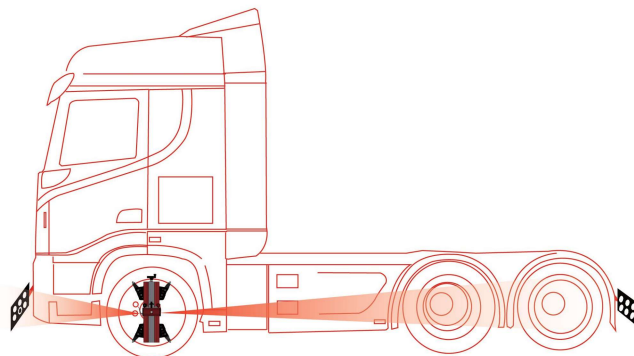
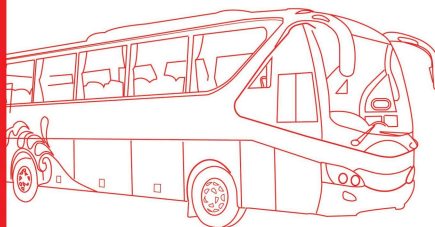




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To ensure satisfaction with the equipment, please communicate with our sales staff.

Ver.2023.11



CE TÜV ISO



Focus on Wheel & Axle Inspection Technology

26 Years

The pioneer of China's commercial vehicle wheel & axle alignment system



CONTENTS

● 1—4	Company	Company Profile Company Qualification Technical History Service System
● 5—34	Product	Commercial vehicle alignment system Eagle Eye Series 3D Series CCD Series Commercial vehicle ADAS calibration system Commercial vehicle Lift Mobile Type Wireless Commercial Vehicle Lift Mobile Type Wired Commercial Vehicle Lift Passway type scissor lift Four post commercial vehicle lift Commercial vehicle tire changer Horizontal type truck tire changer Vertical type tire changer Wheel balancer
● 35-36	Customer	Commercial Vehicle Manufacturer Tyre Dealers Professional Wheel &Axle Inspection Workshops



Brief Introduction

Yantai Haide Science and Technology Co., Ltd. was established in 1998 which is a national high-tech enterprise specializing in the research and development, production, sales and training of automobile wheel & axle inspection equipment. The company always adheres to the business philosophy of specialization, serialization, and matching. Create a world-class testing equipment brand with wheel inspection as the core and maintain a long-term lead.

SANYING now has two major production bases, covering an area of 43,500 square meters and a building area of 35,000 square meters. With more than 300 employees, it has a first-class technology research and development center integrating optical, electrical, mechanical, and software technology. Among them, there are more than 30 R&D personnel with doctor, master and bachelor's degree. A complete sales network and a team of service engineers with first-class professional standards are all over the world. We also established the first domestic wheel & axle testing equipment training center.

SANYING has provincial technology center R & D strengthening facilities, long-term adhere independent R & D, independent production business philosophy, always put product technology R & D, lean production, quality control in the first place. Adhering to the unlimited innovation culture, constantly introduce international advanced production equipment, first-class production line and management system. All kinds of products have complete intellectual property rights, and have obtained more than 70 national inventions, utility model patents and international authorized CE.

Yantai Haidesanying Intelligent Manufacturing CO., LTD is a subsidiary of Yantai Haide Science and Technology Co., Ltd. SANYING is the company's commercial vehicle testing equipment brand, the product line covers commercial wheel axle alignment system, commercial vehicle ADAS calibration system, commercial vehicle lift, tire changer, wheel balancer, commercial vehicle chassis adjustment parts and other products, and in 2020, the world's leading new generation of camera-type "Eagle Eye" series products will be launched. Provide customers with better product experience and more professional technical services. More complete solutions to fully meet the customer's one-stop service needs.

After more than 20 years of technical experience accumulation, the company has reached a designated strategic partnership with many automobile manufacturers, 4S stations, brand tires, oil products, and fast repair chain enterprises around the world, and strives to expand and optimize the domestic and foreign sales network, and many products have been exported to more than 110 countries and regions in the Americas, Europe, Asia, etc., and are highly praised by the industry and customers.

SANYING continues to lead the technical trend of the industry, and is the standard and service model of the commercial vehicle aftermarket!



Cultural exhibition hall 1. Science and technology innovation 2. Company history 3. Haide wheel aligner

Enterprise qualification



Technical History

The development of communications products symbolized our company technology enter the latest filed.

The commercial vehicle alignment system products have been comprehensively upgraded with the double-axle detection function, and the dual-front axle correction system has been successfully developed and introduced to the market.

The mobile laser alignment special measuring computer was successfully developed and introduced to the market.

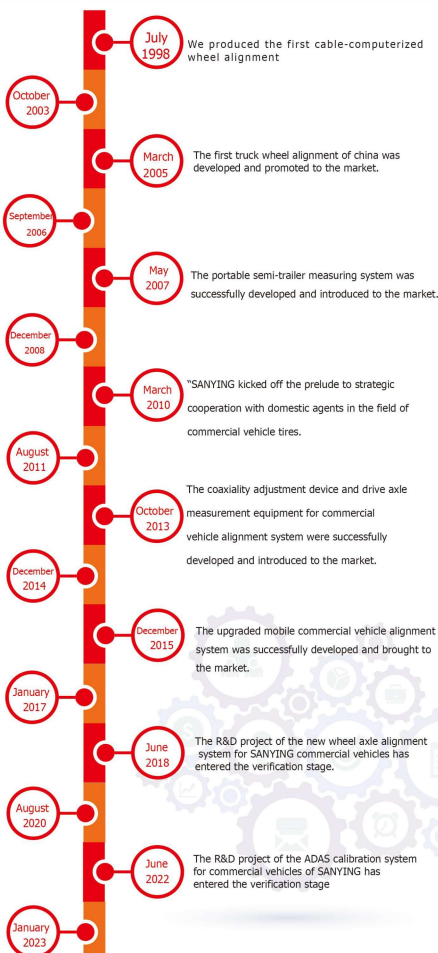
Successfully held the "2011 China Commercial Vehicle After-sales Service List" with Commercial Vehicle Magazine.

The trailer computer detection and positioning device was successfully developed and introduced to the market.

The new third-generation communication module positioning system for commercial vehicles was successfully developed and launched to the market.

The "Camera-Type Eagle eye" series of products was officially launched to the market.

SANYING Commercial Vehicle's ADAS calibration system was officially launched on the market



Service System



service purpose:
timely, fast, and enthusiastic proactive serviceSave customer's labour time and service cost

Service guarantee:
Remote control support:
Product accessories kept in stock for 10 years to ensure customer replacement
Professional service team support

Commercial vehicle alignment services



ZC RUBBER Commercial vehicle alignment



Alignment technology training assessment



Service Advantages

1. Service standardization:
In the whole process of maintenance services, consulting services, training services, online services and remote services, a standardized operating process, a standardized complaint handling system and a standardized complaint handling system are formed
2. Service-oriented database management program:
establish and improve the three-level service system, that is, the service relationship between the company's technical department, customer service center, dealers and users, and more than 200 service outlets throughout the country, so that customers can feel the most comprehensive three-dimensional service of Haide in the shortest distance
3. Service diversification:
In the process of pre-sale, in-sale and after-sale, we have always been committed to improving customer satisfaction and meeting the personalized needs of users other than standardized services
4. Service Automation:
Regular return visit system, compare historical cases for customer problems, propose solutions, and ensure that personnel services are in place in the shortest possible time
5. Digitization of Services:
For users with Internet access conditions, the method of online communication is used for diagnosis and maintenance, and the product software is directly upgraded online



Eagle Eye series commercial wheel axle alignment system

Originate Camera Application Technology
To Commercial Vehicles Alignment
The first In China to create a new camera
application technology



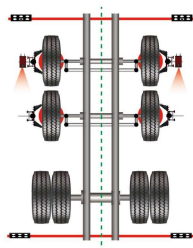
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06



Eagle Eye Series Leader

The first manufacturer in China produced commercial vehicle alignment with camera measurement technology



SANYING alignment with camera measurement technology is detected by image recognition. By using the patented camera technology to measure the angle of the wheel and axle based on the geometric centerline of the frame, it provides a fast and accurate wheel and axle alignment for truck and bus workshops, tire service centers, and commercial vehicle maintenance enterprises.

- Advantages:
- 1.Measurement mode: New camera technology measurement mode, perfect function, simple operation
 - 2.Measuring basis: Based on the geometric center line of the frame, the measurement is accurate, stable and reliable
 - 3.Measurement type: Full computer measurement according to the process, measurement for both truck and trailer, fast and efficient
 - 4.Measurement parameter: toe, camber,steering synchronization,axle deflection,maximum steering angle etc.
 - 5.Transmission mode: WIFI signal is smooth and stable, low power consumption and far transmission
 - 6.Standby time:The camera can work continuously for more than 24 hours
 - 7.Not affected by temperature, magnetic field and strong light
 - 8.The camera has self calibration function,strong adaptability to working conditions
 9. The core components are made of 7-series magnesium-aluminum alloy
 10. Measurement for both truck and trailer, high efficiency, Low maintenance cost
 - 11.Easy to operate, 2-3 times higher efficiency
 - 12.Portable design ,mini parts, anti-bump, suitable for mobile service.

07

Unlimited innovation



Magnetic special clamp



3-points self-centering clamp

Customized Clamp

Suitable for commercial vehicle manufacture, no necessary to rise up wheels for rim compensation operation, more accurate and convenient.



Benchmarking ruler for commercial vehicle



Magnesium-aluminum alloy clamp

08

Eagle Eye Series Standard

Measure for both truck and trailer,
more function,
measurement more accurate

The first manufacturer in China
produced commercial vehicle
alignment with camera
measurement technology

Full new camera technology alignment
Full computer measurement
Easy to operate
Stable and reliable
Accurate measurement
Alignment effective

Vehicle Type can be used with Eagle
Eye Series Alignment

Truck
Light truck
Bus
Articulated frame vehicles
Trailer
Special function vehicles

Application advantages
Can be used on any flat site
suitable for mobile service
Service for ten years, no worries



New camera wheel axle
measurement mode



Air case, mobile work camera,
easy to carry, portable protection



Slide rail clamp



Steel ultra-thin turntable



Reference Centering Frame



Measurement target
water and oil proofing



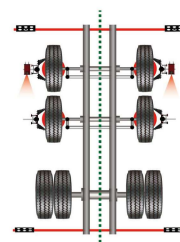
Windproof stabilizer clip



Humanization of software design

measurement item

Single toe,
total toe
camber
caster
kingpin inclination
set back angle
thrust angle
steering synchronization
maximum steering angle
Toe-out on turns
ball joint clearance
axle deflection
lateral displacement



3D Dynamic alignment

Yaoguang series S7

Unified measurement of main vehicle and trailer
Multi-bridge simultaneous measurement and display



Features:

1. Multi-bridge simultaneous measurement and display, improve work efficiency greatly
2. Apply roll compensation, and real-time compensation through the third camera, fast measurement
3. Mobile work, adapt to different site needs



TECHNICAL DATA

Measurement Item	Display accuracy	Measurement range	Measurement Item	Display accuracy	Measurement range
Toe	±2'	±20"	Axle verticality	±4'	±60°
Total toe	±4'	±40"	Thrust angle	±2'	±6°
Camber	±2'	±10"	Set back	±2'	±6°
Caster	±6'	±20"	Maximum steering angle	±2'	±45°
Kingpin Inclination	±6'	±23°	Axis deviation	±1mm	
Wheel parallelism	±4'	±10"	Wheel deviation	±1mm	

3D Dynamic alignment

Yaoguang series S6



Features

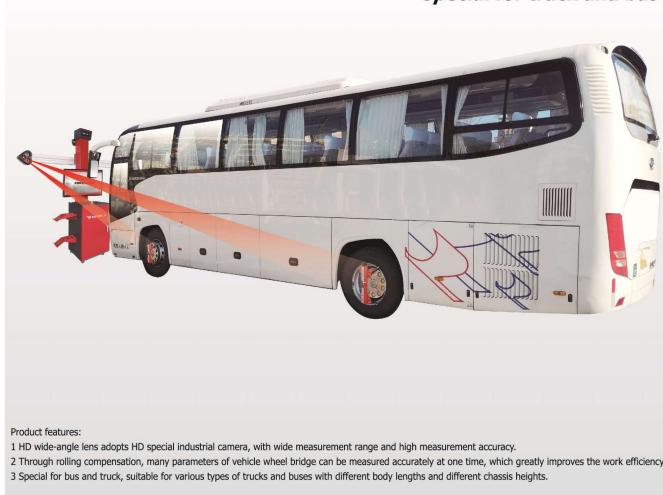
1. Simultaneous measurement and display of three bridges;
2. Through rolling compensation, many parameters of vehicle wheel bridge can be measured accurately at one time, which greatly improves the work efficiency;
3. Special for bus and truck, suitable for various types of trucks and buses with different body lengths and different chassis heights.

Optional



3D Dynamic truck wheel alignment Rongguang series

Special for truck and bus



Hardware advantages



TECHNICAL DATA

Measurement	Display	Measurement
Display Accuracy	1"/0.01°/0.1mm	±20°
Toe	±2'	±10°
Camber	±2'	±20°
Caster	±6'	±20°
Kingpin Inclination	±6'	±5°
Set back	±2'	±5°
Thrust angle	±2'	2300~12000mm
Axis deviation	±2mm	1700~2800mm
Wheel deviation	±2mm	

CCD Series SY-C50

Measured Parameters:

- Total toe-in,
- camber
- kingpin caster angle
- thrust angle,
- Single toe-in
- Double bridge parallelism
- kingpin inclination angle
- included angle, etc

Partial components



Measurement Principle:

Use the datum alignment device to accurately and quickly find the geometric centerline of the vehicle to be tested, and use it as a measurement benchmark. Imported CCD measurement technology is adopted to detect various angles of the wheel and bridge. Providing a fast and accurate wheel and axle alignment method for truck and bus workshops, tire service centers, and commercial vehicle maintenance enterprises.

Product Advantages:

- Taking the geometric centerline of the frame as the measurement benchmark, the mathematical model is more reasonable;
- All imported digital CCD sensor measurement technology, accurate and stable;
- All imported inclination sensor, 100% electronic level, accurate and stable;
- The sensor has an LCD display that shows toe-in, camber, battery level,
- Intelligent charging management system, equipped with 5600mAh high-capacity lithium battery;
- 2.4GHz Bluetooth wireless transmission technology ensures good communication connection without external interference.
- The measurement sensor and the computer detection software are displayed synchronously, which is convenient for data viewing and storage;
- Wide measurement range, can detect ultra-low chassis vehicles, suitable for a wide range of vehicle models;
- Special fixture for commercial vehicles, with tight fit and high measurement accuracy
- Full-computer measurement according to the process, voice prompt, suitable for both the main vehicle and the trailer;
- Remote control function of sensors, enabling remote operation of computers
- Sensor with black box self-diagnosis function

CCD Series SY-C20



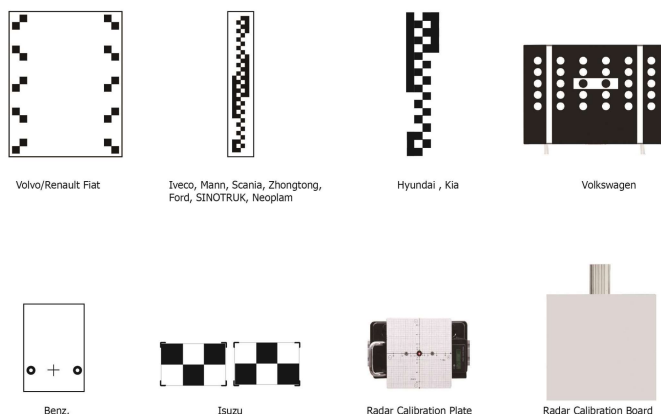
Commercial Vehicle ADAS calibration system SYA-30

The following functions can be supported:

- ACC adaptive cruise function,
- LDW lane departure warning function,
- FCW Forward Collision Warning,
- AEB emergency braking system,
- Combining the use of Sanying alignment system can make your calibration process faster and more accurate.



Front camera and radar calibration tools



Wireless mobile commercial vehicle lift SYL-6B45



Product Features

1. Wireless dual power 24V battery power supply, stable lifting and convenient movement;
2. Microcomputer software automatic and manual dual function lifting and leveling technology eliminates the risk of vehicle rollover due to asynchronous lifting and improves lifting safety;
3. Electromagnetic mechanical safety lock, with a safety distance of 100mm for each level of locking, meeting the requirements of EU CE certification, stable performance, and high safety;
4. Humanized secondary descent warning design. When descending at a distance of 350mm from the ground, it is necessary to press the button again to descend at a slow speed, and there is a warning beep to prevent foot pressure safety
5. Users can freely combine four, six, eight, or multiple pillars according to the needs of the vehicle model



model	lifting capacity	Lifting Height	Applicable tire diameter	working voltage	Charging Voltage	Single self weight
SYL6B45	7500kg	1700mm	500-1120mm	DC24V	110V/220V	700kg
SYL4B22	5500kg	1700mm	500-1120mm	DC24V	110V/220V	630kg

Mobile Type Wired Commercial Vehicle Lift SYL-4A30



TECHNICAL DATA

Communication method,	Wired
number of columns	4
lifting capacity	30000kg
lifting height	0-1650mm
applicable tire diameter	500-1120mm
rise/fall time	120s/110s
working voltage	220V/380V
single column Net weight	630kg (GW720kg)
single column size	1100×1330×2250mm

Features

- Active fault detection and diagnosis function;
- Computer automatic leveling, ensure synchronous lifting of multi columns;
- The height limit switch ensures automatic shutdown when lifting to the highest point;
- Flexible movement design, available for indoor and outdoor;
- According to the needs of customers, 4 columns or 6 columns can be combined freely, which is convenient for users to operate;
- Suitable for lifting and maintenance buses, trucks and special vehicles under 30 tons;
- The lifting capacity is large, and a single column has passed the 1.5 times safety bearing test.

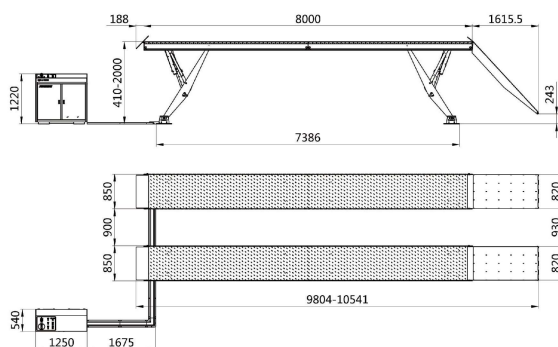


Optional triangular Axle stands to prevent the bottom of the vehicle after locking to ensure safety;

Passway Type Large Scissor Lift SYL-Y25



Model No.	SYL-Y25	SYL-Y35
Lifting Capacity	25T(55115LB)	35T(77161LB)
Lifting Height	≤2000mm (≤78inch)	
System Pressure	25Mpa	
Motor Power	11KW	15KW
Voltage	380V	
Tray Minimum Height	410mm (16inch)	
Platform Length	8000/10000/12000mm (314/393/472inch)	10000/12000/15000mm (393/472/590inch)



OVERALL DIMENSION



Platform length can be customized according to the actual site

Features:

1. Unique Y-shape structure is lighter, it can realize completely vertical lifting and lowering; the bottom space of the platform can be effectively utilized to enhance the operation efficiency.
 2. 25 tons / 35 tons of large tonnage load, long platform design, suitable for medium-sized buses, commercial vehicles and other heavy-duty vehicles lifting and maintenance operations.
 3. The whole machine has six cylinders and unique European leveling control technology, which can realize real-time accurate leveling of two platforms, improve lifting capacity and ensure safe operation.
 4. Equipped with mechanical locks and hydraulic locks double safety locks to protect the safety of people and vehicles.
 5. The front and rear of the platform are equipped with a grating leveling safety control system, which detects the synchronization of the platform in real time and prevents the vehicle from tipping over;
- The overall design is very suitable for medium buses, light trucks and other large-tonnage vehicles. Supporting wheel alignment lifting, trolley measurement, as well as body inspection, vehicle maintenance services!

SYL-4P08/10/12/15 SYL-4P08/10/12/15



TECHNICAL DATA

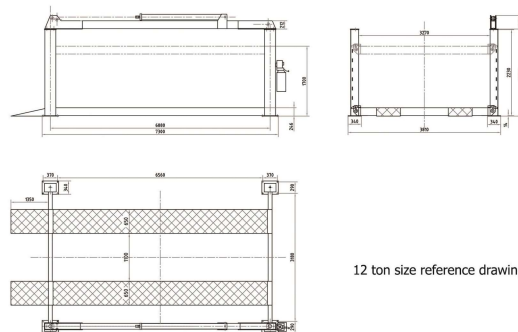
Lifting Weight(T)	8-15
Lifting Height(mm)	1700
Effective Span(mm)	3230
Overall Dimensions(mm)	6860x3750x2411
Motor Power(KW)	3
Power Supply (V)	380

21

Products Features

- 1.The body is made of international standard steel, one-piece steel plate laser cutting, shearing and bending, with stronger carrying capacity;
- 2.Extra-large tonnage lifting for trucks, buses, military vehicles and special vehicles;
- 3.Electro-hydraulic drive, stable power, superior performance;
- 4.Safety locking device, safe and reliable;
- 5.High-quality hydraulic unit, easy to operate and maintain;
- 6.Professional design of chain drive, high tensile strength of lifting chain, higher safety coefficient;
- 7.A variety of extra-long chassis designs to meet different customer needs.

Outline Dimensional Drawings



12 ton size reference drawing

Various Models for your Choice

Model	Lifting Weight
SYL4P08	8T
SYL4P10	10T
SYL4P12	12T
SYL4P15	15T



22

Horizontal Tire Changer SYTC998



Technical Parameters

Rim Diameter	14" - 46"
Rim Capacity(with extensions)	14" - 56"
Maximum Wheel Weight	2000Kg
Maximum Wheel Width	1200mm
Maximum Tire Diameter	2500mm
Hydraulic Power Unit	3.3/4.0KW
Gearbox Motor	3.3/4.0KW
Net Weight of Equipment	1175kg
Input Voltage	220/400V 50/60Hz 3P Optional

23

Product Introduction:

Suitable for tire removal and mounting for trucks, buses, construction vehicles, etc; rim diameter 14"-56"; Fully automatic, two-speed (can be equalized, rate can be increased when skilled); Automatic flip of the disassembly head; The operating switches are all independent microswitches, significantly saving maintenance costs; Zinc-tin alloy moving slider, wear-resistant, prolonged service life; Using zinc-tin alloy turbine; Extension jaws can be added to enlarge the tire size, rim diameter up to "56"; can be moved in both directions; the dismantling arm is automatically lifted and lowered; Technology, quality and appearance fully comply with CE certification standards.

Product Details:



Standard Accessories:



Weight & Packing Size:

Model	
SYTC998	
Gross weight (kg)	1410
Package size (mm)	
	2310×2100×1100

Optional Accessories:

Aluminum alloy rim protector, vacuum tire pressure roller, remote control mobile operation handle, imported pump station, extension claw, etc.



24

Horizontal Type Truck Tyre Changer SYTC898



TECHNICAL DATA

Rim Diameter	14"-26"
Max Tyre Weight	500kg
Max Wheel Width	780mm
Max Tyre Diameter	1600mm
Hydraulic Motor	1.5kw 380V-3Ph
Gear Box Motor	2.2KW 380V-3Ph
Tyre Pressure	2500kg
Movable Control Handle Voltage	24V
N.W.	588kg
Overall Dimensions	2500×2000mm
Voltage	380V 50/60Hz 3P

25

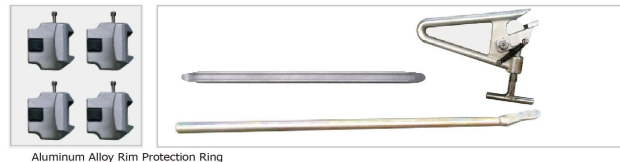
Features

Two-speed rotating motor.
Imported power unit.
Standard Aluminum protector for rim.
Very small foot space.

Product Details:



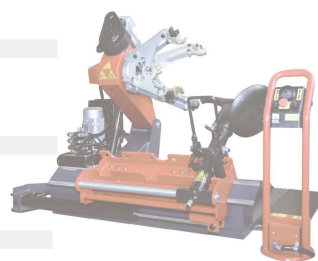
Standard Accessories



Aluminum Alloy Rim Protection Ring

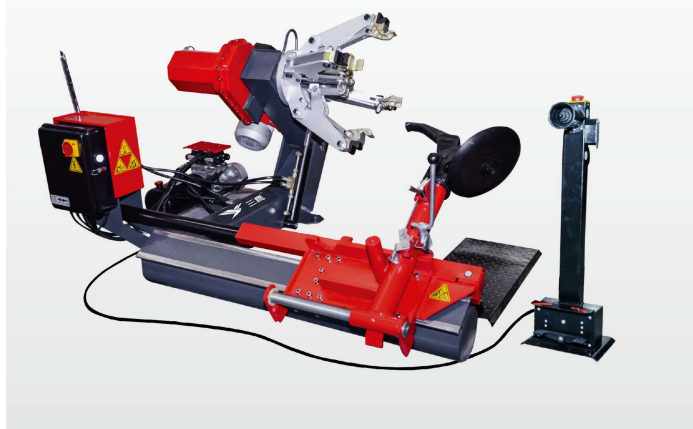
WEIGHT&DIMENSIONS

Model No.	SYTC898
Gross weight(kg)	650
Package dimension(mm)	1830×1480×1080



26

Horizontal Type Truck Tyre Changer SYTC828



TECHNICAL DATA

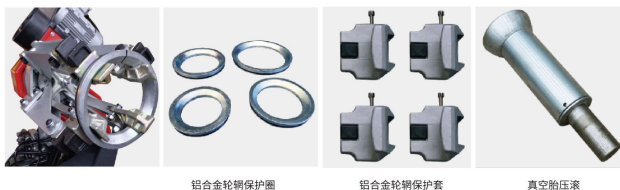
Rim Diameter	14"-26"
Max Tyre Weight	500kg
Max Wheel Width	780mm
Max Tyre Diameter	1600mm
Hydraulic Motor	1.5kw 380V-3Ph
Gear Box Motor	2.2KW 380V-3Ph
Tyre pressure	2500kg
Max Torque	6457N.m
Movable control handle voltage	24V
N.W	517kg
Overall Dimensions	2500×2000mm
Voltage	380V 50/60Hz 3P

27

Features

Apply for many kinds of tyres, such as rubber flap tyre ,Radial vacuum tyre,agricultural tyre, Engineering tyre
Save time and energy during operation, quick and high efficient
The lifting arm and clamp are controlled by hydraulic system
The universal assembled arm is equipped with swing round plate and hook
The operating voltage is 24V, safe and reliable
The emergency control switch can prevent the damage of rim and tyre effectively

Options



铝合金轮辋保护圈

铝合金轮辋保护套

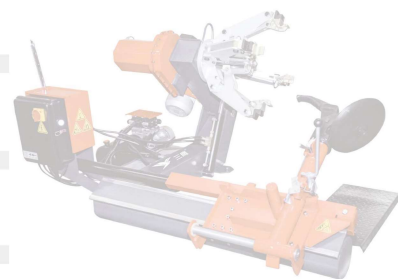
真空胎压滚

Standard Accessories



Weight & Dimension

Model No.	SYTC828
Gross weight(kg)	633
Package dimension(mm)	2030×1580×1000



28

Vertical truck tyre changer SYTC858



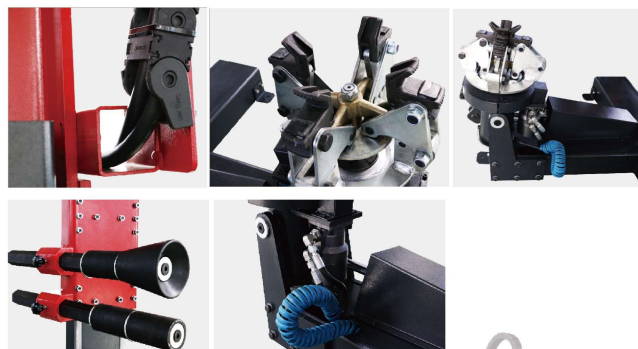
TECHNICAL DATA

Rim diameter	19"-26"
Max tyre weight	380kg
Max tyre width	470mm
Max tyre diameter	1400mm
Power	3.3kw 380V-3Ph
Tyre pressure	2500kg
Mobile control handle voltage	24V
Net weight	485kg
Working area	1300×1700mm

Features

- Vertical type tyre changer requests a small area and fast disassembly speed
- Equipped with double rollers for different tyres,
- Automatic telescopic disassembly arms to make the angle more accurate
- Hydraulic motor drive system to remove tyre more powerful

Product details



Weight & Package dimension

Model No.	SYTC858
Gross weight(kg)	560
Package dimension(mm)	1300×1220×1720

Wheel balancer SY668T



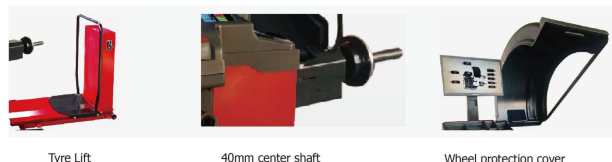
TECHNICAL DATA

Rim Diameter	10"-24"
Max Wheel Weight	160kg
Max Tire Diameter	1200mm
Voltage	AC220V 50Hz
Motor Power	0.55Kw
Position accuracy	1.5°
Back space	< 348mm
Noise	<70db
Overall Dimensions	2000x1500mm

Features

- Two measurement modes can realize conversion between truck and car;
- Higher balance accuracy, for car the accuracy is $\pm 1g$, for truck the accuracy is $\pm 10g$;
- Grating measuring, automatic measurement input;
- Automatic positioning and locking functions of unbalanced points;
- Twelve o'clock and three o'clock laser line indication;
- Up to ten language settings;
- A variety of balancing operation modes can realize unbalanced block clamping, pasting, etc;
- Intelligent automatic calibration function, automatic fault diagnosis and protection function;
- Suitable for tire balancing of trucks, buses, military vehicles and special vehicles.
- Optional ultrasonic wheel width ruler;
- Optional touch screen and data report printing functions.

Product Details



Standard Accessories



WEIGHT&DIMENSIONS

Model No.	SY668T
Gross weight(kg)	320
Package dimension(mm)	1220×970×1250

Wheel Balancer SY608T



TECHNICAL DATA

Rim Diameter	13"-24"
Tyre Width	5.5"-20"
Max Wheel Weight	150kgs
Max Tyre Diameter	1200mm
Working Pressure	6-8bar
Testing Time	8s
Voltage	220V
N.W.	250kg
Overall Dimensions	2000×1500mm

Features

It is easy to lift and unloading the tyre, the protection bar is safe and reliable

The IC Micro-Processing is high intelligence and stability, it can realize to exchange the operation of truck and car. Suitable for the tire of Truck, bus, car and motorcycle.

High-precision machined center shaft is the fundamental guarantee for the high accuracy , designed specifically for large rims.

Equipped with wheel protection cover and pneumatic tire lift, safe and reliable operation.

Product Details



Standard Parts



Optional Parts



Weight & Dimension

Model	SY608T
G.W (kg)	320
Packing Dimension(mm)	1260×960×1130



Cooperation Partners

Commercial vehicle factory customer



Beijing Auman, factory

Chongqing HOWO factory

Zhuhai Guangtong new energy bus factory



Pengpu French factory

Xuzhou Huabang Trailer factory

The 815 Army factory

Tyre customers



Beijing Bafangda bus group

Quanshun service station

Truck wheel alignment training in ZC

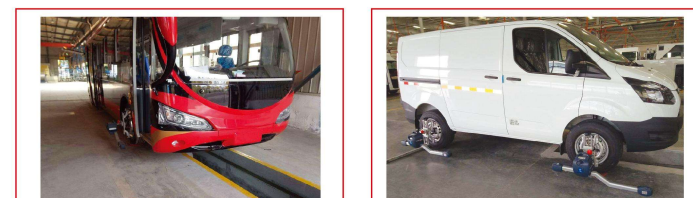


Professional axle inspection customers



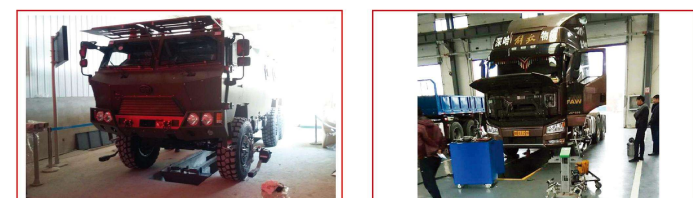
Truck wheel alignment training in ZC

Shijiazhuang North City repair shop



Beijing Bafangda bus group

Quanshun service station



Military garage

Fuzhou Fuda heavy truck repair shop