

型号认可数据单
THE VALIDATION DATA SHEET

编号/NO: VTC0115A

版本/Revision: 5

型号/Type:

PA-44-180

批准人/Approved By:



职位 /Title : Director General of
CAAC-AAD

日期/Date: 2018 - 07 -06

本数据单是型号认可证（编号：VTC0115A）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: VTC0115A), prescribes condition and limitation under 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

United States of America

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第 1 部分 概述（所有型别）

SECTION 1 GENERAL (ALL MODELS)

1. CAAC 型号认可数据单和 FAA 型号合格证数据单

CAAC Validation Data Sheet and FAA Type Certificate Data Sheet

	CAAC 型号认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance date	FAA 型号合格证数据单号、版次和颁发日期 FAA Type Certificate Data Sheet Number, Revision and issuance date
当前 Current	VTC0115A, Revision 5, 2018-07-06	A19SO, Revision 15, 2016-11-23
历史 History	VTC0115A, Revision 4, 2014-02-24 VTC0115A, Revision 3, 2010-02-16 VTC0115A, Revision 2, 2010-06-02 VTC0115A, Revision 1, 2009-02-17 VTC0115A, Revision 0, 2001-05-27	A19SO, Revision 13, 2013-06-18 A19SO, Revision 12, 2012-09-18 A19SO, Revision 10, 2006-08-07 A19SO, Revision 8, 2000-09-25

2. 认可当局/Validation Authority:

中国民用航空局/CAAC

审定当局/Certifying Authority:

美国联邦航空管理局/FAA

3. 合格证/ Certificate

型号合格证/Type Certificate:

Number: A19SO

型号合格证持有人/

Piper Aircraft, Inc.

Type Certificate Holder:

2926 Piper Drive

Vero Beach, Florida 32960

United States of America

型号合格证持有人记录/

新派珀公司将型号合格证 A19SO 于 2006 年 8 月 7 日转让给派珀公司/

Type Certificate Holder Record

The New Piper Aircraft, Inc transferred TC A19SO to Piper Aircraft, Inc on August 7, 2006.

4. 进口要求/Import Requirements

为具备在中国运行的资格,按本型号认可证制造的每架飞机必须具有一份出口适航证,其上签注有出口国适航当局的审定声明,即:本架航空器符合 CAAC 所批准的型号设计并处于可安全运行的状态/To be consider eligible for operation in China, each aircraft manufactured under this Validation of Type Certificate must be accompanied by a certificate of airworthiness for export endorsed by Exporting Authority which states (in English language): This aircraft conforms to its CAAC type design and is in a condition for safe operation.

第 2 部分/SECTION 2

I. 总则/General

1. 衍生型或型别/Variant or Model: PA-44-180
类别/Category: 正常类航空器/Normal Category Aircraft

2. FAA 批准日期/FAA Approved Date: 1978.03.10/10 March, 1978

3. CAAC 批准日期/CAAC Approved Date: 2001.05.27/27 May, 2001

II. 技术特征和使用限制/Technical Characteristics and Operational Limitations

IA. PA-44-180 型（塞米诺尔），4 座、封闭座舱、陆上型单翼飞机（正常类），1978 年 3 月 10 日批准/ Model PA-44-180, Seminole, 4 PCLM (Normal Category), Approved March 10, 1978.

1. 发动机/Engine: 1 台莱康明 O-360-E1A6D 发动机，化油器设置为 10-5092，10-5219，或者 10-6019（左侧）。
(VTC0170E Rev.1) /
1 Lycoming O-360-E1A6D with carburetor setting 10-5092, 10-5219, or 10-6019 (Left Side).
(VTC0170E Rev.1) .
1 台莱康明 LO-360-E1A6D 发动机，化油器设置为 10-5092，10-5219，或者 10-6019（右侧）。
(VTC0170E Rev.1) /
1 Lycoming LO-360-E1A6D with carburetor setting 10-5092, 10-5219, or 10-6019 (Right Side).
(VTC0170E Rev.1) .
2. 发动机限制/Engine limits: 任何工作状态下，2700 r.p.m（180 马力）/
For all operations, 2700 r.p.m. (180 hp)
3. 燃油/Fuels 100 或 100LL 航空汽油/
100 or 100LL aviation grade fuel
燃油量/ Fuel Capacity: 416 升（110 加仑）（2 个发动机吊架油箱），+95.0 处（408 升（108 加仑）可用）（系统燃油数据见备注 1）/
416 liters (110 gallons) (2 nacelle tanks) at +95.0 (408 liters (108 gallons) usable)
(See NOTE 1 for data on system fuel)
4. 滑油量/Oil Capacity: 每台发动机 5.7 升（6 夸脱）（每台发动机 3.8 升（4 夸脱）可用）
(系统滑油数据见备注 1) /
5.7 liters (6 quarts) per engine (3.8 liters (4 quarts) per engine usable)
(See NOTE 1 for data on system oil)
5. 螺旋桨和螺旋桨限制/ Propeller and Propeller Limits:
左侧发动机/Left Engine:
一副哈泽尔螺旋桨，桨毂型号 HC-C2Y(K, R) -2CEUF，桨叶型号 FC7666A-2R
(VTC0156P Rev.4) 或者桨毂型号 HC-C3YR-2EUF，桨叶型号 FC7663-5R (VTC0207P Rev.3)。/
1 Hartzell, Hub Model HC-C2Y(K, R) -2CEUF, Blade Model FC7666A-2R (VTC0156P

Rev.4) or Hub Model HC-C3YR-2EUF, Blade Model FC7663-5R (VTC0207P Rev.3) .

右侧发动机/ Right Engine:

一副哈泽尔螺旋桨，桨毂型号 HC-C2Y(K, R) -2CLEUF，桨叶型号 FJC7666A-2R (VTC0156P Rev.4) 或者桨毂型号 HC-C3YR-2LEUF，桨叶型号 FJC7663-5R (VTC0207P Rev.3)。 /

1 Hartzell, Hub Model HC-C2Y(K, R) -2CLEUF, Blade Model FJC7666A-2R(VTC0156P Rev.4) or Hub Model HC-C3YR-2LEUF, Blade Model FJC7663-5R (VTC0207P Rev.3).

30 英寸处桨距设定为/Pitch Setting at 30" Station:

两片桨叶/Two-Blade 高距 79°-81°，低距 12.4° ± 0.2° /

High 79° - 81°, Low 12.4° ± 0.2°

直径：不超过 73 英寸

不低于 72 英寸/

Diameter: Not over 73 inches

Not under 72 inches

三片桨叶/Three-Blade 高距 79°-81°，低距 10.6° ± 0.2° /

High 81° - 83°, Low 10.6 ± .1°

直径：不超过 73 英寸

不低于 72 英寸/

Diameter: Not over 73 inches

Not under 72 inches

桨毂盖/Spinner:

两片桨叶/Two-Blade 哈泽尔 P/N C2285-3 桨毂盖组件（左侧）

哈泽尔 P/N C2285-3L 桨毂盖组件（右侧）

见备注 4./

Hartzell P/N C2285-3 Spinner Assy (Left)

Hartzell P/N C2285-3L Spinner Assy (Right)

See NOTE 4.

三片桨叶/Three-Blade 哈泽尔 P/N C4558 桨毂盖组件（左侧）

哈泽尔 P/N C4558 桨毂盖组件（右侧）

见备注 4./

Hartzell P/N C4558 Spinner Assy (Left)

Hartzell P/N C4558 Spinner Assy (Right)

See NOTE 4.

调节器组件/ Governor Assembly:

1 个哈泽尔 U-3-15 型液压调节器（左侧） /

1 Hartzell Hydraulic Governor Model U-3-15(Left)

1 个哈泽尔 U-3-15L 型液压调节器（右侧） /

1 Hartzell Hydraulic Governor Model U-3-15L

(Right) 或

1 个哈泽尔 E-8-2L 型液压调节器（右侧）配有同步定相器（派珀图纸 36889 号，安装于序列号 S/N 44-7995278 及以上） /

or

1 Hartzell Hydraulic Governor Model E-8-2L (Right) with synchrophaser (Piper Drawing No. 36889

Synchrophaser Installation, S/N 44-7995278 and up)

6. 空速限制/ Air Speed Limits

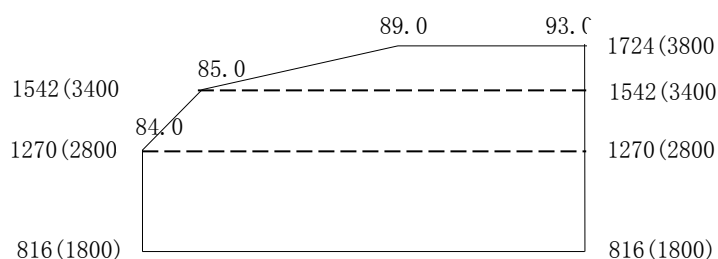
V _{NE} (不可逾越速度)	202 节 (指示空速) /
V _{NE} (Never Exceed)	202 KIAS
V _{NO} (最大结构巡航速度)	169 节 (指示空速) /
V _{NO} (Maximum Structural Cruise)	169 KIAS
V _A (机动速度 (1724 千克/3800 磅))	135 节 (指示空速) /
V _A (Maneuvering 1724Kg(3800lb.))	135 KIAS
V _A (机动速度 (1225 千克/2700 磅))	112 节 (指示空速) /
V _A (Maneuvering 1225Kg(2700 lb.))	112 KIAS
V _{FE} (最大襟翼展态速度)	111 节 (指示空速) /
V _{FE} (Maximum Flaps Extended)	111 KIAS
V _{LO} (最大起落架操作速度)	
放下	140 节 (指示空速) /
收起	109 节 (指示空速) /
V _{LO} (Maximum Landing Gear Operation)	
Extension	140 KIAS
Retraction	109 KIAS
V _{LE} (最大起落架放下速度)	140 节 (指示空速) /
V _{LE} (Max. Landing Gear Extended)	140 KIAS
V _{MC} (最小可操纵速度)	56 节 (指示空速) /
V _{MC} (Minimum Control Speed)	56 KIAS

7. 重心范围/ C.G. Range

1724 千克 (3800 磅) 时 (+89.0) 至 (+93.0)
 1542 千克 (3400 磅) 时 (+85.0) 至 (+93.0)
 1270 千克 (2800 磅) 及以下时 (+84.0) 至 (+93.0)
 在以上各点之间线性变化。
 收起起落架引起的力矩改变 (+9.44 千克米 (+819
 英寸磅)) /
 (+89.0) to (+93.0) at 1724 Kg (3800 lb.)
 (+85.0) to (+93.0) at 1542 Kg (3400 lb.)
 (+84.0) to (+93.0) at 1270 Kg (2800 lb.) or less
 Straight line variation between points given.
 Moment change due to retracting landing gear
 (+9.44 Kg-m (+819 in.-lb.))

千 克 (磅)

千 克 (磅)

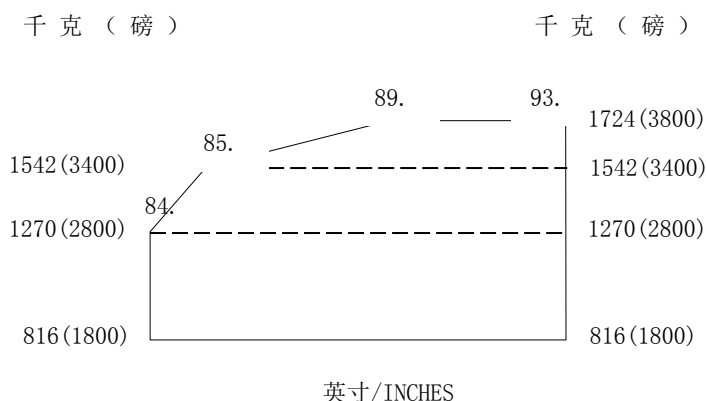


8. 空机重心范围/Empty Weight C.G. Range: 无/None
9. 最大重量/Maximum Weight:
- | | |
|---------------|--------------------|
| 停机/ Ramp: | 1731 Kg (3816 lb.) |
| 起飞/ Take Off: | 1724 Kg (3800 lb.) |
| 着陆/ Landing: | 1724 Kg (3800 lb.) |
10. 座位数/Number of seats: 4 (+80.5 处 2 个, +118.1 处 2 个) /
4 (2 at +80.5, 2 at +118.1)
11. 行李最大重量/Maximum Baggage: 90 千克 (200 磅), +142.8 处/
90 Kg (200 lb.) at +142.8
12. 操纵面位移/ Control Surface Movements
- | | |
|-----------------------------|---------------------------|
| 副翼/ Aileron: | |
| 向上/ Up | 23° (±2°) |
| 向下/ Down | 17° (±2°) |
| 平尾/ Stabilator: | |
| 向上/Up | 15° (±1°) |
| 向下/ Down | 3° (±1°) |
| 方向舵/ Rudder: | |
| 向左/ Left | 37°(+1°, -0°) |
| 向右/ Right | 37°(+1°, -0°) |
| 平尾配平调整片/Stabilator Trim Tab | (平尾中立/Stabilator neutral) |
| 向下/ Down | 9° (±1°) |
| 向上/Up | 4° (±1°) |
| 襟翼/ Wing flaps: | |
| 向上/Up | 0° (±1°) |
| 向下/ Down | 10°、25°、40° (±2°) |
| 方向舵配平调整片/Rudder Trim Tab | (方向舵中立/Rudder neutral) |
| 向左/ Left | 26° (±2°) |
| 向右/ Right | 26° (±2°) |
| 前轮行程/Nose Wheel Travel: | |
| 向左/ Left | 30° (±1°) |
| 向右/ Right | 30° (±1°) |
13. 制造人序列号/
Manufacturer's Serial Numbers 44-7995001 至 44-8195026 (见备注 5, 在美国合格的适航性) /
44-7995001 through 44-8195026 (See NOTE 5 for airworthiness certification eligibility in the United States)
- IB. PA-44-180 型 (塞米诺尔), 4 座、封闭座舱、陆上型单翼飞机 (正常类), 1978 年 3 月 10 日批准。/ Model PA-44-180, Seminole, 4 PCLM (Normal Category), Approved March 10, 1978.
1. 发动机/ Engine:
- | |
|--|
| 1 台莱康明 O-360-A1H6, 化油器设置为 10-5219 或者 10-6019 (左侧) (VTC0170E Rev.1) / |
| 1 Lycoming O-360-A1H6 with carburetor setting |

- 10-5219 or 10-6019 (Left Side) (VTC0170E Rev.1)
- 1 台莱康明 LO-360-A1H6, 化油器设置为 10-5219 或者 10-6019 (右侧) (VTC0170E Rev.1) /
- 1 Lycoming LO-360-A1H6 (VTC0170E Rev.1) with carburetor setting 10-5219 or 10-6019 (Right Side)
2. 发动机限制/Engine limits: 任何工作状态下, 2700 r.p.m (180 马力) /
For all operations, 2700 r.p.m. (180 hp)
3. 燃油/Fuels 100 或 100LL 航空汽油/
100 or 100LL aviation grade fuel
- 燃油量/ Fuel Capacity: 416 升 (110 加仑) (2 个发动机吊架油箱), +
95.0 处 (408 升 (108 加仑) 可用)
(系统燃油数据见备注 1) /
416 liters (110 gallons) (2 nacelle tanks) at +95.0
(408 liters (108 gallons) usable)
(See NOTE 1 for data on system fuel)
4. 滑油量/Oil Capacity: 每台发动机 7.6 升 (6 夸脱) (每台发动机 5.7 升
(4 夸脱) 可用)
(系统滑油数据见备注 1)
7.6 liters (8 quarts) per engine (5.7 liters (6
quarts) per engine usable)
(See NOTE 1 for data on system oil)
5. 螺旋桨和螺旋桨限制/ Propeller and Propeller Limits:
- 左侧发动机/ Left Engine:
一副哈泽尔螺旋桨, 桨毂型号 HC-C2Y(K, R) -2CEUF, 桨叶型号 FC7666A-2R。
(VTC0156P) /
1 Hartzell, Hub Model HC-C2Y (K, R) -2CEUF, Blade Model FC7666A-2R (VTC0156P) .
- 右侧发动机/Right Engine:
一副哈泽尔螺旋桨, 桨毂型号 HC-C2Y(K, R) -2CLEUF, 桨叶型号 FJC7666A-2R。
(VTC0156P)。 /
1 Hartzell, Hub Model HC-C2Y (K, R) -2CLEUF, Blade Model FJC7666A-2R.
- 30 英寸处桨距设定为/Pitch Setting at 30" Station:
- 高距 79°-81°, 低距 12.4°±0.2°
High 79° - 81°, Low 12.4° ± 0.2°
直径: 不超过 74 英寸
不低于 72 英寸/
Diameter: Not over 74 inches
Not under 72 inches
- 桨毂盖/Spinner: 哈泽尔 P/N C2285-3 桨毂盖组件 (左侧)
哈泽尔 P/N C2285-3L 桨毂盖组件 (右侧)
见备注 4。

		Hartzell P/N C2285-3 Spinner Assy (Left)
		Hartzell P/N C2285-3L Spinner Assy (Right)
		See NOTE 4.
<u>调节器组件/ Governor Assembly:</u>		1 个哈泽尔 E-3-15 型液压调节器 (左侧), 带不顺桨蓄压器/
		1 Hartzell Hydraulic Governor Model U-3-15 (Left) with unfeathering accumulator
		1 个哈泽尔 E-3-15L 型液压调节器 (右侧), 带不顺桨蓄压器/
		1 Hartzell Hydraulic Governor Model U-3-15L (Right) with unfeathering accumulator
6.	空速限制/Air Speed Limits	
	V _{NE} (不可逾越速度)	202 节 (指示空速) /
	V _{NE} (Never Exceed)	202 KIAS
	V _{NO} (最大结构巡航速度)	169 节 (指示空速) /
	V _{NO} (Maximum Structural Cruise)	169 KIAS
	V _A (机动速度 (1724 千克/3800 磅))	135 节 (指示空速) /
	V _A (Maneuvering 1724Kg(3800lb.))	135 KIAS
	V _A (机动速度 (1225 千克/2700 磅))	112 节 (指示空速) /
	V _A (Maneuvering 1225Kg(2700 lb.))	112 KIAS
	V _{FE} (最大襟翼展态速度)	111 节 (指示空速) /
	V _{FE} (Maximum Flaps Extended)	111 KIAS
	V _{LO} (最大起落架操作速度)	
	放下	140 节 (指示空速) /
	收起	109 节 (指示空速) /
	V _{LO} (Maximum Landing Gear Operation)	
	Extension	140 KIAS
	Retraction	109 KIAS
	V _{LE} (最大起落架放下速度)	140 节 (指示空速) /
	V _{LE} (Max. Landing Gear Extended)	140 KIAS
	V _{MC} (最小可操纵速度)	56 节 (指示空速) /
	V _{MC} (Minimum Control Speed)	56 KIAS
7.	重心范围/ C.G. Range	1724 千克 (3800 磅) 时 (+89.0) 至 (+93.0)
		1542 千克 (3400 磅) 时 (+85.0) 至 (+93.0)
		1270 千克 (2800 磅) 及以下时 (+84.0) 至 (+93.0)
		在以上各点之间线性变化。
		收起起落架引起的力矩改变 (+9.44 千克米 (+819 英寸磅)) /
		(+89.0) to (+93.0) at 1724 Kg (3800 lb.)
		(+85.0) to (+93.0) at 1542 Kg (3400 lb.)
		(+84.0) to (+93.0) at 1270 Kg (2800 lb.) or less
		Straight line variation between points given.
		Moment change due to retracting landing gear

(+9.44 Kg-m (+819 in-lb.))



8. 空机重心范围/Empty Weight C.G. Range: 无/None
9. 最大重量/Maximum Weight:
- | | |
|---------------|--------------------|
| 停机/ Ramp: | 1731 Kg (3816 lb.) |
| 起飞/ Take Off: | 1724 Kg (3800 lb.) |
| 着陆/ Landing: | 1724 Kg (3800 lb.) |
10. 座位数/Number of seats: 4 (+80.5 处 2 个, +118.1 处 2 个) / 4 (2 at +80.5, 2 at +118.1)
11. 行李最大重量/Maximum Baggage: 90 千克 (200 磅), +142.8 处 / 90 Kg (200 lb.) at +142.8
12. 操纵面位移/ Control Surface Movements
- | | |
|---|-------------------|
| 副翼/ Aileron: | |
| 向上/ Up | 23° (±2°) |
| 向下/ Down | 17° (±2°) |
| 平尾/ Stabilator: | |
| 向上/Up | 15° (±1°) |
| 向下/ Down | 3° (±1°) |
| 方向舵/ Rudder: | |
| 向左/ Left | 37°(+1°, -0°) |
| 向右/ Right | 37°(+1°, -0°) |
| 平尾配平调整片/Stabilator Trim Tab (平尾中立/Stabilator neutral) | |
| 向下/ Down | 9° (±1°) |
| 向上/Up | 4° (±1°) |
| 襟翼/ Wing flaps: | |
| 向上/Up | 0° (±1°) |
| 向下/ Down | 10°、25°、40° (±2°) |
| 方向舵配平调整片/Rudder Trim Tab (方向舵中立/Rudder neutral) | |
| 向左/ Left | 26° (±2°) |
| 向右/ Right | 26° (±2°) |
| 前轮行程/Nose Wheel Travel: | |
| 向左/ Left | 30° (±1°) |
| 向右/ Right | 30° (±1°) |

- 13.** 制造序列号/ Manufacturer's Serial Numbers 4495001 至 4495013, 和 4496001 及以上。/4495001 through 4495013, and 4496001 and up.
- III. 所有型号有关数据/DATA PERTINENT TO ALL MODELS**
- 1.** 基准/Datum 在机翼站位 106 处机翼前缘前方 78.4 英寸。/78.4" forward of wing leading edge at wing station 106.
- 2.** 调平方法/Leveling Means 左侧机身窗户以下两个螺钉。/Two screws left side fuselage below window.
- 3. FAA 型号合格审定基础/ Certification Basis of FAA:** 联邦航空条例(FAR)23 部(1965 年 1 月 1 日生效), 至修正案 23-16 (1975 年 2 月 14 日生效); / Federal Aviation Regulations (FAR) Part 23 effective February 1, 1965, through Amendment 23-16 effective February 14, 1975; FAR 23.1557(c)(1)为修正案 23-18 (1977 年 5 月 2 日生效); / FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; 和 FAR 36 部 (1969 年 12 月 1 日生效), 至修正案 36-4/ and FAR 36 effective December 1, 1969, through Amendment 36-4. 等效安全/ Equivalent Safety Finding: FAR 23.1545(a). 对于安装派珀制造厂 Avidyne Entegra 系统(见派珀报告 VB-1940)的 PA-44-180 飞机, 附加的审定基础(仅对安装的具体系统)是: / For PA-44-180 aircraft equipped with Piper factory installed Avidyne Entegra Systems (see Piper Report VB-1940), the additional certification basis for installation specific items only is: FAR 23.1301, 23.1327 和 23.1335 为修正案 23-20 (1977 年 9 月 1 日生效); / FAR 23.1301, 23.1327, and 23.1335 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1501 和 23.1541(a)(b)为修正案 23-21 (1978 年 3 月 1 日生效); / FAR 23.1501 and 23.1541(a)(b) as amended by Amendment 23-21 effective March 1, 1978; FAR 23.603 和 23.605(a)为修正案 23-23 (1978 年 10 月 10 日生效); / FAR 23.603 and 23.605(a) as amended by Amendment 23-23 effective October 10, 1978; FAR 23.1529 为修正案 23-26 (1980 年 10 月 14 日生效); / FAR 23.1529 as amended by Amendment 23-26 effective October 14, 1980;

FAR 23.1523为修正案23-34（1987年2月17日生效）； /

FAR 23.1523 as amended by Amendment 23-34 effective February 17, 1987;

FAR 23.1322, 23.1331 和 23.1357(a)(2)(b)(c)(d) 为修正案23-43（1993年5月10日生效）； /

FAR 23.1322, 23.1331 and 23.1357(a)(2)(b)(c)(d) as amended by Amendment 23-43 effective May 10, 1993;

FAR 23.305, 23.613, 23.773(a)(1)(2), 23.1525 和 23.1549(a)(b)(c)为修正案23-45（1993年9月7日生效）； /

FAR 23.305, 23.613, 23.773(a)(1)(2), 23.1525 and 23.1549(a)(b)(c) as amended by Amendment 23-45 effective September 7, 1993;

FAR 23.301, 23.337(a)(1)(b)(1), 23.341(a), 23.473, 23.561(b)(3)(e), 23.607 和 23.611为修正案23-48（1996年3月11日生效）； /

FAR 23.301, 23.337(a)(1)(b)(1), 23.341(a), 23.473, 23.561(b)(3)(e), 23.607 and 23.611 as amended by Amendment 23-48 effective March 11, 1996;

FAR 23.1303(a)(b)(f), 23.1307, 23.1309(a)(1)(3)(b)(c)(1)(2)(i)(iii)(3)(d)(e), 23.1311, 23.1321, 23.1323(a)(c), 23.1329(d)(e)(f)(g)(h), 23.1351(a)(1)(2)(i)(b)(1)(i)(2)(3)(d), 23.1353(d)(h), 23.1359(c), 23.1361(a)(b), 23.1365(a)(b)(d)(e)(f) 和 23.1431(a)(b)(d)(e)为修正案23-49（1996年3月11日生效）； /

FAR 23.1303(a)(b)(f), 23.1307, 23.1309(a)(1)(3)(b)(c)(1)(2)(i)(iii)(3)(d)(e), 23.1311, 23.1321, 23.1323(a)(c), 23.1329(d)(e)(f)(g)(h), 23.1351(a)(1)(2)(i)(b)(1)(i)(2)(3)(d), 23.1353(d)(h), 23.1359(c), 23.1361(a)(b), 23.1365(a)(b)(d)(e)(f) and 23.1431(a)(b)(d)(e) as amended by Amendment 23-49 effective March 11, 1996;

FAR 23.1325(a)(b)(1)(2)(i)(3), 23.1543(b)(c), 23.1545(a)(b), 23.1553, 23.1555(a)(b), 23.1581(a)(b)(2)(3)(f), 23.1583(m) 和 23.1585(j) 为修正案23-50（1996年3月11日生效）； /

FAR 23.1325(a)(b)(1)(2)(i)(3), 23.1543(b)(c), 23.1545(a)(b), 23.1553, 23.1555(a)(b), 23.1581(a)(b)(2)(3)(f), 23.1583(m) and 23.1585(j) as amended by Amendment 23-50 effective March 11, 1996;

FAR 23.777(a)(b), 23.955(a)(3) and 23.1337(a)(b)(1)(4)(c)为修正案23-51（1996年3月

11日生效); /

FAR 23.777(a)(b), 23.955(a)(3) and 23.1337(a)(b)(1)(4)(c) as amended by Amendment 23-51 effective March 11, 1996;

FAR 23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(5)为修正案23-52 (1996年7月25日生效); /

FAR 23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(5) as amended by Amendment 23-52 effective July 25, 1996;

专用条件HIRF (CE238号摘要, 专用条件 23-178-SC), 2006年1月13日。 /

and Special Condition for HIRF (Docket No. CE238, Special Condition 23- 178-SC), January 13, 2006.

有效序列号为4496174, 4496224 及以上。 /

Eligible Serial Numbers 4496174, 4496224 and up.

对于安装派珀制造厂 Garmin G500 (见派珀报告 VB-2314) 的 PA-44-180 飞机, 附加的审定基础 (仅对安装的具体设备) 是: /

For PA-44-180 aircraft equipped with Piper factory installed Garmin G500 (see Piper Report VB-2314), the additional certification basis for installation specific items only is:

{除下表所列条款外, 其他条款皆为修正案 23-16}/

{Unless otherwise noted in the table below, all sections are Amendment 23-16}

条款/Section	修正案/Amendment
23.301 (a),(b),(c)	23-48
23.303	
23.305(a)	23-45
23.307(a)	
23.337	23-48
23.561(a),(b)(3)	23-48
23.603	23-23
23.605(a)	23-23
23.607(a)	23-48
23.609	
23.611	23-48
23.771(a)	
23.773(a)(2)	23-45
23.777(a),(b)	23-51
23.867(a),(b),(c)	23-49
23.1301	23-20
23.1303(a),(b),(c),(f)	23-49
23.1307	23-49

23.1308(a),(b),(c)	23-57
23.1309(a)(1)(3),(b),(c), (d),(e)	23-49
23.1311(a)(1)(2)(3)(4),(5) (6),(b),(c)	23-49
23.1321(a)(b)(c)(d),(e)(f)	23-49
23.1322(a),(b),(c),(d),(e)	23-43
23.1323(a),(c)	23-49
23.1325(b)(1),(b)(2)(i),(e)	23-50
23.1327(a)	23-20
23.1329(h)	23-49
23.1331(a),(b)(1)	23-43
23.1335	23-20
23.1351(a)(1),(a)(2)(i)	23-49
23.1353(h)	23-49
23.1357(a),(b),(d)	23-43
23.1359(c)	23-49
23.1365(a),(b),(d),(e)	23-49
23.1367	
23.1381(a),(b)	
23.1431(a),(b)	23-49
23.1501	23-21
23.1523	23-34
23.1525	23-45
23.1529	23-26
23.1541(a),(b)	23-21
23.1543(b),(c)	23-50
23.1545(a),(b)	23-50
23.1559(c)	23-50
23.1581(a),(b),(c),(f)	23-50
23.1583(h),(m)	23-50
23.1585(j)	23-50

有效序列号为4496325 及以上。 /

Eligible Serial Numbers 4496325 and up.

对于安装派珀制造厂 Garmin G1000 集成航电系统和
28 伏电压电气系统的 PA-44-180 飞机，附加的审定
基础（仅对安装的具体设备）是： /

For PA-44-180 aircraft equipped with Piper factory
installed Garmin G1000 Integrated Avionics
System and 28 Volt Electrical System, the
additional certification basis for installation specific
items only is:

联邦航空条例 14 第 23 部规章：23.21, 23.23(a),
23.25, 23.29, 23.207(a), 23.251, 23.301(a)(b)(c),
23.303, 23.305, 23.307, 23.337, 23.341(a)(c),
23.421(a), 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, 23.729(e)(f), 23.771(a),
23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1041,
23.1043(a)(b)(c)(d), 23.1047, 23.1163(a)(b)(d),
23.1301,
23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(b)(5), 23.1306,
23.1307, 23.1308(a)(b)(c),
23.1309(a)(1)(3)(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(a)(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)(e)(1),
23.1563(a)(b), 23.1567(a), 23.1581(a)(c),
23.1583(g)(h)(m), 23.1585(j), 23.1589 至第 61 修正案;
23.1303(a)(b)(c)(f) 至第 62 修正案。有效序列号:
4496331, 4496339 及以上。/14 CFR Part 23 regulations:
23.21, 23.23(a), 23.25, 23.29, 23.207(a), 23.251,
23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337,
23.341(a)(c), 23.421(a), 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, 23.729(e)(f), 23.771(a),
23.773(a)(1)(2), 23.777(a)(b), 23.867, 23.1041,
23.1043(a)(b)(c)(d), 23.1047, 23.1163(a)(b)(d),
23.1301,
23.1305(a)(1)(2)(3)(b)(2)(3)(i)(4)(i)(b)(5), 23.1306,
23.1307, 23.1308(a)(b)(c),
23.1309(a)(1)(3)(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(a)(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)(e)(1),
23.1563(a)(b), 23.1567(a), 23.1581(a)(c),
23.1583(g)(h)(m), 23.1585(j), 23.1589 as amended
by Amdt. 23-61; 23.1303(a)(b)(c)(f) as amended by
Amdt. 23-62. Eligible Serial Numbers: 4496331,
4496339 and up

对于安装派珀工厂 Garmin GFC700 自驾系统的

PA-44-180 飞机, 附加的审定基础 (仅对安装的具体设备) 是: 联邦航空条例 14 第 23 部规章: 23.21(b), 23.23(a)(b)(3), 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, 23.1041(d), 23.1301(a)(b)(c)(d), 23.1306, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(1)(3)(c)(d)(e), 23.1321(c), 23.1322(a)(b)(c)(d)(e), 23.1329(a)(1)(b)(c)(d)(e)(f)(g)(h), 23.1335, 23.1351(a)(1)(2)(i), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1367(a)(b)(c)(d), 23.1431(a)(b)(e), 23.1501, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1555(a), 23.1581(a), 23.1583(g)(h)(m), 23.1585(a)(1)(j) 至第 61 修正案。有效序列号: 4496331, 4496367 及以上。

/For PA-44-180 aircraft equipped with Piper factory installed Garmin GFC700 Autopilot, the additional certification basis for installation specific items only is:

14 CFR Part 23 regulations: 23.21(b), 23.23(a)(b)(3), 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, 23.1041(d), 23.1301(a)(b)(c)(d), 23.1306, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(1)(3)(c)(d)(e), 23.1321(c), 23.1322(a)(b)(c)(d)(e), 23.1329(a)(1)(b)(c)(d)(e)(f)(g)(h), 23.1335, 23.1351(a)(1)(2)(i), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1365, 23.1367(a)(b)(c)(d), 23.1431(a)(b)(e), 23.1501, 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1555(a), 23.1581(a), 23.1583(g)(h)(m), 23.1585(a)(1)(j) as amended by Amdt. 23-61.

Eligible Serial Numbers: 4496331, 4496367 and up.

对于按派珀图纸号 107600-002 安装派珀工厂 Garmin G1000 的 PA-44-180 飞机, 附加的审定基础 (仅对安装的具体设备) 是: 联邦航空条例 14 第 23 部规章: 23.21, 23.23(a), 23.25(a)(b), 23.29, 23.251, 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.421(a), 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, 23.729(e)(f), 23.771(a), 23.773(a)(2), 23.777(a)(b), 23.867, 23.903(a), 23.1041, 23.1047, 23.1163(a)(b)(d), 23.1301(a)(b)(c)(d), 23.1303(a)(b)(c)(f), 23.1305(a)(1)(2) (3)(b) (2)(3)(i)(4)(i)(5), 23.1306, 23.1307, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(5)(6)(7)(b)(c), 23.1321(a)(b)(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), 23.1329(h), 23.1335, 23.1337(b)(1)(4), 23.1351(a)(1)(2)(i) (b)(1)(i)(3)(c)(4)(d), 23.1353(h), 23.1357(a)(b)(c)(d), 23.1359(c), 23.1361(a), 23.1365, 23.1367(a)(b)(c)(d), 23.1381(a)(b)(c), 23.1383(a)(b)(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), 23.1523, 23.1525, 23.1529, 23.1541(a)(b), 23.1543(b)(c), 23.23.1545(a)(b), 23.1549(a)(b)(c), 23.1553, 23.1555(a)(b)(e)(1), 23.1563(a)(b), 23.1567(a), 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j), 23.1589 至第 61 修正案。

有效序列号为: 4496395, 4496397 及以上。

/ For PA-44-180 aircraft equipped with Piper factory installed Garmin G1000NXi as installed by Piper drawing number 107600-002, the additional certification basis for installation specific items only is:

14 CFR Part 23 regulations: 23.21, 23.23(a), 23.25(a)(b), 23.29, 23.251, 23.301(a)(b)(c), 23.303, 23.305, 23.307, 23.337, 23.341(a)(c), 23.421(a), 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, 23.729(e)(f), 23.771(a), 23.773(a)(2), 23.777(a)(b), 23.867, 23.903(a), 23.1041, 23.1047, 23.1163(a)(b)(d), 23.1301(a)(b)(c)(d), 23.1303(a)(b)(c)(f), 23.1305(a)(1)(2) (3)(b) (2)(3)(i)(4)(i)(5), 23.1306, 23.1307, 23.1308(a)(b)(c), 23.1309(a)(1)(3)(b)(c)(d)(e), 23.1311(a)(1)(2)(3)(4)(5)(6)(7)(b)(c), 23.1321(a)(b)(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), 23.1329(h), 23.1335,

23.1337(b)(1)(4), 23.1351(a)(1)(2)(i)
 (b)(1)(i)(3)(c)(4)(d), 23.1353(h),
 23.1357(a)(b)(c)(d), 23.1359(c), 23.1361(a),
 23.1365, 23.1367(a)(b)(c)(d),
 23.1381(a)(b)(c), 23.1383(a)(b)(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), 23.1523,
 23.1525, 23.1529, 23.1541(a)(b), 23.1543(b)(c),
 23.23.1545(a)(b), 23.1549(a)(b)(c), 23.1553,
 23.1555(a)(b)(e)(1), 23.1563(a)(b), 23.1567(a),
 23.1581(a)(c), 23.1583(g)(h)(m), 23.1585(j),
 23.1589 as amended by Amdt. 23-61.
 Eligible Serial Numbers: 4496395, 4496397 and up.

4. 中国民用航空局附加技术条件/CAAC additional technical conditions

根据 CCAR21.29 (5), 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; 机上所有向旅客或者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; 旅客可能使用的机上所有应急设备的操作、使用说明应当至少有简体中文描述。(见备注 4) / Per CCAR 21.29(5), all on-board placards and markings for awareness, warning, and note to passengers; all on-board placard and markings for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and all operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Simplified Chinese at least.(See Note4)

5. 生产基础/Production Basis:

生产许可证号 NO.206。根据 FAR 21 部有关委任单位的规定, 已颁发生产限制记录并授权制造人颁发适航证。/Production Certificate No.206. Production Limitation Record issued and the manufacturer authorized to issue airworthiness certificate under the Delegation Option provisions of FAR 21.

6. 设备/Equipment

为满足合格审定要求, 相关适航规章(见认可审定基础)中规定的基本要求设备必须被安装于此航空器。此外, 还要求以下设备项目: /

The basic required equipment as prescribed in the applicable airworthiness regulations (see Validation Basis) must be installed in the aircraft for certification. In addition, the following items of equipment are required:

对于 S/N 44-7995001 至 44-8195026: POH 和 FAA 批准的 AFM (VB-860), 1978 年 3 月 23 日批准。
/

POH and FAA Approved AFM, VB-860, approved March 23, 1978, for S/N 44-7995001 through 44-8195026.

对于 S/N4495001 至 4495013:POH 和 FAA 批准的 AFM (VB-1380), 1989 年 7 月 20 日批准。/

POH and FAA approved AFM, VB-1380, approved July 20, 1989, for S/N 4495001 through 4495013.

对于 S/N 4496001 及以上: POH (VB-1616), 1995 年 7 月 12 日批准。/

POH, VB-1616, approved July 12, 1995, for S/N 4496001 and up.

对于 S/N 4496174 和 4496224 及以上 (当安装有 Avidyne Entegra 系统 (见派珀报告 VB-1940) /

POH, VB-1942, approved May 26, 2006, for S/N 4496174 and 4496224 and up when Avidyne Entegra System (See Piper Report VB-1940) is installed.

对于 S/N 4496331, 4496339 及以上 (当安装有 Garmin G1000 集成航电系统): POH, VB-2307, 2013 年 6 月 5 日批准。/

POH, VB-2307, approved June 5, 2013, for S/N 4496331, 4496339 and up, when the Garmin G1000 Integrated Avionics System is installed.

对于 S/N 4496331, 4496367 及以上 (当安装 Garmin G1000 和/或 GFC700 自驾系统): POH, VB-2307 Rev 02 或后续版次, 2014 年 10 月 28 日批准。

/POH, VB-2307 Rev 02 or later, approved October 28, 2014, for S/N: 4496331, 4496367 and up, when the Garmin G1000 and/or GFC700 autopilot installed.

对于 S/N 4496395, 4496397 及以上 (按派珀图纸号 107600-002 安装 Garmin G1000): POH, VB-2636 Rev 00 及其后续版次, 2016 年 11 月 3 日批准。/

POH, VB-2636 Rev 00 or later, approved November 3, 2016, for S/N: 4496395, 4496397 and up, when the Garmin G1000 is installed by Piper drawing number 107600-002.

IV. 备注/ NOTES

备注1/ Note 1:

当前重量和平衡报告, 必要时包括那些合格审定的空重和装载指南中包含的设备清单, 必须在每架飞机初始审定时提供。/

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.

合格审定的空重和相应的重心位置必须包括以下不可排放系统滑油 (未包括在滑油油量中) 和不可用燃油: /

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:

燃油: 5.4 千克 (12.0 磅), +95.0 处

滑油: 1.6 千克 (3.6 磅), +68.8 处/

Fuel: 12.0 lb. at (+95.0)

Oil: 3.6 lb. at (+68.8)

备注2/ Note 2:

在飞行员操作手册和FAA批准的飞机飞行手册中要求的所有标牌必须装于相应的位置/

All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

备注3/ Note 3:

以下寿命限制基于该类飞机作为通用航空使用：对于序列号为44-7995001-44-8195026的

PA-44-180飞机，其机翼、机翼贯穿结构和它们的附加结构最大服役寿命为14664小时；对于序列号为4495001-4495013和4496001及其以上的PA-44-180飞机，其机翼、机翼贯穿结构和它们的

附加结构最大服役寿命为14664小时。/The below life limits are based on general aircraft usage for this aircraft class: For S/N 44-7995001 through 44-8195026 The service life of the wing, wing carry through and their attaching structure has been established as 14663 hours maximum. For S/N 4495001 through 4495013, and 4496001 and up The service life of the wing, wing carry through and their attaching structure has been established as 14663 hours maximum. b)

PA-44-180T For S/N 44-8107001 through 44-8207020 The service life of the wing, wing carry through and their attaching structure has been established as 14663 hours maximum.

备注4/ Note 4:

PA-44-180, S/N 44-7995001 至 44-8195026, 不包括装三叶螺旋桨及空调情况, 可以在没有桨毂盖整流罩或没有桨毂盖整流罩及后隔框的情况下使用。对于 PA-44-180, S/N 44-7995001 至 44-8195026, 装三叶螺旋桨及空调情况, 只可以拆去桨毂盖整流罩。/

The PA-44-180, S/N 44-7995001 through 44-8195026, may be operated without spinner domes or without spinner domes and rear bulkheads, except when equipped with three-bladed propellers and air conditioning, in which case only the spinner dome may be removed.

PA-44-180, S/N 4495001至4495013, 和4496001及以上, 当仅有桨毂盖整流罩被拆去时, 可以被使用。/

The PA-44-180, S/N 4495001 through 4495013, and 4496001 and up, may be operated with only the spinner dome removed.

备注5/ Note 5:

中文标牌和标识包含在“中国注册的PA-44-180（赛米诺尔）飞机飞行员操作手册和FAA批准的飞行手册专门补充（报告VB-1766）”及CAAC接受的后续版本中。/Chinese Placards and markings are included in "PILOT'S OPERATING HANDBOOK AND FAA APPROVED AIRPLANE FLIGHT MANUAL SPECIAL SUPPLEMENT FOR PEOPLE'S REPUBLIC OF CHINA REGISTERED PA-44-180 SEMINOLE"Report:VB-1766) or later revisions CAAC accepted.

备注6/ Note 6:

在美国序列号44-7995235 和 44-7995298的适航性是不合格的。/The following serial numbers are not eligible for airworthiness certification in the United States: 44-7995235 and 44-7995298.