

Test Report

Report No. INT NET 25-072

Name of product: Lift traction machine
Model of product: WYT-L
Applicant: Shenyang Bluelight Drive Technology
Co., Ltd.
Manufacturer: Shenyang Bluelight Drive Technology
Co., Ltd.

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

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Name of product		Lift traction machine	
Model of product		WYT-L	
Product number		S25050009	Manufacturing date 2025-04-05
Applicant	Name	Shenyang Bluelight Drive Technology Co., Ltd.	
	Address	No.37 Shiji Road, Hunnan New District, Shenyang, China	
Manufacturer	Name	Shenyang Bluelight Drive Technology Co., Ltd.	
	Address	No.37 Shiji Road, Hunnan New District, Shenyang, China	
Manufacturing address		No.37 Shiji Road, Hunnan New District, Shenyang, China	
Test place	NETEC Laboratory		
Receiving date	2025-12-23	Sample No.	Y2025-1213
Sample state	No abnormality observed	Sample amount	1
Test date	2026-01-19		
Test condition	Ambient temperature: 12.8 °C, relative humidity: 21%		
Test basis	EN 81-20: 2020 Safety rules for the construction and installation of lifts — Lifts for the transport of persons and goods Part 20: Passenger and goods passenger lifts EN 81-50: 2020 Safety rules for the construction and installation of lifts — Examinations and tests Part 50: Design rules, calculations, examinations and tests of lift components		
Test conclusions	The test results of traction machine comply with the requirements of the standards in the test basis.		
Tested and reported by:		王红格	Date: 2026-04-07
Verified by:		苏建	Date: 2026-04-07
Approved by:		孙建	Date: 2026-04-07

1. Technical parameters and configuration of the sample

Name of product		Lift traction machine
Model of product		WYT-L
Structure type of driving machine		Horizontal type, no reducer device, driving sheave cantilever support, the output shaft is supported in two points
Rated speed		7.00 m/s
Rated output torque		2000 N·m
Allowed radial load of driving sheave shaft		7000 kg
Centerline height of output shaft (applicable to machine without gear reducer)		280 mm
Manual emergency operation device		Releasing brake handle
Minimum angle between fixed bottom and horizontal plane (applicable to machine with drum type brake and tilting arrangement)		/
Motor	Model	WYT-LEN3.5P400
	Structure type	Three phase AC permanent magnet synchronous internal rotor
	Rated power	70 kW
	Rated rotate speed	334 r/min
	Rated voltage	AC 380 V
	Rated current	148.2 A
	Rated frequency	55.7 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	10
	Type of grooves/ Shape of traction surface	Undercut U grooves
	Diameter of suspension mean	10 mm
	Heat treatment	Annealing
	Pitch diameter	400 mm
	Mode of wrapping	Single-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	BLS
	Action position	Traction sheave shaft
	Numbers and structure type	2 sets, disc type
	Insulation grade	F
	Rated working voltage of electromagnet	DC 110 V
	Diameter of brake sheave or inner and outer diameter of friction part of brake disc	Internal diameter: 330 mm External diameter: 392 mm
	Explosion protection type	/
	Explosion protection grade	/
	Rated working pressure of hydraulic brake release device	/
	Rated sustaining voltage/current of electromagnet	DC 110 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 Test items and results

No.	Standard No./ Items No.	Test contents and requirements	Test result
1	EN 81-20: 2020 §5.9.1.2	Effective protection shall be provided for accessible rotating parts of machinery, in particular: a) keys and screws in the shafts; b) tapes, chains, belts; c) gears, sprockets and pulleys; d) projecting motor shafts. Exception is made for traction sheaves with protections according to 5.5.7, hand winding wheels, brake drums and any similar smooth, round parts. Such parts shall be painted yellow, at least in part.	Comply with requirement
2	EN 81-20: 2020 §5.9.2.2.1.2	The braking system shall have an electro-mechanical brake (friction type), but may, in addition, have other braking means (e.g. electric).	Comply with requirement
3	EN 81-20: 2020 §5.9.2.2.2.1	This brake on its own shall be capable of stopping the machine when the car is travelling downward at rated speed and with the rated load plus 25%. In these conditions the average retardation of the car shall not exceed that resulting from operation of the safety gear or stopping on the buffer. All the mechanical components of the brake which take part in the application of the braking action on the braking surface shall be installed at least in two sets. If one of the brake sets is not working due to failure of a component a sufficient braking effort to decelerate, stop and hold the car, travelling downwards at rated speed and with rated load in the car and upward with empty car shall continue to be exercised. Any solenoid plunger is considered to be a mechanical part, any solenoid coil is not.	Comply with requirement
4	EN 81-20: 2020 §5.9.2.2.2.2	The component on which the brake operates shall be coupled to the traction sheave or drum or sprocket by direct and positive mechanical means.	Comply with requirement

No.	Standard No./ Items No.	Test contents and requirements	Test result
5	EN 81-20: 2020 §5.9.2.2.2.4	The brake shoe or pad pressure shall be exerted by guided compression springs or weights.	Comply with requirement
6	EN 81-20: 2020 §5.9.2.2.2.5	Band brakes shall not be used.	Comply with requirement
7	EN 81-20: 2020 §5.9.2.2.2.6	Brake linings shall be incombustible.	Comply with requirement
8	EN 81-20: 2020 §5.9.2.2.2.7	The machine shall be capable of having the brake released by a continuous manual operation. The operation can be mechanical (e.g. lever) or electrical powered by an automatically rechargeable emergency supply. The emergency supply shall be sufficient to move the car to a landing taking into consideration other equipment connected to this supply and the time taken to respond to emergency situations. A failure of the release of the manual operation shall not cause a failure of the braking function. It shall be possible to test each brake set independently from outside of the well.	Comply with requirement
9	EN 81-50: 2020 §5.11	Traction shall be ensured at all times taking into account: — normal travel; — loading the car at floor level; and — retardation due to an emergency stop. If the lift machine torque is sufficiently high to raise the car, considerations shall be given to allow slip to occur if the car or the counterweight is stalled in the well for any reason.	Calculation documents reviewed. Comply with requirement

3 Sample photo



4 Test photo



5 List of test equipment

No.	Model	Test equipment	Equipment No.	Next calibration
1	Testo 608-H2	Thermohygrometer	7721	2026-08-21
2	CABR-JDYY-V4.0	Traction machine test equipment	0302080	2026-11-11

END OF TEST REPORT