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

CMA 2010191577Z 有效期至2013年12月5日

(2010)(粤)质监认字134号 有效期至2013年12月5日

ilac-MRA CNAS 检测 CNAS L0916

Type-test Report of Special Equipment

Equipment category: Lift Safety Protection Device

Equipment Type: Lift Ascending Car Overspeed Protection Means (speed reducing element)

Product Name: Traction Machine Brake

Product Model: BLB

Applicant: 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

Explanation

1. The Laboratory is a legal inspection body for elevator type examinations authorized by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, with certificate number TS7610038-2017.

2. The Laboratory has obtained the authorization from the China National Accreditation Service for Confirmity Assessment（CNAS）, with the certificate number L0916.

3. The report, if without the appropriative seal for inspection stamped by the Laboratory, shall be invalid.

4. The report, if without the signatures by specific inspector(s), reviser(s) and approver(s), shall be invalid.

5. Any incomplete copy of the report shall be invalid.

6. Any altered version of the report shall be invalid.

7.The inspection department and the inspector(s) shall undertake the technical responsibility for the inspection results concerning the regulated inspection items.

8. The inspection results shall only apply to the inspected samples.

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Type-test Report

Product Name	Traction Machine Brake			
Product Model	BLB			
Main Technical Parameters	Permissive System Mass Range（kg）	1450kg -7800kg	Type-Test Suspension Ratio	2:1
Applicant Name	SHENYANG BLUELIGHT DRIVE TECHNOLOGY CO.,LTD.			
Applicant Address	No.37 Shiji Road,Hunnan New Distrct,Shenyang,China			
Manufacturer Name	SHENYANG BLUELIGHT DRIVE TECHNOLOGY CO.,LTD.			
Manufacturer Address	No.37 Shiji Road,Hunnan New Distrct,Shenyang,China			
Sample (Manufacture) Code	/		Manufacture Completion Date	/
Date of Sample Arrival	Nov., 2013		Sample No.	20130540
Test Date	Nov. 7th, 2013		Sample Status	Normal
Test Type	Type-test		Test Item	All applicable items
Test Location	SHENZHEN INSTITUTE OF SPECIAL EQUIPMENT INSPECTION AND TEST			
Test Conditions	Ambient temperature: 25℃, Relative humidity: 55%			
Standards for Test	Regulation for Type Test of Lifts (2012) GB7588-2003 Safety rules for the construction and installation of electric lifts EN81-1:1998 Safety rules for the construction and installation of lifts-part 1:Electric lifts			
Test Conclusion	With the type-test, it is confirmed that the product is in compliance with the regulations of *Regulation for Type Test of Lifts (2012).* The product is in compliance with related regulations of *GB7588-2003 Safety rules for the construction and installation of electric lifts* and *EN81-1:1998 Safety rules for the construction and installation of lifts-part 1:Electric lifts.*			

Inspected by 李清辉	Agency Approval Code: TS7610038-2017
Reviewed by 陈 [illegible]	(Special Seal for Type-Test Organ Inspection)
Approved by [illegible]	Issuing Date: Nov. 8th, 2013

1、 Main Technical Parameters and Configuration Table

Model & Name of Product	BLB Traction Machine Brake			
Applicable Environment	Indoor			
Overspeed Monitoring Device	Name	Overspeed governor	Type	/
	Tripping Speed Range	0.58 m/s – 3.23m/s		
Brake device	Permissive System Mass Range	1450kg -7800kg	Car-side Mass Range	635 kg -3400kg
	Type of Action Part	Lift Traction Sheave Shaft	Counterweight-side Mass Range	815 kg -4400kg
	Range of Balance Factor	0.4 - 0.5	Type-Test Suspension Ratio	2:1
	Tripping Speed Range of Braking Device	0.58 m/s – 3.23m/s（Lift speed when brake device acts）		
Rope Gripper	Name	/	Installation & Work Position	/
	Model	/	Quantity of Ropes	/
	Model, Specification and Standard of Rope	/		
	Triggering Mode	/	Reset Mode	/
Safety Gear installed on Car or Counterweight	Name	/	Model	/
	Installation Position	/	Triggering Mode	/
	Applicable Rail Model	/	Width of Rail Guiding Surface	/
	Rail Surface Condition	/	Rail Surface Lubrication Condition	/
Brake acted on Traction Sheave or Traction Sheave Shaft	Name	Traction Machine Brake	Model	BLB
	Structure Type	Block type (dividedly installation)	Installation Position	Traction sheave shaft
	Action Mode	Braking the shaft of traction sheave	Triggering Mode	Electrical
Using of Balance Chain or Rope	yes			

Notes: Car-side mass is the sum of the mass of empty car plus the extra mass of 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.

2、 Test Items and Results

No.	Item No.	Test Item	Test Results	Conclusion
1	R2.1 Action Part	Speed reducing element shall act: (1) to the car; or (2) to the counterweight; or (3) on the rope system(suspension or compensating); or (4) on the traction sheave directly or on the same shaft in the immediate vicinity of the sheave Instantaneous safety gear cannot be used as speed reducing element of Ascending Car Overspeed Protection Means.	shaft in the immediate vicinity of the traction sheave	Passed
2	R2.2.1 Independence or Redundancy	(1) The means shall be capable of performing as required in R2.2.2 without assistance from any lift component that, during normal operation, controls the speed or retardation, or stops the car, unless there is builtin redundancy. (2) A mechanical linkage to the car, whether or not such linkage is used for any other purpose, may be used to assist in this performance.	Meet the requirements	Passed
3	R2.2.2 Stopping Test	(1) When speed monitoring element acts, speed reducing element shall cause the car to stop, or at least reduce its speed to that for which the counterweight buffer is designed. (2) The means shall not allow the retardation of the empty car in excess of 1 g_n during the stop phase. (3) After its release, the means shall be in condition to operate. (4) After tests, there shall be no fracture, deformation and other changes(for example, cracks , deformation or wear of the gripping elements, appearance of the rubbing surface)	Meet the requirements	Passed
4	R2.3.1 External Energy	If the means requires external energy to operate, the absence of energy shall cause the lift to stop and keep it stopped. This does not apply for guided compressed springs.	Not applicable	/
5	R2.3.2 Electric Safety Device	The means shall operate an electric safety device if it is engaged. Note R-1: When counterweight overspeed governor-safety gear system is adopted, the electrical safety device can be installed on the counterweight overspeed governor. When traction machine brake is taken as speed reducing element of ascending car overspeed protection means, the electrical safety device can be installed on the speed monitoring element.	Meet the requirements	Passed

No.	Item No.	Test Item	Test Results	Conclusion
6	R2.3.3 Release	The release of the means shall not require the access to the car or the counterweight.	Meet the requirements	Passed
7	R2.3.4 Triggering Mode	When speed reducing element is applied to different trigger modes, it shall take 4 times of trigger action tests of trigger mechanism respectively for other trigger modes. Each test shall have normal and reliable action.	Not applicable	/
8	R2.3.5 Reset Mode	When speed reducing element is applied to different reset modes, it shall take 4 times of reset action tests of reset mechanism complementally for other reset modes. Each test shall have normal and reliable action.	Not applicable	/
9	R2.3.6 Triggering Force	When mechanical-trigger speed reducing element is acted by triggering, the required trigger force shall be no more than the value given by the test applicant.	Not applicable	/
10	R2.3.7 Triggering Distance	When mechanical-trigger speed reducing element is acted by triggering, the required trigger distance shall be no more than the value given by the test applicant.	Not applicable	/
11	R2.4.1 Outdoor Environment	When it is applied to outdoor lift, the adopted measures shall be suitable to used environment and be in compliance with the given requirements of applicant. It shall include the following contents: (1) Antirust measures for the structure; (2) Protection grade of the shell; (3)Ambient temperature protection or assurance measures; (4)Materials selection ; (5) Pollution prevention measures; (6) Selection and arrangement of wires; (7)Waterproof or sealing measures of important components; (8)Other measures according to the service environment requirements.	Not applicable	/
12	R2.4.2 Explosion-proof Environment	When it is applied to explosion-proof lift, it shall take corresponding protective measures and take risk assessment for safety using under explosion-proof environments, so as to confirm the possible dangers of the product in application. In the design and manufacturing, it shall consider the following contents: (1)Explosion-proof measures of the structure; (2)Materials selection; (3) Selection and arrangement of wires; (4) Leakage protection measures; (5)Other measures according to the service environment requirements.	Not applicable	/

3. Stopping Test Data

3.1 Test 4 times with the rated speed 0.5m/s, rated load 450kg, system mass (P+W)= 1450kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(mm)
1	0.573	0.384	0.527	44
2	0.548	0.384	0.526	40
3	0.645	0.400	0.523	53
4	0.652	0.393	0.521	55

3.2 Test once with the rated speed 0.5m/s, rated load 1250kg, system mass (P+W)= 4800kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(mm)
1	0.527	0.209	0.335	68

3.3 Test once with the rated speed 2.5m/s, r ated load 1250kg, system mass (P+W)= 4800kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(mm)
1	3.218	0.326	0.389	1619

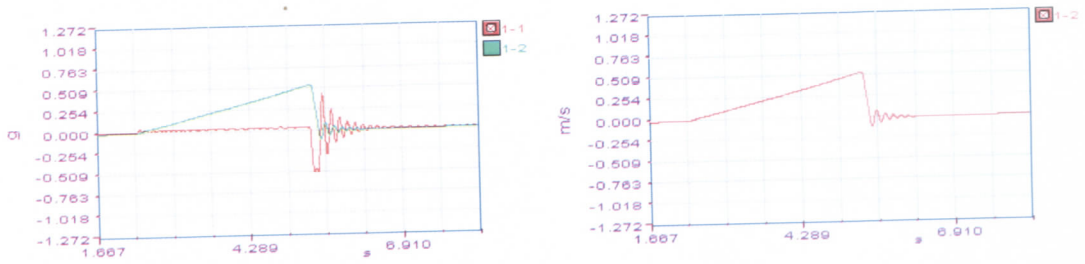
3.4 Test 4 times with the rated speed 2.5m/s, rated load 2000kg, system mass (P+W)=7800kg.

Test No.	The maximum tripping speed (m/s)	The average deceleration (g_n)	The maximum deceleration (g_n)	The braking distance(mm)
1	3.289	0.194	0.246	2842
2	3.041	0.208	0.242	2266
3	3.571	0.198	0.254	3283
4	3.516	0.186	0.232	3388

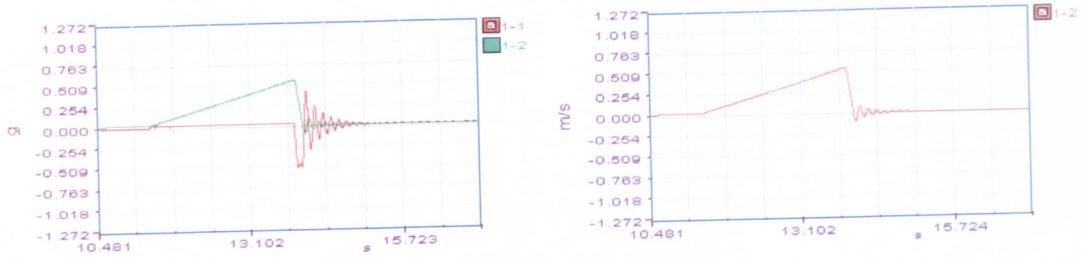
4、Stopping Test Curves

4.1 Test 4 times with the rated speed 0.5m/s, rated load 450kg, system mass (P+W)= 1450kg.

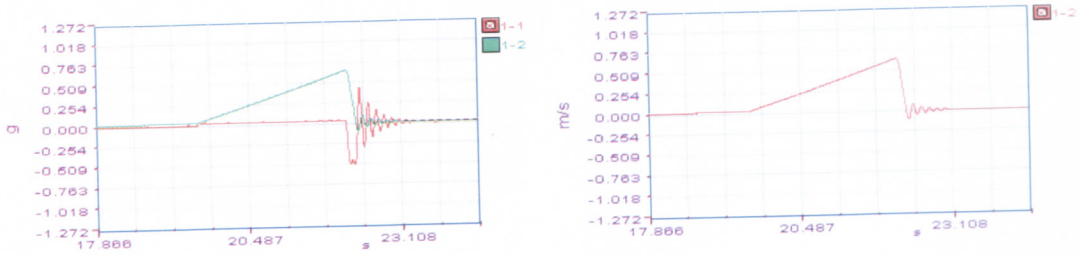
The first test



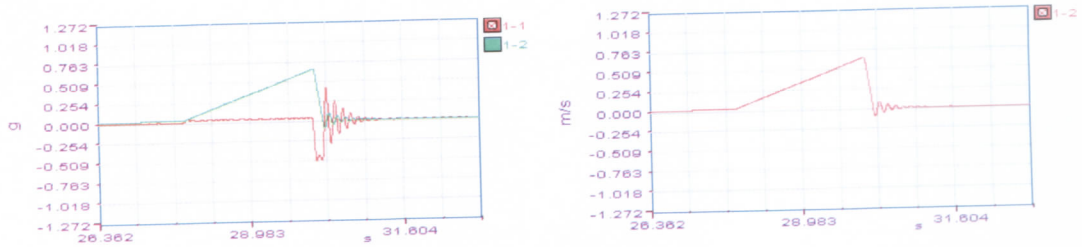
The second test



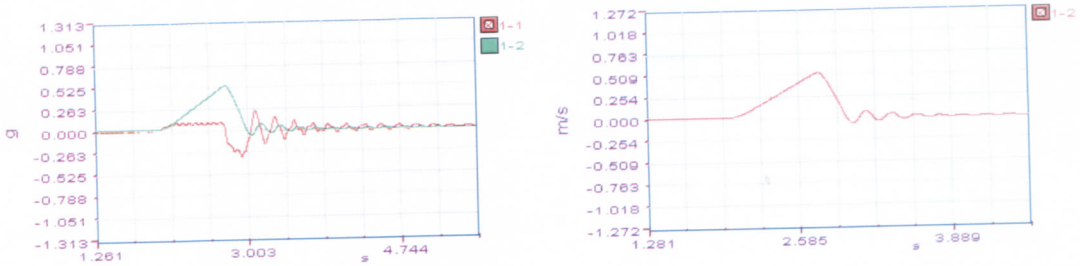
The third test



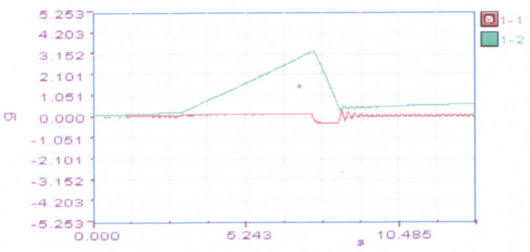
The fourth test

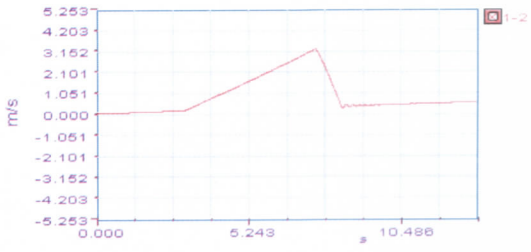


4.2 Test once with the rated speed 0.5m/s, rated load 1250kg, system mass (P+W)= 4800kg.



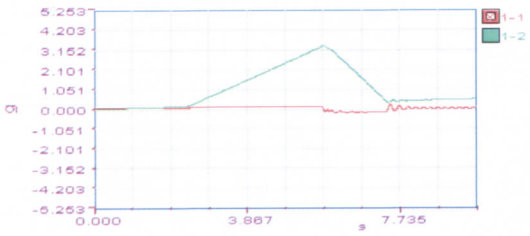
4.3 Test once with the rated speed 2.5m/s, r ated load 1250kg, system mass (P+W)= 4800kg.

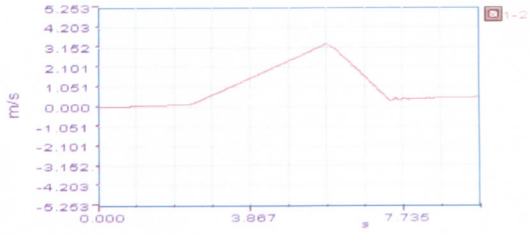




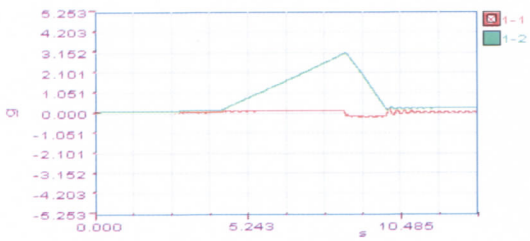
4.4 Test 4 times with the rated speed 2.5m/s, rated load 2000kg, system mass (P+W)=7800kg.

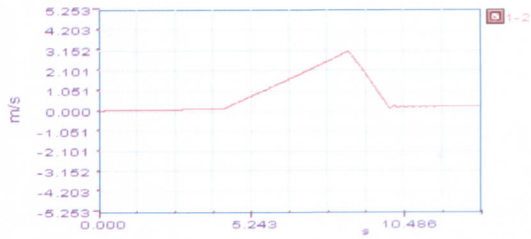
The first test



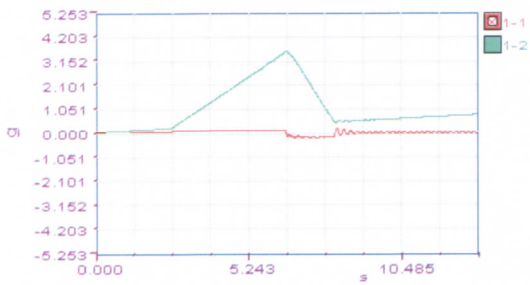


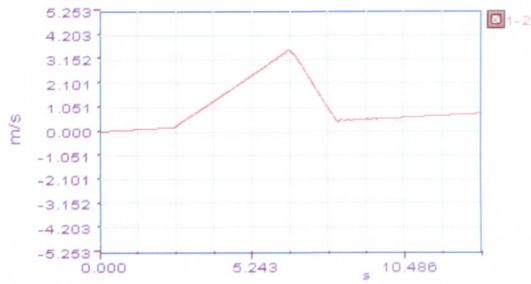
The second test



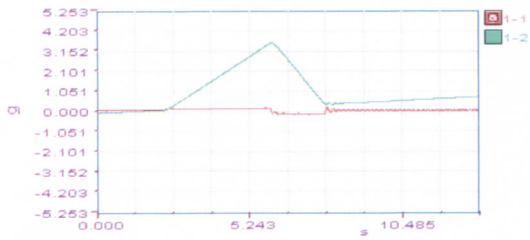


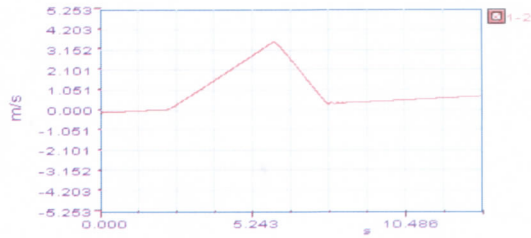
The third test



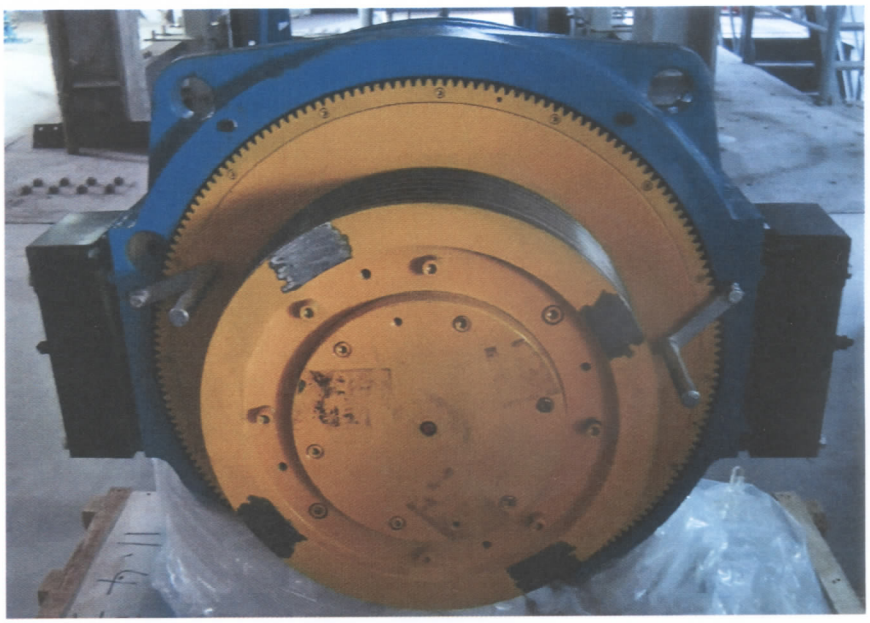


The fourth test





5、Sample photo



6、Main Instruments

No.	Name	Code	Remark
1	Lift Tower	B/DT/0701	/
2	Dynamic Signal Test Analysis System	AE/XS/1011	/

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ilac-MRA CNAS TESTING CNAS L0916

Type -Test Certificate of Special Equipment

No. TSX F350-038-13 0078

Name and Address of Applicant:	SHENYANG BLUELIGHT DRIVE TECHNOLOGY CO.,LTD. No.37 Shiji Road,Hunnan New Distrct,Shenyang,China
Name and Address of Manufacturer:	SHENYANG BLUELIGHT DRIVE TECHNOLOGY CO.,LTD. No.37 Shiji Road,Hunnan New Distrct,Shenyang,China
Equipment Type:	Lift Ascending Car Overspeed Protection Means(speed reducing element)
Product Name:	Traction Machine Brake
Product Model:	BLB
Product Configuration:	See annex F350-038-13 0078
Type-Test Report No.	2013AF0668

Conclusion demonstrated in the certificate covers the following types of specification product (without changing of product configuration): None.

With the type-test, it is confirmed that the product is in compliance with the regulations of *Regulation for Type Test of Lifts (2012).*

The product is in compliance with related regulations of *GB7588-2003 Safety rules for the construction and installation of electric lifts* and *EN81-1:1998 Safety rules for the construction and installation of lifts-part 1:Electric lifts.*

(Special Seal for Type-Test Organ Inspection)

Issuing Date: Nov. 8th, 2013

SHENZHEN INSTITUTE OF SPECIAL EQUIPMENT INSPECTION AND TEST

GUANGDONG STATION OF ELEVATOR QUALITY SUPERVISION AND TEST

Notes: 1.The certificate is for type-test confirmation of definitely covered equipment. It is only responsible for whether the sample is qualified in the type test.

2.The certificate holder has responsibilities to ensure the product is in compliance with standard regulations, and ensure the consistence of product and type tested sample.

Annex: F350-038-13 0078

Product Configuration Table

Product Name	Traction Machine Brake		
Product Model	BLB	Applicable Environment	Indoor
Structure Type	Block type (dividedly installation)	Installation Position	Traction sheave shaft
Action Mode	Braking the shaft of traction sheave	Triggering Mode	Electrical
Application range with type-test suspension ratio of 2:1			
Rated Speed Range（m/s）	0.5 – 2.5	Tripping Speed Range of Overspeed Governor(m/s)	0.58 – 3.23
Rated Load Range （kg）	450- 2000	Car-side Mass Range (kg)	635- 3400
Counterweight-side Mass Range (kg)	815 - 4400	Permissive System Mass Range （P+W）（kg）	1450 - 7800
Additional Notes	**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, rates loads 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 of 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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