

# 修井工具 WORKOVER TOOLS

*为世界石油工业提供优质的产品和服务*

**Provide high quality products and services for world petroleum industry!**

**江苏如通石油机械股份有限公司**  
**Jiangsu Rutong Petro-Machinery co.,Ltd.**

# Company Profile

Jiangsu Rutong Petro-Machinery Co., Ltd., one of the earliest enterprises engaged in the production and marketing of Oil and gas drilling and production handling tools in China, is one of Top 50 Enterprises in Chinese petroleum and petrochemical equipment manufacturing industry. It is also a Jiangsu High-Tech Enterprise, a Provincial Enterprise Academician Workstation and a Provincial Enterprise Technology Center.

Our company covers an area of approximately 200,000m<sup>2</sup>, with 35,000m<sup>2</sup> for production line of manual tongs, slips, elevators and bushings, 30,000m<sup>2</sup> for alkaline phenolic resin casting and precision casting production line with annual output of 10,000 tons, and 4000m<sup>2</sup> for fully computer controlled heat treatment production line.

Our company has over 40 years of experience in the research, development, production and marketing of petroleum drilling and production handling tools. Our major products are hoisting equipment, clamping equipment and make up/break out equipment. We have been promoting the development trend from manual and semi-automation to intelligentization and automation based on our core competitive edge. We have national key new products and Jiangsu provincial hi-tech products which enjoy high reputation among customers at home and abroad. We have established a perfect service network in all domestic oilfields, with complete pre-sales, sales and after-sales service system. We can supply special handling tools and equipment as per customer s' requirements, such as low-temperature equipment. We will provide technical supports in all aspects such as product installation, usage, maintenance and training, to spare no effort to meet the customers' need. Our products spread all the oilfields in China and have been exported to North America, Southeast Asia, Middle East, Central Asia, North Africa and other regions.

Adhering to the quality policy of "Getting Customers with High Quality Products and Services", we adopt advanced testing devices and methods, such as Germany-made spectrum analyzer, 2000-ton electro-hydraulic servo micro-controlled pressure tester, magnetic particle detector, ultra-low-temperature tester, metallographic and physico-chemical analysis devices, etc, to promote the product quality in all respects. Our major products have earned national production license, ISO9001 quality management system certification, ISO14001 environment management system certification, CNPC /SINOPEC HSE management system certifications, OHSAS18000 certification, API certification (API 6A, 7K and 8C), German GL Certification, CE certification, British LR Lloyd's Certification, etc.



# 公司简介

江苏如通石油机械股份有限公司是国内最早从事石油、天然气钻采井口工具与设备研发与生产的企业之一、中国石油石化装备制造业“五十强”企业、江苏省高新技术企业，建有江苏省石油钻采井口装备工程研究中心、江苏省企业技术中心江苏省企业院士工作站、江苏省企业研究生工作站。

公司厂区占地面积约20万平方米，拥有3万5千平方米的吊钳、吊卡、吊环、卡瓦生产线；拥有3万平方米年产1万吨以上的碱酚醛树脂砂铸造和精密铸造生产线；拥有近4千平方米、国内最先进的全自动热处理生产线。

公司生产石油机械产品已有40多年的历史，一直从事石油钻采井口装备的研发、生产与销售，主要产品为提升设备、卡持设备和旋扣设备。公司依托业已形成的核心竞争优势，不断推进手动和半机械化产品向机械化、智能化产品方向发展。公司拥有多个国家重点新产品和江苏省高新技术产品，在国内外用户中享有较高的知名度和美誉度。公司在全国各大油田均建有完善的服务网络，具有完备的售前、售中、售后服务体系，并可根据客户要求提供特殊条件作业的定制化产品，在产品安装、使用、维护方面给予用户指导、培训等技术支持，最大限度地满足客户需求。产品遍及国内各个油田，并远销北美、东南亚、中东、中亚、欧洲和北非等地区。

公司始终坚持“以优质的产品和服务赢得顾客”的质量方针，建立了完善的质量保证体系，从原料采购到成品出厂的每一个环节、每一个细微之处，均执行严格的品质控制。采用进口光谱分析仪、2000吨电液伺服微控压力试验机、磁粉探伤机、低温冲击仪、金相、理化分析等先进的检测设备和手段，确保产品质量符合标准要求。主要产品获国家颁发的生产许可证，先后通过ISO9001质量管理体系认证、ISO14001环境管理体系认证，HSE健康安全与环境管理体系认证、OHSAS18000认证、美国石油学会API（6A、7K、8C）认证、德国GL劳氏船级社认证、欧盟CE认证、英国LR劳氏船级社等多项认证，RT牌钻井悬吊工具荣获江苏省名牌产品和行业名牌。







## 规模实力 Scale of Company

公司厂区占地面积约20万平方米，拥有近5万平方米的“三吊一卡”生产线；拥有近3万平方米年产1万吨以上的碱酚醛树脂砂铸造和精密铸造生产线；拥有近4千平方米、全自动电脑控制的热处理生产线。具有雄厚的铸造、热处理和机械加工实力。

Our company covers an area of approximately 200,000m<sup>2</sup>, with 50,000m<sup>2</sup> for production line of elevators/spiders, 30,000m<sup>2</sup> for alkaline phenolic resin casting and precision casting production line with annual output of 10,000t, and 4000m<sup>2</sup> for fully computer controlled heat treatment production line. We have powerful capacity for casting, heat treatment and machining.



国内最先进全自动热处理生产线  
Automatic Heat Treatment Production Line

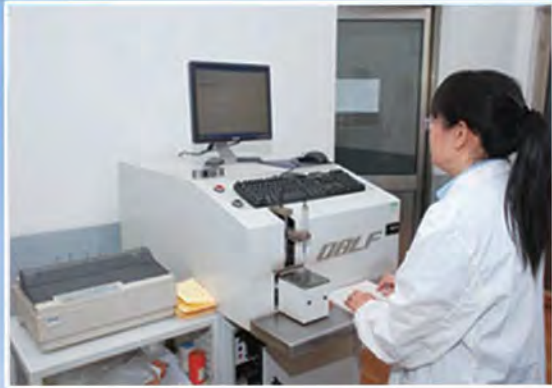


数控生产线 Numerical Control Production Line



年产万吨的碱酚醛树脂砂铸造和精密铸造生产线  
Alkaline Phenolic Resin Casting and Precision Casting Production Line with Annual Output of 10000 Tons

# 品质保证 Quality Assurance



德国直读光谱仪  
Direct-reading Spectrometer Imported from Germany



三坐标测量仪  
Coordinate Measuring Machine (CMM)



2000吨电液伺服压力试验机  
2000t Electro-hydraulic Servo Controlled Testing Machine



电液伺服万能试验机  
Electro-Hydraulic servo Universal Tester



全自动冲击试验机  
Automatic Impact Testing Machine



德国蔡司金相显微镜  
Zeiss Metallurgical Microscope Imported from Germany

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## 2 旋扣类 **Make-up and Break-out**

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# TA油管吊卡 TA Tubing Elevators

TA对开式吊卡可广泛用于石油、天然气钻修井作业中油管的提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

TA center latch elevator can be widely used for tubing hoisting during petroleum and natural gas drilling and workover operations. The tubing elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



TA35



TA100

## 主要技术参数 Technical Specifications

规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load(short tons)
	不加厚 NU	外加厚 EU	
TA□-35	1.050	1.050 EU	35
	1.315	1.315 EU	
	1.660	1.660 EU	
	1.900	1.900 EU	
	2.3/8	2.3/8 EU	
	2.7/8	2.7/8 EU	
TA□-65	1.660	1.660 EU	65
	1.900	1.900 EU	
	2.3/8	2.3/8 EU	
TA□-100	2.7/8	2.7/8 EU	100
	1.900	1.900 EU	
	2.3/8	2.3/8 EU	
	2.7/8	2.7/8 EU	
	3	3 EU	
	3.1/2	3.1/2 EU	
	4	4 EU	
	4.1/2	4.1/2 EU	
5	/		

# DD油管吊卡 DD Tubing Elevators

## DD动力油管吊卡 DD Power Tubing Elevators

DD对开式吊卡可广泛用于石油、天然气钻修井作业中油管的提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

DD动力油管吊卡在现有DD吊卡上改进部分设计，安装一种气动或液动操作装置以实现吊卡的自动操作，实现修井作业中DD吊卡操作的远程控制。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

DD center latch elevator can be widely used for tubing hoisting during petroleum and natural gas drilling and workover operations. The tubing elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

DD power tubing elevator is modified based on the DD elevators, a pneumatic or hydraulic operation mechanism is installed on the elevator to realize automatic operation of elevator, to realize remote control of DD elevator during workover operation. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



DD油管吊卡  
DD Tubing Elevators



DD动力油管吊卡  
DD Power Tubing Elevators

专利号：ZL201310307261.3

### 主要技术参数 Technical Specifications

规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load(short tons)
	不加厚 NU	外加厚 EU	
DD□-150	2. 3/8	2. 3/8 EU	150
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	
	5	5 EU	
	5. 1/2	5. 1/2 EU	

# BD油管吊卡 BD Tubing Elevators

## BD动力油管吊卡 BD Power Tubing Elevators

BD系列油管吊卡是石油钻修井作业中提升或下放油管或空心抽油杆的重要工具。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

BD动力油管吊卡在现有BD油管吊卡上改进部分设计，安装一种气动或液动操作装置以实现吊卡的自动操作，实现修井作业中BD吊卡操作的远程控制。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

BD series elevators are important tools for hoisting or lowering tubing or hollow sucker rod during petroleum drilling and workover operations. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

BD power tubing elevator is modified based on the BD elevators, a pneumatic or hydraulic operation mechanism is installed on the elevator to realize automatic operation of elevator, to realize remote control of BD elevator during workover operation. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



BD油管吊卡  
BD Tubing Elevators



BD动力油管吊卡  
BD Power Tubing Elevators

主要技术参数 Technical Specifications

规格型号 Model	结构形式 Structures	适用油管 Applicable pipe size		额定载荷 Rated load(short tons)
		不加厚 NU	外加厚 EU	
BD□-50	单头 Single-end	1.660	1.660 EU	50
		1.900	1.900 EU	
		2.3/8	2.3/8 EU	
		2.7/8	2.7/8 EU	
		3.1/2	3.1/2 EU	
		4	4 EU	
		4.1/2	4.1/2 EU	
BD2.3/8(EU)-50ST	双头 Double-end	2.3/8、2.3/8 EU		50
BD2.7/8(EU)-50ST		2.7/8、2.7/8 EU		
BD3.1/2(EU)-50ST		3.1/2、3.1/2 EU		
BD4(EU)-50ST		4、4 EU		
BD4.1/2(EU)-50ST		4.1/2、4.1/2 EU		
BD□-75	单头 Single-end	2.3/8	2.3/8 EU	75
		2.7/8	2.7/8 EU	
		3.1/2	3.1/2 EU	
		4	4 EU	
		4.1/2	4.1/2 EU	
BD2.3/8(EU)-75ST	双头 Double-end	2.3/8、2.3/8 EU		75
BD2.7/8(EU)-75ST		2.7/8、2.7/8 EU		
BD3.1/2(EU)-75ST		3.1/2、3.1/2 EU		
BD4(EU)-75ST		4、4 EU		
BD4.1/2(EU)-75ST		4.1/2、4.1/2 EU		

规格型号 Model	结构形式 Structures	适用空心抽油杆规格 Applicable pipe size(mm)	额定载荷 Rated load(short tons)
BD36-50	单头 Single-end	32	50
BD38-50		34	
BD40-50		36	
BD42-50		38	

# CDZH150 液压吊卡

## CDH 150 Hydraulic Elevators

CDZH 150 液压吊卡是石油天然气修井用的提升工具。在修井起下钻作业中，该液压吊卡通过两翻转臂实现0~90° 范围内翻转，同时可在其角度范围内通过操作调节，使得液压吊卡孔径中心与液压猫道平台面保持相同角度后停住，以利于液压吊卡顺利的扣合液压猫道上的管柱；在二层台能有效的配合二层台机械手来卡持相应规格管柱。标配的吊卡控制柜上设有吊卡闭合及管柱进入指示灯，用来提示司钻吊卡状态。

该液压吊卡可通过更换内衬来卡持相应规格管柱，它能方便、安全可靠地悬挂锥度钻杆、平台肩钻杆、套管、油管，内衬结构特别有利于延长吊卡主体使用寿命。产品按 API Spec 8C 《钻井和采油提升设备规范》要求设计制造。使用液压与电气控制系统，机械化程度高，操作方便，可有效地减轻工人的劳动强度，提高修井作业效率，可实现远程控制，使用安全可靠。

CDZH 150 hydraulic elevators is applied to lift strings in oil and gas drilling . In tripping operation, the hydraulic elevator by two rotators to achieve rolling from 0 ° to 90 °, and through the operation is regulated in the range, which remain the same angle stop after hydraulic elevator is the center of the aperture and the hydraulic catwalk, for hydraulic elevator smooth buckle the tublar of hydraulic catwalk; The elevator console with the elevator closed and tublar to enter the indicating lamp, to prompt elevator status.

The hydraulic elevator through the replacement of the bushing to the corresponding specification tublar, it can facilitate, safe and reliable suspension taper pipe, square shoulder drill pipe, casing, tubing, the bushing structure particularly to extend the service life of the elevator body. The products are designed and manufactured in accordance with API Spec 8C "Drilling and Production Hoisting Equipment ". It adopts hydraulic and electric control system with high degree of mechanization easy and fast operation. Meanwhile, the user can choose the proper rotary apparatus as required to make elevator rotate with acceptable position to fit strings. It also can have a perfect match with convey devices like power catwalk and so on. It can reduce the labor strength greatly, improve work efficiency and achieve remote control with safe and reliable operation.



专利号：ZL201020611751.4

额定载荷 Rated load	kN	1334
	Short tons	150
适用管柱规格范围 Size range	18° 锥度钻杆 DP with 18deg taper	2. 3/8~4. 1/2
	直角台肩钻杆 DP with square shoulder	2. 7/8~4. 1/2
	油管Tubing	2. 3/8~4. 1/2
	套管Casing	4. 1/2~4. 3/4
适用吊环杆部直径尺寸范围 Application of bar diameter links	in	2. 3/8~2. 3/4
	mm	60. 3~69. 85
吊卡吊臂中心距 The elevator arm center distance	mm	400
游钩中心距 Hook center distance	mm	≥ 400

## CD油管吊卡 CD Tubing Elevators

CD型侧开式吊卡主要用于石油天然气钻修井作业过程中油管卡持与提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

CD side-door elevators are mainly used or tubing gripping and hoisting during petroleum and natural gas drilling and workover operations. The tubing elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

规格型号 Model	适用油管 Applicable pipe size		额定载荷Rated load (short tons)
	不加厚 NU	外加厚 EU	
CD□-150	2. 3/8	2. 3/8 EU	150
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	



## SLX油管吊卡 SLX Tubing Elevators

SLX型侧开式吊卡主要用于石油天然气钻修井作业过程中，油管的卡持与提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

SLX side-door elevators are mainly used or tubing gripping and hoisting during petroleum and natural gas drilling and workover operations. The tubing elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



SLX1000

规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load(short tons)
	不加厚 NU	外加厚 EU	
SLX□-65	2. 3/8	2. 3/8 EU	65
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	
	5	/	
	5. 1/2	/	
SLX□-100	2. 3/8	2. 3/8 EU	100
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	
	5	/	
	5. 1/2	/	

## Y系列油管吊卡 Y Series Tubing Elevators

## Y系列自卡式油管吊卡 Y Series Self-locking Tubing Elevators

Y型卡瓦式吊卡是钻井与修井起下钻作业中，用于卡持提升油管的必备工具，尤其适用于整体接头油管的提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

Y系列自卡式吊卡在Y系列吊卡基础上，安装手动或动力装置以实现吊卡内卡瓦体的手动或自支上浮或压紧的操作。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

Y-type slip type elevators are necessary tools for gripping and hoisting tubing during tripping in/out of drilling and workover operations, and especially are suitable for hoisting tubing with integral joint. The elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

Through installing manual or powered device on the basis of Y series elevator, Y series self-locking tubing elevators realize slips floating or pressing in elevators manually or automatically. The products shall be designed and manufactured according to GB/T 19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



MYT



HYT



YC



HYC



**主要技术参数 Technical Specifications**

规格型号 Model	适用管径规格 Applicable pipe size	卡瓦体规格 Slip Size	牙板 Inserts		额定载荷 Rated load	
			规格 Size	数量 Qty	kN	short tons
MYT	1. 315	2. 7/8	29259	8	360	40
	1. 660	2. 7/8	29258	8		
	1. 900	2. 7/8	29257	8		
	2	2. 7/8	29256	8		
	2. 1/16	2. 7/8	29256	8		
	2. 3/8	2. 7/8	29255	8		
	2. 7/8	2. 7/8	24773	8		
YT	1. 315	2. 7/8	29259	12	675	75
	1. 660	2. 7/8	29258	12		
	1. 900	2. 7/8	29257	12		
	2	2. 7/8	29256	12		
	2. 1/16	2. 7/8	29256	12		
	2. 3/8	2. 7/8	29255	12		
	2. 7/8	2. 7/8	24773	12		
	2. 7/8	3. 1/2	30358	24		
3. 1/2	3. 1/2	24774	24			
HYT	2. 3/8	2. 7/8	29255	16	1350	150
	2. 7/8	2. 7/8	24773	16		
	2. 7/8	3. 1/2	30358	32		
	3. 1/2	3. 1/2	24774	32		
YC	3. 1/2	4. 1/2	24779	16	675	75
	4	4. 1/2	24781	16		
	4. 1/2	4. 1/2	16408	16		
	5	5. 1/2	24783	16		
	5. 1/2	5. 1/2	16407	16		
	6. 5/8	7	24784	24		
	7	7	16407	24		
MYC	3. 1/2	4. 1/2	24779	16	1125	125
	4	4. 1/2	24781	16		
	4. 1/2	4. 1/2	16408	16		
	5	5. 1/2	24783	16		
	5. 1/2	5. 1/2	16407	16		
	6. 5/8	7	24784	24		
	7	7	16407	24		
HYC	3. 1/2	4. 1/2	24779	24	1800	200
	4	4. 1/2	24781	24		
	4. 1/2	4. 1/2	16408	24		
	5	5. 1/2	24783	36		
	5. 1/2	5. 1/2	16407	36		
	6. 5/8	7	24784	48		
	7	7	16407	48		
	7. 5/8	5. 5/8	70010	48		

## SJ 油管单根吊卡 SJ Single-Joint Elevators

SJ油管单根吊卡主要用于石油、天然气钻井、固井作业中，悬持单根油管等管柱的必备工具。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

SJ series Single-Joint elevators are mainly used for petroleum, natural gas drilling and cementing operations, which are necessary tools for suspending single-joint tubing. The elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load (short tons)
	不加厚 NU	外加厚 EU	
SJ□-5	2. 3/8	2. 3/8 EU	5
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	
	5	5 EU	
	5. 1/2	5. 1/2 EU	
5. 3/4	5. 3/4 EU		



## SJX 油管单根吊卡 SJX Single-Joint Elevators

SJX主要用于单根管柱的卡持与提升，或与下套管专业工具CRT配套使用将管柱从井架大门处移到井口中心。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

SJX tubing single-joint elevators are mainly used for gripping and hoisting single-joint pipe string, or moving the pipe string from the mast V-door to wellhead center matched with special tool CRT. The elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load (short tons)
	不加厚 NU	外加厚 EU	
SJX□-5	2. 3/8	2. 3/8 EU	5
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	



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## SP单根吊卡 SP Single-Joint Elevators

SP系列单根吊卡主要用于具有锥度管接头的单根油管、套管、钻杆等管柱的卡持和提升。产品按API Spec 8C规范要求设计、制造。

SP series Single-Joint elevators are mainly used for gripping and hoisting single-joint tubing with taper pipe joint, casing and drill pipe. The elevators are designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



规格型号 Model	适用油管 Applicable pipe size		额定载荷 Rated load (short tons)
	不加厚 NU	外加厚 EU	
SP5°	2. 3/8	2. 3/8 EU	5
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	
SP12°	2. 3/8	2. 3/8 EU	5
	2. 7/8	2. 7/8 EU	
	3. 1/2	3. 1/2 EU	
	4	4 EU	
	4. 1/2	4. 1/2 EU	

## 抽油杆吊卡 Sucker Rod Elevators

抽油杆吊卡主要用于抽油杆的卡持和提升。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

Sucker rod elevators are mainly used for gripping and hoisting of sucker rod. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.

规格型号 Model	结构型式 Structures	适用管径 Applicable pipe size								最大工作载荷 Max. working load
		1/2	5/8	3/4	7/8	1	1. 1/8	1. 1/4	1. 1/2	
SRE20	垫片式 Washer type	1/2	5/8	3/4	7/8	1	1. 1/8	1. 1/4	1. 1/2	20tons (180kN)
SRE25	垫片式 Washer type	—	5/8	3/4	7/8	1	1. 1/8	1. 1/4	1. 1/2	25tons (225kN)
GDQ25	整体式 Integral type	1/2	5/8	3/4	7/8	1	1. 1/8	1. 1/4	—	25tons (225kN)



# SE150气动油管吊卡/卡盘

## SE150 Tubing Elevator/Spider

SE150型吊卡/卡盘主要用于石油、天然气钻修井作业中卡持钻杆、油管。产品按API Spec 8C和API Spec 7K要求设计、制造。

该吊卡/卡盘是采用气动操作系统，有效地减轻了工人的劳动强度，提高了工作效率。该吊卡/卡盘结构合理，操作方便，安全可靠，是钻修井作业较为理想的工具。

SE150Ton elevator/spider is mainly used for clamping the drill pipe and tubing in the operation of oil and gas drilling and workover. SE elevator/spider was designed and manufactured in accordance with the requirements of API Spec 7K and API Spec 8C.

Using pneumatic operating system, this elevator/spider effectively lightens the labor intensity of workers and improves their work efficiency. Featured with reasonable structure, easy operation, safety and reliability, this elevator/spider is fairly ideal tool for drilling and work over operation. Please read this Operation Manual carefully before using this elevator/spider in order to exactly understand its structural characteristics and purposes.



专利号: ZL201410489491.0

### 主要技术参数 Technical Specifications

卡持管径 (in) Applicable Diameter of Tubular	卡瓦体规格 Size of slips	牙板规格 Insert size	额定载荷 Rated load	
			kN	Short tons
2. 3/8	3. 1/2	3. 1/2 × 2. 3/8	1350	150
2. 7/8		3. 1/2 × 2. 7/8		
3. 1/2		3. 1/2 × 3. 1/2		
4	5. 1/2	5. 1/2 × 4	1350	150
4. 1/2		5. 1/2 × 4. 1/2		
5		5. 1/2 × 5		
5. 1/2		5. 1/2 × 5. 1/2		

## 吊环 Elevator Links

无焊缝吊环由单根高强度合金钢锻造而成，产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

Weldless elevator links are forged with single-joint high-strength alloy steel. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification, for Drilling and production Hoisting Equipment.



### 主要技术参数 Technical Specifications

吊环型式 Type	规格型号 Specification	额定载荷 Rated Capacity (Short tons)	标准工作长度 Length (mm)
单臂吊环 Weldless links	DH50	50	1500
	DH75	75	1500
	DH100	100	1500/4500
	DH150	150	1800
双臂吊环 Perfection links	SH30	30	610/1100
	SH80	80	914/1219/1524
	SH100	100	914/1219
	SH150	150	1500/1700

# YG100游车大钩 YG100 Hook Block

游车大钩是石油钻机的提升设备之一，在钻修井作业过程中，主要用于悬吊和起下钻杆柱，更换钻头、下套管。在轻度卡钻和遇阻时，也可用于排除事故。产品按GB/T 19190及API Spec 8C《钻井和采油提升设备规范》设计、制造。

The traveling block and hook assembly is one of hoisting equipment of petroleum drilling rig, during drilling and workover operations, it is mainly used for suspending and tripping in/out drill pipe string, replacing drill bit and running casing. In case of slight stuck and resistance encountered, it also can be used for removal of faults. The product is designed and manufactured in accordance with GB/T19190 and API Spec 8C Specification for Drilling and Production Hoisting Equipment.



专利号: ZL200820216988.5

## 主要技术参数 Technical Specifications

规格型号 Model	YG100
额定载荷 Ratedload (Short tons)	100
滑轮数/直径 Sheaves/Diameter (mm)	3/609.6
钩体形式 Hook type	三钩Three-hook
钢丝绳直径 Diameter of wireline (mm)	25.4
外形尺寸 Overall dimensions (mm)	1685×675×512
重量 Weight (kg)	1010

## 抽油杆吊筒 Sucker Rod Buckets

抽油杆吊筒主要用于修井作业中提升单根抽油杆并将其悬挂在修井机的吊框上。最大工作载荷为400lb，适用抽油杆规格为1/2~1 1/8in。

Sucker rod buckets are mainly used for hoisting single sucker rod and suspending on the hoisting frame of workover rig during workover operations. Maximum work load is 400lb, size of appropriate sucker rod is 1/2~1-1/8in.

### 主要技术参数 Technical Specifications

适用抽油杆规格 (in) Applicable Diameter of Tubulars	5/8	3/4	7/8	7/8HY	1	1. 1/8
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## 抽油杆大钩 Sucker Rod Hooks

抽油杆大钩是抽油杆提升设备之一。它适用于所有井深和操作条件独特的单手控制锁闭机构和安全环形挡板设计，确保操作安全、可靠。产品按API Spec 8C规范要求设计制造。

Sucker rod hooks are suitable for all well depth and operation conditions with unique single-hand latch mechanism and safety annular retaining plate design, ensure safe and reliable operation. The product is designed and manufactured in accordance with API Spec 8C Specification.



### 主要技术参数 Technical Specifications

规格型号 Model	RH25	RH25L	R35
最大载荷 Max.working load	25 short tons (225 kN)	25 short tons (225 kN)	35 short tons (315 kN)
总长 Length	494 mm	798 mm	960 mm

# XQ液压修井动力钳

## XQ Hydraulic Power Tong

XQ液压修井动力钳是在油田修井作业中用来快速上卸螺纹的动力钳，适用于42mm~140mm（1.66”~5.1/2”）范围内的油管、小钻杆和小套管及16mm~28mm（5/8”~1.1/8”）范围内的抽油杆，与同类型其他液压力钳相比，具有结构紧凑、操作方便、性能可靠、使用寿命长、适应范围广、输出扭矩大等优点。陆地、海洋油田均可使用，使用本产品可降低工人劳动强度，提高工作效率和工作质量。产品按API Spec 7K 规范要求设计、制造。



XQ hydraulic power tong is used for quick make-up/break-out thread during oilfield workover operations, and it is suitable for tubing ranging from 42mm to 140mm(1.66”~5.1/2”), small drill pipe and small casing, as well as sucker rod at the range of 16mm~28mm(5/8”~1.1/8”), compared with the similar kind of other hydraulic power tong, it has following advantages: compact structure, easy for operation, reliable performance, long service life and large output torque, etc. It can be used both land and offshore oilfields. Using the product can reduce labor strength, increase working efficiency and working quality. The product is designed and manufactured in accordance with API Spec 7K Specification.

专利号：ZL201410181431.2

### XQ140/20型液压油管动力钳 XQ140/20 Hydraulic Tubing Power tong

适用管径 Applicable pipe size	mm	42	48	52	60	73	89	102	114	127	140	
	in	1.66	1.9	2.1/16	2.3/8	2.7/8	3.1/2	4	4.1/2	5	5.1/2	
最大工作压力 Max. working pressure	16MPa(2321psi)											
最大供油量 Max. oil supply	160L/min(42.3g/min)											
长度 Length	1150mm(45.3in)											
宽度 Width	1000mm(39.4in)											
高度 Height	1660mm(65.4in)											
重量 Weight	840kg(1848lb)											
扭矩范围 Torque Range												
最大转速 Max. RPM (rpm)	高100 High 100						低24 low 24					
1000psi 时扭矩 RPM at 1000PSI	1400 ft·lb						6000 ft·lb					
2500psi 时扭矩 RPM at 2500PSI	3500 ft·lb						15000 ft·lb					



**XQ140/12Y型修井动力钳 XQ140/12Y Workover Power tong**

适用管径 Applicable pipe size	mm in	60 2.3/8	89 3.1/2	102 4	114 4.1/2	127 5	140 5.1/2
最大工作压力 Max. working pressure	12MPa(1740psi)						
最大供油量 Max. oil supply	120L/min(31.7g/min)						
高档最大扭矩 Max. torque at high gear	4.2kN·m(3098lbf·ft)						
低档最大扭矩 Max. torque at low gear	12kN·m(8851lbf·ft)						
高档最高转速 Max. RPM at high gear	72r/min(72r/min)						
低档最高转速 Max. RPM at low gear	24r/min						
外形尺寸 Overall dimensions	1060mm×618mm×850mm(41.7in×24.3in×33.5in)						
移运质量 Transportation weigh	520kg(1144lb)						



**XQ28/1.8Y型修井动力钳 XQ28/1.8Y Workover Power tong**

适用管径 Applicable pipe size	抽油杆 Sucker rod	mm in	16 5/8	19 3/4	22 7/8	25 1	28 1.1/8
适用管径 Applicable pipe size	油管 Tubing	mm in	48--55 1.7/8 --2.5/32			55--60 2.5/32-- 2.3/8	
最大工作压力 Max. working pressure	10MPa(1450psi)						
最大供油量 Max. oil supply	65L/min(17.2g/min)						
高档最大扭矩 Max. torque at high gear	0.7kN·m(516lbf·ft)						
低档最大扭矩 Max. torque at low gear	1.8kN·m(1328lbf·ft)						
高档最高转速 Max. RPM at high gear	104r/min						
低档最高转速 Max. RPM at low gear	40r/min						
外形尺寸 Overall dimensions	543mm×334mm×404mm(21.4in×13in×16in)						
移运质量 Transportation weigh	95kg(210lb)						



**XQ28/2.6Y型修井动力钳 XQ28/2.6Y Workover Power tong**

适用管径(抽油杆) Appropriate pipe diameter(Sucker rod)	mm in	16 5/8	19 3/4	22 7/8	25 1	28 1.1/8
最大工作压力 Max. working pressure	10MPa(1450psi)					
最大供油量 Max. oil supply	80L/min(21.1g/min)					
高档最大扭矩 Max. torque at high gear	0.8kN·m(590lbf·ft)					
低档最大扭矩 Max. torque at low gear	2.6kN·m(1918lbf·ft)					
高档最高转速 Max. RPM at high gear	98r/min					
低档最高转速 Max. RPM at low gear	32r/min					
外形尺寸 Overall dimensions	670mm×383mm×490mm(26.4in×15in×19.3in)					
移运质量 Transportation weigh	100kg(220lb)					



## 抽油杆扳手 Sucker Rod Wrenches

抽油杆扳手由高强度合金钢制成，坚硬、耐磨。它的开口适用于钢制抽油杆的四方。扳手设计成平衡状态减少使用者的疲劳，是优良的手动装卸抽油杆的工具。

Sucker rod wrenches are made of high strength alloy steel which is hard and wearable. Its opening is suitable for square of steel-made sucker rod. The wrench is designed to balance condition to reduce fatigue of operator, which is a good manual tool for make-up/break-out sucker rod.

### 主要技术参数 Technical Specifications

适用抽油杆规格 (in)						
Specification of	5/8	3/4	7/8	7/8HY	1	1.1/8
Applicable Sucker Rod(in)						



## 油管钳（扳手） Tubing Tong (Wrench)

油管钳由高强度合金钢制成，它可以迅速夹紧油管，给油管上下扣。它具有轻便、安全、不易咬伤油管等优点，是一种优良的手动装卸油管的工具。

Tubing tong (wrench) is made of high strength alloy steel, and it can be used for clamping tubing quickly and making-up/breaking-out the tubing. It is portable, safe, and no damage to tubing, which is a good manual tool for make-up/break-out tubing.

### 主要技术参数 Technical Specifications

型号 Model	M-60	M-73	M-89
扣合管径(mm) Applicable pipe size	60	73	89
扭矩(kN·m) Torque	2.5	3	3.5
重量(kg) Weight	4	5	7



# QB2.3/8-5.1/2 轻便油管钳

## QB2.3/8-5.1/2 Portable Tubing Tong

油管钳由高强度合金钢制成，它可以迅速夹紧油管，给油管上下扣。它具有轻便、安全、不易咬伤油管等优点，是一种优良的手动装卸油管的工具。

Portable Tubing Tong is made of high strength alloy steel, and it can be used for clamping tubing quickly and making-up/breaking-out the tubing. It is portable, safe, and no damage to tubing, which is a good manual tool for make-up/break-out tubing.



### 主要技术参数 Technical Specifications

扣合管径 (mm) Appropriate tubing diameter	in	2.3/8	2.1/2	2.7/8	3	3.1/2	4	4.1/4	4.1/2	5	5.1/2
	mm	60.3	63.5	73	76.2	88.9	101.6	107.9	114.3	127	139.7
额定扭矩 (kN·m) Rated torque	N·m	700	1100	1100	1100	1500	1500	1500	1500	1500	1500

# Q48-132 单铰链管子钳

## Q 48-132 Pipe Wrench

### 主要技术参数 Technical Specifications

扣合管径 (mm) Appropriate tubing diameter	48~89	89~132
额定扭矩 (kN·m) Rated torque	2	3



# 扭矩仪 Torque Sensor

### 主要技术参数 Technical Specifications

型号 Model	名称 Description	适用扭矩 Torque (kN·m)			
NJY	扭矩仪 Torque Sensor	35	48	75	100
NJY-2	防爆扭矩仪 Anti-explosion Torque Sensor	35	48	75	100



# 吊钳系列 Manual Tong

手动吊钳是钻修井作业过程中各类管柱和工具上、卸扣的必备工具，通过变换扣合钳头和扣合台阶，可满足不同尺寸管径上、卸扣的需要。产品按API Spec 7K 规范要求设计、制造。

Manual tongs are necessary tools for various pipe strings and tools making-up and breaking-out during drilling and workover operations, through changing tong heads and steps, they can meet requirements of different sizes of pipe. The product is designed and manufactured in accordance with API Spec 7K Specification.

## Q2.3/8 ~ 7/22 LF吊钳 Q2.3/8-7/22 LF Type Tong

扣合钳号 Latch lug jaw NO.	扣合台阶 Steps	扣合管径 Appropriate pipe diameter		额定扭矩kN·m Rated torque
		in	mm	
1 #	1	2. 3/8~2. 7/8	60. 32~73	22
	2	2. 7/8~3. 1/2	73~88. 9	
2 #	1	3. 1/2~4. 1/4	88. 9~107. 95	22
	2	4. 1/4~5	107. 95~127	
3 #	1	4. 3/4~5. 1/2	120. 65~139. 7	22
	2	5. 1/2~6. 1/4	139. 7~158. 75	
4 #	1	5. 3/4~6. 3/8	146. 05~161. 93	22
	2	6. 3/8~7	161. 93~177. 8	

## Q2.3/8 ~ 10.3/4/35 修井吊钳 Q2.3/8-10.3/4/35 Workover Tong

扣合钳号 Latch lug jaw NO.	扣合管径 Appropriate pipe diameter		额定扭矩kN·m Rated torque
	in	mm	
1 #	2. 3/8~4. 1/2	60. 32~114. 3	35
2 #	4. 1/2~6. 1/2	114. 3~165. 1	35
3 #	6. 1/2~8. 5/8	165. 1~219. 1	35
4 #	9. 5/8~10. 3/4	244. 5~273. 1	35



Q2. 3/8~7/22 LF吊钳  
Q2.3/8-7/22 LF Type Tong



Q2. 3/8~10. 3/4/35 修井吊钳  
Q2.3/8-10.3/4/35 Workover Type Tong

专利号: ZL201320194542.8

**Q2.3/8 ~ 10.3/4/48 C型吊钳** Q2.3/8-10.3/4/48 C Type Tong

扣合钳号 Latch lug jaw NO.	短钳号 Short Latch lugjaw NO.	铰链钳号 Hinged Chain Latch lugjaw NO.	扣合管径 Appropriate pipe diameter		额定扭矩kN·m Rated torque
			in	mm	
1 #	1 #	/	2. 3/8~3. 668	60. 33~93. 17	48
2 #	1 #	/	2. 7/8~4. 1/4	73. 03~108	48
3 #	1 #	/	3. 1/2~5. 1/4	88. 9~133. 35	48
4 #	1 #	/	5. 1/4~7	133. 35~177. 8	48
5 #	2 #	1 #	7~8. 5/8	177. 8~219. 08	48
6 #	2 #	2 #	9. 5/8~10. 3/4	244. 5~273. 05	48

**Q2.3/8 ~ 10.3/4/48 HT35吊钳** Q2.3/8-10.3/4/48 HT35 Type Tong

扣合钳号 Latch lug jaw NO.	短钳号 Short Latch lugjaw NO.	铰链钳号 Hinged Chain Latch lugjaw NO.	扣合管径 Appropriate pipe diameter		额定扭矩kN·m Rated torque
			in	mm	
1 #	1 #	/	2. 3/8~3. 668	60. 33~93. 17	20
2 #	1 #	/	2. 7/8~4. 1/4	73. 03~108	20
3 #	1 #	/	3. 1/2~5. 1/4	88. 9~133. 35	34
4 #	1 #	/	5. 1/4~7	133. 35~177. 8	48
5 #	2 #	1 #	7~8. 5/8	177. 8~219. 08	34
6 #	2 #	2 #	9. 5/8~10. 3/4	244. 5~273. 05	43



Q2. 3/8~10. 3/4/48 C型吊钳  
Q2.3/8-10.3/4/48 C Type Tong



Q2. 3/8~10. 3/4/48 HT35吊钳  
Q2.3/8-10.3/4/48 HT Type Tong  
专利号: ZL201120100403.5

## 气动卡盘 Pneumatic Spiders

气动卡盘主要用于油田钻修井作业中卡持钻杆、油管、套管等管柱，产品按API Spec 7K规范要求设计、制造。

Models C, CHD, HD, E and F pneumatic spiders are mainly used for gripping drill pipes, tubing, casing during oilfield drilling and workover operations. The product is designed and manufactured in accordance with API Spec 7K Specification.

专利号：ZL201520998069.8

专利号：ZL201510883600.1



C型气动卡盘 C Pneumatic Spiders



CHD型气动卡盘 CHD Pneumatic Spiders



HD型气动卡盘 HD Pneumatic Spiders



E型气动卡盘 E Pneumatic Spiders

## 主要技术参数 Technical Specifications

型号 Model	卡瓦体规格 Size of slip body	卡持管径 (in) Gripping diameter of pipe	额定载荷 Rated load (short tons)	型号 Model	卡瓦体规格 Size of slip body	卡持管径 (in) Gripping diameter of pipe	额定载荷 Rated load (short tons)			
C型	3. 1/2	1. 315	80	HD型	3. 1/2	2. 06	125			
		1. 66	80			2. 3/8				
		1. 90	80			2. 5				
		2. 06	80			2. 7/8				
		2. 3/8	80			3. 125				
		2. 5	80			3. 1/2				
		2. 7/8	80			3. 1/2				
		3. 125	80			4				
		3. 1/2	80			4. 1/2				
	4. 1/2	3. 1/2	80		4. 3/4 (整体式) Integrated type	4. 3/4				
		4	80		5 (整体式) Integrated type	5				
		4. 1/2	80		5. 1/2 (整体式) Integrated type	5. 1/2				
		4. 3/4 (整体式) Integrated type	4. 3/4							
	5 (整体式) Integrated type	5								
	5. 1/2 (整体式) Integrated type	5. 1/2	80							
	CHD型	3. 1/2	1. 315		120	E型		3. 1/2	2. 3/8	175
1. 66			120	2. 7/8						
1. 90			120	3. 1/2						
2. 06			120	5. 1/2	4					
2. 3/8			120		4. 1/2					
2. 5			120		5					
2. 7/8			120		5. 1/2					
3. 125			120	7	5. 1/2					
3. 1/2			120		6. 5/8					
3. 1/2		120	7							
4. 1/2		3. 1/2	120	7. 5/8 (整体式) Integrated type	7. 5/8					
		4	120	F型	3. 1/2		2. 3/8	200		
		4. 1/2	120				2. 7/8			
		4. 3/4 (整体式) Integrated type	4. 3/4				120		3. 1/2	
		5 (整体式) Integrated type	5		120		5. 1/2		4	
		5. 1/2 (整体式) Integrated type	5. 1/2		120				4. 1/2	
					5					
			5. 1/2							
HD型	3. 1/2	1. 315	125	7. 5/8	6. 5/8					
		1. 66	125		7					
		1. 90	125		7. 5/8					
			8. 5/8 (整体式) Integrated type	8. 5/8						

# QQP气动卡盘 QQP Pneumatic Spiders

QQP气动卡盘适用于油田修井作业中卡持钻杆、油管等。产品按API SPEC 7K要求设计制造。

QQP pneumatic spiders are suitable for gripping drill pipes and tubing during oilfield drilling and workover operations. The product is designed and manufactured in accordance with API Spec 7K Specification.

## 主要技术参数 Technical Specifications

型号 Model	卡瓦体规格 Size of slip body	适用管径 (in) Applicable pipe size	额定载荷 Rated load(short tons)
QQP/75	2. 7/8	2. 3/8	75
		2. 7/8	
	3. 1/2	3. 1/2	
QQP/100	2. 7/8	1. 9	100
		2	
		2. 3/8	
		2. 1/2	
		2. 7/8	
		3	
	3. 1/2	3. 1/2	
	4. 1/2	4	
		4. 1/8	
		4. 1/2	
4. 3/4			
5	5		
QP30 (3. 1/2)	3. 1/2	2. 7/8	30
		3. 1/2	
QP30 (4. 1/2)	(114. 3)	(55. 5 mm)	30
		(69. 9 mm)	
		(88. 9 mm)	
		(114. 3 mm)	



QQP/100



QQP/60



# TS油管卡盘 TS Tubing Spiders

## 主要技术参数 Technical Specifications

型号 Model	适用管径 (in) Applicable pipe size	额定载荷 Rated load (short tons)	型号 Model	适用管径 (in) Applicable pipe size	额定载荷 Rated load (short tons)
TS3. 1/2-100	1.05	100	TS5. 1/2-100	3	100
	1.315	100		3.1/8	100
	1.66	100		3.1/4	100
	1.9	100		3.1/2	100
TS3. 1/2-100	2	100		3.3/4	100
	2.1/16	100	4	100	
	2.3/8	100	4.1/8	100	
	2.7/8	100	4.1/4	100	
TS3. 1/2-100	3.1/8	100	4.3/8	100	
	3.3/8	100	4.1/2	100	
	3.1/2	100	4.3/4	100	
TS5. 1/2-100	2.3/8	100	5	100	
	2.7/8	100	5.1/2	100	
			5.3/4	100	



TS-100油管套管卡盘适用于钻铤、光滑管柱、套管、油管及光滑工具的卡持，卡盘体和卡瓦均采用合金钢经特殊热处理制造，重量轻、使用方便。产品按API Spec 7K设计制造。

TS-100 tubing spiders are suitable for gripping drill collar, polish drill string, casing, tubing and polish tools, and the spider body and the slip are both made by alloy steel through special heat treatment. It is light and easy for operation. The product is designed and manufactured in accordance with API Spec 7K Specification.

## API 卡盘 API Spiders

API卡盘与API标准的对分式转盘补心有相同的内孔和1:3内锥。卡盘体采用合金钢材料特殊热处理制造而成，具有重量轻、使用方便等特点。产品按API SPEC 7K《钻井和井口操作设备规范》要求设计制造。

Both API Spider and API split bushing have the same inner diameter with of 4in/ft on the diameter taper Body is made of high-quality alloy steel and heat-treated especially. The spiders are Light and easy to operate. They are designfe and manufactured according to API Spec 7K Specification for drilling and well servicing equipment.



### 主要技术参数 Technical Specifications

规格型号 Model	适用管径(in) Applicable pipe size	额定载荷 Rated load(short tons)
8. 5/8API卡盘Spiders	2. 3/8~8. 5/8	100
9. 5/8API卡盘Spiders	9. 5/8~10. 3/4	150

## QP手动卡盘 QP Manual Spiders

QP气动卡盘适用于油田修井作业中卡持钻杆、油管等。产品按API SPEC 7K要求设计制造。

QP manual spiders are suitable for gripping drill pipes and tubing during oilfield drilling and workover operations. The product is designed and manufactured in accordance with API Spec 7K Specification.

### 主要技术参数 Technical Specifications

规格型号 Model	卡瓦体规格 Size of slip body	适用管径(in) Applicable pipe size	额定载荷 Rated load(short tons)
QP/60	2. 7/8	2. 3/8	60
	2. 7/8	2. 7/8	60
	3. 1/2	3. 1/2	60
QP/100	2. 7/8	2. 3/8	100
	2. 7/8	2. 1/2	100
	2. 7/8	2. 7/8	100
	2. 7/8	3	100
	3. 1/2	3. 1/2	100
	4. 1/2	4	100
	4. 1/2	4. 1/2	100
	5	4. 3/4	100
	5	5	100



# 手动卡瓦 Manual Slips

SDS、SDML型手动卡瓦适用的钻杆直径为2.3/8in ~ 5.1/2in ( 60.3mm ~ 139.7mm ) .SDS适用于浅井、SDML适用于中深井。产品按API Spec 7K要求设计制造。

Model SDS /SDML manual slips are suitable for drill pipe with diameter of 2.3/8in~5in(60.3mm~139.7mm). SDS are suitable for shallow wells. The product is designed and manufactured in accordance with API Spec 7K Specification.



## 主要技术参数 Technical Specifications

型号 Model	管柱直径 Diameter of pipe string		卡瓦体规格 Slip Size	牙板 Inserts	
	in	mm		规格 Size	数量 Qty
SDS	2. 3/8	60. 3	3. 1/2	2160	24
	2. 7/8	73. 0	3. 1/2	2161	24
	3. 1/2	88. 9	3. 1/2	2162	24
	3. 1/2	88. 9	4. 1/2	2163	36
	4	101. 6	4. 1/2	2164	36
	4. 1/2	114. 3	4. 1/2	2165	36
	4	101. 6	5	2168	36
	4. 1/2	114. 3	5	2166	36
	5	127	5	2167	36
SDML	2. 3/8	60. 3	3. 1/2	2160	30
	2. 7/8	73. 0	3. 1/2	2161	30
	3. 1/2	88. 9	3. 1/2	2162	30
	3. 1/2	88. 9	4. 1/2	2163	45
	4	101. 6	4. 1/2	2164	45
	4. 1/2	114. 3	4. 1/2	2165	45
	4	101. 6	5	2168	45
	4. 1/2	114. 3	5	2166	45
	5	127	5	2167	45
	4. 1/2	114. 3	5. 1/2	2168	45
	5	127	5. 1/2	2169	45
	5. 1/2	139. 7	5. 1/2	2170	45

# 自动猫道 Automated Catwalks

该产品是根据国内外油田钻、修井作业时的实际需求，而研发的一种管杆自动运送装置。设备采用PLC电控系统和全液压驱动系统，能精确完成起下油管，两侧倒管等工艺动作。增加加热装置，环境适应能力强。极大地提高了生产效率，减轻了工人的劳动强度。

The automated catwalks are a kind of automatic pipe conveying device developed on the basis of the actual drilling or workover operation requirements. The PLC control system and full-hydraulic driving system can accurately accomplish pipe handling operations. They can be used for different environments, and can work at -30 after fitted with a heating device. The catwalks have greatly



专利号：ZL201520760125.4

## 主要技术参数 Technical Specifications

总重量Total weight: 3000kg
最大伸缩行程Max. telescoping travel: 3m
最大工作高度Max. working height: 3.5m
额定起升负载Rated lifting load: 3000N
单根送给（送回）时间Feeding (retracting) time of single joint: 20s
液压系统额定压力Rated pressure of hydraulic system: 11MPa
防爆等级Protection class : Ex d II BT4
外形尺寸(长×宽×高)Overall dimensions (L xWx H): 8150mm×1200mm×1340mm

# 修井机作业自动化系统改造

## Automated Workover Operation Upgrading

机械化修井作业装置是装在修井机后支架上，在不改变修井机结构，不增加搬迁负担情况下，用气动吊卡、气动卡盘和常用开式油管钳组合实现井口无人化机械化修井。该装置可安装到XJ150~XJ250等系列修井机、TJ12系列自背井架轮式作业机后支架上，采用焊接或螺栓连接方式安装固定。

The automated workover upgrading device, installed on the rear support of workover rig, is designed for unmanned workover operation on the wellhead through combination tools of air elevators, air spiders and open-type tubing tongs, without changing the rig structure or increasing transportation load. This device can be installed on XJ150 or XJ250 workover rigs or TJ12 series wheel-type swabbing rigs with mast. It is fixed by way of welding or bolts.



专利号：ZL201420338496.9

### 主要技术参数 Technical Specifications

1. 总重量Total weight: 1600kg
2. 外形尺寸（安装尺寸）Dimensions (Installation dimensions): (长X宽X高) 638mm×2500mm×3165mm
3. 气动卡盘井口安装高度Pneumatic spider wellhead installation height: 0.7m~1.4m
4. 液压系统技术参数Technical parameters of hydraulic system
  - 4.1 额定工作压力Rated working pressure: 10MPa(100bar)
  - 4.2 流量Rate of flow: 120L/min
5. 气路系统技术参数Air system technical parameters
  - 5.1 压力范围Pressure range: 0.65 MPa~0.85 MPa
  - 5.2 流量Rate of flow: 60L/min
6. 系统升降机构技术参数Technical parameters of lifting mechanism
  - 6.1 升降力Lifting force: 50kN
  - 6.2 升降速度Lifting speed: 50mm/s
  - 6.3 行程Stroke: 700mm
7. 水平移动装置技术参数Technical parameters of horizontal moving device
  - 7.1 送给力Feed force: 13.2kN
  - 7.2 送进速度feed rate: 150mm/s
  - 7.3 行程Stroke: 810mm
8. 油管钳升降机构技术参数Tubing tongs lifting mechanism Technical parameters
  - 8.1 提升力Lifting force: 油管钳重量Tubing tongs weight 120kg
  - 8.2 提升速度Lifting speed: 100mm/s
  - 8.3 行程Stroke: 300mm
9. 推斜油缸总成技术参数Tilt cylinder assembly Technical parameters
  - 9.1 最小推力Minimum thrust: 15kN
  - 9.2 工作速度Working speed: 300mm/s
  - 9.3 行程Stroke: 2.2m
  - 9.4 对中机构推力Thrust of centering mechanism: > 800N
  - 9.5 对中机构速度Speed of centering mechanism: 300mm/s
10. C型气动卡盘Model c pneumatic spider
  - 10.1 气压工作压力Working Pressure: 0.7MPa
11. 气动吊卡技术参数Air-operated Elevators Technical parameters
  - 11.1 BD动力油管吊卡BD Power Tubing Elevators
12. 油管钳技术参数Tubing tongs technical parameters
  - 12.1 型号: XQ89/3YD开口钳 Model: XQ89 / 3YD open mouth tongs
  - 12.2 适用管径Applicable diameter of tubulars: 2.3/8" ~3.1/2" 平式及外加厚油管接箍Flat and external upset tubing couplings
  - 12.3 额定抵挡扭矩Rated low torque: 3.5kN·m (25 r/min~38r/min)
  - 12.4 额定高档扭矩rated high-end torque: 1kN·m (84 r/min~ 105r/min)
  - 12.5 开口尺寸Opening size: 95mm
  - 12.6 外形尺寸Dimensions: 685mm×440mm×600mm
  - 12.7 移运质量Transport weight: 120kg

## 对扣器 Stabbing Guides

SG型对扣器适用于油管、套管快速对扣，操作简便，可有效的防止对扣过程对管柱螺纹的伤害。

SG type stabbing guides are designed for rapid pipe alignment. It is featured by simple and convenient operation, and can effectively avoid damage to the pipe threads during stabbing process.

### 主要技术参数 Technical Specifications

产品型号 Product Model	适用管径 (in) Suitable Pipe Sizes (in.)
SG 2.3/8T	2.3/8油管Tubing
SG 2.7/8T	2.7/8油管Tubing
SG 3.1/2T	3.1/2油管Tubing
SG 4 T	4油管Tubing
SG 4.1/2T	4.1/2油管Tubing
SG5T	5油管Tubing



## 护丝

## Quick-disconnect Thread Protectors

快卸护丝是在油管运输和使用过程中用来保护管柱螺纹的一种简便工具，通过方便的操作锁紧手柄就可以锁紧和松开护丝，达到保护螺纹的目的。

The quick-disconnect thread protectors are a kind of convenient tool for protection of threads of tubing during transportation or operation. The protection of threads can be easily realized by a simple locking or unlocking operation of the handle.

### 主要技术参数 Technical Specifications

产品型号 Product Model	适用管径 (in) Suitable Pipe Sizes (in.)
2.3/8	2.3/8油管Tubing
2.7/8	2.7/8油管Tubing
3.1/2	3.1/2油管Tubing



专利号: ZL201420193605.2

## 抽油杆防喷器

### Sucker Rod Blowout Preventer

抽油杆防喷器为油田起下抽油杆防喷的必备工具。特别是间喷井安装该工具能更有效地控制井喷，避免污染环境。工作压力大，可满足洗井、压井要求。最大压力1500psi，适用抽油杆规格为1/2 ~ 1.1/8 in。

Sucker rod blowout preventer (BOP) is necessary tool for blowout preventer during tripping suction rod in/out, especially for intermittent flowing wells, installing this tool can control blowout efficiently and avoid environment contamination. Large working pressure can meet requirements of well flushing and killing. Maximum pressure is 1500psi, size of appropriate sucker rod is 1/2~1.1/8in.



## 牙板 Inserts and Dies





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