







# Special Equipment

# Type Test Report (Lifts)

Classification	:	Safety device	
Varieties	:	Ascending car overspeed protection means	
Product name	:	Ascending car overspeed protection means	
Product model	:	MEKB	
Manufacturer	:	ZheJiang MATO Drive Equipment Co.,Ltd.	
Applicant	:	ZheJiang MATO Drive Equipment Co.,Ltd.	
Category of test	:	First verification	
Test date	:	2018-06-08	





#### **NOTICE**

- 1. The report is the result of the type test according to the "Regulation for type test of elevators" (TSG T7007-2016).
- 2. The report is printed by computer and will be invalid with any modification.
- 3. The report will be invalid without the signature of approve, verify and compile person. It will also be invalid without the certification number, the official and cross-page stamp of the testing unit.
- 4. In the entrusted test, we are only responsible for the sample.
- 5. It is forbidden to copy the report partly without the permission of the testing unit. The partly copied report will be invalid.
- 6. Any dissent to the report must be put forward to the testing unit within 15 working days from receiving it, otherwise, it is considered that you have accepted the report.
- 7. The sample will not be handed back because of normal wear, the others will be dealt with according to the regulation concerned.
- 8. One of the quadruplicated reports is saved by the testing unit, the other three are saved by the applicant.
- 9. Information for contacting to the testing unit:

Shanghai Jiao Tong University Elevator Test Center

Room 210, No.B of Advanced manufacture Building, School of Mechanical Engineering, No.800 of Dongchuan Road, Shanghai, P.R. China

Tel: 86-21-34207035/34207036 Fax: 86-21-34207035/34207036-814



Verifier:

Approver:

## Type Tests Report

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Shanghai Jiao Tong University Elevator Test Center

Date of issue: 2018-06-08

Classifi	cation	Safety device	Varieties	Ascending car overspeed protection means	
Product name		Ascending car overspeed protection means	Product model	MEKB	
Product number		M051700989	Date of manufacturing	2018-03-15	
Applicable product models		/			
Applicant		ZheJiang MATO Drive Equipment Co.,Ltd.			
Registered address of applicant		workshops 1#, building 3, No.2688 West Nianfeng Road, Nanxun District, Huzhou City, Zhejiang Province			
Manufa	cturer	ZheJiang MATO Drive Equipment Co.,Ltd.			
Registered address of manufacturer Manufacturing address		workshops 1#, building 3, No.2688 West Nianfeng Road, Nanxun District, Huzhou City, Zhejiang Province workshops 1#, building 3, No.2688 West Nianfeng Road, Nanxun District, Huzhou City, Zhejiang Province			
Location of test		Shanghai Jiao Tong University Elevator Test Center			
Status of sample		OK	Test date	2018-06-08	
Test conditions		OK	Category of test	First verification	
Codes or rules compliant	TSG T70	G T7007-2016,GB7588-2003+XG1-2015,EN 81-20:2014,EN 81-50:2014			
Test conclusion	Tests passed				
Experimenter: Pt Date: 70/80608  Approved certificate serial number: TS7610022-2021					

Date: 2 18 - 16 - 18

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#### 1. Main technical parameters and configurations

Applied environment		Indoors	Explosion-proof type	/
Range of sy	stem mass permitted	1350~3600(kg)	Range of rated load	320~1050(kg)
	Style	Traction machine brake	Range of weight of car	550~1500(kg)
Range of	balance coefficient	0.4~0.5	Test traction ratio	2:1
The speed range of the brake member during operation		/	Use of balance Chain or rope	Can be used
Speed reducing	Name	Overspeed governor	Model	/
elements	Rated speed	≤2.5m/s	Acted speed	≤3.55m/s
	Model	1	Acted position	/
Rope gripper	Elastic element type	/	Elastic component specifications	/
	Tripping method	/	Released method	/
	Friction element shape	/	Friction element material	/
	Style of rope and applied standard	/	Number of ropes	/
	Name	/	Model	/
	Туре	/	Material of guide	1
	Pulling way	/	Elastic element type	/
Safety gear installed in car or counterweight	Clamping (brake) element type	1	Material of clamping (braking) elements	/
	Number of clamping (braking) elements	/	Friction surface dimensions of clamping (braking) elements	1
	Hardness of guide rails' surface(HB)	/	Width of guide rails' guiding surface (mm)	/
	Processing method of the guide rails' surface	Ī	Condition of the guide rails' surface	/
	Model	MEKB	Structure	Block
Brakes acted on the traction sheave	Acted position	On the shaft of the traction sheave	Number	2
	Friction element material	Asbestos-free carbon fibers MTA469C1	Tripping method	Act in the event of supply loss
	Elastic element type	Cylindrical coil spring	Diameter of brake wheel	Ф500mm



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2. Technical documents review of the example

		_		
No.	Item number	Items	Results	Conclusion
1	Q5.1	Copies of certificates or test reports	Pass	Ok
2	Q5.2	Technical Parameters	Pass	Ok
3	Q5.3	Main design pattern	Pass	Ok
4		Applicable product technical information	Inapplicability	/

3. Reviews for technical documents of the sample

No.	Item number	Items	Results	Conclusion
1	Q6.1	Acted position	On the shaft of the traction sheave	Ok
2	Q6.2.1	Stop test	Pass	Ok
3	Q6.3	External energy to operate	Pass	Ok
4	Q6.4	Electric safety device	Pass	Ok
5	Q6.5	Release after tests	Pass	Ok
6	Q6.6	Tripping method	Electrical trigger	/
7	Q6.7	Released method	Automatic reset	/
8	Q6.8	Tripping force(N)	Electrical trigger	/
9	Q6.9	Tripping distance(mm)	Electrical trigger	/
10	Q6.10	Nameplate	Pass	Ok



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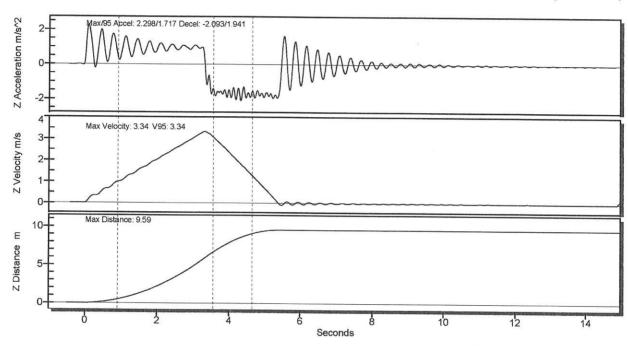
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#### Annex

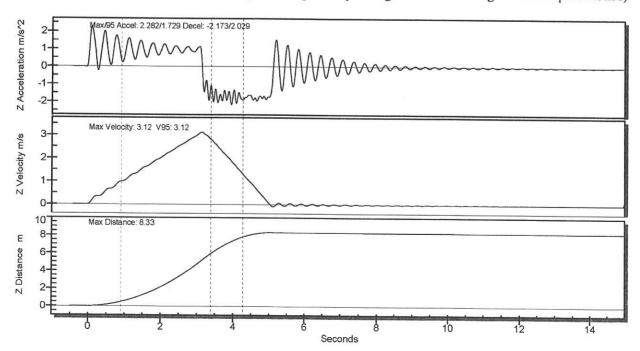
#### 1.Data plot

Plot of deceleration for the 1st free fall test

(Traction ratio 2:1,car mass 1500kg,counterweight 2000kg corresponding rated load 1050kg and rated speed 2.5m/s)



 $Plot\ of\ deceleration\ for\ the\ 2^{nd}\ free\ fall\ test$  (Traction ratio 2:1,car mass 1500kg,counterweight 2000kg corresponding rated load 1050kg and rated speed 2.5m/s)



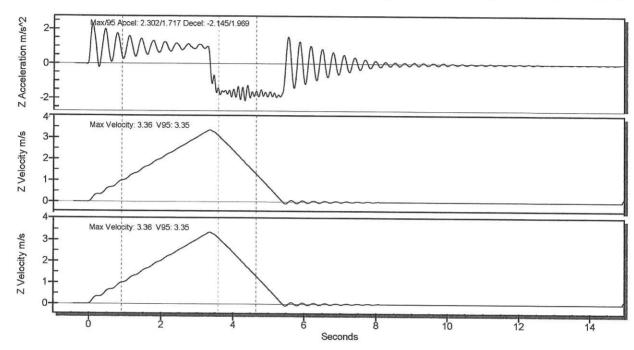


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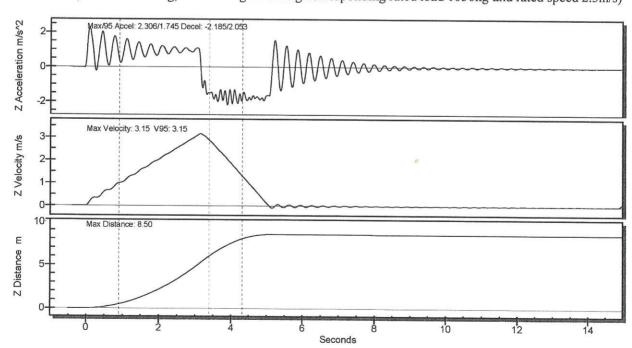
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Plot of deceleration for the 3<sup>rd</sup> free fall test

(Traction ratio 2:1,car mass 1500kg,counterweight 2000kg corresponding rated load 1050kg and rated speed 2.5m/s)



Plot of deceleration for the 4<sup>th</sup> free fall test (Traction ratio 2:1,car mass 1500kg,counterweight 2000kg corresponding rated load 1050kg and rated speed 2.5m/s)

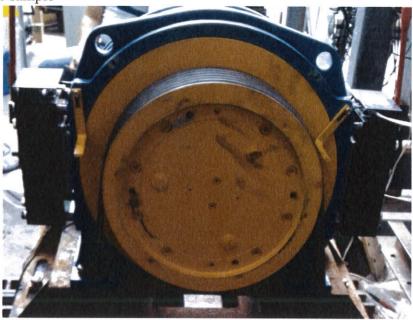




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2.Photograph of the sample



#### 3.Note:

- 3.1 The system mass includes not only the mass of the car and the counterweight, but also the mass of traction rope, compensation chain /rope and traveling cable. In the test, their total mass are 100kg.
- 3.2 The figures of displacement and velocity, not responses of direct tests, are the results of deceleration's integral.
- 3.3 This type is a consistency verification, selected the rules of elevator type test(TSG T7007-2016). The provisions of part of the project were tested.
- 5. Explanation of modification: No.