



Australian Government

Civil Aviation Safety Authority

Type Certificate

Number: VA514

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 LSA and Jabiru series of aircraft.

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 VA514, which forms part of this type certificate.

Date of Application: 6 June 2002
Date of Issuance: 2 December 2004
Date of Revision 1: 11 February 2005

A handwritten signature in black ink, followed by a circular official seal. The seal contains the text "CIVIL AVIATION AUSTRALIA" and "SAFETY AUTHORITY" around a central emblem.

Eugene Paul Holzapfel
Delegate of the Authority



Australian Government
Civil Aviation Safety Authority

No VA514
Revision 2
Aircraft LSA 55/2K
LSA 55/2J
Jabiru ST
LSA55/3J
Jabiru ST3
Jabiru UL-C
Jabiru UL-D

Date 22 August 2013

TYPE CERTIFICATE DATA SHEET

This data sheet, which is part of Type Certificate No. VA514, 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 4760
Australia

I. LSA 55/2K Primary Category - RAA operations only - approved 1 October 1991.

Engine KFM Model 112m.

Engine Limits Maximum take-off 3200 rpm (5 minute limited)
Maximum continuous 3090 rpm

Fuel 100/130 minimum grade aviation gasoline.

Oil Aviation or motor grade oil. SAE Grade meeting minimum requirements of MIL-L-46152B.

Propeller Avtech Pty Ltd, Part Number 4046092, wooden fixed pitch.
Diameter 1372 mm (54 inches)
Pitch 906 mm (36 inches)
Full throttle static rpm 2700 – 3000 rpm

Airspeed Limits (knots IAS)	Never exceed	116 KIAS	
	Manoeuvring	91 KIAS	
	Max flaps extended	70 KIAS	
Centre of Gravity	Forward Limit	1601 mm aft of datum (20% mac) at 300 kg or less. 1630.8 mm aft of datum (23% mac) at 430 kg . Variation is linear between 300 kg and 430 kg.	
	Aft Limit	1681.4 mm aft of datum (28.1 % mac) at all weights.	
Datum	1403 mm forward of the root leading edge of mainplane.		
MAC	990.6 mm		
Levelling Mean	Longitudinal	Spirit level placed on heads of two screws located in lower door sill on LH side of fuselage.	
	Lateral	Spirit level placed across lower fuselage forward of firewall on cowl location rubbers.	
Maximum Weight	Take-off	430 kg	
	Landing	430 kg	
No of Seats:	2 fixed		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2400 mm aft of datum. The combined weight of baggage and fuel shall not exceed 36 kg.		
Fuel Capacity	Total	50 litres	
	Usable	47.5 litres.	
Oil Capacity		3.2 litres	
Control Surface	Aileron	Up	22° ± 1°
		Down	14° ± 1°
	Elevator	Up	17° ± 1°
		Down	10° ± 1°
	Rudder	L & R	18.5° ± 1°

Control Surface	Wing flaps	First stage	$10^{\circ} \pm 1^{\circ}$
Deflections cont.		Second stage	$29.5^{\circ} \pm 1^{\circ}$

Serial numbers eligible 0003 up to 0021 (see Note 1).

Note: Serial numbers 0003 to 0008 are acceptable on the basis of compliance with Jabiru Aircraft Pty Ltd Drawing List dated 25 July 1991. Refer CAA letter AWSY123114 dated 30 September 1991.

Operating Basis Aircraft of this model may be registered with the RAA and operated under CAO 95.55.

II. LSA 55/2J Primary Category - RAA operations only - approved 15 December 1993.

Engine Avtech Pty. Ltd. 1600A or 1600C.

Engine Limits	Maximum take-off	3100 rpm (Full throttle)
	Maximum continuous	3100 rpm

Fuel 100/130 minimum grade aviation gasoline.

Oil

1600A engine	Aviation or motor grade oil, SAE Grade meeting the minimum requirements of MIL-L-22851B.
1600C engine	Automotive engine oil SAE 15W/50 multigrade meeting any of the following specifications:
	API performance standard SG/CD
	European CCMC GZ/D2 and PD1
	MIL-L-2104C/MIL-L-46152D

Propeller Avtech Pty Ltd, Part Number 4120232, wooden fixed pitch.

Diameter	1372 mm (54 inches)
Pitch	965 mm (38 inches)
Full throttle static rpm	2700 – 3000 rpm

Airspeed Limits	Never exceed	116 KIAS
(knots IAS)	Manoeuvring	91 KIAS
	Max flaps extended	70 KIAS

Centre of Gravity Forward Limit

1601 mm aft of datum (20% mac) at 300 kg or less.
1630.8 mm aft of datum (23% mac) at 430kg.
Variation is linear between 300 kg and 430 kg.

Aft Limit

1681.4 mm aft of datum (28.1% mac) at all weights.

Datum	1403 mm forward of the root leading edge of mainplane.		
MAC	990.6 mm		
Levelling Means	Longitudinal	Spirit level placed on heads of two screws located in lower door sill on LH side of fuselage.	
	Lateral	Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.	
Maximum Weight	Take-off	430 kg	
	Landing	430 kg	
No. of Seats	2 fixed		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2400 mm aft of datum. The combined weight of baggage and fuel shall not exceed 36 kg.		
Fuel Capacity	Total	50 litres	
	Usable	47.5 litres	
Oil Capacity	2.3 litres		
Control Surface Deflections	Aileron	Up	22° ± 1°
		Down	14° ± 1°
	Elevator	Up	17° ± 1°
		Down	10° ± 1°
	Rudder	L & R	18.5° ± 1°
	Wing flaps	First stage	10° ± 1°
		Second stage	29.5° ± 1°
	Serial numbers eligible	0022 to 0093 (see Note 1).	
Operating Basis	Aircraft of this model may be registered with the RAA and operated under CAO 95.55.		

III. Jabiru ST

Primary Category, approved 1 July 1994.

Engine

Avtech Pty Ltd 1600C.

Engine Limits	Maximum take-off	3100 rpm (full throttle)
	Maximum continuous	3100 rpm
Fuel	100LL or 100/130 minimum grade-aviation gasoline.	
Oil	Automotive engine oil SAE 15W/50 multigrade meeting any of the following specifications:	
	API performance standard SG/CD	
	European CCMC GZ/D2 and PD1	
	MIL-L-2104C MIL-L-46152D	
Propeller	Avtech Pty Ltd, Part Number 4120232, wooden fixed pitch.	
	Diameter	1372 mm (54 inches)
	Pitch	965 mm (38 inches)
	Full throttle static rpm	2700 – 3000 rpm
Airspeed Limits (knots IAS)	Never exceed	116 KIAS
	Manoeuvring	91 KIAS
	Max flaps extended	70 KIAS
Centre of Gravity	Forward Limit	
	1601 mm aft of datum (20% mac) at 300 kg or less.	
	1630.8 mm aft of datum (23% mac) at 430 kg.	
	Variation is linear between 300 kg and 430 kg.	
	Aft Limit	
	1681.4 mm aft of datum (28.1 % mac) at all weights.	
Datum	1403 mm forward of the root leading edge of mainplane.	
MAC	990.6 mm	
Levelling means	Longitudinal	
	Spirit level placed on heads of two screws located in lower doorsill on LH side of fuselage.	
	Lateral	
	Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.	
Maximum Weight	Take-off	430 kg
	Landing	430 kg
No. of Seats	2 fixed	

Maximum Baggage Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2400 mm aft of datum. The combined weight of baggage and fuel shall not exceed 36 kg.

Fuel Capacity Total 50 litres
Usable 47.5 litres

Oil Capacity 2.3 Litres

Control Surface Deflections	Aileron	Up	$22^{\circ} \pm 1^{\circ}$
		Down	$14^{\circ} \pm 1^{\circ}$
	Elevator	Up	$17^{\circ} \pm 1^{\circ}$
		Down	$10^{\circ} \pm 1^{\circ}$
	Rudder	L&R	$18.5^{\circ} \pm 1^{\circ}$
	Wing flaps	First stage	$10^{\circ} \pm 1^{\circ}$
Second stage		$29.5^{\circ} \pm 1^{\circ}$	

Serial numbers eligible 0048, 0049 and ST0001 to ST0014 (see Note 1).

IV. LSA 55/3J Primary Category - RAA operations only - approved 6 January 1998.

Engine Avtech Pty. Ltd. 2200A or 2200J.

Engine Limits Maximum for all operations - 3050 rpm.

Fuel 100LL or 100/130 minimum grade aviation gasoline.

Oil Aero Oil W Multigrade 15W-50 or equivalent complying with the requirements of MIL-L-22851C or Lycoming Specification 30IF or Teledyne - Continental Specification MHF-24B.

Propeller Avtech Pty Ltd, Part Number C000242, wooden fixed pitch.

Diameter	1422 mm (56 inches)
Pitch	1040mm(41 inches)
Full throttle static rpm	2700 – 3000 rpm

Airspeed Limits (knots IAS)	Never exceed	116 KIAS
	Manoeuvring	91 KIAS
	Max flaps extended	70 KIAS

Centre of Gravity	Forward Limit		
	1601 mm aft of datum (20% mac) at 400 kg or less.		
	1661 mm aft of datum (26% mac) at 430 kg.		
	Variation is linear between 400 kg and 430 kg.		
	Aft Limit		
	1682.4 mm aft of datum (28.2% mac) at all weights.		
Datum	1403 mm forward of the root leading edge of mainplane.		
MAC	990.6 mm		
Levelling Means	Longitudinal		
	Spirit level placed on heads of two screws located in lower door sill on LH side of fuselage.		
	Lateral		
	Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.		
Maximum Weight	Take-off	430 kg	
	Landing	430 kg	
No. of Seats	2 fixed		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2207 mm aft of datum. The combined weight of baggage and fuel shall not exceed 47 kg.		
Fuel Capacity	Total	65 litres	
	Usable	64.5 litres	
Oil Capacity		2.3 litres	
Control Surface Deflections	Aileron	Up	22° ± 1°
		Down	14° ± 1°
	Elevator	Up	17° ± 1°
		Down	10° ± 1°
	Rudder	L&R	19.5° ± 1°
	Wing flaps	First stage	10° ± 1°
		Second stage	29.5° ± 1°
Serial numbers eligible	0094 and up (see Note 1).		

Operating Basis Aircraft of this model may be registered with the RAA and operated under CAO 95.55.

V. Jabiru ST3

Primary Category - approved 24 December 1997.

Engine Avtech Pty. Ltd. 2200J.

Engine Limits Maximum for all operations - 3050 rpm.

Fuel 100LL or 100/130 minimum grade aviation gasoline.

Oil Aero Oil W Multigrade 15W-50 or equivalent lubricant complying with MIL-L-2851C, or Lycoming Specification 30IF, or Teledyne - Continental Specification MHF-24B.

Propeller Avtech Pty Ltd, Part Number C000242, wooden fixed pitch.

Diameter 1422 mm (56 inches)

Pitch 1040 mm (41 inches)

Full throttle static rpm 2700 - 3000 rpm

Airspeed Limits Never exceed 116 KIAS

(knots IAS) Manoeuvring 91 KIAS

Max flaps extended 70 KIAS

Centre of Gravity Forward Limit

1601 mm aft of datum (20% mac) at 400 kg or less.

1661 mm aft of datum (26% mac) at 430 kg.

Variation is linear between 400 kg and 430 kg.

Aft Limit

1682.4 mm aft of datum (28.2% mac) at all weights.

Datum 1403 mm forward of the root leading edge of mainplane.

MAC 990.6 mm

Levelling Means Longitudinal

Spirit level placed on heads of two screws located in lower door sill on LH side of fuselage.

Lateral

Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.

Maximum Weight	Take-off	430 kg	
	Landing	430 kg	
No. of Seats	2 fixed		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2207 mm aft of datum. The combined weight of baggage and fuel shall not exceed 47 kg.		
Fuel Capacity	Total	65 litres	
	Usable	64.5 litres	
Oil Capacity		2.3 litres	
Control Surface Deflections	Aileron	Up	$22^{\circ} \pm 1^{\circ}$
		Down	$14^{\circ} \pm 1^{\circ}$
	Elevator	Up	$17^{\circ} \pm 1^{\circ}$
		Down	$10^{\circ} \pm 1^{\circ}$
	Rudder	L&R	$19.5^{\circ} \pm 1^{\circ}$
	Wing flaps	First stage	$10^{\circ} \pm 1^{\circ}$
		Second stage	$29.5^{\circ} \pm 1^{\circ}$
Serial numbers eligible	ST0015 and up (see Note 1).		

VI. JABIRU UL-C Primary Category - RAA operations only - approved 2 December 2004.

Engine Avtech Pty Ltd 2200B.

Engine Limits Maximum for all operations - 3050 rpm

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, wooden, fixed pitch.
Diameter 1524 mm (60 inches)
Pitch 1067 mm (42 inches)

Propeller cont.	Full throttle static rpm 2700 – 3000 rpm		
Air Speed Limits (knots IAS))	Never Exceed	120 KIAS	
	Manoeuvring	94 KIAS	
	Max flaps extended	69 KIAS	
Centre of Gravity	Forward Limit		
		1600 mm aft of datum (20% mac) at 400 kg or less.	
		1670 mm aft of datum (27% mac) at 450 kg.	
		Variation is linear between 400 kg and 450 kg.	
	Aft Limit		
		1685 mm aft of datum (28.5% mac) at all weights.	
Datum	1403 mm forward of root leading edge of mainplane.		
MAC	990.6 mm		
Levelling Means	Longitudinal		
		Spirit level placed on trim control decal.	
	Lateral		
		Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.	
Maximum Weight	Take Off	450 kg.	
	Landing	450 kg.	
Number of Seats	2 fixed.		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2215 mm aft of datum. The combined weight of baggage and fuel shall not exceed 28 kg.		
Fuel Capacity	Total	41.3 Litres	
	Usable	40 Litres	
Oil Capacity	2.3 litres		
Control Surface Deflections	Aileron	Up	24° ± 1°
		Down	13° ± 1°
	Elevator	Up	18.4° ± 1°
		Down	14.5° ± 1°
	Elevator movements are measured with trim set at maximum travel in the same direction as the control stick is moved.		

Control Surface	Rudder	Left	$19^{\circ} \pm 1^{\circ}$
Deflections cont.		Right	$22^{\circ} \pm 1^{\circ}$
	Wing flaps	First stage	$15.5^{\circ} \pm 1^{\circ}$
		Second stage	$40^{\circ} \pm 1^{\circ}$

Serial numbers eligible 610 and upwards (see Note 1).

Operating Basis Aircraft of this model may be registered with RAA and operated under CAO 95.55.

VII. JABIRU UL-D Primary Category - RAA operations only - approved 11 February 2005.

Engine Avtech Pty Ltd 2200B.

Engine Limits Maximum for all operations - 3050 rpm.

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, wooden fixed pitch.

Diameter	1524 mm (60 inches)
Pitch	1067 mm (42 inches)
Full throttle static rpm	2700 – 3000 rpm

Air Speed Limits	Never Exceed	120 KIAS
(knots IAS)	Manoeuvring	94 KIAS
	Max flaps extended	69 KIAS

Centre of Gravity Forward Limit

1600 mm aft of datum (20% mac) at 393 kg or less.
1670 mm aft of datum (27% mac) at 450 kg.
Variation is linear between 400 kg and 450 kg.

Aft Limit

1685 mm aft of datum (28.5% mac) at all weights.

Datum 1403 mm forward of root leading edge of mainplane.

MAC 990.6 mm

Levelling Means	Longitudinal		
	Spirit level placed on trim control decal.		
	Lateral		
	Spirit level placed across lower fuselage, forward of firewall on cowl location rubbers.		
Maximum Weight	Take Off	450 kg	
	Landing	450 kg	
Number of Seats	2 fixed		
Maximum Baggage	Baggage may be stowed behind the seat between the tank and fuselage side. Baggage is not permitted behind the rear face of the fuel tank. The fuel tank is located at 2215 mm aft of datum. The combined weight of baggage and fuel shall not exceed 28 kg.		
Fuel Capacity	Total	41.3 litres	
	Usable	40 litres	
Oil Capacity	2.3 litres		
Control Surface Deflections	Aileron	Up	24° ± 1°
		Down	13° ± 1°
	Elevator	Up	18.4° ± 1°
		Down	14.5° ± 1°
	Elevator movements are measured with trim set at maximum travel in the same direction as the control stick is moved.		
	Rudder	Left	19° ± 1°
		Right	22° ± 1°
	Wing flaps	First stage	15.5° ± 1°
		Second stage	40° ± 1°
Serial numbers eligible	610 and upwards (see Note 1).		
Operating Basis	Aircraft of this model may be registered with RAA and operated under CAO 95.55.		

Approved Aircraft Flight Manuals

LSA 55/2K

- Jabiru LSA 55/2K Flight Manual and Operator's Handbook.

LSA 55/2J

- Jabiru LSA 55/2J Flight Manual and Operator's Handbook.

Jabiru ST

- Jabiru ST Flight Manual and Operator's Handbook.

LSA 55/3J

- Jabiru LSA 55/3J Flight Manual and Operator's Handbook.

Jabiru ST3

- Publication JP-FM05 Jabiru ST3 Flight Manual.

Jabiru UL-C

- Document JP-FM-UL-C Jabiru UL-C Flight Manual.

Jabiru UL-D

- Document JP-FM-UL-D Jabiru UL-D Flight Manual.

Crosswind Component All models - maximum for take-off and landing - 14 knots.

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

Operating Altitude All models – maximum 10,000 feet density altitude.

Colour Limitations All models – The exterior colour of composite surfaces is limited to white, to minimise the effects of heat on the composite structure. Small areas of colour or trim may be applied to non-critical parts of the vertical or under surfaces.

Noise Certification See Note 2.

NOTES

Note 1 Avtech Pty Ltd aircraft serial numbers are sequential and include both production and kit built aircraft. Only aircraft serial numbers manufactured under Certificate of Approval No. 3501 or Production Certificate No. 444128 are eligible for certification under this type certificate. Kit built aircraft are ineligible for certification under Type Certificate VA514.



- Note 2 All models – data submitted demonstrates compliance with *Chapter 9 – Noise Certification*, CAO 101.55 Issue 1 dated 7 January 1988. This data can be used as the basis for issuing Permits To Operate Without A Noise Certificate for individual aircraft.
- Note 3 Type Certificate VA514 replaces Certificate of Type Approval 160-1, Issue 5 and was issued to incorporate the Jabiru model UL-C and on. Earlier models have also been included, and details relating to Jabiru models LSA 55/2K, LSA 55/2J, LSA 55/3J, ST and ST3 have been transcribed from CTA160-1 with minor editing and reformatting.
- Replacement of CTA 160-1 with a TC was required to satisfy the Civil Aviation Safety Regulations (1998).
- Aircraft certificated under CTA 160-1 are taken to be certificated under TC VA514.
- Note 4 RAA (Recreational Aviation Australia) was formerly the Australian Ultralight Federation.
- Note 5 Revision 1 is issued to add the UL-D model.
- Note 6 Revision 2 is issued to correct page numbering errors.

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