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paragliding by air turquoise

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**Sky Paragliders a.s.**
Mr. Nemec Martin
Okružní 39
73911 Frýdlant nad Ostravicí
Czech Republic

# Certificate

The hereunder sample of paraglider has been tested
in accordance with the following standards:
EN 926-2:2005 & EN 926-1:2006

ISO 9001 BUREAU VERITAS Certification

| | |
|---|---|
| Certification number | **PG_0156.2008** |
| Manufacturer | **Sky Paragliders a.s.** |
| Glider model | **Ares 2 S** |
| Category | **D** |
| Maximum weight in flight (kg) | **85 kg** |
| Minimum weight in flight (kg) | **65 kg** |
| Glider's weight (kg) | **5.2 kg** |

**Date of flight test**

| | |
|---|---|
| Flight tests | **22. 05. 2008** |
| Serial number | **2008-02-11-0147** |

Best Regards,

Alain Zoller

Randi Eriksen

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ISO 9001 BUREAU VERITAS Certification

# Class: D

In accordance with EN standards 926-2:2005 & 926-1:2006: **PG_0156.2008**

Date of issue (DMY): **04. 06. 2008**

Manufacturer: **Sky Paragliders a.s.**

Model: **Ares 2 S**

Serial number:

## Configuration during flight tests

| **Paraglider** | | **Accessories** | |
|---|---|---|---|
| Maximum weight in flight (kg) | **85** | Range of speed system (cm) | **16** |
| Minimum weight in flight (kg) | **65** | Speed range using brakes (km/h) | **13** |
| Glider's weight (kg) | **5.2** | Range of trimmers (cm) | **0** |
| Number of risers | **4** | Total speed range with accessories (km/h) | **30** |
| Projected area (m2) | **19.68** | | |

| **Harness used for testing** (max weight) | | **Inspections** (whichever happens first) |
|---|---|---|
| Harness type | **ABS** | Every year or every 100 flights |
| Harness brand | **Sky Paragliders** | Warning! Before use refer to user's manual |
| Harness model | **Axel II M** | Person or company having presented the glider for testing: **Alexandre Paux** |
| Harness to risers distance (cm) | **46** | |
| Distance between risers (cm) | **45** | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | A | B | C | A | A | A | A | B | C | A | C | A | C | A | A | D | C | C | B | B | A | A | 0 |

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# Flight test report

ISO 9001 BUREAU VERITAS Certification

| | | | |
|---|---|---|---|
| Manufacturer | **Sky Paragliders a.s.** | Certification number | PG_0156.2008 |
| Address | Okružní 39<br>73911 Frýdlant nad Ostravicí<br>Czech Republic | Date of flight test | 22. 05. 2008 |
| Representative | Alexandre Paux | Place of test | Villeneuve |
| Glider model | **Ares 2 S** | **Classification** | **D** |
| Trimmer | no | | |

| | | | | |
|---|---|---|---|---|
| **Test pilot** | Fukuoka Seiko | | Thurnheer Claude | |
| **Harness** | Sup'air - Altiplume | | Sky Paragliders - Axel II M | |
| **Total weight in flight (kg)** | 60 | | 85 | |
| **1. Inflation/Take-off** | **C** | | | |
| Rising behaviour | Overshoots, shall be slowed down to avoid a front collapse | C | Overshoots, shall be slowed down to avoid a front collapse | C |
| Special take off technique required | No | A | No | A |
| **2. Landing** | **A** | | | |
| Special landing technique required | No | A | No | A |
| **3. Speed in straight flight** | **B** | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | 25 km/h to 30 km/h | B |
| **4. Control movement** | **C** | | | |
| *Max. weight in flight up to 80 kg* | | | | |
| Symmetric control pressure / travel | Increasing / 40 cm to 55 cm | C | not available | 0 |
| *Max. weight in flight 80 kg to 100 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | Approximately constant / 45 cm to 60 cm | C |
| *Max. weight in flight greater than 100 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| **5. Pitch stability exiting accelerated flight** | **A** | | | |
| Dive forward angle on exit | Dive forward less than 30° | A | Dive forward less than 30° | A |
| Collapse occurs | No | A | No | A |
| **6. Pitch stability operating controls during accelerated flight** | **A** | | | |
| Collapse occurs | No | A | No | A |
| **7. Roll stability and damping** | **A** | | | |
| Oscillations | Reducing | A | Reducing | A |
| **8. Stability in gentle spirals** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| **9. Behaviour in a steeply banked turn** | **B** | | | |
| Sink rate after two turns | More than 14 m/s | B | More than 14 m/s | B |
| **10. Symmetric front collapse** | **C** | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 30° to 60° / Keeping course | B | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| *With accelerator* | | | | |
| Entry | Rocking back less than 45° | A | Rocking back greater than 45° | C |

| | | | | |
|---|---|---|---|---|
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Entering a turn of less than 90° | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| **11. Exiting deep stall (parachutal stall)** | **A** | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Change of course | Changing course less than 45° | A | Changing course less than 45° | A |
| Cascade occurs | No | A | No | A |
| **12. High angle of attack recovery** | **C** | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in 3 s to 5 s | C |
| Cascade occurs | No | A | No | A |
| **13. Recovery from a developed full stall** | **A** | | | |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Less than 45° | A | Less than 45° | A |
| Line tension | Most lines tight | A | Most lines tight | A |
| **14. Asymmetric collapse** | **C** | | | |
| *With 50% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | 90° to 180° / Dive or roll angle 45° to 60° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 50% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 15° to 45° | B | Less than 90° / Dive or roll angle 45° to 60° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 45° to 60° | C | 90° to 180° / Dive or roll angle 60° to 90° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| **15. Directional control with a maintained asymmetric collapse** | **A** | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | Yes | A | Yes | A |
| Amount of control range between turn and stall or spin | More than 50 % of the symmetric control travel | A | More than 50 % of the symmetric control travel | A |
| **16. Trim speed spin tendency** | **A** | | | |

| | | | | |
|---|---|---|---|---|
| Spin occurs | No | A | No | A |
| **17. Low speed spin tendency** | **D** | | | |
| Spin occurs | Yes | D | No | A |
| **18. Recovery from a developed spin** | **C** | | | |
| Spin rotation angle after release | Stops spinning in 90° to 180° | C | Stops spinning in less than 90° | A |
| Cascade occurs | No | A | No | A |
| **19. B-line stall** | **C** | | | |
| Change of course before release | Changing course less than 45° | A | Changing course less than 45° | A |
| Behaviour before release | Remains stable with straight span | A | Remains stable without straight span | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| **20. Big ears** | **B** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in 3 s to 5 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| **21. Big ears in accelerated flight** | **B** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Recovery through pilot action in less than a further 3 s | B | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| **22. Behaviour exiting a steep spiral** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| Sink rate when evaluating spiral stability [m/s] | 18 | | 19 | |
| **23. Alternative means of directional control** | **A** | | | |
| 180° turn achievable in 20 s | Yes | A | Yes | A |
| Stall or spin occurs | No | A | No | A |
| **24. Any other flight procedure and/or configuration described in the user's manual** | **0** | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| **25. Comments of test pilot** | | | | |
| Comments | | | | |

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Czech Republic

# Certificate

The hereunder sample of paraglider has been tested
in accordance with the following standards:
EN 926-2:2005 & EN 926-1:2006

ISO 9001 BUREAU VERITAS Certification

| | |
|---|---|
| Certification number | **PG_0133.2008** |
| Manufacturer | **Sky Paragliders a.s.** |
| Glider model | **Ares 2 M** |
| Category | **D** |
| Maximum weight in flight (kg) | **100 kg** |
| Minimum weight in flight (kg) | **80 kg** |
| Glider's weight (kg) | **5.4 kg** |

**Date of flight test**

| | |
|---|---|
| Flight tests | **02. 04. 2008** |
| Serial number | **2007_11_11_1029** |

Best Regards,

Alain Zoller

Randi Eriksen

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ISO 9001 BUREAU VERITAS Certification

SKY PARAGLIDERS

Class: **D**

In accordance with EN standards 926-2:2005 & 926-1:2006: **PG_0133.2008**

Date of issue (DMY): **31. 05. 2008**

Manufacturer: **Sky Paragliders a.s.**

Model: **Ares 2 M**

Serial number:

## Configuration during flight tests

| **Paraglider** | | **Accessories** | |
|---|---|---|---|
| Maximum weight in flight (kg) | **100** | Range of speed system (cm) | **16** |
| Minimum weight in flight (kg) | **80** | Speed range using brakes (km/h) | **13** |
| Glider's weight (kg) | **5.4** | Range of trimmers (cm) | **0** |
| Number of risers | **4** | Total speed range with accessories (km/h) | **35** |
| Projected area (m2) | **20.99** | | |

| **Harness used for testing** (max weight) | | **Inspections** (whichever happens first) |
|---|---|---|
| Harness type | **ABS** | Every year or every 100 flights |
| Harness brand | **Sup'Air** | Warning! Before use refer to user's manual |
| Harness model | **Light M** | Person or company having presented the glider for testing: **Paux Alexandre** |
| Harness to risers distance (cm) | **47** | |
| Distance between risers (cm) | **45** | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | A | B | C | A | A | A | A | B | C | B | D | C | D | A | A | D | A | C | A | C | A | A | 0 |

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# Flight test report

ISO 9001 BUREAU VERITAS Certification

| | | | |
|---|---|---|---|
| Manufacturer | **Sky Paragliders a.s.** | Certification number | PG_0133.2008 |
| Address | Okružní 39<br>73911 Frýdlant nad Ostravicí<br>Czech Republic | Date of flight test | 02. 04. 2008 |
| Representative | Paux Alexandre | Place of test | Villeneuve |
| Glider model | **Ares 2 M** | **Classification** | **D** |
| Trimmer | no | | |

| | | | | |
|---|---|---|---|---|
| **Test pilot** | Thurnheer Claude | | Zoller Alain | |
| **Harness** | Advance - Progress Light | | Sup'Air - Light M | |
| **Total weight in flight (kg)** | 80 | | 100 | |
| **1. Inflation/Take-off** | **C** | | | |
| Rising behaviour | Overshoots, shall be slowed down to avoid a front collapse | C | Overshoots, shall be slowed down to avoid a front collapse | C |
| Special take off technique required | No | A | No | A |
| **2. Landing** | **A** | | | |
| Special landing technique required | No | A | No | A |
| **3. Speed in straight flight** | **B** | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | 25 km/h to 30 km/h | B | 25 km/h to 30 km/h | B |
| **4. Control movement** | **C** | | | |
| *Max. weight in flight up to 80 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| *Max. weight in flight 80 kg to 100 kg* | | | | |
| Symmetric control pressure / travel | Increasing / greater than 60 cm | A | Increasing / 45 cm to 60 cm | C |
| *Max. weight in flight greater than 100 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| **5. Pitch stability exiting accelerated flight** | **A** | | | |
| Dive forward angle on exit | Dive forward less than 30° | A | Dive forward less than 30° | A |
| Collapse occurs | No | A | No | A |
| **6. Pitch stability operating controls during accelerated flight** | **A** | | | |
| Collapse occurs | No | A | No | A |
| **7. Roll stability and damping** | **A** | | | |
| Oscillations | Reducing | A | Reducing | A |
| **8. Stability in gentle spirals** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| **9. Behaviour in a steeply banked turn** | **B** | | | |
| Sink rate after two turns | More than 14 m/s | B | More than 14 m/s | B |
| **10. Symmetric front collapse** | **C** | | | |
| Entry | Rocking back less than 45° | A | Rocking back less than 45° | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Keeping course | A |
| Cascade occurs | No | A | No | A |
| *With accelerator* | | | | |
| Entry | Rocking back greater than 45° | C | Rocking back greater than 45° | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |

| | | | | |
|---|---|---|---|---|
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 30° to 60° / Entering a turn of less than 90° | B |
| Cascade occurs | No | A | No | A |
| **11. Exiting deep stall (parachutal stall)** | **B** | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 30° to 60° | B |
| Change of course | Changing course less than 45° | A | Changing course less than 45° | A |
| Cascade occurs | No | A | No | A |
| **12. High angle of attack recovery** | **D** | | | |
| Recovery | Spontaneous in 3 s to 5 s | C | Recovery through pilot action in less than a further 3 s | D |
| Cascade occurs | No | A | No | A |
| **13. Recovery from a developed full stall** | **C** | | | |
| Dive forward angle on exit | Dive forward 30° to 60° | B | Dive forward 30° to 60° | B |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Greater than 45° | C | Greater than 45° | C |
| Line tension | Most lines tight | A | Most lines tight | A |
| **14. Asymmetric collapse** | **D** | | | |
| *With 50% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 60° to 90° | C | 90° to 180° / Dive or roll angle 60° to 90° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 50% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | 90° to 180° / Dive or roll angle 15° to 45° | B |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 60° to 90° | C | 180° to 360° / Dive or roll angle 60° to 90° | D |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | Yes, no turn reversal | C |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| **15. Directional control with a maintained asymmetric collapse** | **A** | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | Yes | A | Yes | A |
| Amount of control range between turn and stall or spin | More than 50 % of the symmetric control travel | A | More than 50 % of the symmetric control travel | A |
| **16. Trim speed spin tendency** | **A** | | | |

| | | | | |
|---|---|---|---|---|
| Spin occurs | No | A | No | A |
| **17. Low speed spin tendency** | **D** | | | |
| Spin occurs | Yes | D | Yes | D |
| **18. Recovery from a developed spin** | **A** | | | |
| Spin rotation angle after release | Stops spinning in less than 90° | A | Stops spinning in less than 90° | A |
| Cascade occurs | No | A | No | A |
| **19. B-line stall** | **C** | | | |
| Change of course before release | Changing course less than 45° | A | Changing course less than 45° | A |
| Behaviour before release | Remains stable without straight span | C | Remains stable without straight span | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Cascade occurs | No | A | No | A |
| **20. Big ears** | **A** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| **21. Big ears in accelerated flight** | **C** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Unstable flight | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| **22. Behaviour exiting a steep spiral** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| Sink rate when evaluating spiral stability [m/s] | 16 | | 17 | |
| **23. Alternative means of directional control** | **A** | | | |
| 180° turn achievable in 20 s | Yes | A | Yes | A |
| Stall or spin occurs | No | A | No | A |
| **24. Any other flight procedure and/or configuration described in the user's manual** | **0** | | | |
| Procedure works as described | not available | 0 | not available | 0 |
| Procedure suitable for novice pilots | not available | 0 | not available | 0 |
| Cascade occurs | not available | 0 | not available | 0 |
| **25. Comments of test pilot** | | | | |
| Comments | | | | |

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paragliding by air turquoise

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tel. +41 21 965 65 65 | mobile +41 79 202 52 30
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**Sky Paragliders a.s.**
Mr. Nemec Martin
Okružní 39
73911 Frýdlant nad Ostravicí
Czech Republic

# Certificate

The hereunder sample of paraglider has been tested
in accordance with the following standards:
EN 926-2:2005 & EN 926-1:2006

ISO 9001 BUREAU VERITAS Certification

| | |
|---|---|
| Certification number | **PG_0136.2008** |
| Manufacturer | **Sky Paragliders a.s.** |
| Glider model | **Ares 2 L** |
| Category | **D** |
| Maximum weight in flight (kg) | **120 kg** |
| Minimum weight in flight (kg) | **95 kg** |
| Glider's weight (kg) | **5.6 kg** |

**Date of flight test**

| | |
|---|---|
| Flight tests | **15. 03. 2008** |
| Serial number | **2008_01_11_0127** |
| Load test | **05. 04. 2008** |
| Serial number | **2008_01_11_0127** |

Best Regards,

Alain Zoller

Randi Eriksen

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ISO 9001 BUREAU VERITAS Certification

SKY PARAGLIDERS

# Class: D

In accordance with EN standards 926-2:2005 & 926-1:2006: **PG_0136.2008**

Date of issue (DMY): **31. 05. 2008**

Manufacturer: **Sky Paragliders a.s.**

Model: **Ares 2 L**

Serial number:

## Configuration during flight tests

| **Paraglider** | | **Accessories** | |
|---|---|---|---|
| Maximum weight in flight (kg) | **120** | Range of speed system (cm) | **16** |
| Minimum weight in flight (kg) | **95** | Speed range using brakes (km/h) | **14** |
| Glider's weight (kg) | **5.6** | Range of trimmers (cm) | **0** |
| Number of risers | **4** | Total speed range with accessories (km/h) | **36** |
| Projected area (m2) | **22.37** | | |

| **Harness used for testing** (max weight) | | **Inspections** (whichever happens first) |
|---|---|---|
| Harness type | **ABS** | Every year or every 100 flights |
| Harness brand | **Sky Paragliders** | Warning! Before use refer to user's manual |
| Harness model | **Axel II M** | Person or company having presented the glider for testing: **Paux Alexandre** |
| Harness to risers distance (cm) | **48** | |
| Distance between risers (cm) | **45** | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | A | A | B | A | A | A | A | B | C | A | A | C | D | A | A | D | A | C | A | A | A | A | A |

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# Flight test report

ISO 9001 BUREAU VERITAS Certification

| | | | |
|---|---|---|---|
| Manufacturer | **Sky Paragliders a.s.** | Certification number | PG_0136.2008 |
| Address | Okružní 39<br>73911 Frýdlant nad Ostravicí<br>Czech Republic | Date of flight test | 19. 03. 2008 |
| Representative | Paux Alexandre | Place of test | Villeneuve |
| Glider model | **Ares 2 L** | **Classification** | **D** |
| Trimmer | no | | |

| | | | | |
|---|---|---|---|---|
| **Test pilot** | Thurnheer Claude | | Zoller Alain | |
| **Harness** | Gin - genie III | | Sky Paragliders - Axel II M | |
| **Total weight in flight (kg)** | 95 | | 120 | |
| **1. Inflation/Take-off** | **C** | | | |
| Rising behaviour | Overshoots, shall be slowed down to avoid a front collapse | C | Overshoots, shall be slowed down to avoid a front collapse | C |
| Special take off technique required | No | A | No | A |
| **2. Landing** | **A** | | | |
| Special landing technique required | No | A | No | A |
| **3. Speed in straight flight** | **A** | | | |
| Trim speed more than 30 km/h | Yes | A | Yes | A |
| Speed range using the controls larger than 10 km/h | Yes | A | Yes | A |
| Minimum speed | Less than 25 km/h | A | Less than 25 km/h | A |
| **4. Control movement** | **B** | | | |
| *Max. weight in flight up to 80 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | not available | 0 |
| *Max. weight in flight 80 kg to 100 kg* | | | | |
| Symmetric control pressure / travel | Approximately constant / greater than 60 cm | B | not available | 0 |
| *Max. weight in flight greater than 100 kg* | | | | |
| Symmetric control pressure / travel | not available | 0 | Approximately constant / greater than 65 cm | B |
| **5. Pitch stability exiting accelerated flight** | **A** | | | |
| Dive forward angle on exit | Dive forward less than 30° | A | Dive forward less than 30° | A |
| Collapse occurs | No | A | No | A |
| **6. Pitch stability operating controls during accelerated flight** | **A** | | | |
| Collapse occurs | No | A | No | A |
| **7. Roll stability and damping** | **A** | | | |
| Oscillations | Reducing | A | Reducing | A |
| **8. Stability in gentle spirals** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| **9. Behaviour in a steeply banked turn** | **B** | | | |
| Sink rate after two turns | More than 14 m/s | B | More than 14 m/s | B |
| **10. Symmetric front collapse** | **C** | | | |
| Entry | Rocking back less than 45° | A | Rocking back greater than 45° | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 30° to 60° / Entering a turn of less than 90° | B |
| Cascade occurs | No | A | No | A |
| *With accelerator* | | | | |

| | | | | |
|---|---|---|---|---|
| Entry | Rocking back greater than 45° | C | Rocking back greater than 45° | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit / Change of course | Dive forward 0° to 30° / Keeping course | A | Dive forward 0° to 30° / Entering a turn of less than 90° | A |
| Cascade occurs | No | A | No | A |
| **11. Exiting deep stall (parachutal stall)** | **A** | | | |
| Deep stall achieved | Yes | A | Yes | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Change of course | Changing course less than 45° | A | Changing course less than 45° | A |
| Cascade occurs | No | A | No | A |
| **12. High angle of attack recovery** | **A** | | | |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Cascade occurs | No | A | No | A |
| **13. Recovery from a developed full stall** | **C** | | | |
| Dive forward angle on exit | Dive forward 30° to 60° | B | Dive forward 30° to 60° | B |
| Collapse | No collapse | A | No collapse | A |
| Cascade occurs (other than collapses) | No | A | No | A |
| Rocking back | Greater than 45° | C | Greater than 45° | C |
| Line tension | Most lines tight | A | Most lines tight | A |
| **14. Asymmetric collapse** | **D** | | | |
| *With 50% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 15° to 45° | A | Less than 90° / Dive or roll angle 15° to 45° | A |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 60° to 90° | C | 90° to 180° / Dive or roll angle 45° to 60° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 50% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 45° to 60° | C | Less than 90° / Dive or roll angle 60° to 90° | C |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Less than 360° | A |
| Collapse on the opposite side occurs | No | A | No | A |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| *With 75% collapse and accelerator* | | | | |
| Change of course until re-inflation / Maximum dive forward or roll angle | 90° to 180° / Dive or roll angle 60° to 90° | C | 180° to 360° / Dive or roll angle 60° to 90° | D |
| Re-inflation behaviour | Spontaneous re-inflation | A | Spontaneous re-inflation | A |
| Total change of course | Less than 360° | A | Greater than 360° | C |
| Collapse on the opposite side occurs | Yes, no turn reversal | C | Yes, no turn reversal | C |
| Twist occurs | No | A | No | A |
| Cascade occurs | No | A | No | A |
| **15. Directional control with a maintained asymmetric collapse** | **A** | | | |
| Able to keep course | Yes | A | Yes | A |
| 180° turn away from the collapsed side possible in 10 s | Yes | A | Yes | A |
| Amount of control range between turn and stall or spin | More than 50 % of the symmetric control travel | A | More than 50 % of the symmetric control travel | A |

| | | | | |
|---|---|---|---|---|
| **16. Trim speed spin tendency** | **A** | | | |
| Spin occurs | No | A | No | A |
| **17. Low speed spin tendency** | **D** | | | |
| Spin occurs | Yes | D | Yes | D |
| **18. Recovery from a developed spin** | **A** | | | |
| Spin rotation angle after release | Stops spinning in less than 90° | A | Stops spinning in less than 90° | A |
| Cascade occurs | No | A | No | A |
| **19. B-line stall** | **C** | | | |
| Change of course before release | Changing course more than 45° | C | Changing course more than 45° | C |
| Behaviour before release | Remains stable without straight span | C | Remains stable without straight span | C |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 30° to 60° | A |
| Cascade occurs | No | A | No | A |
| **20. Big ears** | **A** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in less than 3 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| **21. Big ears in accelerated flight** | **A** | | | |
| Entry procedure | Dedicated controls | A | Dedicated controls | A |
| Behaviour during big ears | Stable flight | A | Stable flight | A |
| Recovery | Spontaneous in 3 s to 5 s | A | Spontaneous in less than 3 s | A |
| Dive forward angle on exit | Dive forward 0° to 30° | A | Dive forward 0° to 30° | A |
| Behaviour immediately after releasing the accelerator while maintaining big ears | Stable flight | A | Stable flight | A |
| **22. Behaviour exiting a steep spiral** | **A** | | | |
| Tendency to return to straight flight | Spontaneous exit | A | Spontaneous exit | A |
| Turn angle to recover normal flight | Less than 720°, spontaneous recovery | A | Less than 720°, spontaneous recovery | A |
| Sink rate when evaluating spiral stability [m/s] | 19 | | 20 | |
| **23. Alternative means of directional control** | **A** | | | |
| 180° turn achievable in 20 s | Yes | A | Yes | A |
| Stall or spin occurs | No | A | No | A |
| **24. Any other flight procedure and/or configuration described in the user's manual** | **A** | | | |
| Procedure works as described | not available | 0 | Yes | A |
| Procedure suitable for novice pilots | not available | 0 | Yes | A |
| Cascade occurs | not available | 0 | No | A |
| **25. Comments of test pilot** | | | | |
| Comments | | | | |

# Air Turquoise Homologations
# LOAD DIAGRAM

Alain Zoller
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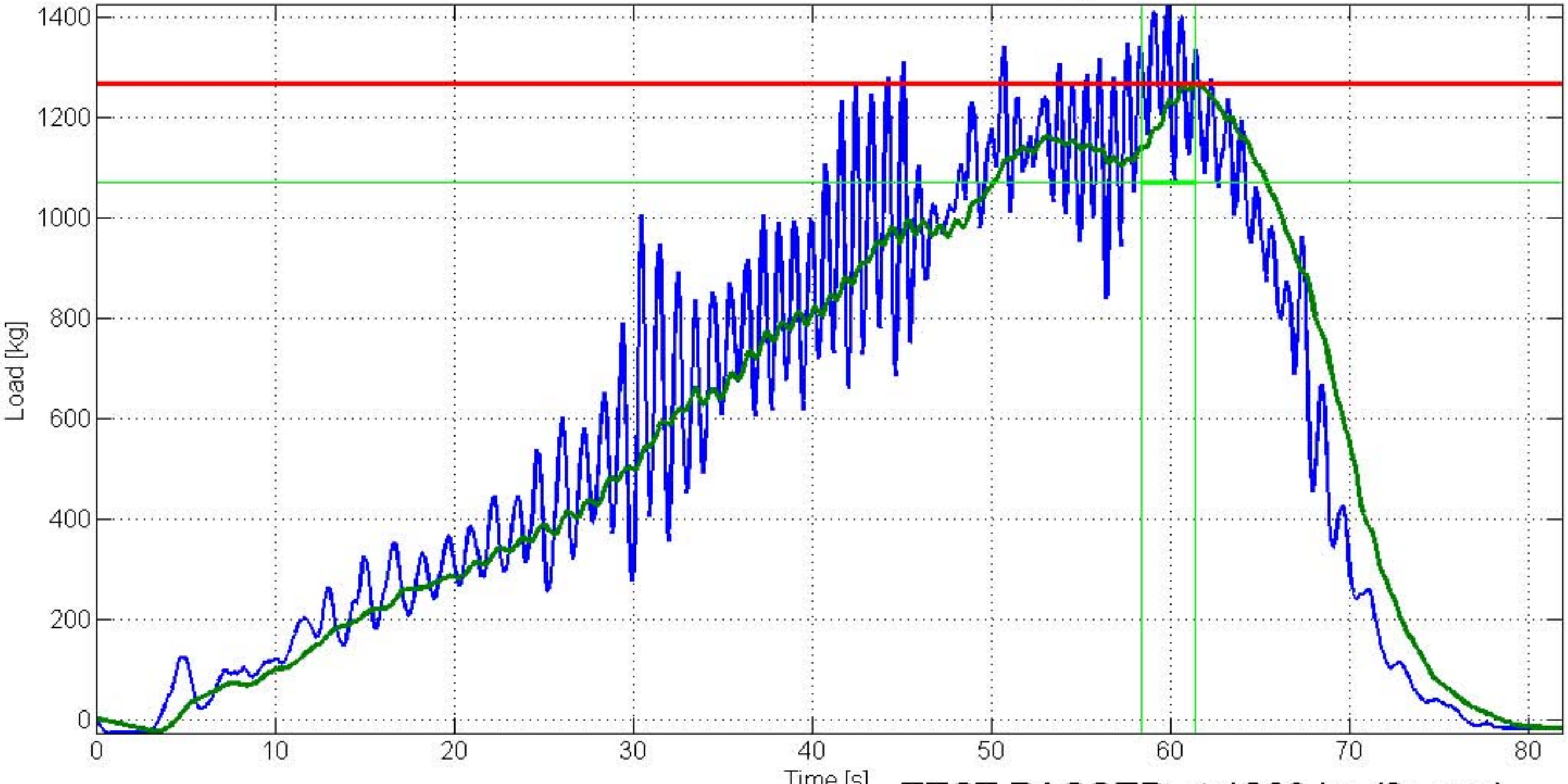


## Sky Paragliders Ares 2 L

TEST PASSED at 1268 kg (3s avg)
5.4.2008 - 11:10

measurement with ShockRecord
(c) 2006 by Jonas Buchli <jonas@buchli.org>

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paragliding by air turquoise

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# Load test report

ISO 9001 BUREAU VERITAS Certification

The model describe hereafter is in conformity with
the load and shock tests carried out by:
**para-test.com, official test laboratory of Switzerland**
EN 926-1:2006

Manufacturer . . . . . **Sky Paragliders a.s.**
Glider model . . . . . **Ares 2 L**
Max. load (kg). . . . . **158 kg**

**Shock test**
1000 daN

The model had no appearant damages to question its airworthiness.

**Mechanical resistance test**
The model had been tested to 8G of it's total weight in flignht during 3 sec

Villeneuve, 05. 04. 2008

Randi Eriksen

Randi Eriksen