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Report No. T14-B370-23-228

Special Equipment Type Test Report (Lift)

Category of equipment: Lift major component

Type of equipment: Driving machine

Name of product: Lift traction machine

Model of product: WYT-Y

Applicant: Shenyang Bluelight Drive Technology Co., Ltd.

Manufacturer: Shenyang Bluelight Drive Technology Co., Ltd.

Category of type test: First test

Test date: 2023-07-25

NETEC Inspection and Testing (Beijing) Co., Ltd.
National Elevator Inspection and Testing Center

NOTICE

1. Type test report is based on the *Regulation for type tests of lifts* (TSG T7007—2022).
2. *NETEC Inspection and Testing (Beijing) Co., Ltd.* is the impersonal entity of *National Elevator Inspection and Testing Center*, the abbreviation and logo of *NETEC Inspection and Testing (Beijing) Co., Ltd.* (*National Elevator Inspection and Testing Center*) both are NETEC.
3. Type test report is invalid without signatures of test, verification, approval, without approval certificate of type test institute number or issue date, without stamping the Test Report Specialized Stamp or paging seal.
4. Each type test certificate (hereinafter referred to as the certificate) issued by NETEC is corresponding to at least one type test report with the test conclusion is certificated.
5. Certificate is invalid without stamping the *Test Report Specialized Stamp* or issue date.
6. All contents of the test report and certificate issued by NETEC shall be printed out by computer except for the signature of the person in charge. Handwriting or any alteration is invalid, and any partial copy is also invalid.
7. Type test report is only valid for the sample. Applicant is responsible for the authenticity of the information and technical documents of the sample.
8. Different opinions about type test conclusion should be reported to NETEC in writing within 15 workdays since receiving of type test report or certificate.
9. Paper version of the test report and certificate issued by NETEC in triplicate, NETEC files one, applicant keeps the other two.
10. Type test report and certificate should be subject to the Chinese version, while the English version is for reference only.

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Category of equipment	Lift major component		
Type of equipment	Driving machine		
Name of product	Lift traction machine		
Model of product	WYT-Y		
Product number	S23042000	Manufacturing date	2023-04-21
Unified social credit code of applicant		91210112715754447D	
Applicant	Shenyang Bluelight Drive Technology Co., Ltd.		
Address of applicant	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Unified social credit code of manufacturer		91210112715754447D	
Manufacturer	Shenyang Bluelight Drive Technology Co., Ltd.		
Address of manufacturer	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Manufacturing address	NO.37 Shiji Road, Hunnan New District, Shenyang, China		
Test place	NETEC		
Receiving date	2023-05-04	Sample number	Y2023-0501
Sample state	No abnormal	Category of type test	First test
Test date	2023-07-25		
Test condition	Ambient temperature: 29.3 °C ~36.7 °C , relative humidity: 30%~37%, supply voltage: AC 382 V		
Test basis	Regulation for Type Test of Lifts (TSG T7007—2022) GB/T 7588.1—2020, GB/T 7588.2—2020 EN 81-20:2020, EN 81-50:2020		
Test conclusion	The type test is certificated.		
Reported by: 杨国栋	Approval certificate of type test institute No. TS7610014—2025 Issue date: 2023-08-14		
Verified by: 王红格			
Issued by: 李列			

1 Technical parameters and configuration of the sample

Name of product		Lift traction machine
Model of product		WYT-Y
Structure type of driving machine		Horizontal type, no reducer device, driving sheave cantilever support, the output shaft is supported in two points
Rated speed		8.00 m/s
Rated output torque		1650 N·m
Allowed radial load of driving sheave shaft		12000 kg
Centerline height of output shaft (applicable to machine without gear reducer)		330 mm
Manual emergency operation device		Releasing brake handle + hand winding wheel
Minimum angle between fixed bottom and horizontal plane (applicable to machine with drum type brake and tilting arrangement)		/
Motor	Model	WYT-Y4.0F2
	Structure type	Three phase AC permanent magnet synchronous inner rotor
	Rated power	54.9 kW
	Rated rotate speed	318 r/min
	Rated voltage	AC 380 V
	Rated current	123.0 A
	Rated frequency	53.0 Hz
	Insulation grade	F
	Duty	S5 40%
	Protection degree	IP41
	Mode of overload protection	Over-heat protection
	Starts per hour	240 F/h
	Explosion protection type	/
	Explosion protection grade	/
	Manufacturer	Shenyang Bluelight Drive Technology Co., Ltd.

1 Technical parameters and configuration of the sample (continued)

Gear reducer	Structure type	/
	Reduction gear ratio	/
	Reduction steps	/
	Center (cone) distance	/
	Shaft angle	/
	Specifications of lubricating oil	/
	Material of transmission interface	/
Driving sheave	Number of suspension mean	6
	Type of grooves/ Shape of traction surface	Semicircular groove with cut
	Diameter of suspension mean	12 mm
	Heat treatment	Anneal
	Pitch diameter	480 mm
	Mode of wrapping	Double-wrap
	Material of traction surface (applicable to coated belt)	/
	Material mark of traction surface coating or plating (applicable to coated belt)	/
	Hardness range of traction surface (applicable to coated belt)	/
	Applicable coated belt model	/
	Applicable coated belt width	/
	Applicable coated belt thickness	/
	Material of outer coating for coated belt	/

1 Technical parameters and configuration of the sample (continued)

Brake	Model	DZE
	Action position	Traction sheave
	Numbers and structure type	2 sets, brake arm drum type
	Insulation grade	F
	Rated working voltage of electromagnet	DC 200 V
	Diameter of brake sheave or inner and outer diameter of friction part of brake disc	620 mm
	Explosion protection type	/
	Explosion protection grade	/
	Rated working pressure of hydraulic brake release device	/
	Rated sustaining voltage/current of electromagnet	DC 100 V
Applicable driving system	Speed control mode	AC variable frequency control
	Type of speed controller	Frequency inverter
	Type of speed feedback device	Rotary encoder

2 Check the technical documents

No.	Items No.	Check items	Check results	Conclusion
1	X5.1	Conformity certificate document and relative technical documents	Comply with requirements	Pass
2	X5.2	Calculation documents	Comply with requirements	Pass
3	X5.3	Major design drawings	Comply with requirements	Pass

3 Check and test the sample

No.	Items No.	Check and test items	Check and test results	Conclusion
1	X6.1.1	Insulation resistance of stator winding	Comply with requirements	Pass
2	X6.1.2	Withstand voltage test of motor	Comply with requirements	Pass
3	X6.2.1	Type of the braking system	Comply with requirements	Pass
4	X6.2.2	All mechanical components of the brake installed at least in two sets	Comply with requirements	Pass
5	X6.2.3	Braking pressure of the braking system	Comply with requirements	Pass
6	X6.2.4	Braking torque of lift machine	Comply with requirements	Pass
7	X6.2.5	Activating and releasing voltage of electromagnet brake	Rated voltage: DC 200 V Activating voltage: DC 86 V, 43.0%U _{-rated} Comply with requirements	Pass
			Maximum releasing voltage: DC 32 V, 16.0%U _{-rated} Comply with requirements	
			Minimum releasing voltage: DC 29 V, 14.5%U _{-rated} Comply with requirements	
8	X6.2.6	Response time of activating of the brake of lift machine	Comply with requirements	Pass
9	X6.2.7	Withstand voltage test of brake coil	Comply with requirements	Pass
10	X6.2.8	Requirements for the belt transmission	/	/
11	X6.2.9	Reliability test of brake	With test report Comply with requirements	Pass
12	X6.2.10	Brake noise of lift machine	Noise dB(A): Front: 63.6 Back: 62.4 Left: 62.1 Right: 61.9 Upside: 61.5 Background: 43.6 Comply with requirements	Pass
13	X6.2.11	Manually release the brake	Comply with requirements	Pass

No.	Items No.	Check and test items	Check and test results	Conclusion
14	X6.3.1	Working surface run-out in normal direction of the surface of the traction sheave	Comply with requirements	Pass
15	X6.3.2	The pitch diameter difference of each groove of the traction sheave	Comply with requirements	Pass
16	X6.3.3	Hardness of the grooves of the traction sheave of the machine	Hardness HBW: 1) 233 2) 230 3) 232 4) 243 Deviation: 13 Comply with requirements	Pass
17	X6.4	Gear reducer	/	/
18	X6.5.1	Temperature rise	Motor stator winding temperature rise: 86.6 K Brake coil temperature rise: 53.7 K Comply with requirements	Pass
19	X6.5.2	Running noise of the driving machine	Noise dB(A): Front: 61.3 Back: 60.7 Left: 60.3 Right: 59.6 Upside: 59.2 Background: 43.6 Comply with requirements	Pass
20	X6.5.3	Vibration speed with no load of the lift machine for traction lift	Comply with requirements	Pass
21	X6.5.4	Speed	Rated speed v_{rated} : 8.00 m/s Running speed: 8.015 m/s 100.2% v_{rated} Comply with requirements	Pass
22	X6.5.5	Appearance	Comply with requirements	Pass
23	X6.5.6	Nameplate of the driving machine	Comply with requirements	Pass
24	X6.5.7	Outdoor environment requirements	/	/
25	X6.5.8	Explosion proof environment requirements	/	/

4 Commission test items by the applicant

No.	Items No.	Test contents and requirements	Test results	Conclusion
1	GB/T 7588.1— 2020 §5.9.2.2.2.6	The brake pad shall be incombustible. Near the brake, there should be warning information about the replacement of brake pads after wear (such as inspection methods, replacement conditions, etc.).	Comply with requirements	Pass

5 Sample photo



6 Change information of type test report

When the name or address of the applicant and the overseas manufacturer changed, the applicant should submit the change application and the corresponding supporting information to NETEC. After confirmation, NETEC should indicate the change on the attached page “Change information of type test report”, take back the original type test certificate and issue a new one.
