

中国民用航空局
CIVIL AVIATION ADMINISTRATION OF CHINA

型号认可证数据单

THE VALIDATION DATA SHEET

编号/No: VTC0358A
版次/Revision: 0
型号/Type:
PA-34-220T (Seneca V)

批准人/Approved By:

徐超群

职务/Title: Director General of CAAC-AAD
日期/Date: 2019 年 4 月 8 日

本数据单是型号认可证(编号: VTC0358A)的组成部分, 它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is part of Validation of Type Certificate (No: VTC0358A), prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder:

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

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第 1 部分/SECTION 1: 总则（所有型别） / General (ALL MODELS)

1. CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance date
当前/ Current	VTC0358A Rev 0 2019/04/08	A7SO, Rev 23, Feb 06, 2017
历史/ History		

2. 适航类别/Airworthiness Category:

正常类/Normal Category

3. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

美国联邦航空局/FAA

4. 型号合格证持有人/Type Certificate Holder:

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

5. 认可审定基础/Validation Certification Basis

CAAC 的认可审定基础由 FAA 的审定基础（详见 FAA 型号合格证数据单：编号 A7SO），和 CAAC 的附加技术条件组成。

The CAAC validation certification basis consists of the FAA certification basis (refer to FAA Type Certificate Data Sheet No.A7SO), and the CAAC additional technical conditions.

第 2 部分/SECTION 2: PA-34-220T(Seneca V)

I. 总则/General

- | | |
|--------------------------------------|---|
| 1. 型别/Model: | PA-34-220T (Seneca V) |
| 2. 适航类别/Airworthiness Category: | 正常类/Normal Category |
| 3. 型号合格证持有人/Type Certificate Holder: | Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960
U.S.A. |
| 4. FAA 批准日期/FAA Approved Date: | 1996.12.11/11 Dec, 1996 |
| 5. CAAC 批准日期/CAAC Approved Date: | 2019.04.08/8 April, 2019 |

II. 认可审定基础/Validation Certification Basis

CAAC的认可审定基础由FAA的审定基础和CAAC的附加技术条件组成。

The CAAC validation certification basis consists of the FAA certification basis and the CAAC additional technical conditions.

FAA 审定基础/FAA certification basis

详见FAA型号合格证数据单A7SO（版本23）中的配装GFC增强特性自动驾驶功能的G1000系统的PA-34-220T（Seneca V）型别适用审定基础/ Refer to FAA Type Certificate Data Sheet No.A7SO Revision 23 for PA-34-220T “Seneca V” as the G1000 with GFC700 enhance feature autopilot only.

中国民用航空局附加技术条件/CAAC Additional Technical Conditions

交付到中国的每一架 PA-34-220T 飞机须满足下述附加技术条件:

Each of Model PA-34-220T aircraft delivered to China shall meet the following Additional Technical Conditions:

(1) 根据 CCAR21.29(5), 有关适航规章、噪声规定所要求的手册、标牌、目录清单和仪表标记, 应当用中文或英文书写; 下列各项应当至少有中文表述

- 1) 机上所有对旅客进行的提示、警告和通知的文字标记和标牌;
- 2) 机上所有向旅客或机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌;
- 3) 旅客可能使用的机上所有应急设备的操作、使用说明。
机上其他中文标记标牌应被 CAAC 批准或接受。

(1) As per CCAR21.29 (5) The manuals, placards, category lists, and instrument markings required by the airworthiness regulation and noise requirements shall be in Chinese or English, following items shall be presented in Chinese at least.

- 1) All literal markings and placards on an airplane used for indicating, warning and informing passengers
- 2) All on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer;
- 3) Operational instructions for all on-board emergency equipments possible operated by passengers.

All other placards and markings in Chinese, if any, shall be accepted or approved by the CAAC.

III. 技术特征和运行限制/Technical Characteristics and Operational Limitations

型号设计定义/Type Design Definition:

型号定义在“Complete Airplane” Seneca V 107200 Rev J 及之后版本中配装带有 GFC 700 增强自动驾驶功能的 G1000 系统的 PA-34-220T “Seneca V” 适用部分。
The type configuration defined as “Complete Airplane” Seneca V 107200 Rev J and up for the PA-34-220T “Seneca V” as the G1000 with GFC700 enhance feature autopilot only.

发动机/Engines:

1 台 Teledyne Continental TSIO-360-RB (左发),
1 台 Teledyne Continental LTSIO-360-RB (右发)
CAAC 型号认可证编号: VTC0318E, VTCDS 版本: 0
1 Teledyne Continental TSIO-360-RB (left engine),
1 Teledyne Continental LTSIO-360-RB (right engine)
CAAC VTC No. VTC0318E, VTCDS Revision: 0

发动机限制/Engine Limits:

起飞及最大连续, 2600 r.p.m. 38" Hg 歧管压力 (220 hp)
Takeoff and Maximum Continuous Operation, 2600 r.p.m. and 38" Hg manifold pressure (220 hp)

螺旋桨及螺旋桨限制/Propeller and Propeller Limits:

左发:

1 McCauley, Hub Model 3AF32C522, Blade Model 82NJA-6.
CAAC VTC 编号: VTC0353P, VTCDS 版本 0

右发:

1 McCauley, Hub Model 3AF32C523, Blade Model L82NJA-6.
CAAC VTC 编号: VTC0353P, VTCDS 版本 0

桨距设置:

顺桨 $82.1^{\circ} \pm 0.5^{\circ}$, 低 $12.6^{\circ} \pm 0.2^{\circ}$ 在 30" 站位

直径:

不超过 76", 不小于 75"
不允许进一步缩小

桨毂头:

Piper P/N 100738-2 组件或 McCauley P/N E-7258-X 桨毂组件

控制器组件:

1 Hartzell 液压控制器组件; 型号 E-3-9 (左),
1 Hartzell 液压控制器组件; 型号 E-3-9L (右); 或
1 Hartzell 液压控制器组件; 装有同步装置的型号 E-8-9L (右).

Left Engine:

1 McCauley, Hub Model 3AF32C522, Blade Model 82NJA-6.
CAAC VTC No. VTC0353P, VTCDS Revision 0

Right Engine:

1 McCauley, Hub Model 3AF32C523, Blade Model L82NJA-6.
CAAC VTC No. VTC0353P, VTCDS Revision 0

Pitch setting:

Feather $82.1^{\circ} \pm 0.5^{\circ}$, Low $12.6^{\circ} \pm 0.2^{\circ}$ at 30" station.

Diameter:

Not over 76", not under 75".
No further reduction permitted.

Spinner:

Piper P/N 100738-2 Assembly or McCauley P/N E-7258-X Spinner Assy

Governor Assembly:

1 Hartzell hydraulic governor; Model E-3-9 (left),

1 Hartzell hydraulic governor; Model E-3-9L (right); or
1 Hartzell hydraulic governor; Model E-8-9L (right) with
Synchrophaser Installation.

燃油/Fuel:

100/100LL 最低级航空汽油
100/100LL minimum grade aviation gasoline

燃油容量/Fuel capacities:

128 加仑 (2 机翼油箱)在(+93.6) (122 加仑可用)
系统燃油数据见注 1.
128 gallons (2 wing tanks) at (+93.6) (122 gallons usable)
See NOTE 1 for data on system fuel.

滑油/Oil:

参考最新版 Continental 服务通告中定义的燃油和滑油等级。
Refer to latest revision of Continental Service Bulletin Fuel and Oil Grades.

滑油容量/Oil capacities:

每台发动机 8 夸脱(每台发动机可消耗 5 夸脱)
系统滑油数据见注释 1
8 qts. per engine (5 qts. per engine usable)
See NOTE 1 for data on system oil

空速限制/Airspeed Limits:

V _{NE} (不可逾越/Never exceed)	204 knots
V _{NO} (最大结构巡航/Maximum structural cruise)	164 knots
V _A (机动/Maneuvering) at 4750 lb.	139 knots
V _{FE} (襟翼放下状态/Flaps extended)	113 knots
V _{LO} (起落架收起/Landing gear retracting)	107 knots
V _{LO} (起落架放下/Landing gear extending)	128 knots
V _{LE} (起落架放下状态/Landing gear extended)	128 knots
V _{MC} (最小操纵速度/Minimum control speed)	66 knots

最大使用升限/Maximum Operating Altitude:

25000 英尺
25,000 feet

重心范围/ CG Range:

(+90.6)至(+94.6) 在 4750 lb.
(+86.7)至(+94.6) 在 4250 lb.
(+82.0)至(+94.6) 在 3400 lb.
给定点之间线性变化。
起落架收起引起力矩变化 (-32 in.-lb.)
(+90.6) to (+94.6) at 4750 lb.
(+86.7) to (+94.6) at 4250 lb.
(+82.0) to (+94.6) at 3400 lb.
Straight line variation between points given.
Moment change due to retracting landing gear (-32 in.-lb.)

最大重量 /Maximum Weights:

4773 lb. – 机坪/Ramp
4750 lb. – 起飞/Takeoff

4513 lb. – 着陆/Landing
4479 lb. – 零燃油/Zero Fuel
选装重量见注释 16/See NOTE 16 for optional weights.

最大行李/货物装载/Maximum Baggage/Cargo Loads:

185 lb. (100 lb.在 +22.5, 85 lb. 在+ 178.7) (S/N 号从 3449001 至 3449310;
从 3449312 至 3449322)
200 lb. (100 lb. 在+22.5, 100 lb. 在+ 178.7) (S/N 号从 3449311、 3449323 及之后)
185 lb. (100 lb. at +22.5, 85 lb. at + 178.7) (S/N 3449001 through 3449310 and
3449312 through 3449322)
200 lb. (100 lb. at +22.5, 100 lb. at + 178.7) (S/N 3449311 and 3449323 and up)

测量基准/Datum:

从内侧燃油箱内侧边缘的机翼前缘前 78.4"
78.4" forward of wing leading edge from the inboard edge of the inboard fuel tank

水平测量措施/Leveling Means:

左侧机身舷窗下侧两个螺钉。
Two screws left side fuselage below window.

最小飞行机组/Minimum Flight Crew:

1 (左或右)
1 (left or right)

座位数量/Passenger Seating Capacity:

6 人 (2 人在+85.5, 2 人在+119.1, 2 人在+157.6)
6 (2 at +85.5, 2 at +119.1, 2 at +157.6)

操纵面运动范围/Control movement:

操副翼/Ailerons:
($\pm 2^\circ$) 上/Up 35° 下/Down 20°
安定面/Stabilator :
上/Up 12.5° ($+0^\circ$, -1°) 下/Down 7.5° ($\pm 1^\circ$)
方向舵/Rudder:
($\pm 1^\circ$) 左/Left 35° 右/Right 35°
安定面调整片(安定面中立)/Stabilator Trim Tab(/Stabilator neutral):
($\pm 1^\circ$) 下/Down 10.5° 上/Up 6.5°
机翼襟翼/Wing Flaps:
上/Up 0° ($\pm 1^\circ$) 下/Down 40° ($\pm 2^\circ$)
方向舵调整片(方向舵中立)/Rudder Trim Tab(Rudder neutral):
($\pm 1^\circ$) 左/Left 26° 右/Right 26°
前轮转弯(最大)/Nose Wheel Travel(Maximum) :
左/Left 27° 右/Right 27°

制造序号/Eligible serial numbers:

3449459, 3449467 及之后
3449459, 3449467 and up

设备/Equipment:

适用的适航规章(见审定基础)所要求的基本设备必须安装在航空器上以满足型号合格审定要求。另外, 必须装有以下与设备有关的项目:

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:

飞机飞行手册/飞行员 使用手册/AFM/POH	报告编号 REPORT NO.	批准 APPROVED	有效系列号 SERIAL EFFECTIVITY
POH/AFM	VB-2230	4/30/2013	3449459, 3449467 及其之后, 当安装 Garmin G1000 系统和/或 GFC700 系统 3449459, 3449467 and up when the Garmin G1000 and/or GFC700 systems are installed

IV.经批准的中文标记标牌/ The Approved Chinese Placards

以下资料中所包含的中文标记标牌的中文表述已由 CAAC 接受并由 FAA 批准:

The Chinese Placards involved in the following data have been accepted by CAAC and approved by FAA:

序号 Code	标题 Title	编号 Number	版本 Rev.
1	Foreign Certification Requirements	100811-002	Y (含后续经批准的版本)/Y (include the subsequent approved version).

V. 注释/Notes

注释/NOTE 1: 目前的重量和平衡报告, 包括合格审定的空机重量中设备的清单, 如必须包括载荷说明, 在初始审定时, 必须为每架航空器提供。

合格审定的空机重量和相应重心位置, 必须包含以下标注的不可放系统滑油 (不包括在滑油容量中) 及不可用燃油。

燃油: 36.0 lb. 在 (+103.0) 对型别 Model PA-34-220T (Seneca V), 系列号 S/N 3449001 及其之后

滑油: 12.0 lb. 在 (+ 43.7) 对型别 PA-34-220T

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: 36.0 lb. at (+103.0) for Model PA-34-220T (Seneca V), S/N 3449001 and up

Oil: 12.0 lb. at (+ 43.7) for Models PA-34-220T

注释/NOTE 2 在批准的飞机飞行手册或飞行员使用手册和批准的飞机飞行手册或飞行员使用手册补充页所要求的所有标牌必须安装在相应位置。

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.

注释/NOTE 4 型别 PA-34-220T: 装有三片桨叶的 McCauley 螺旋桨可无桨毂头和后隔壁使用。
The Model PA-34-220T; With three-bladed McCauley propellers, this model may be operated without spinner dome and rear bulkhead.

注释/NOTE 8 型别 PA-34-220T 可按列在飞机飞行手册或飞行员使用手册限制章节中的拆除后客舱门和行李舱门状态运行。
Model PA-34-220T may be operated subject to the limitations listed in the Airplane

Flight Manual or Pilot's Operating Handbook with rear cabin and cargo door removed.

注释/NOTE 16 装有 Piper 组件 766-632 (或等效的 88247-{ })，重量如下：
4430 lb. – 机坪
4407 lb. – 起飞、着陆和零燃油 (见 POH VB-1649, VB-1955 或 VB-2193)。
With Piper Kit 766-632 (or equivalent 88247-{ }) installed, weights are as follows:
4430 lb. - Ramp
4407 lb. - Takeoff, Landing and Zero Fuel (See POH VB-1649, VB-1955 or VB-2193).

注释/NOTE 17 联接上拉杆和前起落架轴承的螺栓和垫片每 500 使用小时定期更换，件号如下：
1. Piper P/N 400 274 (AN7-35) 螺栓或 Piper P/N 693 215 (NAS6207-50D) 螺栓；
2. Piper P/N 407 591 (AN960-716L) 垫片，适用；
3. Piper P/N 407 568 (AN 960-716) 垫片，适用；
4. Piper P/N 404 396 (AN 320-7) 螺母；
5. Piper P/N 424 085 保险销。
The bolt and stack-up that connect the upper drag link to the nose gear trunnion are required to be replaced every 500 hours time-in-service. The part numbers are as follows:
1. Piper P/N 400 274 (AN7-35) bolt or Piper P/N 693 215 (NAS6207-50D) bolt;
2. Piper P/N 407 591 (AN960-716L) washer, as applicable;
3. Piper P/N 407 568 (AN 960-716) washer, as applicable;
4. Piper P/N 404 396 (AN 320-7) nut; and
5. Piper P/N 424 085 cotter pin.

注释 3、5-7、9-15 保留。

NOTE 3, 5 through 7, 9 through 15 Reserved.