

LEAN UP TECHNOLOGY INNOVATION LEADER

### ZHENGZHOU JINGYIDA AUTO PARTS CO., LTD.

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## LEAN UP TECHNOLOGY INNOVATION LEADER



**MOLEAD** 

Introduction to Jingyida Chassis Division



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**PART. 01 About Us** 15 years of accumulation / outstanding strength

**PART.02 About Technology** R&D and manufacture/ exceptional capability

PART.03 About Products Dedicated quality / wide application

PART.04 About Services Professional and considerate/ high-quality and convenient



## PART. About Us

15 years of accumulation / outstanding strength

### Introduction to Chassis Division

Established in August 2008, the Chassis Division has a workforce of over 600 employees, including a professional technical team of over 100 members.

The products cover traditional axles, suspensions, e-axles and post-treatment systems, mainly supporting commercial vehicles such as buses, heavy trucks, light trucks, mining trucks, sanitation vehicles, RVs and trailers. We have a CNAS-certified test center with complete test verification capability, which meets the test requirements of national and industrial standards for axles, suspension assemblies, post-treatment systems and key parts. With industry-leading production lines for axles, air suspensions, gears, and post-treatment products, we have an annual production capacity of **100,000** axles, **50,000** sets of suspensions, and **150,000** sets of post-treatment systems. Up to now, there are more than **700,000** axles, **250,000** suspensions and **300,000** post-treatment systems in the market.

15 years of development, solid foundation

>600 members, professional team

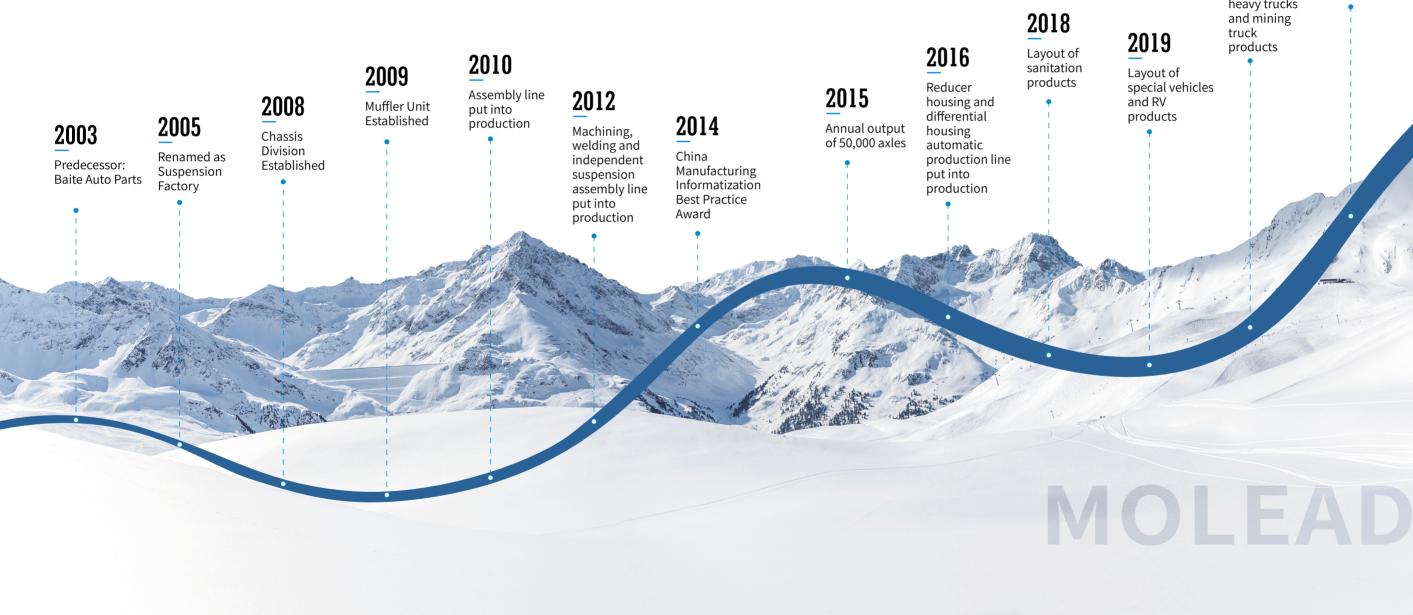
**700000** axles, great market share





## **Development History**

15-year history Solid foundation



### 2023

Cylindrical gear automatic production line put into production

## 2020

Production line of spiral bevel gear automatic put into production

### 2020

Layout of heavy trucks



## PART. **About Technology**

IT P R&D and manufacture/ exceptional capability

## 

### Heavy investment in R&D Top-notch team

The Division attaches great importance to product technology R&D, and has an industry-leading R&D team. Our investment in research and development costs has been increasing year by year, and the number of patents is leading in the industry: As of 2022, the Division has 75 valid patents, including 22 invention patents.

In 2022, the R&D investment accounted for more than 7% of the annual operating revenue, ranking at a high level in the industry.

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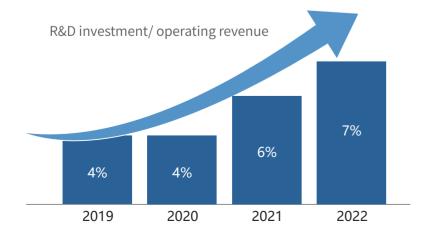
### Simulation analysis of structural parts

The Division has developed comprehensive simulation analysis capabilities including axle structural part simulation analysis, post- treatment structural part simulation analysis, drive axle transmission system simulation analysis, fluid simulation analysis and acoustic simulation analysis.



### Gear R&D Manufacturing capacity

The Division has advanced gear and axle production workshops, with R&D and manufacturing capabilities of spiral bevel gears and cylindrical gears, as well as process manufacturing capabilities such as friction welding offinished axle heads, robotic automatic welding of axle housing welds, full-automatic processing ofaxle housings and axle assembly.



## Test verification capacity of the system

fication.

The test center can carry out full-platform parts and components level verification of axle, suspension and exhaust system. At the same time, it has both system level R&D verification capacity and industry-leading hardware strength such as servo hydraulic test equipment, driving axle test system, special fatigue test bench for driving axle assembly, road spectrum data acquisition equipment and NVH test equipment, engine emission test system, simulated combustion and vibration test bench. The test center has an experienced verification team, which can realize various tests of axles, suspensions and exhaust systems. In addition to verifying the performance and durability of products according to national standards, industry standards and enterprise standards, it can also formulate personalized problem solutions according to different needs of customers.



Horiba driving axle test system



The Company has built an automobile chassis test center certified by CNAS, with national accreditation qualification and international mutual recognition quali-



gfai sound source localization system





Engine bench and emission test system Simulated combustion test bench



yer.

35

### International Certification of **Quality Management System**

IATF16949 Quality Management System Certification: The company has a mature and complete new product development process (APQP)and implements quality control throughout the entire process of new product development using a quality gate management model. The quality of raw materials is strictly controlled from the source of production and manufacturing, and a quality management system for the whole product life cycle has been established. Since 2009, the company has consistently held the IATF16949 Quality Management System Certification issued by DQS AP Co., Ltd., signifying its alignment with international standards in terms of quality management.

国家认可实验室(检测)

National Accreditation Laboratory (testing)



Zeiss scanning electron microscope



Gear measuring machine Spectrometer

35



Three-coordinate measuring equipment









CNAS

国合格评定国家认可

CNAS

合格评定国家认可委托



### **CNAS** Certification of Laboratory Management System

CNAS (China National Accreditation Service for Conformity Assessment) Laboratory Certification: The Company has a laboratory certified by CNAS (China National Accreditation Service for Conformity Assessment), which can effectively carry out various physical and chemical analysis tests such as tensile test, metallographic analysis, fracture macro-micro analysis, microscopic scanning, hardness measurement (and gradient distribution display), composition detection, carbon and sulfur analysis, corrosion prevention test, wrench calibration, etc. The main equipment includes:Gear measuring machine, direct reading spectrometer, metallographic microscope, ultra-depth body microscope, carbon and sulfur analyzer, tensile testing machine, three-coordinate detector, hardness tester(Vickers, Brinell and Rockwell), continuous spray anti-corrosion testing machine, automatic intelligent torque wrench calibrator, scanning electron microscope, etc.







Gear tool grinder



Tensile testing machine



## PART. **About Products**

Dedicated quality / wide application

# $\mathbf{03}$

**CORE.01** / Front Axle Series

**CORE.02** / Rear Axle Series

**CORE.03** / Integrated Electric Driving Axle

**CORE.04** / Front Suspension

**CORE.05** / Rear Suspension

**CORE.06** / Independent Suspension

## CORE.01 Front Axle Series »



### Product features





coverage

Product lightweight

03> interval

### Portfolio of front axle product

Model	Load (t)	
AF22-AF35	2.2-3.5	5-8m truck
AF40-AF50	4.0-5.0	7m bi
AF55-AF60	5.5-6.0	10-11
AF65-AF75	6.5-7.5	Low-f truck
AF100	10.0	Airpo
AF200/AF250	20.0/25.0	90t/1

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Long maintenance



Large corner



05> Small kingpin offset

### Application scenario

school bus/front-end vehicle/bus, 6t/8t light and 8t sanitation vehicle

ous, 8-10m school bus/front-end vehicle/bus

1m road vehicle and bus

-floor bus above 10m, road vehicle/bus, dump and tractor truck above 11m

ort shuttle bus

L05t mining truck



### ■ AF35 front axle

Load (kg)	3500	
Rim mounting distance (mm)	2117(adjustable)	
Maximum angle inside/outside (°)	50/37	Ja Francisco International Int
Spring distance (mm)	846(adjustable)	
Brake specification (")	Pneumatic disc type 17.5	
Weight (kg)	175	

### ■ AF75 front axle

Load (kg)	7500	
Rim mounting distance (mm)	2378(adjustab	
Maximum angle inside/outside (°)	52/40	
Spring distance (mm)	880(adjustabl	
Brake specification (")	Pneumatic disc typ	
Weight (kg)	451	
Bearing unit at wheel end is optional, and optional pneu		

### AF50 front axle

Load (kg)	5000	
Rim mounting distance (mm)	2245 (adjustable)	
Maximum angle inside/outside (°)	52/38	
Spring distance (mm)	867 (adjustable)	
Brake specification (")	Pneumatic disc type 19.5	
Weight (kg)	310	
Bearing unit at wheel end is optional		



### AF55 front axle

Load (kg)	5500	
Rim mounting distance (mm)	2388	
Maximum angle inside/outside (°)	55/40	
Spring distance (mm)	890	
Brake specification (")	Pneumatic disc type 22.5	
Weight (kg)	430	
Bearing unit at wheel end is optional		



### ■ AF100 front axle

Load (kg)	10000
Rim mounting distance (mm)	2381/2387
Speed ratio	6.110
Maximum output torque (N · m)	30000
Spring distance (mm)	930/950
Brake specification	Pneumatic drum ty
Maximum angle inside/outside (°)	43/36
Weight (kg)	860/882
Pneumatic disc brake is optional	

### AF200 front axle

Load (kg)	20000
Rim mounting distance (mm)	3119/3209
Maximum angle inside/outside (°)	38/28
Spring distance (mm)	1450/1350
Brake specification (")	Pneumatic drum ty
Weight (kg)	1280
The wheel end is oil lubrication	

The wheel end is oil lubrication

Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888

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umatic drum brake is optional







### Product features



01 >

Wide platform

coverage





Low-noise lightweight



05 > High output Long maintenance torque

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06 > Wide range of speed ratio options

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### Portfolio of rear axle product

Model	Load (t)	Application scenario
AR25-AR55	2.5-5.5	3t/4t sanitation vehicle, 5-6m school bus/front-mounted vehicle, 7m commercial vehicle and 8t sanitation vehicle
AR60-AR95	6.0-9.5	7-10m school bus/road bus/bus
AR115-AR130	11.5-13.0	Road vehicle/bus above 10m (including low-floor)
AM/AR100-110 intermediate and rear axle	10.0-11.0	Tractor, sanitation vehicle
AM/AR130-160 intermediate and rear axle	13.0-16.0	Tractor and dump truck
AR350/400	35.0/40.0	90t/105t mining truck

### AR55 rear axle

Load (kg)	5500	
Rim mounting distance (mm)	1518/155	
Speed ratio	3.69/4.36/4.89	
Maximum output torque (N · m)	18000	
Brake specification	Hydraulic disc-type two	
Wheel bolt distribution circle (mm)	Φ205/Φ222	
Type of hub bearing	Maintenance	
Weight (kg)	283	
Oil-lubricated wheel hub is optional, and pneumatic dru		

### AR90 rear axle

Load (kg)	9000	
Rim mounting distance (mm)	1852	
Speed ratio	3.73/3.91/4.10/4.36/4.8	
Maximum output torque (N · m)	26500	
Brake specification(")	Pneumatic disc	
Wheel bolt distribution circle (mm)	Φ275/Φ3	
Type of hub bearing	Maintenance	
Weight (kg)	507	
Oil-lubricated wheel hub is optional, and pneumatic drur		

### AR130 rear axle

Load (kg)	13000
Rim mounting distance (mm)	1832
Speed ratio	3.17/3.39/3.73/3.90/4.10/4.88/5.22/5.63/6.14
Maximum output torque (N · m)	43000
Brake specification(")	Pneumatic disc type 22.5
Wheel bolt distribution circle (mm)	Ф335
Type of hub bearing	Maintenance-free
Weight (kg)	660
Oil-lubricated wheel hub is optional, and pneumatic drum brake is optional	

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50 89/5.88 vo-cylinder Φ57 22.5 e-free m brake is optional 89/5.13/5.63/6.14 c type 19.5 335 ce-free m brake is optional 00 )/4.88/5.22/5.63/6.14 0 sc type 22.5 ce-free



### AM/AR100 intermediate and rear axle

Load (kg)	10000
Rim mounting distance (mm)	1832
Speed ratio	5.286
Maximum output torque (N · m)	45000
Brake specification	Pneumatic drum type Φ 410
Wheel bolt distribution circle (mm)	Ф335
Type of hub bearing	Oil lubrication
Weight (kg)	790



# CORE.03



### AM/AR160 intermediate and rear axle

Load (kg)	16000
Rim mounting distance (mm)	1832
Speed ratio	5.25/4.78/5.93/6.75
Maximum output torque (N · m)	50000
Brake specification	Pneumatic drum type Φ410
Wheel bolt distribution circle (mm)	Ф335
Type of hub bearing	Oil lubrication
Weight (kg)	920



### AR400 rear axle

Load (kg)	40000
Rim mounting distance (mm)	2594
Speed ratio	13.61/14.99/16.65/18.75/21.42/24.99
Maximum output torque (N · m)	169000
Brake specification	Pneumatic drum type φ500
Wheel bolt distribution circle (mm)	Ф425
Type of hub bearing	Oil lubrication
Weight (kg)	1847

Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888

### Product features



### Portfolio of integrated electric driving axle

Model	Load (t)	
EA23	2.3	6m mio
EA25-EA30	2.5-3.0	Light b
EA35-EA60	3.5-6.0	6-7m b purpos
EA85	8.5	8m bus
EA95	9.5	10.5m
EA100-EA130	10.0-13.0	49t/80

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High transmission

Low noise

05 > Advantages of motor, reduction gear and axle in the whole industry chain

### Application scenario

icro-circulation bus

bus and small truck

bus, light truck, sanitation vehicle and special-ose vehicle

us/road vehicle

bus, 11m road vehicle

Ot tractor, 38t/45t mixer and 32t sanitation vehicle



### EA23 electric driving axle

Load (kg)	2300	
Rim mounting distance (mm)	1962	
Speed ratio	16.010	
Maximum output torque (N·m)	4323	
Type of hub bearing	Maintenance-free	
Brake specification	Hydraulic disc-type two-cylinder φ48	
Rated / Peak power (kW)	47/120	0
Rated/Peak torque (N⋅m)	130/270	
Rated/Maximum speed (rpm)	3452/10000	
Weight (kg)	289	
	1	



### EA85 electric driving axle

Load (kg)	8500
Rim mounting distance (mm)	1838(adjustab
Speed ratio	20.475
Maximum output torque (N · m)	9214
Type of hub bearing	Maintenance-f
Brake specification (")	Pneumatic disc ty
Rated / Peak power (kW)	80/160
Rated/Peak torque (N · m)	200/450
Rated/Maximum speed (rpm)	3600/12000
Weight (kg)	525

### EA30 electric driving axle

Load (kg)	2500~3000
Rim mounting distance (mm)	1605 (adjustable)
Speed ratio	12.700
Maximum output torque (N · m)	4433
Type of hub bearing	Maintenance-free
Brake specification	Hydraulic disc-type two-cylinder φ43
Rated / Peak power (kW)	60/120
Rated/Peak torque (N · m)	160/350
Rated/Maximum speed (rpm)	3580/12000
Weight (kg)	212



### EA60 electric driving axle

6000
1760 (adjustable)
16.279
5779
Maintenance-free
Pneumatic disc type 17.5
80/160
170/355
3600/12000
327



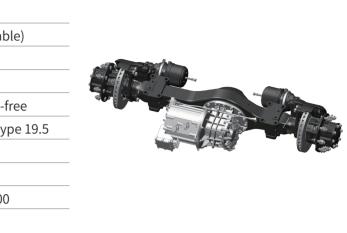
### EA95 electric driving axle

Load (kg)	9500
Rim mounting distance (mm)	1916(adjustabl
Speed ratio	19.220
Maximum output torque (N · m)	12300
Type of hub bearing	Maintenance-fr
Brake specification (")	Pneumatic disc typ
Rated / Peak power (kW)	105/200
Rated/Peak torque (N⋅m)	335/640
Rated/Maximum speed (rpm)	3000/9000
Weight (kg)	598

### EA100 electric driving axle

Load (kg)	10000
Rim mounting distance (mm)	1832(adjustabl
Speed ratio	Gear 1: 56.48 Gear
Maximum output torque (N · m)	41250
Type of hub bearing	Maintenance-fr
Brake specification	Pneumatic disc type
Rated / Peak power (kW)	150/250
Rated/Peak torque (N ⋅ m)	350/750
Rated/Maximum speed (rpm)	4093/12000
Weight (kg)	830

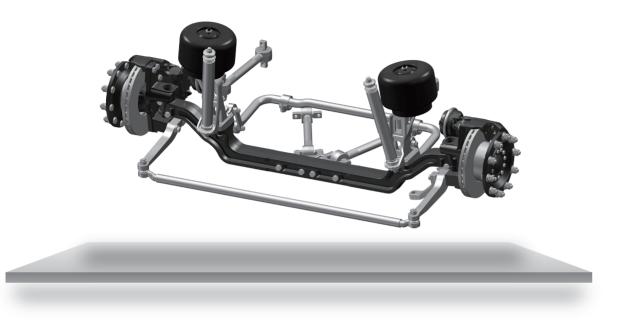
Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888











### Product features



Wide platform

coverage

01 >





02> Product lightweight



frequency



2

05 > High comfort shock absorber

- 111. -

### Portfolio of front suspension product

Model	Load (t)	Application scenario
SF35-SF45	3.5-4.5	7-10m road vehicle
SF55-SF70	5.5-7.0	9-12m road vehicle/bus
SF90	9.0	Airport shuttle bus

### **SF45** front suspension

Load bearing capacity (kg)	4500
Suspension stroke (mm)	81/88
Spring distance (mm)	890
Kingpin caster angle	5°
Weight (kg)	150
Structure type	Single trailing arm

### SF70 front suspension

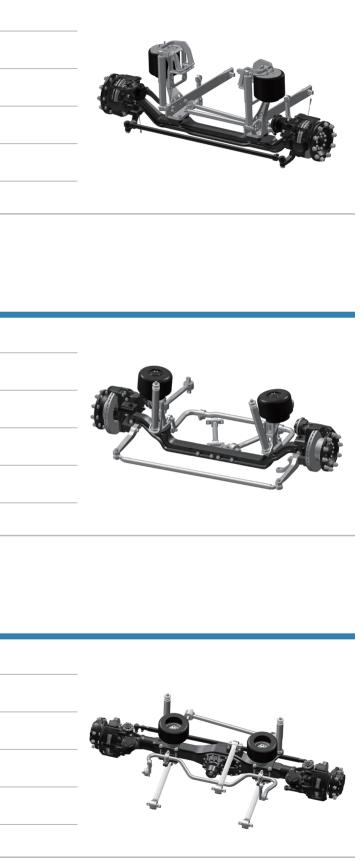
Load bearing capacity (kg)	7000
Suspension stroke (mm)	75/90
Spring distance (mm)	1180
Kingpin caster angle	4°
Weight (kg)	136
Structure type	Four-link

SF90 front suspension

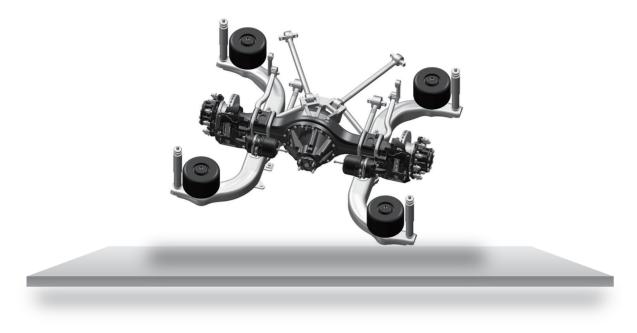
Load bearing capacity (kg)	9000
Suspension stroke (mm)	73/110
Spring distance (mm)	1120
Kingpin caster angle	3°
Weight (kg)	114
Structure type	Four-link

Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888

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### Product features



Wide platform

coverage

01 >







Product lightweight





05> High comfort shock absorber

111.

### Portfolio of rear suspension product

Model	Load (t)	Application scenario
SR65-SR75	6.5-7.5	7-9m road vehicle
SR95	8.5-9.5	8-10m road vehicle/bus
SR110-SR130	11.0-13.0	10-12m bus (including low-floor bus)/ road vehicle and airport shuttle bus
SR160	16.0	32t heavy truck

### SR75 rear suspension

Load bearing capacity (kg)	7500
Suspension stroke (mm)	81/82
Spring distance (mm)	940
Airbag span	861
Weight (kg)	157
Structure type	Two-airbag and four-lin

### SR95 rear suspension

Load bearing capacity (kg)	9500
Suspension stroke (mm)	81/90
Spring distance (mm)	1030
Airbag span	861
Weight (kg)	196
Structure type	Four-airbag and four-lir
	A

### SR130 rear suspension

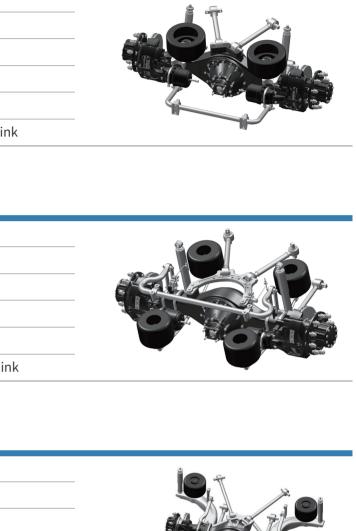
13000
85/85
970
1660
357
Four-airbag and four-lir

### SR160 rear suspension

Load bearing capacity (kg)	16000
Suspension stroke (mm)	70/75
Spring distance (mm)	1040
Airbag span	780
Weight (kg)	265
Structure type	Single trailing arm with tw

Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888

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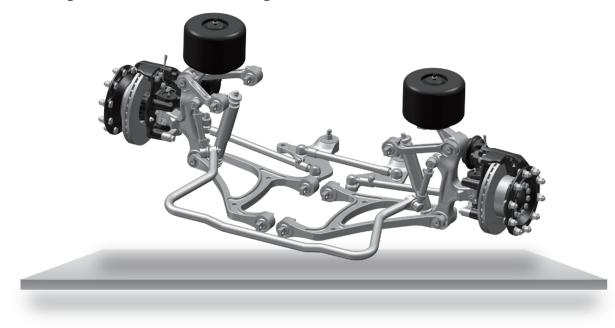
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Independent Suspension Series »



### Product features



01 >

Wide platform coverage



High comfort

shock absorber

04> Maintenance-free bushing



Wide passage and large corner

### Portfolio of independent suspension product

02>

Product

lightweight

Model	Load (t)	Application scenario
SH15-SH23	1.5-2.3	Trailer RV
SI18	1.8	Light bus
SI21-SI27	2.1-2.7	5-7m commercial vehicle/RV
SI45-SI75	4.5-7.5	9-18m road vehicle/bus

### ■ SI18 independent suspension

Load bearing capacity (kg)	1800
Suspension stroke (mm)	66/122
Maximum angle inside/outside (°)	44/37
Weight (kg)	68
Brake specification	Hydraulic disc-type two
Wheel camber	-9'±30'
Kingpin inclination angle	12°25′
Kingpin caster angle	3°
Wheel rim	Maintenance-
Structure type	McPherso

### SH23 independent suspension

Load bearing capacity (kg)	2300
Suspension stroke (mm)	60/70
Weight (kg)	75
Brake specification	Hydraulic disc-type two-
Wheel camber	0°±0°48′
Wheel rim	Grease lubricat
Structure type	Single trailing

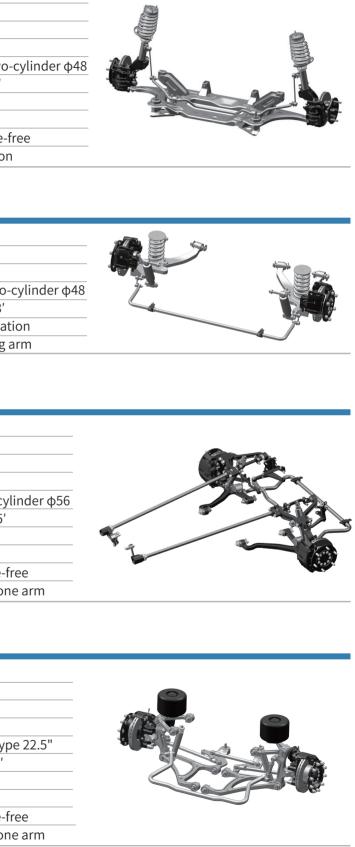
### ■ SI27 independent suspension

Load bearing capacity (kg)	2700
Suspension stroke (mm)	124/47
Maximum angle inside/outside (°)	42/38
Weight (kg)	117
Brake specification	Hydraulic disc two-cy
Wheel camber	0 °±0 °45′
Kingpin inclination angle	13°
Kingpin caster angle	4°30′
Wheel rim	Maintenance-f
Structure type	Double wish-bon

### ■ SI75 independent suspension

Load bearing capacity (kg)	8500
Suspension stroke (mm)	79/85
Maximum angle inside/outside (°)	54/47
Weight (kg)	324
Brake specification	Pneumatic disc typ
Wheel camber	0°~0°30′
Kingpin inclination angle	8°30′
Kingpin caster angle	2°30′
Wheel rim	Maintenance-f
Structure type	Double wish-bon

Note: The specific parameters vary depending on the configuration. For more parameter information, please contact Zhengzhou Jingyida Auto Parts Co., Ltd. Tel: 0371-85331888











C*///* 400 hotline 24-hour manual service hotline



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## **Considerate service Strong support**

Housekeeper-style fixed point service Make the service more professional, efficient and considerate

