

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A00011LA
Revision 10
GA8 Airvan (Pty) Ltd
GA8
GA8-TC320
May 6, 2016

TYPE CERTIFICATE DATA SHEET A00011LA

This data sheet, which is part of the Type Certificate No. A00011LA, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder GA 8 Airvan (Pty) Ltd
C/O GippsAero Pty Ltd. (ACN 119 523 830)
Latrobe Regional Airport, Traralgon, VICTORIA 3844, Australia
Mail Correspondence: P.O. Box 881 Morwell, Victoria 3840, Australia

Type Certificate Holder record Gippsland Aeronautics Pty. Ltd. transferred TC A00011LA to GA8 Airvan (Pty) Ltd on 8 August 2006.

I. GA8 (Normal Category) Approved May 30, 2003

Engine Textron Lycoming IO-540-K1A5
Type Certificate: 1E4

Engine Limits Maximum Takeoff Power 2700 R.P.M. and 300 HP
Maximum Continuous Power 2500 R.P.M. and 275 HP

Propeller and Propeller Limits Hartzell HC-C2YR-1BF/F8475R metal constant speed
Type Certificate: P920
Not over 84 inches (2134 mm) diameter
Not under 78 inches (1981 mm) diameter
No further reduction permitted
Pitch settings at 30 in. sta.:
 High: 29 ±1°
 Low: 12 ±0.2°

or Hartzell HC-C3YR-1RF/F8068 three-blade metal constant speed (Note 10)
Type Certificate: P25EA
Not over 82 inches (2083 mm) diameter
Not under 78 inches (1981 mm) diameter
No further reduction permitted
Pitch settings at 30 in. sta.:
 High: 29 ±1°
 Low: 12.8 ±0.2°

Airspeed Limits (IAS) Never Exceed V_{ne} 185 kts
Max structural cruise V_{no} 143 kts
Manoeuvring V_a 121 kts
Max flaps extended V_{fe} 97 kts

Maximum Weight Take-off 4000 lbs. (1814 kg.) (Note 11)
Landing 4000 lbs. (1814 kg.)

Center of Gravity
(C.G.) Range Forward Limit:
 +48.0 inches (+1219 mm) aft of datum at 2400 lbs. (1089 kg.) or less.
 +56.0 inches (+1422 mm) aft of datum at 4000 lbs. (1814 kg.)
 Variation is linear between 2400 lbs. (1089 kg) and 4000 lbs. (1814 kg.)

Page No.	1	2	3	4	5	6	7
Rev. No.	10	7	10	8	8	6	9

Aft Limit:

+64.0 inches (+1626 mm) aft of datum at 4000 lbs. (1814 kg) or less

II. GA8-TC 320 (Normal Category) Approved September 11, 2009 (See Note 12)

Engine	Textron Lycoming TIO-540-AH1A Type Certificate: E14EA dated 08/05/2008	
Engine Limits	Normal Takeoff	2500 RPM and 38 in HG (MAP (300 HP)
	Alternate Takeoff	2500 R.P.M. and 40 in HG MAP below 5,000 Feet Pressure Altitude (See Note 7)
	Maximum Continuous Power	2500 R.P.M at 38 in HG (300 HP)
Propeller and Propeller Limits	Hartzell HC-C3YR-1RF/F8068 metal constant speed Type Certificate: P25EA Not over 82 inches (2083 mm) diameter Not under 78 inches (1981 mm) diameter No further reduction permitted Pitch settings at 30 in. sta.: High: 29±1° Low: 14.5±0.2°	
Airspeed Limits (IAS)	Never Exceed	V _{ne} 185 kts
	Max structural cruise	V _{no} 143 kts
	Manoeuvring	V _a 121 kts
	Max flaps extended	V _{fe} 97 kts
Maximum Weight	Take-off	4000 lbs. (1814 kg.)
	Landing	4000 lbs. (1814 kg.)
Center of Gravity (C.G.) Range	Forward Limit: +48.0 inches (+1219 mm) aft of datum at 2400 lbs. (1089 kg.) or less. +56.0 inches (+1422 mm) aft of datum at 4000 lbs. (1814 kg.) Variation is linear between 2400 lbs. (1089 kg) and 4000 lbs. (1814 kg.) Aft Limit: +64.0 inches (+1626 mm) aft of datum at 4000 lbs. (1814 kg) or less	

For Aircraft incorporating Service Bulletin SB-GA8-2011-65 (AFMS C01-04-78 dated 6 Jul 2011 and ICA C01-00-06 dated 17 Jun 2011 or later approved versions) the following limits apply

Airspeed Limits (IAS)	Never Exceed	V _{ne} 190 kts
	Max structural cruise	V _{no} 147 kts
	Manoeuvring	V _a 121 kts
	Max flaps extended	V _{fe} 100 kts
Maximum Weight	Take-off	4200 lbs. (1905 kg.)
	Landing	4000 lbs. (1814 kg.)
Center of Gravity (C.G.) Range	Forward Limit: +48.0 inches (+1219 mm) aft of datum at 2400 lbs. (1089 kg.) or less. +57.0 inches (+1448 mm) aft of datum at 4200 lbs. (1905 kg.) Variation is linear between 2400 lbs. (1089 kg) and 4200 lbs. (1905 kg.) Aft Limit: +64.0 inches (+1626 mm) aft of datum at 4200 lbs. (1905 kg) or less	

DATA PERTINENT TO BOTH MODELS – GA8 and GA8-TC 320

Fuel	100LL or 100/130 aviation gasoline.
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Empty Weight C. G. Range	None.
Datum	Aft face of Fuselage firewall at fuselage station 0 (stated arms are positive aft; negative forward).
Leveling Means	Longitudinal: Level between pop rivets so marked, on left hand side of fuselage. Lateral: Level across floor at rear door.
Minimum Flight Crew	1 pilot.
No. of seats	Eight (8) 2 at +38.0 inches (+965 mm) aft of datum 2 at +69.8 inches (+1772 mm) aft of datum 2 at +99.3 inches (+2523 mm) aft of datum 2 at +127.8 inches (+3247 mm) aft of datum

Fuel Capacity	Main wing tanks	2 (1 tank each wing)
	Total each tank	44.9 US Gallons (170 litres) at +67.5 inches (+1715 mm)
	Useable each tank	43.8 US Gallons (166 litres) at +67.5 inches (+1715 mm)
	Unusable each tank	1.1 US Gallons (4 litres) at +72.0 inches (+1829 mm)
	Collector tank	Total capacity 2.4 US Gallons (9 litres) is unusable fuel at +27.75 inches (+705 mm)

See Note 1 for data on weight and balance

Oil Capacity	Total capacity	12 US Quarts (11.4 litres) at -21.3 inches (-540 mm)
	Useable	9.25 US Quarts (8.8 litres) at -21.3 inches (-540 mm)

See Note 1 for data on weight and balance

Control Surface Movements	Aileron	Up	$17^{\circ} \pm 0.5^{\circ}$
		Down	$16^{\circ} \pm 0.5^{\circ}$
	Elevator	Up	$15^{\circ} \pm 0.5^{\circ} (1)$
		Down	$19^{\circ} \pm 0.5^{\circ} (1)$
	Rudder	L & R	$21^{\circ} \pm 0.5^{\circ}$
	Horizontal Stabiliser	Up	$2^{\circ} \pm 0.5^{\circ} (2)$
		Down	$5^{\circ} \pm 0.5^{\circ} (2)$
	Wing flaps	Retracted	$0^{\circ} \pm 1.0^{\circ}$
		Take-off	$14^{\circ} \pm 1.0^{\circ}$
		Landing	$38^{\circ} \pm 1.0^{\circ}$

- (1) Elevator control surface movements measured between the chord line of the Elevator and the chord line of the horizontal stabiliser with the horizontal stabiliser in the full leading edge down position.
- (2) Horizontal Stabiliser movement measured between the chord line of the Horizontal Stabiliser and the airplane horizontal reference.

Serial Numbers Eligible

GA8 Model GA8-00-004 and subsequent. GA8 aircraft with turbocharged engine option installed are eligible if GippsAero (See Note 9) Engineering Release GA8-9671140 at latest issue has been complied with.

GA8-TC 320 Model GA8-TC 320 -08-130 and subsequent. (See Note 12)

Import Requirements

Model GA8: Serials GA8-00-004 through GA8-03-025:

A United States airworthiness certificate may be issued on the basis of an Australian Export Certificate of Airworthiness signed by a representative of the Civil Aviation Safety Authority (CASA) containing the following statement:

“The airplane covered by this certificate has been examined, tested and found to comply with the Master Drawing GA8-010001 and Engineering Release GA8-970001 at latest revision, and GippsAero (See Note 9) Service Bulletins SB-GA8-2003-04 (if applicable) and SB-GA8-2003-05, approved under U.S. Type Certificate No. A00011LA and to be in a condition for safe operation.”

GippsAero (See Note 9) Service Bulletins SB-GA8-2003-04 (if applicable) and SB-GA8-2003-05 must be accomplished, before the U.S. Type Certificate No. A00011LA can be added to the aircraft data plate by the manufacturer.

Model GA8: Serials GA8-03-026 and subsequent:

A United States airworthiness certificate may be issued on the basis of an Australian Export Certificate of Airworthiness signed by a representative of the Civil Aviation Safety Authority (CASA) containing the following statement:

“The airplane covered by this certificate has been examined, tested and found to comply with the Master Drawing GA8-010001 and Engineering Release GA8-970002 at latest revision, and GippsAero (See Note 9) Service Bulletins SB-GA8-2003-05, approved under U.S. Type Certificate No. A00011LA and to be in a condition for safe operation.”

GippsAero (See Note 9) Service Bulletins SB-GA8-2003-05 must be accomplished, before the U.S. Type Certificate No. A00011LA can be added to the aircraft data plate by the manufacturer.

Model GA8 with turbocharged engine installation option:

A United States airworthiness certificate may be issued on the basis of an Australian Export Certificate of Airworthiness signed by a representative of the Civil Aviation Safety Authority (CASA) containing the following statement:

“The airplane covered by this certificate has been examined, tested and found to comply with the Master Drawing GA8-010001 CASA approved revisions, and GippsAero (See Note 9) Engineering Release GA8-9671140 at latest issue has been implemented by GippsAero, approved under U.S. Type Certificate No. A00011LA and to be in a condition for safe operation.”

GippsAero (See Note 9) Engineering Release GA8-961140 at latest issue must be accomplished, before the U.S. Type Certificate No. A00011LA can be added to the aircraft data plate by the manufacturer.

Model GA8-TC 320:

A United States airworthiness certificate may be issued on the basis of an Australian Export Certificate of Airworthiness signed by a representative of the Civil Aviation Safety Authority (CASA) containing the following statement:

“The airplane covered by this certificate has been examined, tested and found to comply with the GippsAero (See Note 9) Engineering Release GA8-970004, Issue 1 or later as approved under U.S. Type Certificate No. A00011LA and to be in a condition for safe operation.”

The U.S. airworthiness certification basis for this airplane type certificated under FAR 21.29 and exported by the country of manufacture is FAR 21.183(c).

Certification Basis

GA8 Model:	<p>FAR 23, dated December 18, 1964, with amendments 1 through 54 “Airworthiness Standards for Normal Category Airplanes”:</p> <p>FAR 36.1(a)(2), dated December 1, 1969 with amendments 1 through 24 “Noise Standards: Aircraft Type and Airworthiness Certification”</p> <p>TC A00011LA issued on May 30, 2003.</p> <p>For aircraft eligible for IFR operations the certification basis is FAR 23 dated December 18, 1964 with amendments 1 through 55 “Airworthiness Standards for Normal Category Airplanes”</p> <p>Additions for the Garmin G500 System only, Federal Aviation Regulations, FAR §23.1308 at Amendment 57. (See Note 13)</p>
GA8-TC 320	<p>FAR 23, dated December 18, 1964, with amendments 1 through 55 “Airworthiness Standards for Normal Category Airplanes”:</p> <p>FAR 36.1(a)(2), dated December 1, 1969 with amendments 1 through 28 “Noise Standards: Aircraft Type and Airworthiness Certification”</p> <p>Amended TC for GA8-TC 320 issued September 11, 2009</p> <p>For aircraft eligible for IFR operations the certification basis is FAR 23 dated December 18, 1964 with amendments 1 through 55 “Airworthiness Standards for Normal Category Airplanes”</p> <p>Additions for the Garmin G500 System only, Federal Aviation Regulations, FAR §23.1308 at Amendment 57. (See Note 13)</p>
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.</p>
For GA8 Model:	<p>In addition the approved Aircraft Flight Manual Report No C01-01-04 dated May 29, 2003, or later approved version, must be carried. (See Note 5)</p> <p>To be eligible for IFR operations AFM Report No. C01-01-04, dated December 22, 2003, or later CASA approved versions, must be carried.</p> <p>IFR required equipment is shown in AFM Limitations section 2, table 2-11, dated December 22, 2003, or later revisions.</p> <p>Instructions for Continued Airworthiness (ICA) {Service Manual} document C01-00-04 (See Note 3 and 4)</p>
For GA8-TC 320 Model:	<p>Aircraft Flight Manual Report No C01-01-09 dated July 31, 2009 or later approved version must be carried (See Note 5)</p> <p>Instructions for Continued Airworthiness (ICA) {Service Manual} document C01-00-06 dated March 20, 2009 or later revisions (See Note 3 and 4)</p> <p>For Airplanes with SB-GA8-2011-65 (increase MTOW to 4200 lbs), AFMS document C01-04-78 dated 6 Jul 2011 or later approved version must be carried (See Note 5) and ICA {Service Manual} document C01-00-06 chapter 4 dated 17 Jun 2011 or later approved version must be followed (See Note 3).</p>

Service Information	<p>Each of the documents listed below must state that it is approved by the Civil Aviation Safety Agency (CASA):</p> <ul style="list-style-type: none"> • Aircraft flight manuals, and • Airworthiness Limitations Section of the Service Manual. <p>The FAA accepts such documents and considers them FAA-approved for type design data only unless one of the following conditions exists:</p> <ul style="list-style-type: none"> • The documents change the limitations, performance, or procedures of the FAA approved manuals; or • The documents make an acoustical or emissions changes to this product's U.S. type certificate as defined in 14 CFR § 21.93. <p>The FAA uses the post type validation procedures to approve these documents. The FAA may delegate on case-by-case to CASA to approve on behalf of the FAA for the U.S. type certificate. If this is the case it will be noted on the document.</p>
Notes	
Note 1.	<p>A current weight and balance report, including a list of equipment included in the certificated empty weight, and loading instructions when necessary, must be provided for each airplane at the time of original certification.</p> <p>The certificated empty weight and the corresponding center of gravity location must include full oil [22.5 lbs. (10.3 kg) at -21.3 inches (-540 mm)] and unusable fuel [12.7 lbs. (5.7 kg) in main tanks at +79.6 inches (+2022 mm) and 14.3 lbs. (6.5 kg) in collector tank at +27.75 inches (+705mm)].</p>
Note 2.	<p>All required placards are contained in Chapter 2 of the Airplane Flight Manual, Report C01-01-04 and C01-00-09, and must be installed in the appropriate locations.</p>
Note 3.	<p>Service life of structural components are listed in the Airworthiness Limitations Section, Chapter 4, of the Airplane Service Manual, Report No. C01-00-04 and C01-00-06 (GA8-TC 320). The Airworthiness Limitations Section was approved by CASA and the FAA. Revisions to this section must be approved by CASA and the FAA.</p>
Note 4.	<p>Instructions for continued airworthiness are contained in the Airplane Service Manual, Report No. C01-00-04. The instructions for continued airworthiness for aircraft eligible for IFR operations are contained in the Airplane Service Manual, Report No. C01-00-04 dated December 22, 2003 or later CASA approved version.</p>
Note 5.	<p>The Airplane Flight Manual, Report No. C01-01-04 (GA8) and C01-00-09 (GA8-TC 320), was approved by CASA and the FAA. Revisions to this report may be approved by CASA on behalf of the FAA, unless they are changes to the limitation section. These changes require FAA approval for the US version.</p>
Note 6.	<p>Airplanes must comply with the requirements of GippsAero Service Bulletin SB-GA8-2003-08 Issue 2, dated December 22, 2003 or later CASA approved revisions, to be eligible for IFR operations.</p>
Note 7.	<p>The TIO-540-AH1A has an alternate takeoff rating of 40.0 in Hg at 2500 RPM limited to 5000 feet pressure altitude.</p>
Note 8.	<p>Cargo Pod, part number GA8-255004-17 (standard) or GA8-255004-19 (Optional rear Door) is approved equipment on the Model GA8-TC 320 when installed in accordance with the latest issue of GippsAero Service Bulletin SB-GA8-2004-14 dated 31 July 2009 and when Flight Manual Supplement C01-04-87 dated 31 July 2009 or later issue is inserted into the aircraft's approved flight manual.</p>
Note 9	<p>As of July 2012 all service documentation and engineering releases for the US type certificate now refer to GippsAero in place of Gippsland Aeronautics.</p>
Note 10	<p>The optional Hartzell HC-C3YR-1RF/F8068 three-blade propeller for the GA8 model is approved when installed by GA8 Airvan (GippsAero) in accordance with Engineering Release GA8-9661149 (Option 149),</p>

or when incorporated on a specific aircraft serial number in accordance with GippsAero Service Bulletin GA8-SB-2009-62 Issue 15 or later revisions. The required AFM supplement for this option is C01-04-125 dated November 13, 2013 or later CASA approved revisions and the required ICA is C05-96-34 dated 27 November 2013 or later approved issue.

- Note 11 The maximum take-off weight for the GA8 model (naturally aspirated) with either the two-blade or three-blade propeller is 4,000 lbs. US registered aircraft are not eligible for incorporation of Service Bulletin SB-GA8-2011-66.
- Note 12 Specific aircraft of model GA8-TC 320 may be converted to a model GA8 through the application of Service Bulletin SB-GA8-2014-110 Issue 2 or later approved Issue. Following the application of SB-GA8-2014-110 the aircraft shall be modified in accordance with SB-GA8-2003-05 at latest issue. These airplanes will be limited to maximum take-off weight of 4,000lbs for the GA8 model with either the two-blade or three-blade propeller. US registered aircraft are not eligible for incorporation of Service Bulletin SB-GA8-2011-66.
- Note 13 Garmin G500 system installation is approved as optional equipment (Option 223 and Option 228) on serial numbers GA8-14-206 and subsequent and GA8-TC 320-15-207 and subsequent, when installed in accordance with:
- i) GippsAero Engineering Release GA8-9634228 Issue 1 or later approved issue for G500 core system installation (Option 228), or,
 - ii) Engineering Release GA8-9634223 Issue 1 or later approved issue for G500 system installation with interface to KFC 225 Automatic Flight Control System installed in accordance with FAA STC SA 01418WID (Option 223).
- The required AFM supplement for these options is C01-04-128 dated February 5, 2015 or later CASA approved issue and the required ICA is C05-96-40 dated February 5, 2015 or later approved issue. Engineering Releases GA8-9634223 and GA8-9634228 are only applicable to new build aircraft and may only be incorporated by GippsAero during aircraft production.
- Note 14 The Model GA8 and Model GA8-TC 320 are collectively referred to in manufacturers marketing literature as the "Airvan 8". This name is strictly a marketing designation and is not part of the official model designation.

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