

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A10NM
Revision 17
Sundance Balloons (US)
(Dawson Property Group LLC)
(Sidney Conn (Galaxy Balloons))
Newport
Galaxy-7
Galaxy-8
Galaxy-9
Galaxy 6
Galaxy 7B
Galaxy 8B
Galaxy 9B
Galaxy 10
Galaxy 11
Galaxy 11B
Galaxy 77
June 29, 2006

TYPE CERTIFICATE DATA SHEET NO. A10NM

This data sheet, which is a part of Type Certificate A10NM, 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: Sundance Balloons (US)
810 Salisbury Road
Statesville, North Carolina 28677

I. Model Newport, Hot Air Balloon, Approved July 7, 1982

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| Air Heater | General Balloon, Burner Assembly Dwg. No. 8201 |
| Gondola | General Balloon, Basket Assembly Dwg. No. 8501 |
| Fuel | Propane (LPG) only |
| Maximum Weight | Gross weight limited to 1680 lbs; or to weight limited by maximum continuous envelope temperature of 250 degrees F., whichever is less. See Balloon Flight Manual. |
| Allowable Envelope Temperature | <ol style="list-style-type: none"> 1. Never exceed: 300 degrees F. 2. For no longer than 10 minutes continuous, or 10 minutes per two hours of flight: 250 to 300 degrees F. 3. Maximum continuous: 250 degrees F. |
| Fuel Capacity | One, two, three or four ten-gallon Worthington 43.4 lb aluminum LPG cylinders, Model 4100-U4-15, or Manchester 43 lb steel LPG cylinders, Model FL-519. |
| Serial Nos. Eligible | 8007 and subsequent. |

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II. Model Galaxy-7, Hot Air Balloon, Approved May 15, 1986

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 4048 or 4860. |
| Fuel | Propane (LPG) only |
| Maximum Weight | 1680 pounds (this weight includes the envelope weight) |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | C1017, GLX-1027 and subsequent. |

III. Model Galaxy-8, Hot Air Balloon, Approved May 22, 1989

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). Two required. (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 4860DB, 6072, or 6072T or FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, 4.9DB, S5.0, S5.0DB, 5.0, 5.0DB, 5.9, 6.0, or 5468 |
| Fuel | Propane (LPG) only |
| Maximum Weight | 2400 pounds (this weight includes the envelope weight) |
| Minimum Weight | 1000 pounds |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX-1018 and subsequent. |

IV. Model Galaxy-9, Hot Air Balloon, Approved Nov 18, 1988

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). Two required. (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 6072, 6072T, or 6096 or FireFly Balloons Carriage Models 4.9DB, S5.0DB, 5.0DB, 5.9, or 6.0. |

FuelPropane (LPG) only

Maximum Weight 3000 pounds (this weight includes the envelope weight)

Minimum Weight 1000 pounds

Maximum Allowable Envelope Temperature 300 degrees F.

Fuel Capacity See Note 7

Serial Nos. Eligible 9001 and subsequent.

V. Model Galaxy 6, Hot Air Balloon, Approved June 11, 1993

Air Heater FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). (See Note 6)

Gondola FireFly Balloons Carriage Models 4048 or 4860 or FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, S5.0, or 5.0.

FuelPropane (LPG) only

Maximum Weight 1200 pounds (this weight includes the envelope weight)

Maximum Allowable Envelope Temperature 300 degrees F.

Fuel Capacity See Note 7

Serial Nos. Eligible GLX 1016 and subsequent.

VI. Model Galaxy 7B, Hot Air Balloon, Approved June 11, 1993

Air Heater FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). (See Note 6)

Gondola FireFly Balloons Carriage Models 4048 or 4860 or FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, S5.0, or 5.0.

Fuel Propane (LPG) only

Maximum Weight 1300 pounds (this weight includes the envelope weight)

Maximum Allowable Envelope Temperature 300 degrees F.

Fuel Capacity See Note 7

Serial Nos. Eligible GLX 1017B and subsequent.

VII. Model Galaxy 8B, Hot Air Balloon, Approved June 11, 1993

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). One or two allowed. (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 4860 or 4860DB or FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, 4.9DB, S5.0, S5.0DB, 5.0, 5.0DB, 5.9, 6.0, or 5468 |
| FuelPropane (LPG) only | |
| Maximum Weight | 1900 pounds (this weight includes the envelope weight) |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 1018B and subsequent. |

VIII. Model Galaxy 9B, Hot Air Balloon, Approved June 11, 1993

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). Two required. (See Note 6) |
| Gondola | FireFly Balloons Carriage Model 6072 or 6072T or FireFly Balloons Carriage Models 4.9DB, S5.0DB, 5.0DB, 5.9, 6.0 or 5468 |
| FuelPropane (LPG) only | |
| Maximum Weight | 2800 pounds (this weight includes the envelope weight) |
| Minimum Weight | 1400 pounds |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 1019B and subsequent. |

IX. Model Galaxy 10, Hot Air Balloon, Approved June 11, 1993

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). Two required. (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 6072, 6072T, 6096, or 60120 or FireFly Balloons Carriage Models 5.0DB, 5.9, or 6.0. |
| Fuel | Propane (LPG) only |
| Maximum Weight | 3600 pounds (this weight includes the envelope weight) |
| Minimum Weight | 1400 pounds |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 10110 and subsequent. |

X. Model Galaxy 11, Hot Air Balloon, Approved June 15, 1994

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). Two required. |
| Gondola | FireFly Balloons Carriage Models 6072, 6072T, 6096, or 60120 or FireFly Balloons Carriage Models 5.0DB, 5.9, or 6.0. |
| Fuel | Propane (LPG) only |
| Maximum Weight | 3940 pounds (this weight includes the envelope weight) |
| Minimum Weight | 2300 pounds |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 10111 and subsequent. |

XI. Model Galaxy 11B, Hot Air Balloon, Approved May 14, 1999

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| Air Heater Model | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). (Two required)(See Note 6) |
| Gondola | FireFly Balloons Carriage Models 6072, 6072T, 6096, or 60120 or FireFly Balloons Carriage Models 5.0DB, 5.9, or 6.0. |

FuelPropane (LPG) only

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| Maximum Weight | 3600 pounds (This weight includes the envelope weight) |
| Minimum Weight | 2300 pounds |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 1011B and subsequent. |

XII. Model Galaxy 77, Hot Air Balloon, Approved July 31, 2000

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| Air Heater | FireFly Balloons Burner Assembly Dwg. No. A1G400 (FireFly Balloons Model T3-017) or FireFly Balloons Burner Assembly Dwg. No. A1G401 (FireFly Balloons Model F1 Mirage). (See Note 6) |
| Gondola | FireFly Balloons Carriage Models 4860 or FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, S5.0, or 5.0. |
| FuelPropane (LPG) only | |
| Maximum Weight | 1750 pounds (This weight includes the envelope weight) |
| Maximum Allowable Envelope Temperature | 300 degrees F. |
| Fuel Capacity | See Note 7 |
| Serial Nos. Eligible | GLX 10177 and subsequent. |

DATA PERTINENT TO ALL MODELS

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| Certification Basis | FAR 31, effective July 1, 1964. Amendments 31-1 through 31-3. Application for Type Certificate dated June 6, 1978. Type Certificate No. A10NM issued July 7, 1982; reissued September 9, 1983; reissued July 19, 1985; amended May 15, 1986; November 18, 1988; May 22, 1989; September 1, 1989; July 20, 1992; reissued and amended June 11, 1993; amended June 15, 1994; amended December 31, 1997; amended May 14, 1999. |
| Production Basis | <p>Model Newport: None. Prior to original certification of each balloon manufactured under this Type Certificate, an FAA representative must perform a detailed inspection for workmanship, materials and conformity with this approved technical data and a check of the flight characteristics.</p> <p>Models Galaxy-7, Galaxy-8, Galaxy-9, Galaxy 6, Galaxy 7B, Galaxy 8B, Galaxy 9B, Galaxy 10, Galaxy 11, and Galaxy 11B: Production Certificate No. PC325CE, issued September 19, 1986.</p> |
| Export Eligibility | Balloon will be eligible for issuance of an Export Certificate of Airworthiness subject to compliance with Federal Aviation Regulation Part 21, Subpart L, Sections 21.321 through 21.339. The applicable procedures are contained in Advisory Circular No. 21-2F. |
| Equipment | <p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following equipment must be installed:</p> <ul style="list-style-type: none">A. Newport:<ul style="list-style-type: none">1. General Balloon FAA approved Equipment List No. 2000 dated July 7, 1982.2. General Balloon FAA approved Flight Manual dated June 28, 1982.B. Galaxy-7: FAA approved Balloon Flight Manual dated May 15, 1986.C. Galaxy-8: FAA approved Balloon Flight Manual dated May 22, 1989.D. Galaxy-9: FAA approved Balloon Flight Manual dated Nov 18, 1988.E. Galaxy 6: FAA approved Balloon Flight Manual dated June 11, 1993.F. Galaxy 7B: FAA approved Balloon Flight Manual dated June 11, 1993.G. Galaxy 8B: FAA approved Balloon Flight Manual dated June 11, 1993.H. Galaxy 9B: FAA approved Balloon Flight Manual dated June 11, 1993.I. Galaxy 10: FAA approved Balloon Flight Manual dated June 11, 1993.J. Galaxy 11: FAA approved Balloon Flight Manual dated June 15, 1994.K. Galaxy 11B: FAA approved Balloon Flight Manual dated May 14, 1999.L. Galaxy 77: FAA approved Balloon Flight Manual dated July 31, 2000. |

Maintenance Inspections Newport: See Piccard Balloon Hot Air Sport Balloon and Maintenance Handbook, Section 3 for Annual and 100-Hour Inspections required by FAR 91.409.

Galaxy-7, Galaxy-8, Galaxy-9, Galaxy 6, Galaxy 7B, Galaxy 8B, Galaxy 9B, Galaxy 10, Galaxy 11, Galaxy 11B and Galaxy 77: See FireFly Balloons Repair and Maintenance Manual.

Note 1. Current weight report, including list of equipment included in certificated empty weight and loading instructions must be provided for each balloon at the time of original certification.

Note 2. Reserved

Note 3. Reserved

Note 4. A. Prior to shipment of a balloon envelope (and necessary attaching system), produced for use with a burner / basket assembly that is eligible for use with that envelope, the Production Approval holder must determine that the envelope and necessary attaching system conforms to the Type Design and is in a condition for safe operation. Once the system has been inspected and flight tested the system is then eligible for a standard airworthiness certificate. The envelope can then be shipped with a new logbook and standard airworthiness certificate. The Production Approval Holder will include a document advising the new owner that the system must be registered and mated with an eligible burner and basket prior to flight.

B. Balloon burner/basket assemblies specifically designed for quick removal and installation from one envelope to another may be accomplished by the pilot/owner who holds at least a Private Pilot Certificate. Appropriate entries must be made in the balloon records noting the removal and/or installation of burner/basket assemblies.

C. Appropriate entries into balloon records of burner/basket assembly removals and installations must be made by FAA-certificated mechanics if the pilot/owner is not eligible to accomplish the task.

Note 5. Inflated appendages on standard shape envelopes are permitted and approved as described in Drawing B1G213, dated May 27, 1993, or latter FAA approved revision. Appendages must meet the same standards for strength as the balloon envelope and must be maintained in accordance with FireFly Balloons Repair and Maintenance Manual.

Note 6. The FireFly Balloons Model F1 burner is an approved optional heater for the Models Galaxy-7, Galaxy-8, Galaxy-9, Galaxy 6, Galaxy 7B, Galaxy 8B, Galaxy 9B, Galaxy 10, and Galaxy 11B and these standard shaped balloons with appendages. The FireFly Balloons F1 burner may be combined with a FireFly Balloons T3-017 burner in these double burner systems.

Note 7: Fuel Capacity

A. FireFly Balloons 4048 Basket: One, two, three or four 10-gallon FAA-approved propane cylinders. One FireFly Balloons P/N C6G003 or FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 4048 Basket may alternatively contain contain one, two, three or four 15-gallon FAA approved propane cylinders, FireFly Balloons P/N B3G661-1 or FireFly Balloons P/N 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners

- B. FireFly Balloons 4860 Basket: One, two, three, four, five or six 10-gallon FAA approved propane cylinders. One FireFly Balloons P/N C6G003 or FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 4860 Basket may alternatively contain one, two, three, four, five or six 15-gallon FAA approved propane cylinders, FireFly Balloons P/N B3G661-1 or FireFly Balloons P/N 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners.
- C. FireFly Balloons 4860DB Basket: Four, five or six 10-gallon FAA approved propane cylinders. Two FireFly Balloons 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders may be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 4860DB Basket may alternatively contain four, five or six 15-gallon FAA approved propane cylinders, two FireFly Balloons P/N B3G661-1 or FireFly Balloons 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners.
- D. FireFly Balloons 6072 or 6072T Basket:
- 1) For Galaxy-8 Balloon: Four, five, six, seven or eight 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1, or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 6072 and 6072T Baskets may alternatively contain four, five, six, seven or eight 15-gallon FAA approved propane cylinders, two FireFly Balloons P/N B3G661-1 or FireFly Balloons 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners.
 - 2) For all other approved balloon models: Six, seven or eight 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1, or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 6072 and 6072T Baskets may alternatively contain six, seven or eight 15-gallon FAA approved propane cylinders, two FireFly Balloons P/N B3G661-1 or FireFly Balloons P/N 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners.
- E. FireFly Balloons 6096 or 60120 Basket: Six, seven or eight 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N C6G001 or FireFly Balloons P/N 3035, 3035-1 or 3035-2. The 6096 or 60120 Basket may alternatively contain six, seven or eight 15-gallon FAA approved propane cylinders, two FireFly Balloons P/N B3G661-1 or FireFly Balloons P/N 3661-1 in corner one or two and FireFly Balloons P/N B3G661-2 or FireFly Balloons P/N 3661-2 in the other corners.
- F. FireFly Balloons Carriage Models 3.9 and 4.9: One, two, three or four 10-gallon FAA approved propane cylinders. One FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1, 3035-2 or 3258. Models 3.9 and 4.9 may alternately contain one or two 15-gallon FAA approved propane cylinders, FireFly Balloons P/N 3661-2 installed in corners 2 or 3 only.

- G. FireFly Balloons Carriage Models 4.0 and 4.5: One, two or three 10-gallon FAA approved propane cylinders. One FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1, 3035-2 or 3258. Models 4.0 and 4.5 may alternately contain one, two or three 15-gallon FAA approved propane cylinders, FireFly Balloons P/N 3661-1 in corner one or two and FireFly Balloons P/N 3661-2 in the other corners.
- H. FireFly Balloons Carriage Models 5.0 and S5.0: One, two, three, four, five, or six 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1, 3035-2 or 3258.
- I. FireFly Balloons Carriage Model 4.9DB (two burners installed): Two, three or four 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1 or 3035-2. The size 4.9DB basket may alternately contain one or two 15-gallon FAA approved propane cylinders, FireFly Balloons P/N 3661-2 installed in corners 2 or 3 only.
- J. FireFly Balloons Carriage Models 5.0DB and S5.0DB (two burners installed): Six 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining tanks must be FireFly Balloons P/N 3035, 3035-1 or 3035-2.
- K. FireFly Balloons Carriage Model 5.9: Six or seven 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1 or 3035-2.
- L. FireFly Balloons Carriage Model 6.0: Seven, eight, or nine 10-gallon FAA approved propane cylinders. Two FireFly Balloons P/N 3229, 3229-1 or 3229-2 must be installed in corner one or two. The remaining cylinders must be FireFly Balloons P/N 3035, 3035-1 or 3035-2. The size 6.0 basket may alternately contain one or two 15-gallon FAA approved propane cylinders, FireFly Balloons P/N 3661-2 installed in corners 2 or 3 only.
- M. Firefly Balloons Carriage Model 5468: Three, four, five or six 10 gallon FAA approved propane cylinders. Two Firefly Balloons P/N 3229, 3229-1, or 3229-2 must be installed between corners two and three. The remaining cylinders must be Firefly Balloons P/N C6G001 or Firefly Balloons P/N 3035, 3035-1, or 3035-2.

Note 8

Some FireFly Balloons Carriage Model numbers contain the suffix "A1." The FireFly Balloons Carriage Models 3.9, 4.0, 4.5, 4.9, S5.0, and 5.0 are identical to the FireFly Balloons Carriage Models 3.9A1, 4.0A1, 4.5A1, 4.9A1, S5.0A1, and 5.0A1 respectively, and may be used interchangeably.

Note 9

Galaxy model balloons were previously manufactured by Galaxy Balloons. Sidney Conn transferred Type Certificate A10NM to Dawson Property Group LLC on June 24, 2005. Dawson Property Group LLC transferred Type Certificate A10NM to Sundance Balloons (US on June 29, 2006.

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