

TEST Report

SCOPE OF WORKs

<Performance testing – Floor spring >

REPORT NUMBER

170628043GZU-001

ISSUE DATE

2017/7/7

[REVISED DATE]

/

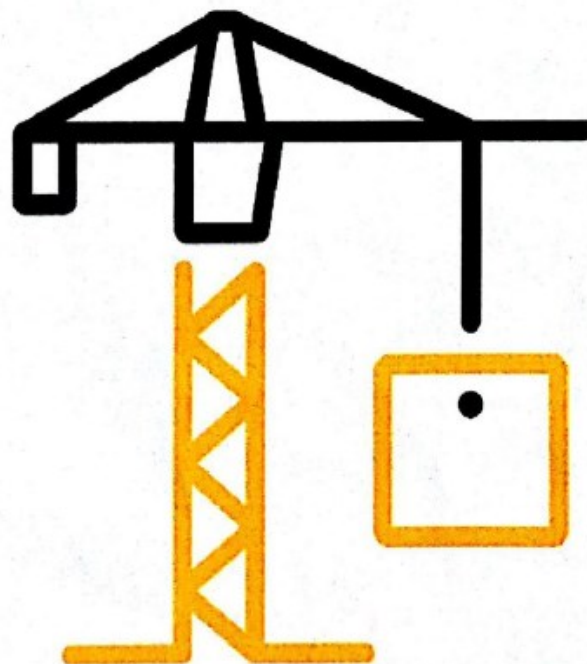
PAGES

6

DOCUMENT CONTROL NUMBER

TTRF-PERF02-EN-a

© 2017 INTERTEK



Test Report

Report Number: 170628043GZU-001

Report Date: 2017/7/7

Sample Information As Declaration:

Product Name:	Floor spring
Tested Model:	JUMP III
Specification:	Power size 2, hold-open function
Model Similarity:	N/A
Sample Quantity:	6
Sample ID:	S150831108-001~006
Date Received:	2015/8/9, 2017/3/31
Date Test Conducted:	2015/8/31 to 2017/6/27
Status As Sample Received:	Sample received was in good condition
Test lab :	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Test lab address:	No. 9 Nan Xiang San Road, GETDD, Guangzhou, China

Conclusion:

For details refer to attached page(s).

The submitted samples were subjected to Clause 4.3 durability test according to EN 1154:1996/A1:2002/AC:2006

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Test Items, Method and Results:

If related to subcontract, the remark* for the test items conducted by a subcontractor.

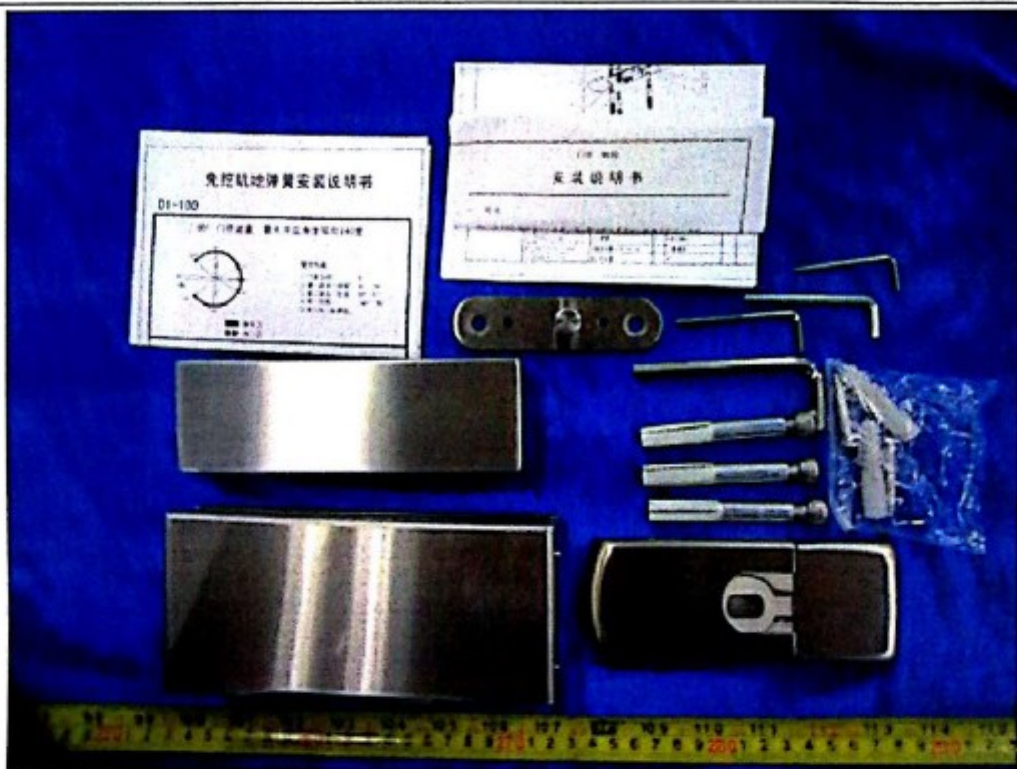
When determining the test result, measurement uncertainty has been considered.

	Requirement - Test	Result - Remark	Verdict				
4	Classification						
4.3	Durability (2 nd) :	8	--				
5	REQUIREMENTS						
5.2	Performance						
	Table 1						
	Door closer Power size	Closing moment				Opening moment 0° to 60°	Door closer efficiency 0° to 4°
		0° to 4°		88° to 92°	Any other angle		
		Nm min.	Nm max	Nm min.	Nm min.		
	1	9	<13	3	2	26	50
	2	13	<18	4	3	36	50
	3	18	<26	6	4	47	55
	4	26	<37	9	6	62	60
	5	37	<54	12	8	83	65
6	54	<87	18	11	134	65	
7	87	<140	29	18	215	65	
5.2.2	Durability The door closer shall be able to close a test door conforming to 6.1.1 and 6.2 from an opening angle of 90°, for a minimum of 500, 000 test cycles :	500 000 cycles				P	
5.2.3	Closing moment After 5000 test cycles and after 500,000 test cycles the measured closing moments shall be not less than the value stated in Table 1 :	After 5 000 cycles 0° ~ 4° : 17,5 Nm 0° to max opening angle: 7,4 Nm after 500 000 cycles 0° ~ 4° : 17,0 Nm 0° to max opening angle: 7,2 Nm				P	
5.2.4	Opening moment After 5 000 test cycles the maximum measured opening moment shall be not more than the value stated in Table 1 for the particular power size of closer being tested. :	between 0° and 60°: 31,8 Nm				P	
5.2.5	Efficiency After 5000 test cycles and after 500,000 test cycles the measured efficiency shall be not less than value stated in Table 1 :	After 5000 cycles: 65,4% After 500,000 cycles: 66,2%				P	

Test Items, Method and Results:

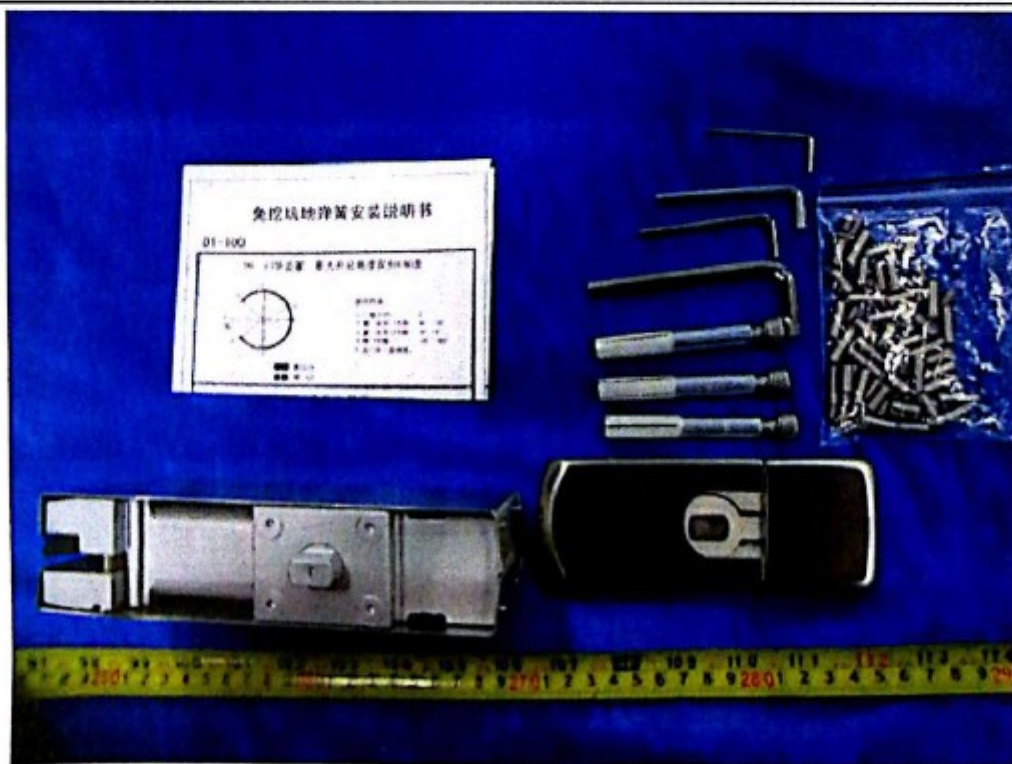
Clause	Requirement - Test	Result - Remark	Verdict
5.2.6	<p>Closing time</p> <p>After 5000 test cycles and after 500,000 test cycles, the closing time, from a door opening angle of 90 degree, shall be capable of adjustment to 3 seconds or less, and 20 seconds or more. After 500,000 test cycles, the closing time set at 5000 test cycles shall not have increased by more than 100%, or decreased by more than 30 % :</p>	<p>Power size 2</p> <p>After 5000 cycles:</p> <p>The adjustable range of closing time from 1"74 to 1'08"42</p> <p>Set closing time: 4"95</p> <p>After 500,000 test cycles: .</p> <p>The adjustable range of closing time from 1"62 to 52"32</p> <p>closing time: 6"14</p>	P
5.2.7	<p>Angles of operation</p> <p>The door closer shall permit the test door to open according to its grade, and on closing, shall control the door from a minimum angle of 70 degree :</p>	<p>After 5000 test cycles</p> <p>Maximum open angle: 140°</p> <p>The controlled angle: 85°</p> <p>After 500,000 test cycles</p> <p>Maximum open angle: 140°</p> <p>The controlled angle: 85°</p>	P
6	<p>Overload performance</p> <p>The door closer shall be capable of withstanding the closing overload tests :</p>	<p>After 5000 and 500 000 test cycles,</p> <p>Power size 2</p> <p>Function normally after applied 18 kg overload weight 10 times overload test.</p>	P
5.2.9	<p>Temperature dependence</p> <p>A set closing time of 5 seconds at an ambient temperature of 20 degree C, shall not increase to more than 25 seconds or decrease to less than 3 seconds when tested at -15 degree C and 40 degree C :</p>	Not applicable	N/A
5.2.10	<p>Fluid leakage</p> <p>Throughout the test programme there shall be no leakage of fluid from the door closer :</p>	Not found any fluid leakage throughout the test	P
5.2.11	<p>Damage</p> <p>Throughout the test programme there shall be no damage to the door closer or its arms that would adversely affect its performance to this standard :</p>	Not found any damage throughout the test	P

Appendix A: Sample received photo



Over view

6



Side view



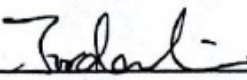
Test Report

Report Number: 170628043GZU-001

Report Date: 2017/7/7

Approved by:

Drafted by:



Name: Jordan Lin
Title: Project Engineer





Name: Yubin Deng
Title: Engineer

Revision:

Report No.	Date	Changes	Author	Reviewer
170628043GZU-001	2017/7/7	First issue	Yubin Deng	Jordan Lin

The End of Report

