深圳市特种设备安全检验研究院
SHENZHEN INSTITUTE OF SPECIAL EQUIPMENT INSPECTION AND TEST
TS7610038-2011

2010191577Z
有效期至2013年12月5日

(2010)(粤)质量认字134号
有效期至2013年12月5日

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TYPE-EXAMINATION REPORT

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Name of production Lift Ascending Car Overspeed Protection Means

Model/Type EC-4026EF-100

Client Shenyang Bluelight Drive Technology Co.,Ltd.

Manufacturer Shenyang Bluelight Drive Technology Co.,Ltd.

SHENZHEN INSTITUTE OF SPECIAL EQUIPMENT INSPECTION AND TEST
GUANGDONG STATION OF ELEVATOR QUALITY SUPERUISION AND TEST

Name	Lift Ascending Car Overspeed Protection Means		
Type Code	EC-4026EF-100		
Sample No.	20120638	Date of manufacture	/
Reducing manner	Braking the shaft	Product No.	/
Type test suspension ratio	1:1	Speed monitoring unit	Overspeed governor
Balance factor	0.4-0.5	Tripping manner	electrical
Reset means	electrical	/	/
Type test suspension ratio 1:1			
Rated speed(m/s)	0.5-8.0	Tripping speed(m/s)	0.63-9.52
Rated load (kg)	1000-4000	Car-side mass(kg)	2800-4020
Counterweight-side mass(kg)	3300-6020	Permissible mass(P+W) (kg)	6100-10040
Explanation	Car-side mass is sum of car mass without any load and mass of some of additional mass at the same side. Counterweight-side mass is sum of counterweight mass and mass of some of additional mass at the same side. Additional mass is sum of the mass of accompanied cable, suspension ropes and compensation chains etc..		
Client	Name	Shenyang Bluelight Drive Technology Co.,Ltd.	
	Address	No.37 Shiji Road,Hunnan New Distrct,Shenyang,China	
Manufacturer	Name	Shenyang Bluelight Drive Technology Co.,Ltd.	
	Address	No.37 Shiji Road,Hunnan New Distrct,Shenyang,China	
Place of inspection	Jiangsu Alpha Lift Co., Ltd.	Sample condition	Normal
Date of inspection	2012-12-22	Type of inspection	Type-Examination
Condition of inspection	Temperature: 8.8℃ humidity: 44%RH	Inspection item	All suitable items
Standard for Inspection	TSG T7001-2005 Regulation for Type Tests of Elevators & GB7588-2003 rules for the construction and installation of electric lifts (eqv. EN81-1:1998)		
Conclusion	By the Type-Examination, the product is confirmed to be in accordance with TSG T7001-2005 Regulation for Type Tests of Elevators & GB7588-2003 Safety rules for the construction and installation of electric lifts (eqv. EN81-1:1998)		

(stamp)

Date of issued: 2012-12-26

Approved by: Reviewed by: Inspected by:

1 Test Result

No	Item No.	Item Description	Inspection result	Conclusion
1	1.1	The compose model of the ascending car overspeed protection means	overspeed governor -brake device	passed
2	1.2	The position where the decelerating element to grip	Braking the shaft	passed
3	2	The tripping speed of the speed monitoring unit	0.575m/s-9.2m/s	passed
4	3.1	The structure of the ascending car overspeed protection means	meet the requirement	passed
5	3.2 the decelerating element	a. Check braking function	meet the requirement	passed
6		b. The maximum of the deceleration of the car in upwards direction	0.484 g_n	passed
7		c. Check the braking function after release	meet the requirement	passed
8		d. Check the sample after test	meet the requirement	passed
9	4.1	The else requirements when the gear to be drive with the outside force	meet the requirement	passed
10	4.2	The electrical protection device	meet the requirement	passed
11	4.4	Check how to reset	meet the requirement	passed

The overspeed governor tripping speed 2m/s is the nominal value on the nameplate of the overspeed governor of the sample elevator.

Explain

2 Test data

2.1 Brake device should be tested four times with the rated speed 0.5m/s,rated load 1000kg, (P+W)= 6100kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(mm)
1	0.50	0.445	0.483	29
2	0.77	0.426	0.484	71
3	0.85	0.389	0.433	95

4	0.71	0.406	0.456	63

2.2 Brake device should be tested one time with the rated speed 4.0m/s,rated load 1250kg, (P+W)= 8860 kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(m)
1	5.62	0.251	0.286	7.64

2.3 Brake device should be tested four times with the rated speed8.0m/s,rated load 4000kg, (P+W)=100040 kg.

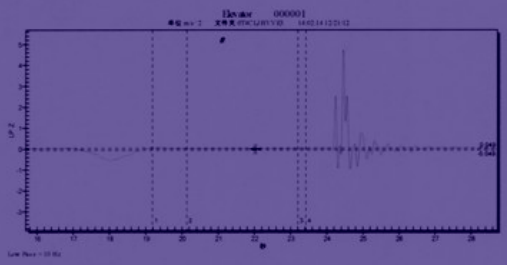
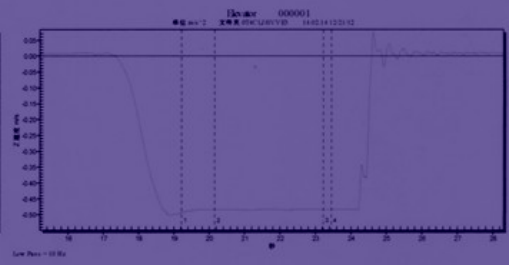
Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(m)
1	9.0	0.120	0.143	45.23
2	9.0	0.115	0.135	45.07
3	9.7	0.114	0.167	49.87
4	9.1	0.096	0.135	47.82

2.4 The car could be stopped after the above tests, the brake device has no permanent deformation...

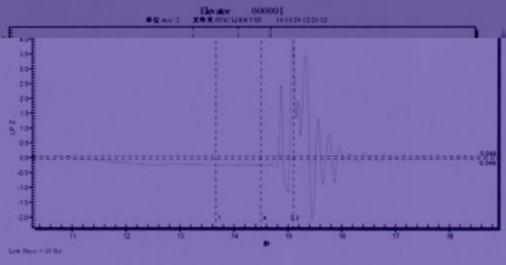
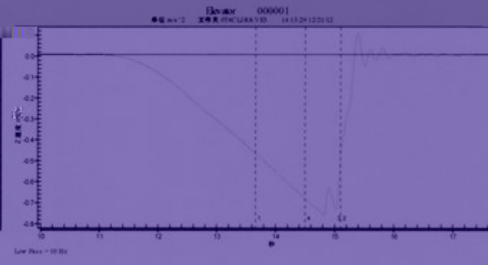
3 Test Graphs

3.1 Brake device should be tested four times with the rated speed 0.5m/s,rated load 1000kg, (P+W)= 6100kg.

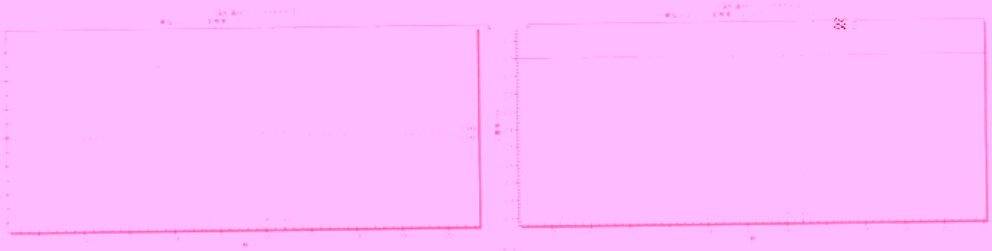
The first time

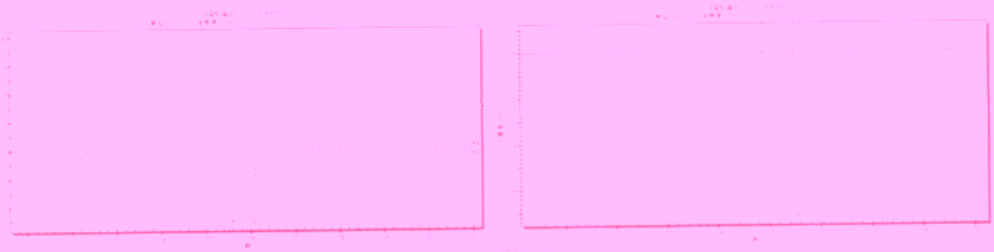
The second time

The third time



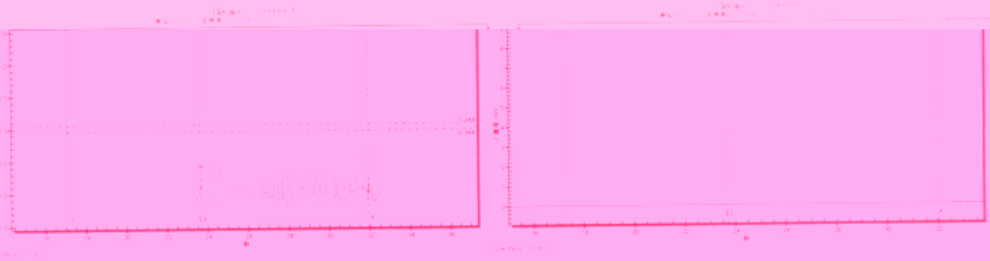
The fourth time



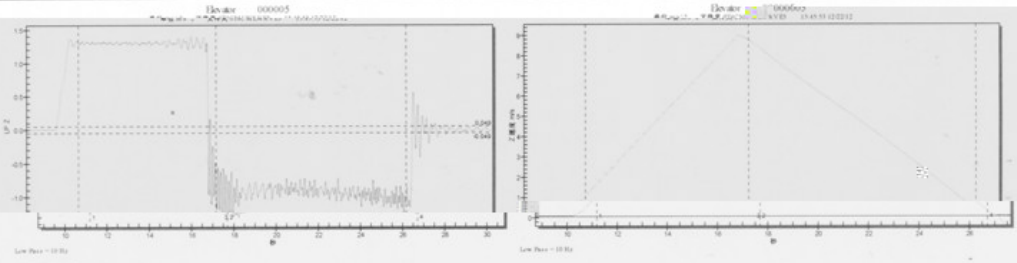
3.2 Brake device should be tested one time with the rated speed 4.0m/s,rated load 1250kg. (P+W)= 8860kg.

3.3 Brake device should be tested four times with the rated speed 6.0m/s,rated load 1400kg. (P+W)=10640 kg.

The first time



The second time



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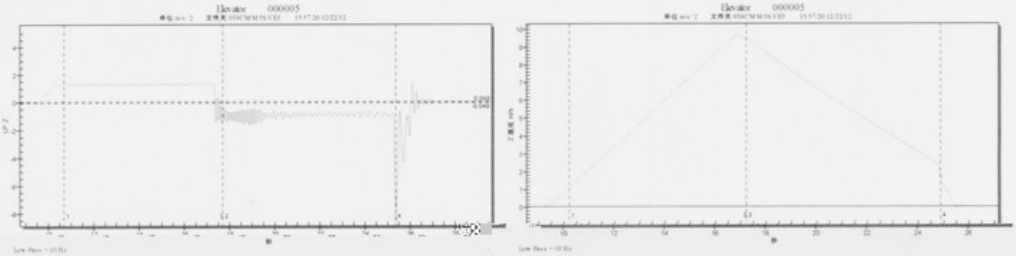
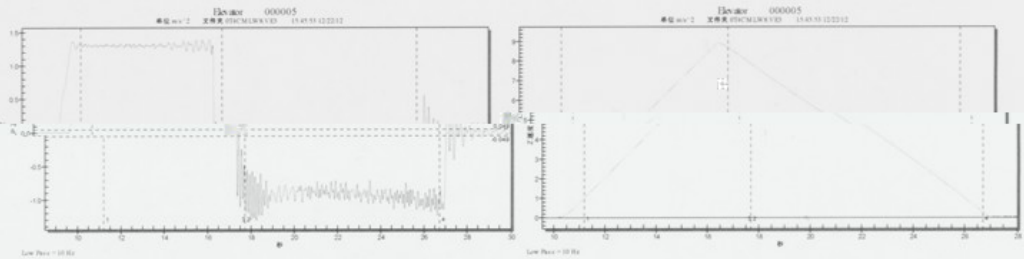
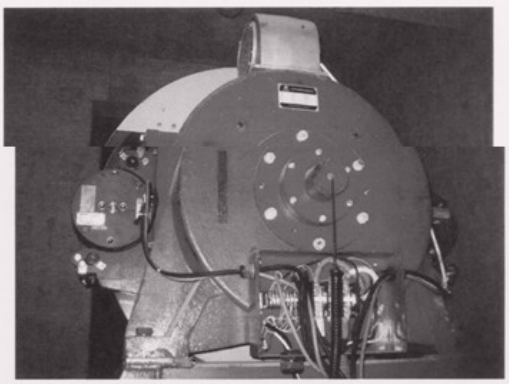


The fourth time



4 Photo of the sample



5 The major instruments

No.	Name	Order code	Remark
1	PMT 测试仪	AM/DT/0306	/

----------Empty in the following----------

深圳市特种设备安全检验研究院

TS7610038-2011

CNAS L0916

TYPE-EXAMINATION CERTIFICATE

Certificate No. TX F350-038-12 0658 Page 1 of 2

Brief Product Type: Traction Gearless Car Overspeed Protection Means, EC-4026EF-100

Name and address of certificate Holder: Shenyang Bluelight Drive Technology Co.,Ltd.

No.37 Shiji Road,Hunnan New Distrct,Shenyang,China

Manufacturer's name & address: Shenyang Bluelight Drive Technology Co.,Ltd.

No.37 Shiji Road,Hunnan New Distrct,Shenyang,China

Date of Submission for Type-Examination: 2012-12-15

Test place: Jiangsu Alpha Lift Co.,Ltd.

Inspection

Table of main parameters

Name	Lift Ascending Car Overspeed Protection Means		
Type code	EC-4026EF-100	Reducing manner	Braking the shaft
Speed monitoring unit	overspeed governor	Type test suspension ratio	1:1
Balance factor	0.4-0.5	Tripping manner	electrical
Reset means	electrical	/	/
Type test suspension ratio 1:1			
Rated speed(m/s)	0.5-2.0	Tripping speed(m/s)	0.75-3.0
Rated load (kg)	1000-4000	Car-side mass(kg)	2800-4020
Counterweight -side mass(kg)	3300-6020	Permissible mass(P+W) (kg)	6100-10040
Explain	The max. tripping speed 9.2m/s is the nominal value on the nameplate of the overspeed governor of the sample elevator.		
Additional remarks	**Principles of coverage for traction machine brakes:** Brakes of the same series of specification are tested in accordance with the applicable ranges of the system mass, rated values of the lifts and speed. The same series of specification" means that in terms of the construction of the brake, the size of components relevant to the amount of the braking force, the action manner and the permissible location for assembly and applicable operation environment, two brakes are exactly identical with each other. Applicable range of system mass, car side mass, counterweight side mass, rated load and rated speed of lifts with different ratios of suspension are determined by the following formula: Applicable range of system mass = range of system mass in type test × actual suspension ratio ÷ type test suspension ratio Applicable range of car side mass = range of car side mass in type test × actual suspension ratio ÷ type test suspension ratio Applicable range of counterweight side mass = counterweight side mass in type test × actual suspension ratio ÷ type test suspension ratio Applicable range of rated load = range of rated load in type test × actual suspension ratio ÷ type test suspension ratio Applicable range of rated speed = range of rated speed in type test × actual suspension ratio ÷ type test suspension ratio Notes: car side mass is the sum of the mass of empty car plus the extra mass in the car side; Counterweight side mass is the sum of the mass of the counterweight plus the extra mass in the counterweight side. Extra mass refers to the total of the mass of trailing cable, suspension cable and possibly that of the compensation cable or chain.		

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