

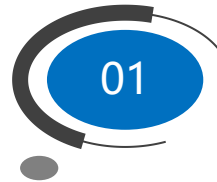
CONNECTION TO FUTURE



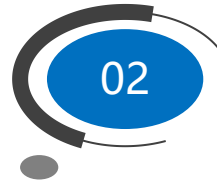
Chengdu Yonggui Toyo Rolling Stock Equipment Co.,Ltd



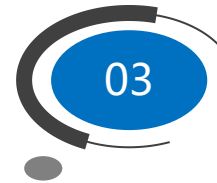
Contents



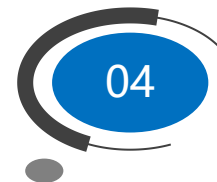
Company Profile



Application performance



Technical Highlights



Products and services

PART ONE

Company Profile

Company Profile



Company Name	Chengdu Yonggui Toyo Rolling Stock Equipment co.,Ltd
Establishment	23-Aug-17
Registered capital	44 million RMB
Investment ratio	Zhejiang Yonggui Electric Co., Ltd. 66.7%, TOYO DENKI SEIZO K.K. 33.3%
Address	No. 369, Chuangfei Road, Shibantan Town, Xindu District, Chengdu,China
Business scope	R&D, production and maintenance of complete sets of electrical equipment such as pantographs, electrical connectors and traction for rail vehicles



Headquarter Introduction

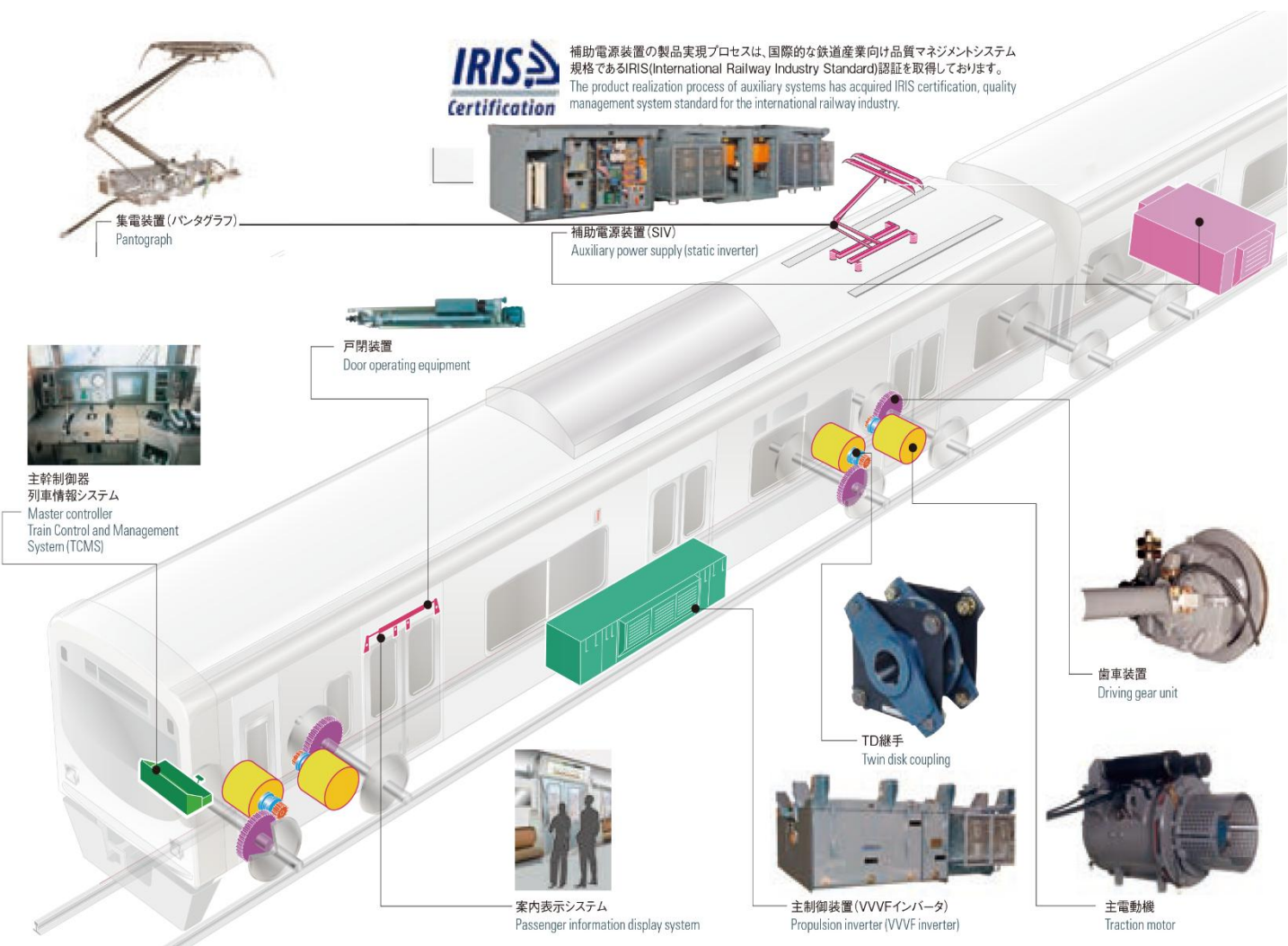
Yonggui Electric (www.yongguielectric.com)

- **Yonggui Electric :** Headquartered in Tiantai, Zhejiang, listed on the Shenzhen Stock Exchange in 2012, stock code 300351
- **Qualification honor:** National high-tech enterprise, obtained more than 40 national invention patents, with a total of more than 300 patents
- **Seven types of rail transit products:** Pantograph、Gangway、Connector、Door system、Battery power system、Oil damper、Axle counter system
- **Four major industry sectors:** Rail transit、New energy、Communications, Military equipment



Headquarter Introduction

Established	Jun 20 th ,1918
Address	1-4-16 Yaesu, Chuo-ku, Tokyo, Japan
Capital fund	About 5 billion yen
Total number of shares issued	48.67 million shares
Major customer	China Ministry of Railways、CSR and CNR Group、Beijing and Chengdu Metro、Japan Railway、Toyota Motor Group、Nissan Motor Group、Bridgestone Tires, USA, Southeast Asia, etc
Number of staff	1,241 people (2017 census)



High&New tech enterprises



Certifications



EN15085 welding system



IRIS 22163



ISO9001

Certifications



萬泰認證

环境管理体系认证证书

成都永贵东洋轨道交通装备有限公司

注册地址：四川省成都市新都区石板滩镇创飞路369号；
生产地址：四川省成都市新都区石板滩镇创飞路369号1#厂房（1-9轴部分厂房）

统一社会信用代码：91510100MA6DGF8Q1R
建立的管理体系，按照以下标准评审合格，特发此证。
GB/T24001-2016/ISO14001:2015

认证范围

轨道交通用受电弓的设计、制造与维修；轨道交通用弓网检测测箱的设计和制造以及轨道交通用电气连接器的制造所涉及的环境管理

证书号：1512403608830 发证日期：2024年06月05日 有效期至：2027年06月04日
本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。



第一次监督 第二次监督 第三次监督

汪世中
总经理

按照认证规则第一次监督审核应在证书获证日期12个月内进行。此后，监督审核应至少每12个月一次（因监督审核认证的符合性）。第二次、第三次监督审核的时间间隔不得超过12个月。
获证组织必须按照认证规则的要求，接受认证机构的监督审核。认证机构在监督审核合格后，将认证证书上加贴合格标志。认证证书在有效期内，如获证组织发生更名、地址变更、业务范围变更等情况，应及时向认证机构申请变更认证证书，否则认证证书无效。



萬泰認證

职业健康安全管理体系认证证书

成都永贵东洋轨道交通装备有限公司

注册地址：四川省成都市新都区石板滩镇创飞路369号；
生产地址：四川省成都市新都区石板滩镇创飞路369号1#厂房（1-9轴部分厂房）

统一社会信用代码：91510100MA6DGF8Q1R
建立的管理体系，按照以下标准评审合格，特发此证。
GB/T 45001-2020/ISO45001:2018

认证范围

轨道交通用受电弓的设计、制造与维修；轨道交通用弓网检测测箱的设计和制造以及轨道交通用电气连接器的制造所涉及的职业健康安全

证书号：1512403608830 发证日期：2024年06月05日 有效期至：2027年06月04日
本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）查询。



第一次监督 第二次监督 第三次监督

汪世中
总经理

按照认证规则第一次监督审核应在证书获证日期12个月内进行。此后，监督审核应至少每12个月一次（因监督审核认证的符合性）。第二次、第三次监督审核的时间间隔不得超过12个月。
获证组织必须按照认证规则的要求，接受认证机构的监督审核。认证机构在监督审核合格后，将认证证书上加贴合格标志。认证证书在有效期内，如获证组织发生更名、地址变更、业务范围变更等情况，应及时向认证机构申请变更认证证书，否则认证证书无效。



DEKRA

证书

ISO 50001:2018

DEKRA Certification GmbH 兹证明下述组织

成都永贵东洋轨道交通装备有限公司

统一社会信用代码：91510100MA6DGF8Q1R
地址：四川省成都市新都区石板滩镇创飞路369号，邮编610511

以下认证范围：
轨道交通用电气连接器（受电弓、电连接器）的研发、制造过程涉及的能源管理活动

已按照上述标准建立并保持了能源管理体系，符合性证据记录在编号为 OF230301222 的认证审核报告中。

证书登记号：180823045
原证书有效期：2023-08-08
证书有效期至：2028-08-07

本证书信息可在国家认证认可监督管理委员会官方网站（www.cnca.gov.cn）上查询。
本证书在获证组织定期接受监督审核并经审核合格后方可继续有效。

Dr. Rolf Krökel
DEKRA Certification GmbH, Stuttgart, 2023-08-08
德国 DEKRA 认证集团
德凯质量认证（上海）有限公司/杭州德凯认证有限公司
DEKRA Certification GmbH "Handwerksstraße 15" D-70565 Stuttgart "http://www.dekra.de/en/audit"



Certificate



In accordance with DIN 6701 to demonstrate the suitability of the user-company for manufacturing adhesive bonds on rail vehicles and parts of rail vehicles

Accepted certification body according to DIN EN ISO/IEC 17065 (DIN EN ISO/IEC 17065)

Company: Chengdu Yonggui Toyo Rolling Stock Equipment Co., Ltd

Location: No.369 Chuangfei Road, Shibantan Town, Xindu District, Chengdu City, Sichuan Province 610511 CHINA

Validity: Class A1
Process design
Manufacture
Purchase, sales and assembly of bonded components

Main function: F, D, S
Pre-treatment methods: BL
Production methods: HU, HE
Test methods: DT, VIS, PC
Degree of mechanization: M
(See code table A-2-Guidebook)

Supervisors: S. annex

Remarks: Two bonding addresses information is followings: 1st location: No.369 Chuangfei Road, Shibantan Town, Xindu District, Chengdu City, 2nd location: No. 184 Yuarisu Avenue, Ya'an Economic Development District, Ya'an City.

Certificate no.: CERT/6701/AL/N/2023/1241

Valid from: July 09, 2023
Valid until: July 08, 2026
Issued on: July 09, 2023



Krysia Błag
Certifier: TBB Cert



Dieses Zertifikat ist nur gültig in Verbindung mit dem aktuellen Eintrag im Online-Register.
This certificate is only valid in combination with the current entry in the Online-Register.
F & S Technologybremen GmbH | Wiener Straße 12 | 28350 Bremen | www.tbbsert.de

ISO14001 EMS



ISO45001 OSHMS

ISO15001 Energy Management

DIN6701 Adhesive bonding

Supplier qualification - CRRC Changchun、Sifang、CRRC Tangshan、Dalian、BCP.....



CRRC Changchun

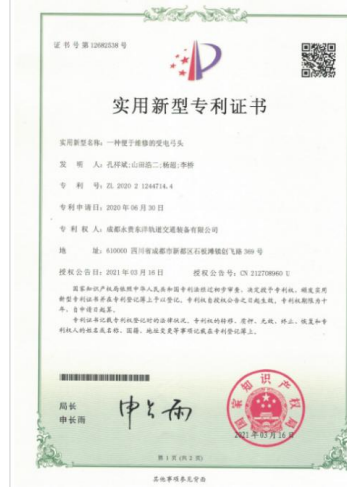


CRRC Qingdao Sifang

JRCC Certification



34 patents



Manufacturing capacity



Existing workstations: 5
Reserved workstations: 5
Capacity per worker:
1 set/person/3 days
Manufacturing capacity:
1200sets/year

Honor



PART TWO

Application performance

Application performance

Category	Main projects	Qty
New subway trains performance	Chengdu Metro Line5,6,8,11,27,30,Chongqing Line4 phase 2,Shaoxing Line2,Tianjin Line5,6,8,9,Jinan Line4,6,8,Xinji、 Indonesia Electric train,Thailand Tourist Special Line,Hong Kong Disneyland Line	1353
Urban high-speed trains performance	Taizhou S1,Wenzhou S2,Chengdu Line19 Phase 2,Chengdu-Ziyang Line,Tianjin Jinghai Line	272
Other new trains performance	Engineering Inspection Train project, Special 5G Mining Train project	21
Subway maintenance performance	Chengdu Line1,2,3,4,5、 Chengdu Tram Line 2,Tianjin Line6,9,Shenyang Line 1,9,10,Chongqing Line 5,Beijing Line 6 overhaul	1055
Total		2701

New line performance– Metro

NO.	Project Name	Qty	Remarks
1	Chengdu Metro Line 5	186	
2	Chengdu Metro Line 8	86	
3	Chengdu Metro Line 6	225	
4	Chengdu Metro Line 11	99	
5	Dujiangyan M-TR	18	
6	Tianjin Metro Line6/8	64	
7	Chongqing Line 4 phase 2	144	
8	Shaoxing Line 2	22	
9	Chengdu Line 8 phase 2	22	
10	Chengdu Metro Line 27	58	Unmanned driving

NO.	Project Name	Qty	Remarks
11	Chengdu Metro Line 30	72	无人驾驶
12	Tianjin Metro Line 9	20	
13	Tianjin Metro Line 5	8	
14	Jinan Metro Line 4	108	
15	Jinan Metro Line 6	100	
16	Jinan Xinji Line	22	
17	Indonesia Electric train	66	
18	Thailand Tourist Special Line	1	
19	Jinan Metro Line 8	24	
20	A141Smart Metro	2	
21	Hong Kong Disneyland Line	6	

Until June 2025, total **1,353** sets pantographs been supplied



New line performance– Urban train, etc.

NO.	Project Name	Qty	Remarks
1	Taizhou Line S1	62	
2	CM160urban vehicles	1	
3	Chengdu 160KM urban vehicles	3	
5	Wenzhou Line S2	74	
6	Chengdu Line19 Phase 2	90	
7	Tianjin Jinghai Line	20	
8	Chengdu-Ziyang Line	22	
Urban train Total		272	

NO.	Project Name	Qty	Remarks
1	Chengdu Metro Line 6 Inspection Train	3	
2	Chengdu Metro Line 11 Inspection Train	1	
3	Special 5G Mining Train project	6	
4	Chengdu Metro Line 27 Inspection Train	1	
5	Chengdu Metro Line 30 Inspection Train	1	
6	Jinan Metro Line 4 Inspection Train	1	
7	Jinan Metro Line 4 Inspection Train	4	
8	Chengdu-Ziyang Line Inspection Train	4	
Other Total		21	

Overhaul performance

NO.	Project Name	Qty	Remarks
1	Chengdu Metro Line 1 overhaul	34	
2	Chengdu Metro Line 4 overhaul	54	
3	Chengdu Metro Line 2 overhaul	64	
4	Tianjin Metro Line 9 replacement	76	replacement
5	Tianjin Metro Line 9 overhaul	18	
6	Chengdu metro Line 1 South overhaul	48	
7	Tianjin Metro Line 6 overhaul	6	
8	Chengdu Tram Line 2 overhaul	36	
9	Chengdu Metro Line 3 overhaul	90	

NO.	Project Name	Qty	Remarks
10	Shenyang metro Line 10 overhaul	54	
11	Chengdu Line 1 phase 3 overhaul	52	
12	Chongqing Metro Line 5 overhaul	156	
13	Chengdu Line 2 east extension overhaul	56	
14	Shenyang metro Line 9 overhaul	30	
15	Beijing Line 6 phase 3 overhaul	75	
16	Chengdu Metro Line 5 overhaul	186	
17	Shenyang metro Line 1 overhaul	20	

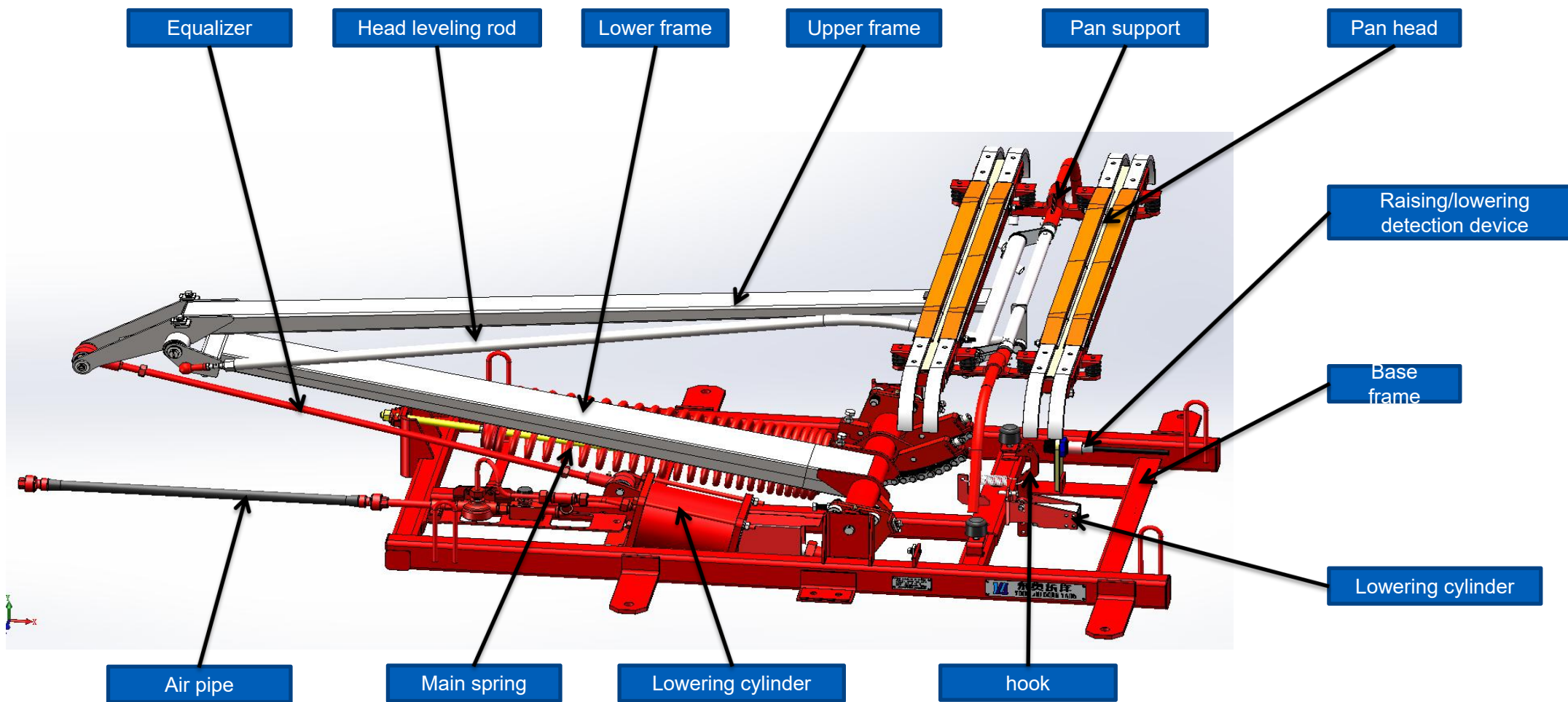
Until June 2025, total **1,055** sets pantographs been achieved



PART THREE

Technical Highlights

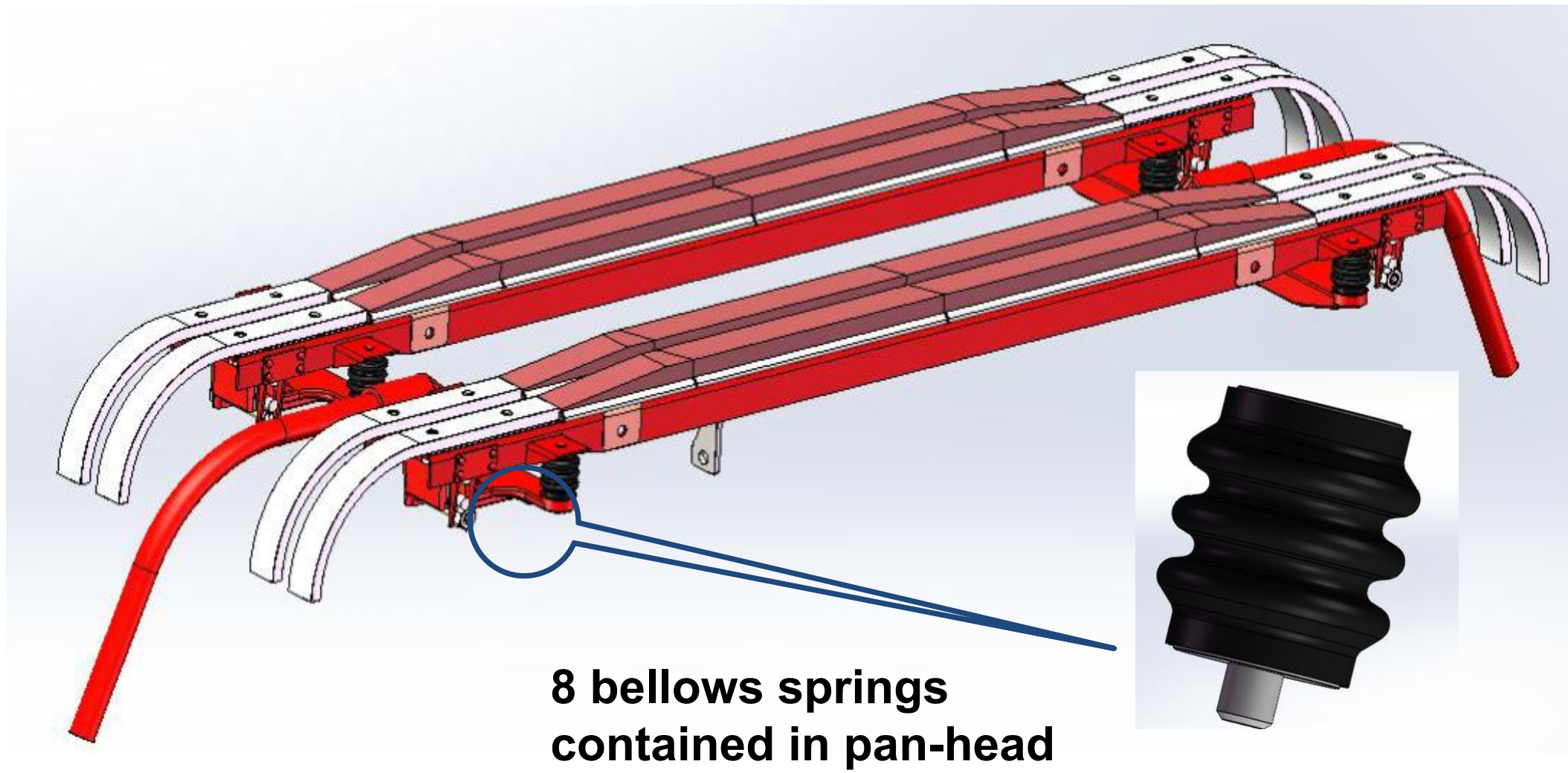
Structure of Pantograph



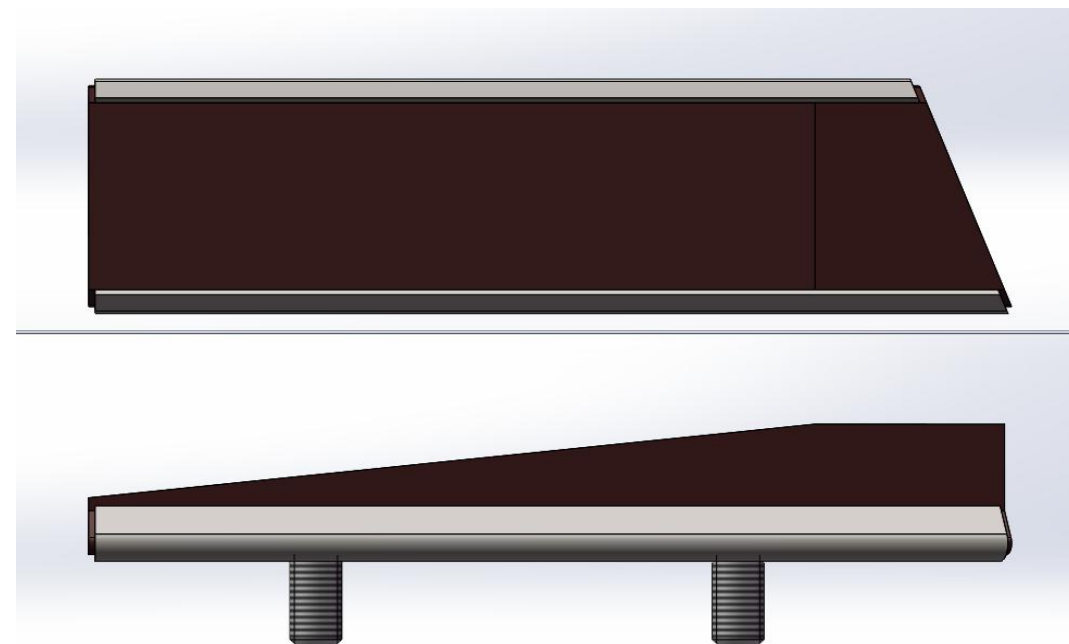
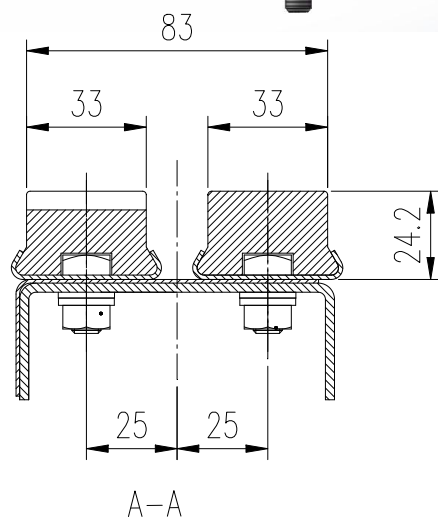
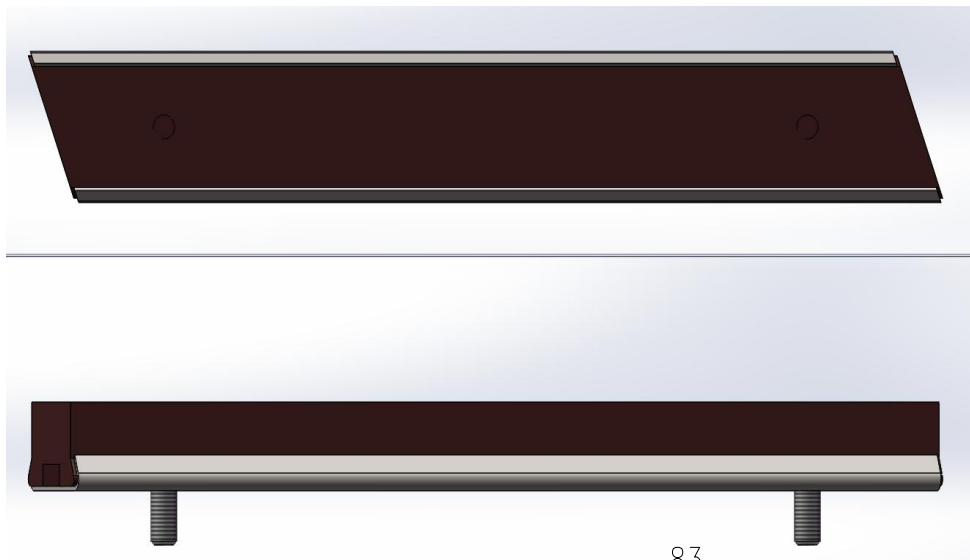
The characteristics of Yonggui's pantograph

- ① Pantograph and contact line system matches well, unique bellows spring secondary buffer design
- ② Segmented contact strip design, makes maintenance simple, convenient transportation
- ③ Raising by mechanical spring, reliable and stable
- ④ The mechanical abrasion is small, which is conducive to the extension of the life of the contact line and strip. $F=80\pm 10\text{N}$

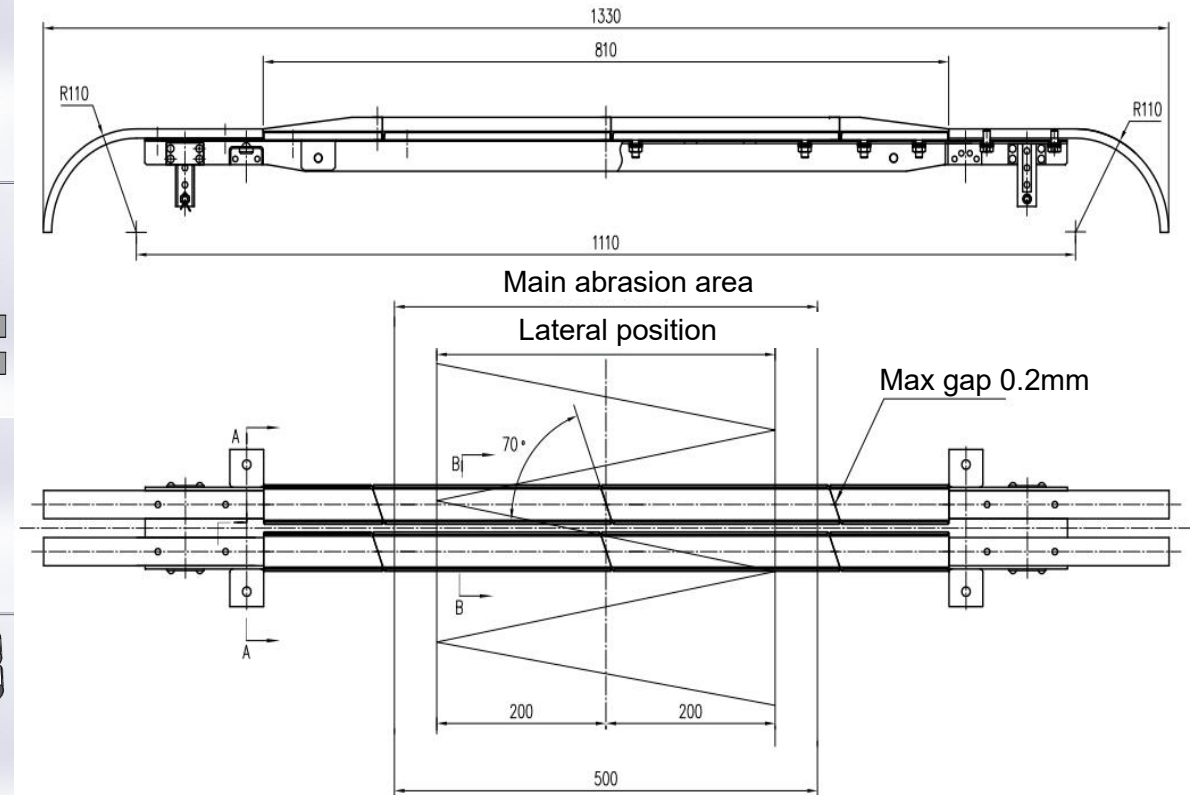
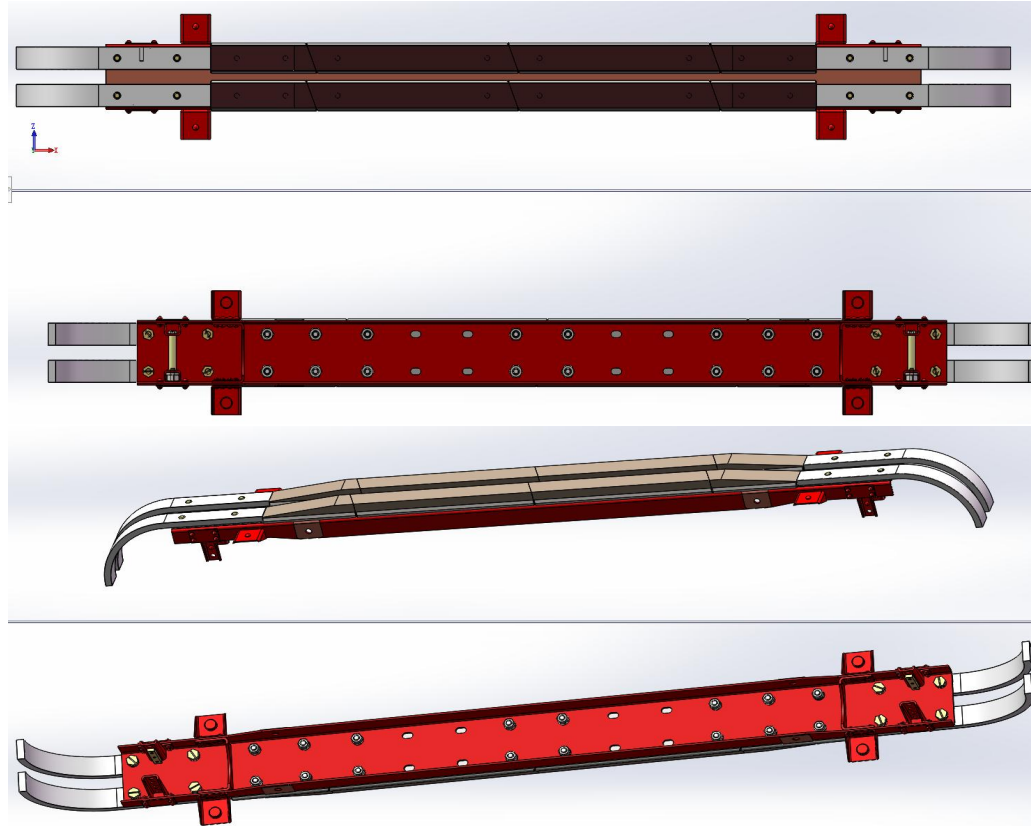
1.Unique pan-head design—bellows spring



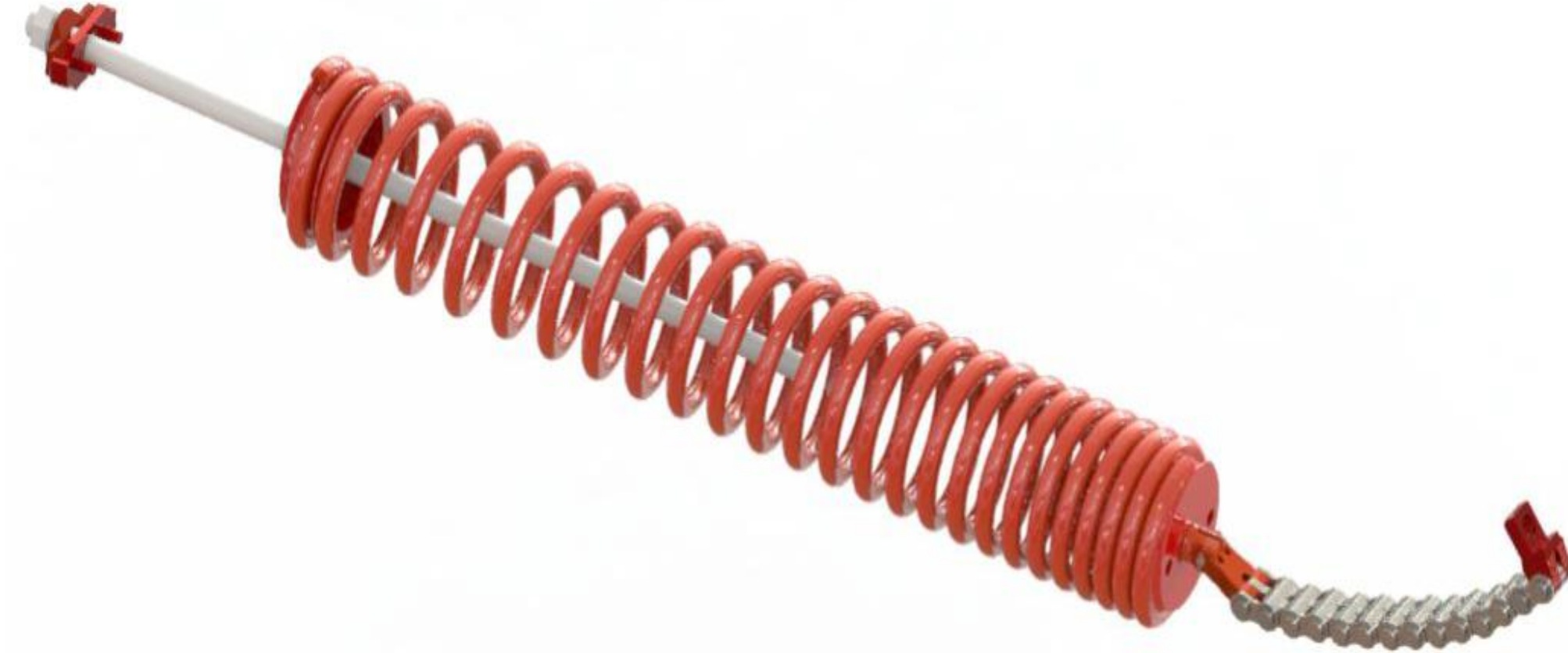
2. Segmented contact strip design



Design basis of segmented contact strip



3. Main spring provide power source of pan-raising



PART FOUR

Products and services

Specification of Pantograph -PT7203



PT7203

Rated voltage: DC 1500 V

Product name: single arm pantograph

Recommended max speed: 120 km/h

Recommended current: 1600A

Drive system: uplift by spring tension/drop by the thrust of cylinder

Control mode: uplift after hook unlock/ pneumatic drop

Rated operating air pressure: 450kPa

Min operating air pressure: 350 kPa

Nominal static contact force: 80 ± 10 N

Max operating height (without insulator): 2235 mm

Contact strip material: Metal-impregnated carbon strip

Contact strip fixing method: bolt fastening

Mass: ≈ 170 kg (without insulators)

Working environment temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Specification of Pantograph -YT7204



YT7204

Rated voltage: DC1500V/DC750V

Product name: single arm pantograph

Recommended max speed: 80 km/h

Recommended current: max1600A

Drive system: uplift by spring tension/drop by the thrust of actuator

Control mode: electric uplift and drop

Rated control voltage:DC110V/DC24V

Nominal static contact force: 50 ± 10 N

Max operating height (without insulator): 2290 mm

Contact strip material: metal-impregnated carbon strip

Contact strip fixing method: bolt fastening

Mass: ≈ 170 kg (without insulators)

Working environment temperature: $-30^{\circ}\text{C} \sim +50^{\circ}\text{C}$

Specification of Pantograph -YT7101



YT7101

Rated voltage: AC 25 kV / DC 1500 V

Product name: single arm pantograph

Recommended max speed: 200 km/h

Recommended current: 1000A

Drive system: uplift by spring tension/drop by the thrust of cylinder

Control mode: uplift after feed air/ drop after release air

Rated operating air pressure: 450kPa

Min operating air pressure: 350 kPa

Nominal static contact force: 70 ± 10 N

Max operating height (without insulator):1862 mm

Contact strip material: Metal-impregnated carbon strip

Contact strip fixing method: bolt fastening

Mass: ≈ 150 kg (without insulators)

Working environment temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Specification of Pantograph -PT7102



YT7102

Rated voltage: DC 1500 V

Product name: single arm pantograph

Recommended max speed: 130 km/h

Recommended current: 1600A

Drive system: uplift by spring tension/drop by
the thrust of cylinder

Control mode: uplift after feed air/ drop after
release air(uplift after hook unlock
/ pneumatic drop)

Rated operating air pressure: 450kPa

Min operating air pressure: 350 kPa

Nominal static contact force: 80 ± 10 N

Max operating height (without insulator): 1835 mm

Contact strip material: Metal-impregnated carbon strip

Contact strip fixing method: bolt fastening

Mass: ≈ 150 kg (without insulators)

Working environment temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Specification of Pantograph -PT7005

YT7005



Rated voltage: DC750V/DC 1500 V

Product name: single arm small pantograph

Recommended max speed: 80 km/h

Recommended current: Rated 1600A

Drive system: uplift by spring tension/drop by the thrust of cylinder

Control mode: electric uplift and drop

Nominal static contact force: $70 \pm 10\text{N}$

Max operating height (without insulator): 2290mm

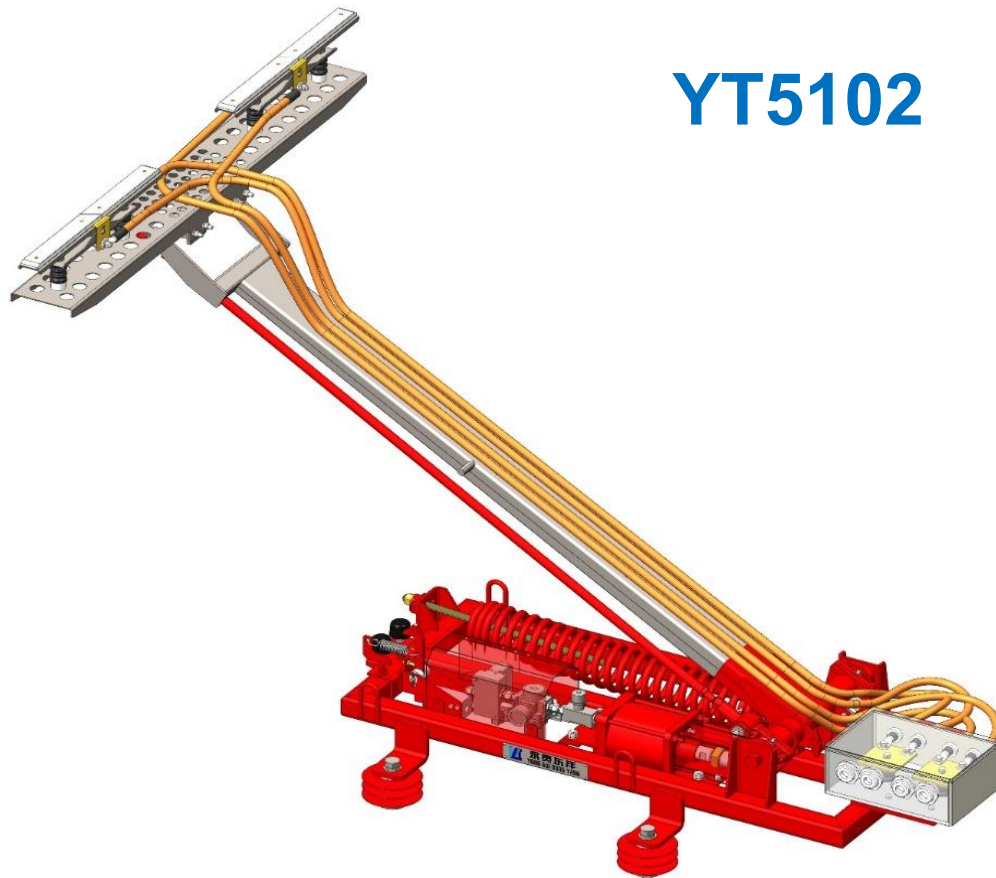
Contact strip material: metal-impregnated carbon strip

Contact strip fixing method: bolt fastening

Mass: $\approx 90\text{ kg}$ (without insulators)

Working environment temperature: $-30^{\circ}\text{C} \sim +50^{\circ}\text{C}$

Specification of Pantograph –YT5102



YT5102

Product name: Road traffic pantograph

Power supply contact mode: overhead contact rail

Contact electrode: 2 poles (positive, negative)

Rated operating voltage: DC 1500 V and below

Rated operating current: 600 A

Drive system: Rising by spring tension/Falling by the thrust of cylinder

Control mode: Unlock rising/ Pneumatic falling

Nominal static contact force: 120 N (adjustable)

Folding height: 420 mm (without insulator)

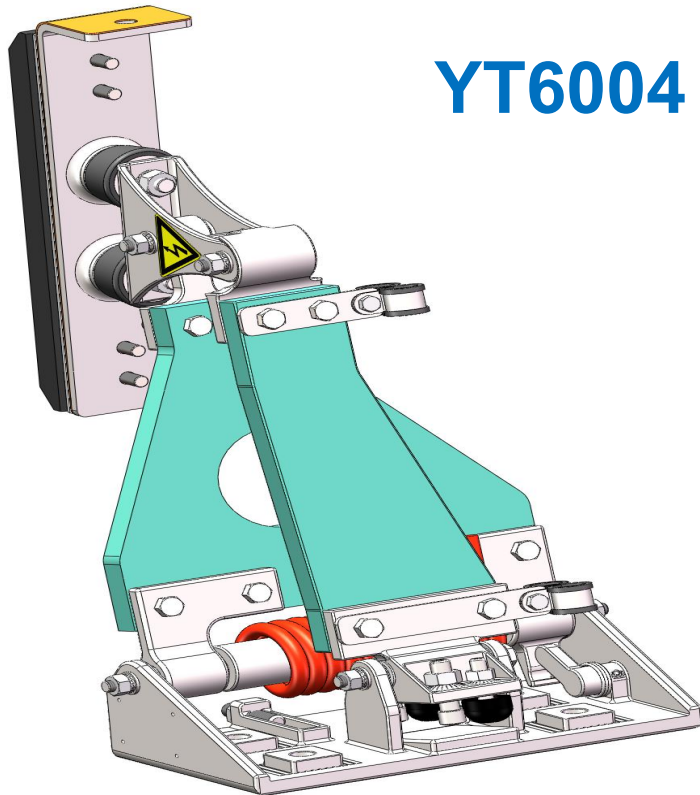
Min operating height: 600 mm (without insulator)

Maximum operating height: 1700 mm (without insulator)

Maximum lateral matching deviation: ± 250 mm

Working environment temperature: $-40^{\circ}\text{C} \sim +65^{\circ}\text{C}$

Specification of Pantograph –YT6004



Rated voltage: DC 1500 V

Product name: Third-rail current collector

Recommended max speed: 100km/h (work with third-rail)

Rated current: 500A

Working mode: side contact third-rail

Height adjustment range of swing arm assembly:

0 ~ 16mm (compensation for wheel abrasion)

Adjustment range for single-tooth: 4 mm

Installation dimension: $55\pm0.2\times60\pm0.2\text{mm}$

Static force: $120\text{N}\pm24\text{N}$

Abrasion resistance: > 50000km

Contact strip material: metal-impregnated carbon

Mounting method: bolt fastening

Method for contact strip detachment from third rail:
manual detachment

Mass: < 30kg

Operating ambient temperature: $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Specification of Pantograph –YT7301

YT7301

Under
development



Rated voltage: AC 25 kV

Product name: single arm pantograph

Recommended max speed: 300 km/h

Recommended current: 1000A

Drive system: uplift by spring tension/drop by
the thrust of cylinder

Control mode: uplift after feed air/ drop after release air

Rated operating air pressure: 450kPa

Min operating air pressure: 350 kPa

Nominal static contact force: 70 ± 10 N

Max operating height (without insulator): 1870 mm

Contact strip material: copper alloy strip

Contact strip fixing method: bolt fastening

Mass: ≈ 165 kg (without insulators)

Working environment temperature: $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$

Service Pledge

Commitment to implement full service before, during and after sale



Contact us

Tel: 0086-0816-2847469

0086-18681699976 (APAC)

0086-13880891825 (EMEA)

0086-13304865202 (Special market)

Email: sales@yonggui.com

Web: <https://www.yongguielectric.com/>



YONGGUI

CONNECTION TO FUTURE