



Australian Government

Civil Aviation Safety Authority

Type Certificate



Number: VA515

Type Certificate Holder: Avtech Pty Ltd
Airport Drive, Hinkler Airport
Bundaberg, Queensland 4670

Pursuant to regulation 21.13A of the Civil Aviation Safety Regulations 1998 this type certificate is issued in respect of the Jabiru model J160-C aeroplane.

This certificate is valid until it is suspended or cancelled by the Civil Aviation Safety Authority. The basis of certification is as described in Type Certificate Data Sheet VA515, which forms part of this type certificate.

Date of Application: 28 October 2004
Date of Issuance: 21 December 2005



Eugene Paul Nozadze
Delegate of the Authority

No	VA515
Revision	2
Aircraft	Jabiru J160-C
Date	22 January 2009

TYPE CERTIFICATE DATA SHEET

This data sheet, which is part of Type Certificate No. VA515, lists the conditions and operational limitations under which the aircraft for which the Type Certificate was issued meets the airworthiness requirements of the Civil Aviation Safety Authority.

Certificate Holder Avtech Pty Ltd
 Airport Drive
 Hinkler Airport
 Bundaberg Qld 4670
 Australia

JABIRU J160-C Primary Category - approved 21 December 2005.

Engine Avtech Pty Ltd 2200B (Note 4)
 Avtech Pty Ltd 2200C (Australian TC VA501)

Engine Limits Maximum engine speed for all operations - 3300 rpm.
 All other engine limitations are specified in the aircraft flight manual.

Fuel 100LL or 100/130 minimum grade aviation gasoline, or
 Leaded or Unleaded Automotive Gasoline above 95 Octane RON.

Oil Aero Oil W Multigrade 15W-50 or equivalent lubricant complying with
 MIL-L-22851C, or Lycoming Specification 301F, or Teledyne -
 Continental Specification MHF-24B.

Propeller Avtech Pty Ltd, Part Number C000242-D60P42 or
 4A401A0D, 2-blade wooden fixed pitch. (Australian TC VP503)
 (Note 4)

Diameter	1524 mm (60 inches)
Pitch	1067 mm (42 inches)
Full throttle static rpm	2800 – 2900 rpm

Air Speed Limits (knots IAS)	Never Exceed	140 KIAS
	Manoeuvring	112 KIAS
	Max flaps extended	84 KIAS

Centre of Gravity	Forward Limit		
	180 mm aft of datum (18.2% mac) at 440kg or less.		
	233 mm aft of datum (23.6% mac) at 540 kg.		
	Variation is linear between 440 kg and 540 kg.		
	Aft Limit		
	292 mm aft of datum (29.5% mac) at all weights.		
Datum	Root leading edge of mainplane.		
MAC	990.6 mm		
Levelling Means	Longitudinal		
	Spirit level placed on straight section of lower door frame.		
	Lateral		
	Spirit level placed across lower door frames in front of the brake master cylinder.		
Maximum Weight	Take Off	540 kg	
	Landing	540 kg	
Minimum Crew	1 Pilot		
Number of Seats	2 fixed		
Maximum Baggage	Baggage may be stowed on the passenger seat or behind the seat. Total weight of baggage behind the seat is not to exceed 36 kg. Baggage weight may be limited by aircraft cg limitations.		
Fuel Capacity	Total	141 litres	
	Usable	133 litres	
Oil Capacity		2.3 litres	
Control Surface Deflections	Aileron	Up	24° ± 1°
		Down	12° ± 1°
	Elevator	Up	18° ± 1°
		Down	9° ± 1°
	Elevator movements are measured with trim set at maximum travel in the same direction as the control stick is moved.		
	Rudder	Left	18° ± 1°
Right		22° ± 1°	

Wing flaps	First stage	$18^{\circ} \pm 1^{\circ}$
	Second stage	$39.5^{\circ} \pm 1^{\circ}$

Certification Basis

CS VLA (per EASA Decision 2003/18/RM, dated 14 November 2003).

Aircraft covered by this TCDS are eligible for a Special Certificate of Airworthiness in Primary Category.

Serial Numbers 029 through 254 } (see Note 1).
Eligible 255 and upwards }

Production Basis

Manufacture under Production Certificate No. 444128.

Type Design Data

Master Drawing List (MDL) AVDJ160026-2, Issue 2 dated 14 January 2009 pertaining to the J160-C Configuration (See Note 5)

Flight Manual, Document JP-FM-06 "Jabiru J160-C Pilot Operating Handbook and Approved Flight Manual" Revision 3 dated 1 December 2008 or later CASA approved revision.

Crosswind Component

Maximum for take-off and landing - 14 knots.

Equipment and Placards

Equipment and placards required by the applicable flight manual must be installed.

Serial numbers eligible 059 and upwards for fitment of the DAY-VFR Glass Cockpit Option as described in AVDCNFG016-3 Issue 4 dated 1 July 2008.

Operating Altitude

Maximum 10,000 feet density altitude.

Colour Limitations

The aircraft must be white in colour, the only disturbances being for placards and registration markings.

The aircraft's registration markings must have the letters in the form of outlines; which are 18 – 22 mm wide."

Noise Certification

Noise certification is not part of this Type Certificate.

NOTES

- Note 1 Avtech Pty Ltd aircraft serial numbers are sequential and include both production and kit built aircraft. Only aircraft serial numbers manufactured in accordance with the production basis described in this data sheet are eligible for certification under this type certificate.
S/Nos 029 through 254 had a Jabiru 2200B engine installed during production.
S/Nos 255 and upwards have a Jabiru 2200C engine installed during production.
- Note 2 Pursuant to regulation CAR (1988) 42CA(1), the approved maintenance schedule for the Jabiru J160-C is that specified in the J160/J170 Aircraft Service Manual.
- Note 3 Mandatory inspections and retirement lives are contained in the Airworthiness Limitations section of the J160/J170 Aircraft Service Manual, Appendix V.
- Note 4 Only engines and propellers that comply with Australian type certificates VE501 and VP503 respectively are eligible for fitment during production on aircraft serial numbers 255 and upwards.
- Note 5 Parts relating to the J160-C in MDL, Document No AVDJ160026-2, are designated with the letter "J" on each line denoting the highest assembly for each major component in the column marked "Model Code".
- Note 6 Revision 2 incorporates the Jabiru 2200C engine and 4A401A0D propeller. It also corrects the fuel quantity and a cg limit.
Revision 1 makes changes regarding the fitment of DAY-VFR Glass Cockpit Option.

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