




# FTR - Flight Test Report

Dieser Prüfbericht darf ohne schriftliche Zustimmung der EAPR nicht, auch nicht auszugsweise, veröffentlicht werden.

Manufacturer	 Skywalk GmbH & Co.KG W.Indeckstr. 4 D-83250 Maunartstein	Type testing No.	EAPR-GS-0437/15
		serial number	mx24-12.0-0019
Model	Tonka 2- 12	Location	Wallberg Achensee



Rev. 2.3 - 26.11.2014  
 EAPR GmbH - Marktstr. 11  
 D-87730 Bad Grönenbach - Germany

Date of testing	21.07.2015	Minimum take off weight	60 kg	Maximum take off weight	85 kg
Testpilot	Sepp Bauer		Mike Küng		
Harness	EAPR Testequipment		EAPR-Testequipment		
Pilot's take off weight	60 kg		85 kg		

Classification	D
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Test-criteria	Minimum take off weight	Evaluation	Maximum take off weight	Evaluation
<b>1. Inflation / take-off - 4.4.1</b>				
Rising behavior	Easy rising, some pilot correction is required	B	Easy rising, some pilot correction is required	B
Special take off technique required	No	A	No	A
<b>2. Landing - 4.4.2</b>				
Special landing technique required	No	A	No	A
<b>3. Speeds in straight flight - 4.4.3</b>				
Trim speed more than 30km/h	Yes	A	Yes	A
Speed range using the controls larger than 10km/h	Yes	A	Yes	A
Minimum speed	25 km/h to 30 km/h	B	25 km/h to 30 km/h	B
<b>4. Control movement - 4.4.4</b>				
Max. weight in flight up to 80kg		-		-
Max. weight in flight 80 to 100kg	Increasing 35cm - 45cm	D	Increasing 35cm - 45cm	D
Max. weight in flight greater than 100kg		-		-
<b>5. Pitch stability exiting accelerated flight - 4.4.5</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 - 4.4.6</b>				
Collapse occurs	No	A	No	A
<b>7. Roll stability and damping - 4.4.7</b>				
Oscillations	Reducing	A	Reducing	A
<b>8. Stability in gentle spirals - 4.4.8</b>				
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A
<b>9. Behaviour exiting a fully developed spiral dive - 4.4.9</b>				
Initial response of glider (first 180°)	No immediate reaction	B	No immediate reaction	B
Tendency to return to straight flight	Spontaneous exit	A	Spontaneous exit	A
Turn angle to recover normal flight	1080° to 1440°, spontaneous recovery	C	Less than 720°, spontaneous recovery	A
<b>10. Symmetric front collapse - 4.4.10</b>				
Folding lines used	No		No	
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	0° - 30°   Keeping course	A	30° - 60°   Entering a turn of less than 90°	B
Cascade occurs	No	A	No	A
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	30° - 60°   Keeping course	B	30° - 60°   Entering a turn of less than 90°	B
Cascade occurs	No	A	No	A
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	30° - 60°   Keeping course	B	30° - 60°   Entering a turn of less than 90°	B
Cascade occurs	No	A	No	A
<b>11. Exiting deep stall (parachutal stall) - 4.4.11</b>				
Deep stall achieved	Yes		Yes	
Recovery	Spontaneous in less than 3 sec	A	Spontaneous in less than 3 sec	A
Dive forward angle on exit	30° - 60°	B	30° - 60°	B
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 - 4.4.12</b>											
Recovery	Spontaneous in less than 3 sec				A	Spontaneous in 3 to 5 sec				C	
Cascade occurs	No				A	No				A	
<b>13. Recovery from a developed full stall - 4.4.13</b>											
Dive forward angle on exit	30° - 60°				B	60° - 90°				C	
Collapse	No collapse				A	No collapse				A	
Cascade occurs (other than collapse)	No				A	No				A	
Rocking backward	Less than 45°				A	Greater than 45°				C	
Line tension	Most lines tight				A	Most lines tight				A	
<b>14. Asymmetric collapse (trim speed) - 4.4.14</b>											
Folding lines used	No					No					
Change of course until re-inflation	trim speed, max 50% collapse	< 90°	Dive or roll angle	15° - 45°	A	< 90°	Dive or roll angle	15° - 45°	A		
		Spontaneous re-inflation				A	Spontaneous re-inflation				A
Re-inflation behavior	trim speed, max 75% collapse	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
Change of course until re-inflation	trim speed, max 75% collapse	90° - 180°	Dive or roll angle	45° - 60°	C	90° - 180°	Dive or roll angle	45° - 60°	C		
		Spontaneous re-inflation				A	Spontaneous re-inflation				A
Re-inflation behavior	accelerated, max 50% collapse	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
Change of course until re-inflation	accelerated, max 50% collapse	90° - 180°	Dive or roll angle	45° - 60°	C	< 90°	Dive or roll angle	45° - 60°	C		
		Spontaneous re-inflation				A	Spontaneous re-inflation				A
Re-inflation behavior	accelerated, max 75% collapse	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
Change of course until re-inflation	accelerated, max 75% collapse	180° - 360°	Dive or roll angle	45° - 60°	C	90° - 180°	Dive or roll angle	45° - 60°	C		
		Spontaneous re-inflation				A	Spontaneous re-inflation				A
Re-inflation behavior	accelerated, max 50% collapse	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
<b>15. Directional control with a maintained asymmetric collapse - 4.4.15</b>											
Able to keep course straight	Yes				A	Yes				A	
180° turn away from the collapsed side possible in 10 sec	Yes				A	Yes				A	
Amount of control range between turn and stall or spin	25% to 50% of the symmetric control travel				C	25% to 50% of the symmetric control travel				C	
<b>16. Trim speed spin tendency - 4.4.16</b>											
Spin occurs	No				A	No				A	
<b>17. Low speed spin tendency - 4.4.17</b>											
Spin occurs	No				A	No				A	
<b>18. Recovery from a developed spin - 4.4.18</b>											
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	
<b>19. B-line-stall - 4.4.19</b>											
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 sec				A	Spontaneous in less than 3 sec				A	
Dive forward angle on exit	30° - 60°				A	60° - 90°				C	
Cascade occurs	No				A	No				A	
<b>20. Big ears - 4.4.20</b>											
Entry procedure	Standard technique				A	Standard technique				A	
Behaviour during big ears	Stable flight				A	Stable flight				A	
Recovery	Spontaneous in less than 3 sec				A	Spontaneous in less than 3 sec				A	
Dive forward angle on exit	0° - 30°				A	0° bis 30°				A	
<b>21. Big Ears in accelerated flight - 4.4.21</b>											
Entry procedure	Standard technique				A	Standard technique				A	
Behaviour during big ears	Stable flight				A	Stable flight				A	
Recovery	Spontaneous in less than 3 sec				A	Spontaneous in less than 3 sec				A	
Dive forward angle on exit	0° - 30°				A	0° bis 30°				A	
Behaviour immediately after releasing the accelerator while maintaining big ears	Stable flight				A	Stable flight				A	
<b>23. Alternative means of directional control - 4.4.22</b>											
180° turn achievable in 20 sec	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 - 4.4.23</b>											
Procedure works as described					NA					NA	
Procedure suitable for novice pilots					NA					NA	
Cascade occurs					NA					NA	
<b>24. Remarks of testpilot:</b>											