Archer III), when equipped with the factory installed Garmin G1000 Integrated Avionics System option, S/N 2843701 and 2843703 and up.
- d) ODA-510620-CE approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-2749, rev 2 or later revision, for Model PA-28-181 (Archer III), when equipped with the factory installed Garmin G1000 NXI phase II & GFC700 AFCS and the normally aspirated or fuel injected engine option, and the Garmin G5 S/N 2843823, 2881001 and up
- e) ODA-510620-CE approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-2596, rev 3 or later revision, for Model PA-28-181 (Archer III), when equipped with the factory installed Garmin G1000 NXI phase I and the normally aspirated or fuel injected engine option, S/N 2843823, 2843852, 2843854 and up.
- f) ODA-510620-CE approved Pilot's Operating Handbook and FAA approved Airplane Flight Manual Report No. VB-2960, Revision 4 or later revision, for Model PA-28-181



(Archer III), when equipped with the G3X avionics, S/N 28020001 and up (see note 10)

Airplane Maintenance Manual (AMM): P/N 761-679, latest approved revision, for S/N 2890206 through 2890231

P/N 761-883, latest approved revision for S/N 2843001 and up

P/N 761-883 and Supplement 767-111 for S/N 28020001 and up (see note 10)

Service Bulletins and Service Letters



A.V. Notes

1. Applicable Manufacturer's S/N and Certification Import Requirements:

- a) Basic aeroplane: S/N 2890206 through 2890231 and S/N 2843001 and up
- b) Avidyne Entegra option: S/N 2843598 and up

In addition for import into EU-countries following requirements have to be met:

- PFD set-up has to be configured to display hPa (mbar) altimeter setting units.
- Pointer type altimeters (including stand-by altimeters) have to be either factory installed or installed in accordance with an approved change, and must have a hPa (mbar) barometric pressure setting scale.
- PFD/MFD fuel quantity and fuel flow units shall be configured in compliance with units displayed in the POH/AFM (see FAR/CS 23.1581c)).
- Compliance with Piper SB1162B or later approved revision is required

- c) Garmin G1000 option: S/N 2843701 and 2843703 and up

- d) Garmin 1000 NXi Phase II & GFC700 AFCS
and O-360 A4M or IO-360 B4A option: S/N 2843823, 2881001 and up

- e) Garmin 1000 NXi Phase I and
O-360 A4M or IO-360 B4A option: S/N 2843823, 2843852, 2843854 and up

2. Approved Noise Levels

see TCDSN IM.A.234 or EASA noise database for light propeller driven aeroplanes, latest revision

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 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: 5.4 kg (12.0 lb). at +2.616 m (+ 103.0 in)

Oil: 0,8 kg (1,8 lb). at +0,902 m (+ 35.5 in)

4. Placards:

All placards required in the approved Airplane Flight Manual or Pilot's Operating Handbook and approved Airplane Flight Manual or Pilot's Operating Handbook Supplements must be installed in the appropriate location.

5. Life Limitations:

For mandatory life limitations and inspection requirements see chapter 4, latest revision, of the applicable maintenance manuals.

6. Certification Basis for basic PA-28-181 (Archer III) aeroplanes:

CAR 3 effective May 15, 1956, including Amendments 3-2 and 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.207, 23.221, 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1557(c)(1) as amended by Amendment 23-



18 effective May 2, 1977; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977.

7. In addition to the certification basis defined in CRI-A01 Avidyne Entegra, latest revision, the applicable paragraphs for the factory installation of the Avidyne Entegra option are listed below. These CS requirements substitute the corresponding paragraphs of note 6.

CS-23 (basic release):

CS 23.301, 23.303, 23.305, 23.307, 23.337, 23.341, 23.473, 23.561(b)(3), 23.601, 23.603, 23.605, 23.607, 23.609, 23.611, 23.613, 23.683, 23.771, 23.773, 23.777, 23.867, 23.955, 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

In addition to the certification basis defined in CRI A-01 G1000, latest revision, the applicable paragraphs for the factory installation of the Garmin G1000 Integrated Avionics System option are listed below. These CS requirements substitute the corresponding paragraphs of note 6.

CS-23 (Amendment 2):

CS 23.21, 23.23(a), 23.25, 23.29, 23.207(a)(b)(c), 23.251, 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.421(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, 23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1301, 23.1303(a)(b)(f), 23.1305(a)(1)(2)(3)(b)(2), 23.1309(a)(1)(2)(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(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), 23.1563(a), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589(a)

For aircraft equipped with Piper factory installed optional Lycoming Fuel Injected IO-360-B4A engine, as installed by Piper Drawing Number 107500, the applicable requirements are listed below. These requirements substitute the corresponding paragraphs of note 6.

CAR 3 as amended by 3-2:

3.71, 3.73, 3.74, 3.75, 3.76, 3.171(a), 3.172, 3.173, 3.174, 3.186, 3.188, 3.195(a)(2)(b), 3.241, 3.291, 3.292, 3.293, 3.294, 3.295, 3.296, 3.301, 3.302, 3.306, 3.307, 3.384, 3.386(a), 3.411(a)(b), 3.415, 3.416(a)(b), 3.417, 3.419, 3.422(a)(1)(2)(b)(c)(d)(e)(f), 3.429, 3.430, 3.437(a)(b)(e)(f), 3.438, 3.440, 3.441(a)(1)(b)(c), 3.442, 3.443, 3.444, 3.445, 3.446(a), 3.448, 3.449(a)(b), 3.550, 3.551, 3.552, 3.553, 3.554, 3.562, 3.570, 3.572, 3.575(a), 3.576, 3.581, 3.582, 3.583, 3.584, 3.585, 3.586, 3.605(a)(b), 3.611, 3.615, 3.616, 3.617, 3.618, 3.623, 3.624(a)(b), 3.625, 3.627, 3.628, 3.629, 3.630, 3.633, 3.635, 3.638, 3.651, 3.652, 3.655(c)(2), 3.671, 3.673, 3.674, 3.681(a), 3.685, 3.693, 3.744, 3.745(a), 3.746(a)(c), 3.747, 3.755(a)(b), 3.762, 3.777(a), 3.778(b), 3.779, as amended by 3-2;

In addition, CS-23 (Amendment 2):

23.955(a)(c)(1)(3)(e)(1), 23.1093, 23.1101, 23.1105, 23.1337(b)(1)(4) and 23.1549(a)(b)(c)

(14 CFR § 23.1093 (a)(5) Amdt 23-51 is an acceptable means of compliance to CS 23.1093 (a))

For aircraft equipped with Piper factory installed optional Garmin G1000 NXi phase 1 as installed by Piper Drawing Number 107500-003, -004, -007, and -008, the applicable requirements are listed below. These requirements substitute the corresponding paragraphs of note 6. Note that the G1000 NXi is an upgrade of the G1000, so for aeroplanes modified with the G1000 NXi also the applicable certification basis for the G1000 installation shall be considered.

CS-23 (Amendment 2):

23.21, 23.23(a), 23.25(a)(b), 23.29, 23.301(a)(b)(c), 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, 23.771(a), 23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1301(a)(b)(c)(d), 23.1303(a)(b)(c)(f), 23.1305(a)(1)(2)(3)(b)(2)(4)(i), 23.1309(a)(1)(2)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(5)(6)(7)(b)(c), 23.1321(a)(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(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1381(a)(b)(c), 23.1383(c), 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)(e), 23.1523, 23.1525, 23.1541(a)(b), 23.1543(b)(c), 23.1545(a)(b), 23.1549(a)(b)(c), 23.1501, 23.1529, 23.1553, 23.1555(a)(b), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589(a).

CAR3 sections 3.581, 3.582, 3.583, 3.586, and 3.635, effective May 15, 1956 including Amendment 3-2.

FAR 23.1306, FAR 23.1308 (a)(b)(c) as amended by Amdt. 23-61;

For aircraft equipped with Piper factory installed optional Garmin G1000 NXi Phase II and GFC700 AFCS (or Garmin G1000NXi Phase II only) the applicable requirements are listed below. These requirements substitute the corresponding paragraphs of note 6. Note that the G1000 NXi is an upgrade of the G1000, so for aeroplanes modified with the G1000 NXi also the applicable certification basis for the G1000 installation shall be considered.

CS-23 (Amendment 2):

23.21(b), 23.23(a), 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, 23.867, 23.1141(d), 23.1301(a)(b)(c)(d), 23.1303(a)(b)(c)(f), 23.1305(a)(1)(2)(3)(b)(2)(4)(i), 23.1309(a)(1)(2)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(5)(6)(7)(b)(c), 23.1321(c)(d)(5)(e), 23.1322(a)(b)(c)(d)(e), 23.1323(a)(c), 23.1325(a)(b)(1)(2)(i), 23.1327(a), 23.1329(a)(1)(b)(c)(d)(e)(f)(g)(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1367(a)(b)(c)(d), 23.1381(a)(c), 23.1431(a)(b)(e), 23.1501, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1543(c), 23.1545(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(a)(1)(j), 23.1589(a)

CAR3 sections 3.581, 3.582, 3.583 and 3.586 effective May 15, 1956 including Amendment 3-2.

FAR 23.1306, FAR 23.1308 (a)(b)(c) as amended by Amdt. 23-61

For aeroplanes equipped with Piper factory installed optional Garmin G5 Standby Instrument as installed by Piper Drawing Number 107569 Rev G or later FAA approved revision, the applicable requirements are listed below. These requirements substitute the corresponding paragraphs of note 6.

CS 23 Amendment 2:

23.25(a)(b), 23.29, 23.251, 23.301(a), 23.303, 23.305, 23.307(a), 23.337(a)(b), 23.561(a)(b)(3)(c), 23.601, 23.603, 23.605(a), 23.607(b), 23.613(a)(b), 23.771(a), 23.773(a)(2), 23.777(a)(b), 23.853(a), 23.1301(a)(b)(c)(d), 23.1303(a)(b)(f), 23.1309(a)(1)(2)(b)(1)(2)(4)(e), 23.1311(a)(1)(2)(3)(6)(7)(b), 23.1321(c)(e), 23.1322(a)(e), 23.1323(a)(b)(c), 23.1325(a)(b), 23.1331(a)(b)(1)(c), 23.1431(b), 23.1351(a)(1)(2)(i), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359, 23.1365(a)(b)(c)(d)(d)(e), 23.1381(a)(b), 23.1431(a), 23.1529, 23.1541(a)(b)(c), 23.1543(b), 23.1545(a)(b)(c), 23.1555(a)(b), 23.1581(a)(b)(d)(f), 23.1583(m), 23.1585(a);

CS 23 Amendment 5

23.2515, 23.2520

For aeroplanes equipped with Piper factory installed Garmin G3X avionics (see note 10) as installed by Piper Drawing Number 28G00A001 Revision New or later FAA approved revision, the applicable requirements are listed below.

Note: the G3X installation is approved only for aircraft with G5 Standby Instrument as installed by Piper Drawing Number 28G24A001 revision NEW (SYSTEM INSTL-ELECTRICAL & AVIONICS) and with Lycoming Fuel Injected IO-360-B4A engine as installed by Piper Drawing Number 109002 Revision R (POWERPLANT INSTALLATION). The requirements below complement and substitute, where applicable, the requirements of note 6 for the G5 and the engine installation:

CS 23 Amendment 2:

23.251(a), 23.301(a), 23.303, 23.305, 23.307(a), 23.337(a)(b), 23.561(a)(b)(3)(e), 23.601, 23.603, 23.605(a), 23.607(a)(b), 23.609, 23.611, 23.613(a)(b)(c), 23.627, 23.771(a), 23.773(a)(2), 23.777(a)(b), 23.853(a), 23.863(a)(b), 23.867, 23.901(a)(b)(1)(e), 23.955(a)(2)(3)(4)(c), 23.963(e), 23.993, 23.1182, 23.1301(a)(b)(c)(d), 23.1303(a)(b)(c)(f), 23.1305(a)(1)(2)(3)(b)(2)(4)(i), 23.1309(a)(1)(2)(b)(1)(2)(i)(ii)(3), 23.1311, 23.1321(a)(c)(d)(5)(e), 23.1322, 23.1323, 23.1325(a)(b)(1)(2)(i), 23.1327, 23.1331(a)(b)(c), 23.1337(a)(b)(1)(c), 23.1351(a)(1)(2)(i)(e), 23.1431, 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359, 23.1365(a)(b)(c)(d), 23.1367(a)(b)(c)(d), 23.1381(a)(b)(c), 23.1431(a)(b)(e), 23.1501, 23.1521(a)(b)(1)(c)(1)(4), 23.1523, 23.1529, 23.1541(a)(b), 23.1543(b)(c),



23.1545(a)(b)(1)(2)(3)(4), 23.1547(a)(b)(c)(d)(e), 23.1555(a)(b)(d)(3), 23.1581(a)(b)(2)(c),
23.1583(d)(h)(j)(m), 23.1585(a)(j),
CS 23 Amendment 5:
23.2335, 23.2510, 23.2515, 23.2520

For PA-28-181 aircraft equipped with main wing spar assembly defined by Piper drawing 28W57A013,
the additional certification basis for the main wing spar assembly structure is:

CS 23 Amendment 5:
23.2010, 23.2240 (a), 23.2625

8. Type Design Definition of TCDS relevant changes:

- | | |
|---|-------------------------------------|
| a) Factory installed Avidyne Entegra option: | New Piper Top Drawing No. 85191-005 |
| b) Factory installed Garmin G1000 option: | Piper Top Drawing 107500 |
| c) Factory installed IO-360-B4A engine | Piper Top Drawing 107500 |
| d) Factory installed Garmin G1000 NXI option: | Piper Top Drawing 107500 |
| e) Factory installed Garmin G5 | Piper Top Drawing 107569 |
| f) Factory installed Garmin G3X | Piper Drawing Number 28G00A001 |

9. For Manufacturer history for the Archer III model refer to the Type Certificate Holder record,
Administrative Section, III.

10. Aircraft with Factory installed G3X avionics have the commercial designation Piper Pilot 100i. For
these aircraft the number of seats is limited to 3 and the G5 standby instrument and the IO-360-B4A
have to be installed.

11. For the PA-28-181 (Archer III and Pilot 100i) aircraft equipped with halon free hand-held fire
extinguisher installed by Piper Drawing 99G26A001 the additional certification basis is:
PA-28-181 (Archer III): CS 23.851, 23.1301, 23.1529, 23.1541, 23.1561 at Amendment 4
PA-28-181 (Pilot 100i): CS 23.851, 23.1529, 23.1561 at Amendment 4

12. For aircraft equipped with Piper factory installed optional Garmin G1000 NXi System Software
Release 7 the applicable requirements are listed below. These requirements substitute the
corresponding paragraphs of note 6. Note that the System Software Release 7 is an upgrade of the
G1000NXi, so for aeroplanes modified with the System Software Release 7 also the applicable
certification basis for the G1000NXi installation shall be considered.
CS-23 Amendment 2: 23.21, 23.23(a), 23.25(a)(b), 23.29, 23.301(a)(b)(c), 23.303, 23.305, 23.307(a),
23.337(a)(1)(2)(3)(b)(1)(2)(c), 23.341(a)(c), 23.473(a)(b)(1)(2)(d)(e)(g), 23.601, 23.603(a)(1)(2)(3)(b),
23.607(a)(b), 23.609(a)(1)(2)(3), 23.611, 23.613(a)(b)(1)(2)(c)(d)(e), 23.627, 23.771(a),
23.773(a)(1)(2), 23.867, 23.1301(a)(b)(c)(d), 23.1309(a)(1)(2)(b)(c)(d)(e),
23.1311(a)(1)(2)(3)(4)(6)(7)(b)(c), 23.1322(a)(b)(c)(d)(e), 23.1351(a)(1)(2)(i), 23.1353(h),
23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1367(c)(d), 23.1431(a)(b)(e), 23.1501(a)(b), 23.1523,
23.1525, 23.1529, 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589(a)
CS-23 Amendment 4: 23.251(a), 23.777(a)(b), 23.561(a)(b)(3)(e), 23.1303(a)(b)(c)(f), 23.1306,
23.1308
CS-23 Amendment 5: 23.2505(a), 23.2510
CS-23 Amendment 6: 23.2500(b), 23.2615(b)



ADMINISTRATIVE SECTION

I. ACRONYMS

N/A

II. TYPE CERTIFICATION HOLDER RECORD

(and manufacturer record)

Piper Aircraft, Inc.

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

Until August 7, 2006:

The New Piper Aircraft, Inc.

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

Until 1995:

Piper Aircraft Corporation

Lock Haven, Pennsylvania/Vero Beach Florida
U.S.A.

III. CHANGE RECORD

Issue No.	Date	Change
01	13 May 2014	Initial issue to record EASA approval of the PA-28-181 Avidyne Entegra and G1000 installation
02	20 November 2015	Change to current EASA TCDS graphic format Addition of "S/N 2843001 and up" which were unintentionally omitted in Issue 1 Addition of note 9, manufacturer history
03	08 August 2018	Changes (with revision bar) to include the G1000 NXI Avionics (phase I and phase II & GFC700 AFCS) and the new engine IO-360-B4A
04	11 June 2021	Changes (with revision bar) to include the G5 installation approval
05	23 August 2021	Changes (with revision bar) to include the G3X installation approval
06	23 October 2023	Changes (with revision bar) to include new Main wing spar assembly certification basis Correction of typo errors in G3X certification basis in Note 7
07	10 September 2025	Changes to update the certification basis for the installation of the new hand-held fire extinguishers
08	09 April 2026	Changes to update the certification basis for the upgrade of the G1000NXi with System Software Release 7

- END -

