

TYPE CERTIFICATE

Number: VL501 Issue 5

This certificate, issued to Kavanagh Investment Trust, certifies that, pursuant to Regulation 21.13A of the Civil Aviation Regulations 1998, approval is granted for the following aircraft.

Model B-77 hot air balloon Model B-105 hot air balloon Model B-350 hot air balloon Model B-400 hot air balloon

This certificate is valid until suspended or cancelled by the Civil Aviation Safety Authority. The basis of certification is as prescribed in Type Certificate Data Sheet Number VL501 issued by this Authority.

Date of application:

Model B-400: 26 October 1998 Model B-105: 30 June 1999 Model B-350: 21 July 2000 Model B-77: 29 July 2003

Date of issuance: 11 April 2008

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This certificate may be transferred in accordance with CASR 21.47

Number: VL501

Revision: 6

Aircraft: Kavanagh

B-77 B-105 B-350 B-400

Date: 11 April 2008

TYPE CERTIFICATE DATA SHEET

This data sheet, which is part of the Type Certificate No.VL501, lists the conditions and limitations under which the aircraft for which the Type Certificate was issued meets the airworthiness requirements of the Civil Aviation Safety Authority.

Type Certificate Holder: Kavanagh Investment Trust

PO Box 53

Mount Kuring-Gai,

NSW, 2080 Australia

1. Model B-77 Hot Air Balloon (Manned Free Balloon Category)

Approved 4 December 2003.

Envelope: Kavanagh envelope, drawing KAV-B-20-004

Volume: 2195 cubic metres.

Air Heaters: Kavanagh Series 3, Single burner, as shown in drawing

KAV-GEN-40-001 or Kavanagh Series 3, Double burner, as

shown in drawing KAV-GEN-41-001

Basket: Kavanagh basket as shown in drawing KAV-GEN-30-001 or

KAV-GEN-30-002.

Fuel: Commercial LPG or propane.

Maximum weight: Gross weight limited to 760kg, or to weight requiring

a maximum continuous envelope temperature of 120 degrees

Celsius, whichever is the lesser.

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Maximum envelope

temperature: 120 degrees Celsius.

Minimum crew: One pilot.

Fuel capacity: see note 1.

Serial Nos. Eligible: From B77-253 to B77-287. B77-287 was the last B77 made

under this Type Certificate. (See Note 4).

2. Model B-105 Hot Air Balloon (Manned Free Balloon Category)

Approved 7 July 1999.

Envelope: Kavanagh envelope, drawing KAV-B-20-002

Volume: 2973 cubic metres.

Air Heaters: Kavanagh Series 3, Double burner, as shown in drawing

KAV-GEN-41-001

Basket: Kavanagh basket as shown in drawing KAV-GEN-30-001.

Fuel: Commercial LPG or propane.

Maximum weight: Gross weight limited to 1030kg, or to weight requiring

a maximum continuous envelope temperature of 120 degrees

Celsius, whichever is the lesser.

Maximum envelope

temperature: 120 degrees Celsius.

Minimum crew: One pilot.

Fuel capacity: see note 1.

Serial Nos. Eligible: From B105-205 to B105-340. B105-340 was the last B105

made under this Type Certificate. (See Note 4).

3. Model B-350 Hot Air Balloon (Manned Free Balloon Category)

Approved 4 August 2000.

Envelope: Kavanagh envelope, drawing KAV-B-20-003

Volume: 9911 cubic metres.

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Air Heaters: Kavanagh Series 3, Triple or Quad burner, as shown in

drawing KAV-GEN-42-001 & KAV-GEN-42-002.

Basket: Kavanagh basket as shown in drawing KAV-GEN-30-003.

Fuel: Commercial LPG or propane.

Maximum weight: Gross weight limited to 2800kg, or to weight requiring

a maximum continuous envelope temperature of 120 degrees

Celsius, whichever is the lesser.

Maximum envelope

temperature: 120 degrees Celsius.

Minimum crew: One pilot.

Fuel capacity: see note 1.

Serial Nos. Eligible: B350-225 to B350-371 inclusive (See Note 4).

4. <u>Model B-400</u> Hot Air Balloon (Manned Free Balloon Category)

Approved 30 October 1998

Envelope: Kavanagh envelope, drawing KAV-B-20-001.

Volume: 11327 cubic metres.

Air heaters: Kavanagh Series 3, Quad burner, as shown in drawing

KAV-GEN-42-002

Basket: Kavanagh basket as shown in drawing KAV-GEN-30-003.

Fuel: Commercial LPG or propane.

Maximum weight: Gross weight limited to 3100 kg, or to

weight requiring a maximum continuous envelope temperature

of 120 degrees Celsius, which ever is the lesser.

Maximum envelope

temperature:

120 degrees Celsius.

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Minimum crew: One pilot

Fuel capacity: see note 1.

Serial Nos. Eligible: From B400-195 to B400-351 inclusive. (See Note 4)

Data pertinent to all models

Production Basis: Production Certificate No. 049101

Dated 12 November 2003.

Certification Basis: CAR Part 31 dated 1 October 1998, CAO 101.54 Issue 1 dated

14 May 1985, up to and including Amendment 102. Equivalent safety accepted against paragraph 3.3, Heater endurance test, on grounds of safe history of operation. File

F86/253 refers.

British Civil Airworthiness Requirements (BCAR) CAP 494

Part 31 Issue 1 dated 31 August 1984: Model B-105 – B105-205 and subsequent*. Model B-350 – Prior to S/No B350-316. Model B-400 – Prior to S/No B400-317.

British Civil Airworthiness Requirements (BCAR) CAP 494

Part 31 Issue 2 dated 12 May 2000: Model B-77 — All serial numbers.

Model B-105 – *To be added at a latter revision of this TCDS.

Model B-350 – S/No B350-316 and subsequent. Model B-400 – S/No B400-317 and subsequent.

Drawing List: Type design is specified in sealed drawing list B-11 dated

12 February 2007 (or later issue approved by CASA).

Circular rip vents may be incorporated as an option during manufacture of Model B-350 and Model B-400 balloons in accordance with Kavanagh drawings KAV-B-21-002 and

KAV-B-21-001 respectively.

Kavanagh Engineering Order KB/2005/03 approves the use of

an alternative cloth for the manufacturer and repair of

Kavanagh balloon envelopes.

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Notes

1. Fuel capacity

A minimum of two master tanks and one slave tank must be carried in the model B-400.

A minimum of two master tanks and one slave tank must be carried in the model B-350.

A minimum of two master tanks must be carried in the model B-105.

A minimum of two master tanks must be carried in the model B-77 if a double burner is fitted or a minimum of one master and one slave if a single burner is fitted

Additional master or slave tanks may be optionally carried.

All fuel tanks must be as specified in Drawing No. KAV-GEN-30-001, KAV-GEN-30-002 or KAV-GEN-30-003 as applicable to each model.

2. Flight Manuals

Kavanagh Balloons Hot Air Balloon Flight Manual - Issue 1, March 2008 and Supplements or later CASA approved revision.

3. Maintenance:

Airworthiness Limitations and maintenance requirements are specified in the Kavanagh Balloons Maintenance Manual, Issue 4, Revision 0, dated 1st March 2007 (or later revision)

4. For Type B Balloons with Serial Numbers higher than 371 refer to Australian Type Certificate (TC) VL507 which consolidates all Kavanagh Balloon model into one TC.

5. Revision history: Revision 6 of this TCDS:

- (a) Reformats the TCDS for consistency with other models;
- (b) Amend maximum envelope temperature for B-400 model;
- (c) Makes minor corrections to envelope volumes.;
- (b) Introduces an closing serial number;
- (c) Introduces a common flight manual.

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