

SUNWARD

SWCH890-190M 全液压履带桩机

All Hydraulic Crawler Pile Driver



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产品简介 Product instruction

- SWCH890-190M全液压履带桩机是山河智能装备股份有限公司在吸收国内外先进技术和经验的基础上，创新研发的一项拥有自主知识产权的新产品，已获授权发明专利6项。
- SWCH890-190M系列全液压履带桩机集机电液一体化设计先进技术于一身，采用具有自主知识产权的高稳履带底盘，配备大直径高强度立柱、大容量、高速度、高提升力的集成卷扬机组，电液控制系统应用先进的智能控制技术、虚拟仪表技术和高度集约化的操纵系统，能为搭载的工作装置提供可靠的支撑，确保整机工作时具有安全可靠的稳定性、创造了视野开阔、操作便捷的舒适驾驶空间、行走移位机动灵活、拆装快速便捷、施工效率高。
- SWCH890-190M全液压履带桩机可搭载双动力头钻机、多轴钻机、中掘钻机、长螺旋钻机、各种桩锤等多种全液压或电动的工作装置，适用于多种桩基础工法施工，是一种多功能、高效率、节能环保的桩工机械产品。
- SWCH890-190M All Hydraulic Crawler Pile Driver, developed by Sunward Intelligent Equipment Group based on advanced domestic and overseas technologies and experience, is an innovation owned by Sunward with 6 patents.
- The pile driver integrated advanced mechanical, electrical and hydraulic systems. The stable crawler chassis with proprietary innovation, the integrated winch unit featuring high strength and large diameter column, high capacity, high speed and high lifting capacity and the electro-hydraulic control system integrating intelligent control, virtual instrument and highly intensified operation system provide reliable support to the carried working devices, ensure safe and reliable stability, broad view, easy and comfortable driving space, agile traveling, easy and quick disassembly and high operation efficiency.
- The pile driver, a efficient and energy-saving piling machinery, can be equipped with various all hydraulic or electrical working devices, like drilling machine with dual power heads, multi-spindle drilling machine, inner-digging drilling machine, full screw earth auger and various pile hammers, for multi purposes.



主要特点

Technical features

■ 高稳定性专利底盘 Patented Chassis with Excellent Stability

- 采用具有自主知识产权的高稳定性履带底盘，两侧履带行走装置支架均为π形横梁整体结构，π形横梁在底盘中间同轴插接重叠，即使是履带最大展宽时，两π形横梁也保持相互搭接。
The crawler chassis is high stable and obtains a series of certificates of proprietary intellectual property rights. Both sides of crawler travelling mechanism are supported by π-shaped cross beams which overlap with a shaft in the center of the chassis. Thus, two π-shaped cross beams still connect with each other even if the crawler extend to its limit.



- 该结构可实现不拆卸履带运输，相同运输宽度下可实现更大展宽，结构上确保了桩机的稳定性。底盘结构参数、稳定性、最高立桅高度行业领先。
The frame ensures the stability of the pile driver, as for transportation without dismantling crawler and wider crawler extension under the same transport width. Besides, this machine is advanced in the industry for its structural specifications, stability and the highest height of vertical mast.

- 底盘及运用该底盘的工程机械已经获得中国、日本、韩国发明专利授权。
The chassis and its applied engineering machinery are gained invention patent certificates issued by China, Japan and Korea.



■ 高强度立柱 High Strength Vertical Column

- 立柱直径达到920mm，立柱法兰采用整体式法兰，立柱下端十字轴和上部双斜支撑构成立柱的铰接三点支撑，使立柱作前后左右任意方向的倾斜，为搭载工作装置提供可靠和机动灵活的支持。
920mm diameter, whole-type flange, and hinge joint three-point support formed by the bottom universal joint pin and top dual inclination strut that enable the vertical column tilting forward or backward optionally and provide support for loading work equipment stability and mobility.



- 可根据施工需求，配置背拉绳机构或自平衡式鹅头，可有效提高最大允许提拔力并保证立柱的可靠性。
Back rope mechanism or self-balanced goose-head structure are optional to improve lifting force efficiently and ensure column reliability.

■ 多功能集成卷扬机组 Multi-functional Integration Winches

- 由主卷扬、副卷扬、吊物卷扬、吊篮卷扬、立桅卷扬5个卷扬集成的卷扬机组，其中前三种卷扬具有自由落钩功能，可适应多种工法的施工要求。
The integration winches can meet multiple construction requirements that include the main winch, the auxiliary winch, hoist winch, basket winch and vertical mast winch with the first three of them has the free hook dropping function.

- 主副卷扬容绳量大、单绳最大出力大，单绳速度快，并可实现钻进时的浮动低速控制和无级微速控制，满足入岩层钻进和特殊工法施工要求。
As for the main winch has the large rope capacity with quick and strong capacity of single rope, the floating low-speed control and stepless micro-speed control can be achieved to satisfy the demand of rock drilling and special construction.



主要特点

Technical features

■ 先进的电液控制系统和简洁的人机交互界面 Advanced Electro-hydraulic Control System and Succinct Interactive Human-machine Interface



- 采用集数据采集与存储、虚拟仪表、总线传输、多屏监控、故障诊断于一体的智能控制系统，实现安全、可靠、高效施工。
The intelligent control system guarantee high safety, reliability and efficiency which is combined with data collection & storage, virtual panel, bus transmission, multi-screen monitoring and failure diagnostic functions.

- 显示屏主界面实时显示立柱角度、提拔力、深度、油泵压力、油温、发动机等参数，人机交互界面直观、友好、简洁。
The visualized, friendly and succinct human-machine interactive interfaces display the vertical column angle, lifting force, depth, oil pump pressure, oil temperature and engine data in real time.

- 主动作和辅助动作操作手柄分区域布置，主动作采用液压手柄控制，可靠、省力。均前后方向操作，适应桩架类产品的行业习惯。
Control levers for main and auxiliary movements are laid out by area. The main movement are controlled by reliable and easy hydraulic lever. All levers are designed to operate forward or backward in consideration of piling machine industry practice.

- 驾驶室宽敞美观明亮、操作舒适。
The cab is spacious, beautiful, bright and comfortable to operate.

- 驾驶室控制功能多样化，具有手柄卡位、卷扬无级别微速功能、多屏监控、提拔力限制、工作装置上位、预留油源接口和控制等功能。
The spacious and bright cab provides a comfortable working environment in which there are various control functions: lever locking, stepless micro-speed adjustment for winch, multi-display monitoring, lifting force limitation, upper limitation for work equipment, reserved oil supply port and control, etc.



主要技术参数

Main technical data

项目 Item		单位 Unit	SWCH890-190M	备注 Remark
发动机 Engine	型号 Model		QSB6.7-C260	康明斯制 Produced by Cummins
	额定功率 Rated power	kW	194	
桩架立柱 Vertical column of pile frame	立柱长度 Length	m	21、24、27、30、33、36、39、(42)、(45)、(48)	括号内为特殊配置 Special configuration with “()”
	立柱直径 Diameter	mm	Φ 920	
	主滑轨规格 Main slideway	mm	Φ 102×1000	
	副滑轨规格 Auxiliary slideway	mm	Φ 70×330	
	允许最大提升力 Allowed max. lifting force	kN (t)	784 (80)	
主卷扬 Main winch	单绳速度 Single rope speed	m/min	96/48	有自由落钩功能 With free hook dropping function
	单绳拉力 Single rope pulling force	kN	118	有微速、浮动钻孔等功能 With function of micro speed and floating drilling
	钢丝绳直径 Wire rope diameter	mm	22	
	容绳量 Rope capacity	m	550	
副卷扬 Auxiliary winch	单绳速度 Single rope speed	m/min	96/48	有自由落钩功能 With free hook dropping function
	单绳拉力 Single rope pulling force	kN	118	有微速、浮动钻孔等功能 With function of micro speed and floating drilling
	钢丝绳直径 Wire rope diameter	mm	22	
	容绳量 Rope capacity	m	550	
吊物卷扬 Hoist winch	单绳速度 Single rope speed	m/min	43	有自由落钩功能 With free hook dropping function
	单绳拉力 Single rope pulling force	kN	98	
	钢丝绳直径 Wire rope diameter	mm	22	
	容绳量 Rope capacity	m	160	
立桅卷扬 Vertical column winch	单绳速度 Single rope speed	m/min	47	
	单绳拉力 Single rope pulling force	kN	98	
	钢丝绳直径 Rope diameter	mm	22/40	
	容绳量 Rope capacity	m	240	
吊篮卷扬 Basket winch	钢丝绳直径 Wire rope diameter	mm	14	
	容绳量 Rope capacity	m	110	
履带底盘 Track chassis	履带最大展宽 Max. extended width of crawler	mm	5180	
	履带收缩宽度 Retracted width of crawler	mm	3480	
	履带板宽度 Track shoe width	mm	960	
	履带长度 Track length	mm	6338	
	两履带轮中心距 Centre distance of two crawler wheels	mm	5425	
	行走速度 Traveling speed	km/h	0.6~1.0	
	上车回转速度 Swing speed of upper carriage	r/min	0.5~1	回转角度360° Slewing angle 360
	爬坡能力 Gradeability	°	约 (approximate) 21.8 (40%)	仅限机体 For the body only
外形尺寸 (长×宽×高) Boundary dimension (L×W×H)	工作状态 In working status	m	约 (approximate) 11.3×6.3×41.3	
	运输状态 In transport status	m	约 (approximate) 11.6×3.48×3.66	
配重质量 Counterweight		t	25.5	
整机允许最大行走质量 Allowed machine max. travelling weight		t	190	工作装置搭载时, 详见说明书 Loaded with work equipment, please check the instruction manual
接地面积 Ground contact area		m ²	10.416	
接地比压 Ground contact pressure		MPa	0.179	

***由于本产品的不断改进完善, 因此上表中参数可能有所改变, 恕不能预先告知。
As the product is being continuous improvement, the data may be changed without notice in advance.

售后服务

After-sale service



Pre-sales services

- We offer sufficient consultations and suggestions for customers.
- Assist customers to select suitable equipment for the rock conditions.
- Design and manufacture products according to customers' requirements.
- Provide technical training for customers.

Services during sales

- Fulfill contract and commitments in good faith.

After-sales services

- Install and debug equipments and train operators on site.
- Timely troubleshoot problems on site.
- Supply spare parts in time.
- Periodically offer routine inspection services to the equipments.
- Periodically revisit customers and know their needs.

山河智能装备股份有限公司

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