

## Flight test report: EN 926-2:2013 & LTF 91/09

|  |   |                       |                       |
|--|---|-----------------------|-----------------------|
| Manufacturer                           | <b>ADVANCE Thun AG</b>                        | Certification number  | PG_1257.2017          |
| Address                                | Uttigenstrasse 87<br>3600 Thun<br>Switzerland | Date of flight test   | 07. 11. 2017          |
| Glider model                           | <b>Iota 2 23</b>                              | <b>Classification</b> | <b>B</b>              |
| Serial number                          | 73841   | Representative        | Kari Einsenhut        |
| Trimmer                                | no  | Place of test         | Villeneuve            |
| Folding lines used                     | no  |                       |                       |
| <b>Test pilot</b>                      |   | Dupont Philippe       | Thurnheer Claude      |
| <b>Harness</b>                         |   | Supair - Altiplume S  | Advance - Success 4 M |
| <b>Harness to risers distance (cm)</b> |   | 41                    | 44                    |
| <b>Distance between risers (cm)</b>    |   | 40                    | 44                    |
| <b>Total weight in flight (kg)</b>     |   | 70                    | 88                    |

|  |  |   |  |   |
|--|--|---|--|---|
| <b>1. Inflation/Take-off</b>   | <b>A</b>   |   |  |   |
| Rising behaviour   | Smooth, easy and constant rising                               | A | Smooth, easy and constant rising                               | A |
| Special take off technique required                                    | No   | A | No   | A |
| <b>2. Landing</b>  | <b>A</b>   |   |  |   |
| Special landing technique required                                     | No   | A | No   | A |
| <b>3. Speed in straight flight</b>                                     | <b>B</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 |
| <b>4. Control movement</b>   | <b>A</b>   |   |  |   |
| <b>Max. weight in flight up to 80 kg</b>                               |  |   |  |   |
| Symmetric control pressure / travel                                    | Increasing / greater than 55 cm                                | A | not available  | 0 |
| <b>Max. weight in flight 80 kg to 100 kg</b>                           |  |   |  |   |
| Symmetric control pressure / travel                                    | not available  | 0 | Increasing / greater than 60 cm                                | A |
| <b>Max. weight in flight greater than 100 kg</b>                       |  |   |  |   |
| Symmetric control pressure / travel                                    | not available  | 0 | not available  | 0 |
| <b>5. Pitch stability exiting accelerated flight</b>                   | <b>A</b>   |   |  |   |
| Dive forward angle on exit   | Dive forward less than 30°                                     | A | Dive forward less than 30°                                     | A |
| Collapse occurs  | No   | A | No   | A |
| <b>6. Pitch stability operating controls during accelerated flight</b> | <b>A</b>   |   |  |   |
| Collapse occurs  | No   | A | No   | A |
| <b>7. Roll stability and damping</b>                                   | <b>A</b>   |   |  |   |
| Oscillations   | Reducing   | A | Reducing   | A |
| <b>8. Stability in gentle spirals</b>                                  | <b>A</b>   |   |  |   |
| Tendency to return to straight flight                                  | Spontaneous exit   | A | Spontaneous exit   | A |
| <b>9. Behaviour exiting a fully developed spiral dive</b>              | <b>A</b>   |   |  |   |
| Initial response of glider (first 180°)                                | Immediate reduction of rate of turn                            | A | Immediate reduction of rate of turn                            | A |
| Tendency to return to straight flight                                  | Spontaneous exit (g force decreasing, rate of turn decreasing) | A | Spontaneous exit (g force decreasing, rate of turn decreasing) | A |

|  |  |   |  |   |
|--|--|---|--|---|
| Turn angle to recover normal flight                                      | Less than 720°, spontaneous recovery   | A | Less than 720°, spontaneous recovery   | A |
| <b>10. Symmetric front collapse</b>                                      | <b>B</b>   |   |  |   |
| <b>Approximately 30 % chord</b>  |  |   |  |   |
| 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 |
| Folding lines used   | No   |   | No   |   |
| <b>At least 50% chord</b>  |  |   |  |   |
| 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 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 |
| Folding lines used   | No   |   | No   |   |
| <b>With accelerator</b>  |  |   |  |   |
| 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 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 |
| Folding lines used   | No   |   | No   |   |
| <b>11. Exiting deep stall (parachutal stall)</b>                         | <b>A</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 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 |
| <b>12. High angle of attack recovery</b>                                 | <b>A</b>   |   |  |   |
| Recovery   | Spontaneous in less than 3 s   | A | Spontaneous in less than 3 s   | A |
| Cascade occurs   | No   | A | No   | A |
| <b>13. Recovery from a developed full stall</b>                          | <b>A</b>   |   |  |   |
| 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 |
| <b>14. Asymmetric collapse</b>   | <b>B</b>   |   |  |   |
| <b>Small asymmetric collapse</b>   |  |   |  |   |
| Change of course until re-inflation / Maximum dive forward or roll angle | Less than 90° / Dive or roll angle 0° to 15°                                   | 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs   | No   | A | No   | A |
| Cascade occurs   | No   | A | No   | A |
| Folding lines used   | No   |   | No   |   |
| <b>Large asymmetric collapse</b>   |  |   |  |   |
| 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 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs                         | No   | A | No   | A |
| Cascade occurs                       | No   | A | No   | A |
| Folding lines used                   | No   |   | No   |   |

**Small asymmetric collapse with fully activated accelerator**

|  |  |   |  |   |
|--|--|---|--|---|
| 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs   | No   | A | No   | A |
| Cascade occurs   | No   | A | No   | A |
| Folding lines used   | No   |   | No   |   |

**Large asymmetric collapse with fully activated accelerator**

|  |  |   |  |   |
|--|--|---|--|---|
| 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 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 (or only a small number of collapsed cells with a spontaneous re-inflation) | A | No (or only a small number of collapsed cells with a spontaneous re-inflation) | A |
| Twist occurs   | No   | A | No   | A |
| Cascade occurs   | No   | A | No   | A |
| Folding lines used   | No   |   | No   |   |

**15. Directional control with a maintained asymmetric collapse**

|   |  |   |  |   |
|---|--|---|--|---|
| 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**

|             |    |   |    |   |
|-------------|----|---|----|---|
| Spin occurs | No | A | No | A |
|-------------|----|---|----|---|

**17. Low speed spin tendency**

|             |    |   |    |   |
|-------------|----|---|----|---|
| Spin occurs | No | A | No | A |
|-------------|----|---|----|---|

**18. Recovery from a developed spin**

|                                   |                               |   |                               |   |
|-----------------------------------|-------------------------------|---|-------------------------------|---|
| Spin rotation angle after release | Stops spinning in 90° to 180° | B | Stops spinning in 90° to 180° | B |
| Cascade occurs                    | No                            | A | No                            | A |

**19. B-line stall**

|                                 |                                   |   |                                   |   |
|---------------------------------|-----------------------------------|---|-----------------------------------|---|
| 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 with straight span | 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 |
| Cascade occurs                  | No                                | A | No                                | A |

**20. Big ears**

|                            |                              |   |                              |   |
|----------------------------|------------------------------|---|------------------------------|---|
| 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**

|                            |                           |   |                              |   |
|----------------------------|---------------------------|---|------------------------------|---|
| 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 |
| <b>22. Alternative means of directional control</b>                                       | <b>A</b>                 |   |               |   |
| 180° turn achievable in 20 s  | Yes                      | A | Yes           | A |
| Stall or spin occurs  | No                       | A | No            | A |
| <b>23. Any other flight procedure and/or configuration described in the user's manual</b> | <b>0</b>                 |   |               |   |
| 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 |
| <b>24. Comments of test pilot</b>   | <input type="checkbox"/> |   |               |   |
| Comments  |                          |   |               |   |