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XCMG FOR YOUR SUCCESS

# XE700D 矿用液压挖掘机

## XE700D MINING HYDRAULIC EXCAVATOR



- 铲斗容量 Bucket Capacity ( m<sup>3</sup> ): 2.4-4.6
- 操作重量 Operation Weight ( kg ): 69000
- 额定功率 Output power ( kW/rpm ): 336/1800

**徐州徐工矿业机械有限公司**  
XUZHOU XCMG MINING MACHINERY CO.,LTD



## 定制化 Customization

### 标准配置 Standard configuration XE700D

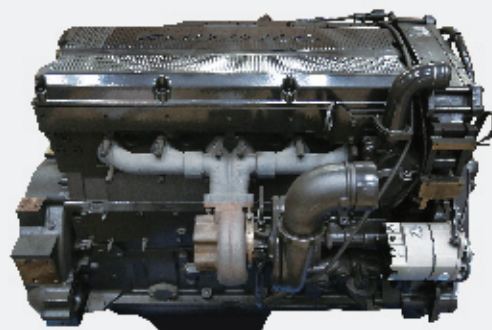
发动机 Engine	驾驶室与内饰 Cab and interior trimming	安全与保安配置 Safety and security configuration
发动机型号 Model of engine: QSX15 排放等级 Emission level: 国Ⅲ National III 自动预热 Automatic preheat 带水位指示传感器的油水分离器 Oil-water separator with water level indication sensor 径向密封空气滤清器 Radial seal air filter 50° C高温环境冷却组件 Cooling componnets of 50° C high temperature environment 散热器防尘网 Dust screen of radiator 燃油油标 Feul leveler 带反吹功能的独立散热模块 Independent cooling module with reverse blow function 燃油呼吸阀 Fuel breather valve 空气压差指示器 Air differential pressure indicator 自动怠速 Automatic idle speed	增压驾驶室 Pressurized cab 完全可调的空气悬浮座椅 Completely adjustable air suspension seat 可调节座位扶手 Adjustable armrest 安全带 (51 mm [2"] 宽) Safety belt (51 mm [2"] width) 配备辅助装置的可开启前挡风玻璃 Openable front windshield glass equipped with auxiliary equipment 按 70/30 比例分割的前挡风玻璃 Front windshield window cut with ratio of 70/30 双层夹胶挡风玻璃和其他钢化窗户 Double-layer laminated windshield and other tempered Windows 可滑动的车门上窗 Slidable upper window of door 带除霜器的双向出风空调 (自动型) (加压功能) Double-way air-out air conditioner with defroster(automatic)(pressurized) 可显示警告信息、滤清器/液体更换信息和工作小时数的彩色液晶显示屏 Color LCD display with data of alarm, filter/fluid change and working hours 操纵手柄 Control handle 装有可拆卸手动操纵杆的行驶控制踏板 Travel control pedal with removable manual control lever 两个立体声扬声器 Two stereo speakers 饮料杯架 Beverage holder 衣帽钩 Coat and hat hook 可清洗地板垫 Washable floor mat 空调系统 Air conditioner system 高低速换挡 High/low speed shift gears 一键增力模式 Onekey boost mode 遮阳帘 Shade curtain 顶部天窗 Top skylight 间歇式多档雨刮器 Batch multiple-range wiper 杯架/文件袋 Cup holder/file packet 冷暖储物箱 Heating and cooling storage box 无线电收音机 Wireless radio	驾驶室门锁和各舱室锁 Door lock of cab and chambers 警报喇叭 Alarm horn 发动机和油泵室之间的隔离板 Spacer plate between engine and oil pump chamber 后窗紧急出口 Emergency exit of rear window 蓄电池断路器 Shutdown switch of battery 动臂、斗杆保持阀 Holding valve of boom and arm 过热报警 Overheat alarm 安全扶手和踏板 Safety rail and pedal 旋转报警灯 Rotating alarm light 防滑板/防滑贴 Anti-skid plate/anti-slip tip 液压安全锁定位杆 Hydraulic safety lock lever 紧急逃生锤 Emergency escape hammer 左右后视镜 Left and right rearview mirror 后视监控摄像头 Rearview monitor camera 落物防护结构 (FOPS) Fall Off Proteciton Structure(FOPS)
液压系统 Hydraulic system	照明灯 Lamp	电气系统 Electrical system
动臂/斗杆流量再生 Boom/arm flow regeneration 反向回转阻尼阀 Reverse rotary damping valve 自动回转停车制动器 Automatic rotary parking brake 直行液压回路 Travel straight hydraulic circuits 动臂优先阀 Boom priority valve 回转逻辑阀 Rotary logic valve 液压油 ISO VG 46 Hydraulic oil ISO VG 46 回转防摆阀 Rotary anti-sway valve 备用阀片 Spare valve disc 仪表压力监控 Instrument pressure monitor	左右两侧动臂工作灯 Boom working lamp at left and right side 安装在储物箱上的右侧工作灯 Working lamp installed on the right side of storage box 驾驶室内部照明 Lamp inside the cab 驾驶室顶安装的前工作灯 Front working lamp installed on the top of cab	蓄电池 (2 × 950 CCA) Battery (2 × 950 CCA) 70 A 交流发电机 70 A Alternator 7.8 kW 起动机 7.8 kW start motor 行走报警器 Travel alarm 24V点烟器 24V Cigar lighter 摄像头 Camera 5V USB接口 5V USB interface
底盘系统与护罩 Chassis system and protective guard	配重 Counterweight	技术 Technology
底座牵引环 Underframe bail 保护装置套件: 底盘底部封板、行走马达封板 Protection suite: close plate at the bottom of chassis, close plate of travel motor 650 mm (26") 双筋履带板 650 mm (26") Double rib track plate 加长底盘 Extended chassis 全长度履带护轨器 (两件式) Overall length crawler guardrail device(two pieces)	11.3 t 配重 11.3t Conuterweight	XEICS智能控制系统 XEICS intelligent control system 数据链路插座 Data link socket
工作装置 Working device	润滑系统 Lubrication system	
动臂 6.6m Boom 6.6m 斗杆 2.9m Arm 2.9m 铲斗3.8m³加强斗 Bucket 3.8m³ Rock bucket	电动半自动润滑系统 Electric semi-automatic lubrication system 斗杆集中 Arm concentration	

### 选装配置 Optional configuration XE700D

带加热器油水分离器 (24V) Oil-water separator with heater (24V) 油水快放装置 Oil and water quick discharge device 冷却液加热器 (燃油式) Coolant heater(fuel type) 燃油加油泵 50L/min Fuel refueling pump 50L/min 燃油快速加注系统 Fast fill fuel system 辅助液压阀 Auxiliary hydraulic valve 液压缓冲阀 Hydraulic buffering valve 液压管路: 破碎锤 Hydraulic line: quartering hammer 液压管路: 拇指钳及油缸 Hydraulic line: thumb pliers and cylinder 液压管路: 防爆阀管路及油缸 Hydraulic line: pipeline of explosion-proof valve and cylinder 液压管路: 快速连接器 Hydraulic pipeline: quick connector 液压管路: 液压剪 Hydraulic line: hydraulic shear 液压管路: 液压振动夯/高频破碎器 Hydraulic line: hydraulic vibration rammer/high-frequency breaker	液压管路: 液压抓具 Hydraulic line: hydraulic grapple 操作方式切换 Operating modes switch 液压油 ISO VG 32 ,68 Hydraulic oil ISO VG 32 ,68 灭火器 Fire extinguisher 工作辅具预留开关 Reserved switch for auxiliary equipment 发动机紧急停机开关 Emergency stop switch of engine 动臂、斗杆管路防爆阀 Explosion-proof valve of boom and arm pipeline 750 mm (30") 双筋履带板 750 mm (30") Double rib track plate 900 mm (36") 双筋履带板 900 mm (36") Double rib track plate 动臂 7.3m Boom 7.3m 斗杆 3.5m Arm 3.5m 2.8-3.5m³岩石斗 2.8-3.5m³ Rock bucket 4.0 m³加强斗 4.0m³ Heavy load bucket 4.6 m³土方斗 4.6m³ Earth working bucket 快速连接器 Quick connector	破碎锤 Quartering hammer 液压拇指钳 Hydraulic thumb pliers 松土器 Scarifier 振动夯 Vibrating tamper 液压剪 Hydraulic shear 抓具 Grip 高频破碎器 High frequency breaker 贝壳斗 Clam shell bucket 梅花抓斗 Plum-blossom shape grab bucket 筛型斗 Screen-type bucket 12V点烟器 12V Cigar lighter 24V电源接口 24V Power interface 驾驶室顶安装的后工作灯 Rear working lamp installed on the top of cab
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## 更节能环保 More energy-conservation and environmental protection

采用国际知名品牌发动机。满足TIER 3 排放标准，具有动力强劲、低噪音、低油耗、低排放的特点，可满足各种施工工况需求。采用高压燃油喷射系统，通过ECM对供油执行器和正时执行器的控制实现喷油过程全电控，精确控制喷油量和喷油时间，降低燃油消耗，提高发动机效率。

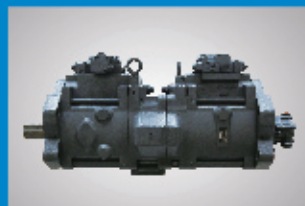


By adopting the international famous brand engine. It meets TIER 3 emission standard, with advantages of strong power, low noise, low fuel consumption and low emission, and is able to meet demands of various construction conditions. It adopts high-pressure fuel injection system, and may realize electric control of the whole course of fuel injection through controlling fuel supply actuator and timing actuator with ECM, so as to exactly control fuel injection amount and fuel injection time, thus reducing fuel consumption and enhancing engine efficiency.

## 更高效回报 More efficient return

- 液压元件和成熟可靠的负流量控制系统，延长了整车的使用寿命，提升了作业效率；新型主阀具有的一系列再生、合流、优先功能降低了能耗需求；液压油散热采用独立散热系统，根据油温自动控制风扇转速，节能降噪，同时风扇具有反转功能，便于清理散热器上的灰尘。

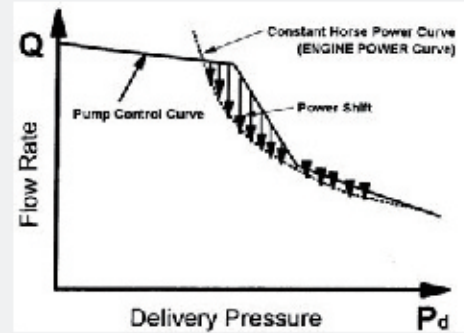
Hydraulic elements and mature and reliable negative flow control system extend the service life of the whole vehicle and enhance operation efficiency; the new type main valve possesses a series of regeneration, confluence and priority functions reduce energy consumption demand; the heat dissipation of hydraulic oil adopts independent heat dissipation system to control rotating speed of fan automatically according to oil temperature, so as to save energy and reduce noise; meanwhile, the fan is able to reverse to clear dust on the radiator.





- 性能优异可靠的电控系统，实现动力与液压系统的完美匹配、最大限度地利用发动机功率，保证机器快速、高效作业，降低能耗；系统设置了H（重载）、S（标准）、L（轻载）三种工作模式，当机器上电时，控制系统默认为L模式。通过油门旋钮可以调节发动机对应的工作模式和转速，并同时为主泵功率阀进行控制，从而控制主泵在不同模式下的功率。H（重载）、S（标准）、L（轻载）三种功率控制是针对不同作业需求对发动机转速及主泵功率的控制。

The electric control system with excellent and reliable performance is able to realize perfect matching between power and hydraulic system, utilize engine power to the greatest extent, guarantee rapid and efficient operation of machine and reduce energy consumption; the system sets three working modes, i.e. H (heavy load), S (standard load) and L (light load); when the machine is energized, the control system will be in the default L mode. The accelerator knob can be used to adjust working mode and rotating speed which the engine corresponds to, and control power valve of main pump at the same time, thus controlling powers of main pump in different modes. All the three kinds of power control, i.e. H (heavy load), S (standard load) and L (light load) are used to control rotating speed of engine and power of main pump targeting different operation demands.



## 更可靠耐用

### More reliable and durable

- XE700D使用的是美国原装进口的唐纳森STG系列的重灰度空气滤清器，过滤效率达到99.99%，能适应多粉尘以及潮湿工况。

XE700D adopts Donaldson STG series heavy grayscale air filter imported with original packaging from the USA, with filtering efficiency reaching 99.99%, and adapts to working conditions with much dust and humidity.



- XE700D设置了三级燃油过滤系统(一级粗滤+两级精滤)，有效过滤油中杂质，确保发动机在恶劣工况下的长时间、高负荷、连续可靠运行。采用新型可视化油水分离器，滤芯更换时间可以通过燃油液面判断，滤芯使用全过程进油阻力不变，滤芯成本更低，降低客户保养成本。

XE700D is set with three-stage fuel filtering system (one stage for coarse filtering and two stages for fine filtering) to effectively filter sundries in fuel, thus making sure the engine can run continuously and reliably with high load for a long time under severe working conditions. It adopts the latest type visualized oil-water separator, and the replacement time of filter element can be judged according to fuel level; the oil incoming resistance will not change during the whole course of filter element using, so the filter element cost is lower, thus reducing customer's maintenance cost.

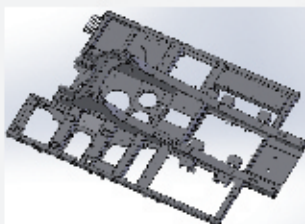
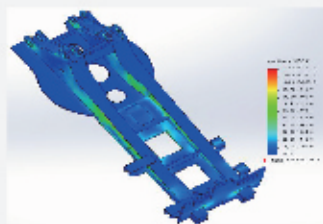


- 建立整机实体有限元模型，对整机进行静力、动态模拟分析。动臂和斗杆关键受力部位全部采用铸件设计，承载能力好，可靠性高。对工作装置等关键结构件进行疲劳寿命等分析或计算，保证产品长期耐久工作。精心设计的加强型前端工作装置，进行了疲劳强度试验，可靠性满足重载挖掘和采矿需要。选用美国爱思科公司的斗齿，穿透力强，耐磨性能好，且有8种可供选择的斗齿，可满足不同施工工况需求。

Establish finite element model of entire machine entity to conduct static and dynamic simulation analysis of the entire machine. Key stress parts of movable arm and bucket rod all adopt casting design, with good bearing capacity and high reliability. Analyzing and calculating fatigue service life of key structural members such as working device, to guarantee durable working for a long time of the product. The reinforced front end working device which is designed meticulously has undergone fatigue strength test, and it is proved that the reliability meets demand of heavy load digging and mining. The bucket teeth from ESCO Company of the USA possesses advantages of strong penetrating power and excellent wear-resisting performance, and there are 8 kinds of optional bucket teeth, which are able to meet demands of different construction conditions.

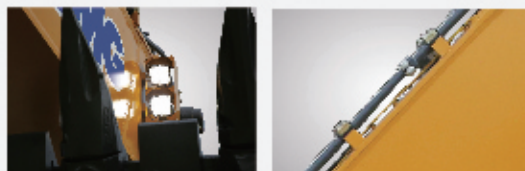
- 转台主体由加强钢板焊接而成的工字梁结构，提高了主体部分承受正负弯矩的能力，保证上部机器强度需求。采用D型结构钢设计的左右裙架，可以有效防止撞击变形。

Main body of rotary table has an I-type structure welded with reinforced steel plate, which enhances the capacity of main body bearing positive and negative bending moments, thus guaranteeing strength demand of upper machine. The left and right skirt racks designed with D-type structural steel can prevent deformation due to collision effectively.



- 整车电气系统采用航空级保护，插接件选用防护等级高，电气导通性能好的德驰插接件，防护能力出色；整车线束全部采用新型可拆卸式全塑夹具，固定可靠且防止磨损；整车工作灯采用亮度高、低能耗的LED工作灯，即使在多雾天气也能良好工作，控制器采用铸铝外壳，坚固耐用，散热性能好，数据存储稳定，性能可靠。

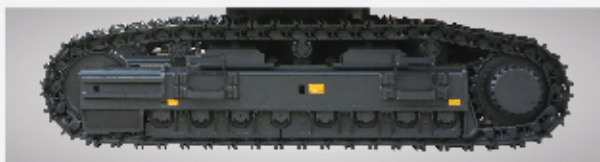
Electrical system of the entire vehicle adopts aviation-level protection, and connectors adopt DEUTSCH brand with high protection grade, excellent electrical conductivity performance and outstanding protection capacity; wiring harnesses of the entire vehicle adopt new type dismountable full-plastic fixture, with reliable fixing capability and able to prevent wear; working lamps of the entire vehicle adopt LED working lamps with high luminance and low energy consumption; even in foggy days, the lamps can work well; the controller adopts cast aluminum shell, which is solid and durable, with good heat dissipation performance, stable data storage and reliable performance.





- 底盘部分采用全防护型夹轨器，驱动轮侧采用链轨挡护结构，有效防止石块进入履带链轨，减少磨损；双筋履带板，抓地能力强，转向性能更好。

The chassis part adopts full-protection type rail clamp, and the drive wheel side adopts caterpillar track retaining structure to effectively prevent stone from entering the caterpillar track, so as to reduce wear; the dual-bar track board possesses strong road grabbing capacity, so the steering performance is better.



## 更智能管控

### More intelligent management and control

- “智”造未来，智能化控制系统全新升级：（1）采用全新自主开发的智能控制系统（XEICS），高效匹配液压系统和动力系统功率，智能调整工作状态，更节能更高效；（2）配备了现场诊断专家系统，为维修技师提供数字化诊断支持，提高现场处理方案，快捷准确；（3）完整的物联网平台构架，通过智能云控系统和徐工掌上客户端，实现远程监控和诊断，实时工况数据一目了然，客户可以及时掌控车辆动态；（4）先进的多种模式功率自匹配，适应不同机具和工况，自适应调整挖机状态。



Intelligent control system is updated wholly: (1) The intelligent control system (XEICS) developed independently is adopted, which is efficiently matched with hydraulic system and power system powers, adjusts working status intelligently, more energy saving and more efficient; (2) The field diagnosis expert system is equipped to provide digital diagnosis support for repair technician, thus improving field treatment scheme and making the repair rapid and exact; (3) Complete platform framework of internet of things may realize remote monitoring and diagnosis through intelligent cloud control system and palmtop customer end of XCMG, so the real-time working condition data are clear and customers may master dynamic information of vehicle in time; (4) The advanced multiple mode powers are matched automatically to adapt to different machines, tools and working conditions, and adjust the status of excavator through self adaptation.

- 高原自适应系统，充分满足高海拔客户需求：（1）通过GPS海拔定位信息与发动机信息采集，自动计算海拔高度，主动提醒客户，更加人性化、智能化；（2）根据海拔高度与进气压力数据，智能调整液压泵功率，适用性更强。

The highland self adaptation system fully meets demands of customers at high altitudes: (1) It may automatically calculate altitude through collecting GPS altitude positioning information and engine information and remind customers actively, which is more humanized and intelligent; (2) It can intelligently adjust power of hydraulic pump according to altitude and air inlet pressure, with stronger adaptation.

## 更舒适安全

### More comfortable and safe

- XE700D采用的是具有FOPS认证的加强型驾驶室。驾驶室前窗采用栅栏式金属护网有效保护操作者安全。采用加厚异型钢设计的驾驶室框架足以保护操作者的安全。日本进口的高性能硅油减震器可消除机器震动对操作者的干扰。

XE700D adopts reinforced cab with FOPS certificate. The front window of cab adopts fence type metal protection net to effectively protect safety of the operator. The cab framework adopting thickened deformed steel design is able to protect safety of the operator. The high-performance silicone oil shock absorber imported from Japan is able to eliminate the disturbance of machine shock to the operator.



- 全新流线型驾驶室空间设计，轿车级豪华内饰，为操作者营造一个舒适的工作环境；驾驶室内部拥有宽大的操作空间、充足的地步空间和悬浮座椅后面大量的存储空间。设计动作平缓的行走踏板、舒适的息脚踏板。控制装置符合人机工程学原理，各种操作按钮采用智能化布局，触手可及。超大的操作视野，全景前窗和侧窗，后窗提供各个方向的最佳视野；大功率冷暖空调，确保室内快速制热、制冷，驾驶室内更加舒适。

Brand-new streamline cab space design and limousine-level luxury interior create a comfortable working environment for the operator; the cab inner owns a large operation space, sufficient footstep space and a large storage space at the back of suspension seat. It is designed with a walking pedal of gentle action and a comfortable foot rest pedal. Control device conforms to the ergonomic principle; various operation buttons adopt intelligent layout and are convenient to be operated. It possesses a super-large operation view, panoramic front, side and rear windows provide the best view in each direction; the large-power air conditioner guarantees rapid heating and cooling, thus making the cab more comfortable.



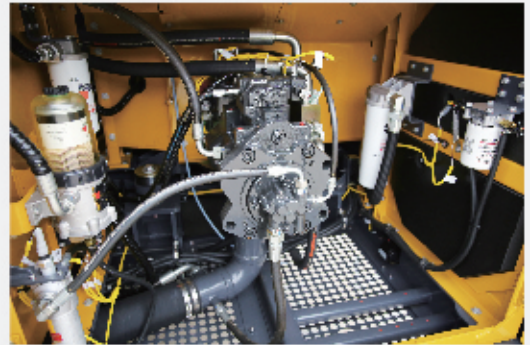
- 尾部摄像头和后尾灯：保证夜间施工和回转、倒车时候的安全性。  
Tail camera and tail lamp: guarantee the safety of construction, rotating and reversing at night.



## 便捷的维护保养 Convenient repair and maintenance

- XE700D日常维护保养全部触手可及，无论是燃油滤、机油滤、先导滤还是水箱、电器件均可以站在走台板上直接维修保养，操作简单易行，节省成本；可以选配燃油、液压油、齿轮油集中加注系统，方便快速检测、加注或更换油液。

The daily maintenance of XE700D is very convenient. Fuel filter, engine oil filter or pilot filter, water tank and electrical element all can be maintained directly by standing on the walking board, with simple operation and cost saving; the fuel, hydraulic oil and gear oil centralized filling system can be selected to facilitate rapid detection, filling or oil replacement.



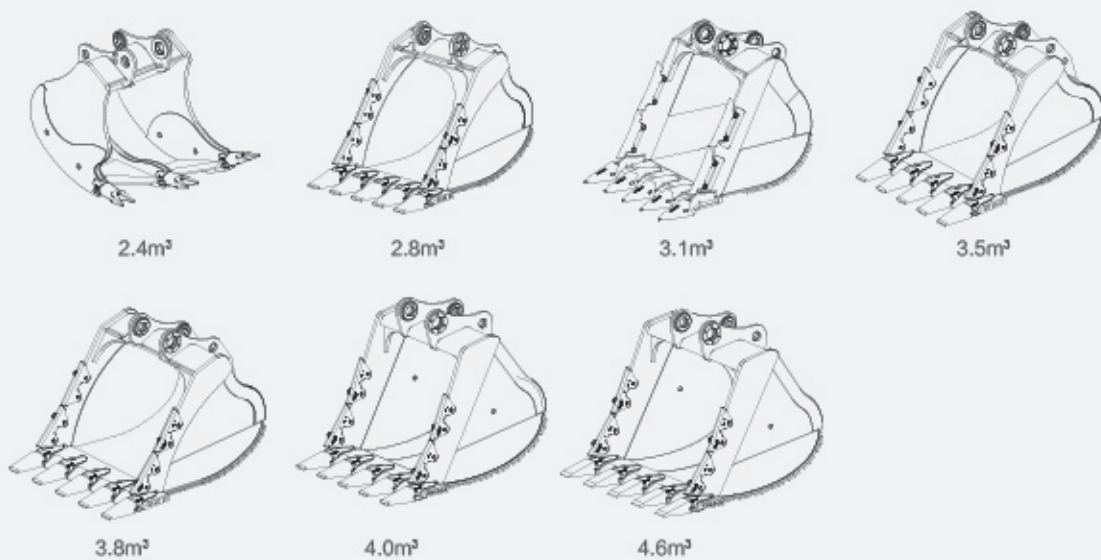
- XE700D内置了专家诊断系统，该系统包括发动机控制器、主控制器、电子监控器、GPS及故障诊断仪，设备间通过CAN总线进行数据和信息通讯；专家诊断技术的应用可实现整机实时监控、远程监控、故障诊断、参数及功能调整，为产品市场售后服务提供快速、及时的故障判断分析及处理方案。

XE700D is set with built-in expert diagnosis system, and this system includes engine controller, main controller, electronic monitor, GPS and fault diagnosis instrument, and all the equipment conducts data and information communication with each other through CAN bus; the expert diagnosis system may realize real-time monitoring, remote monitoring, fault diagnosis, parameter and function adjustment of the entire machine, so as to provide rapid and timely fault judgment, analysis and treatment schemes for the after-sales service of products.



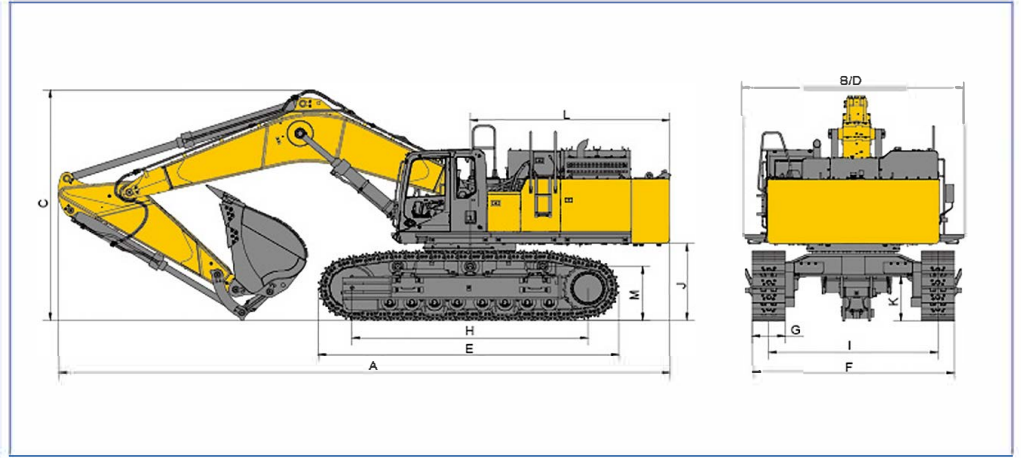
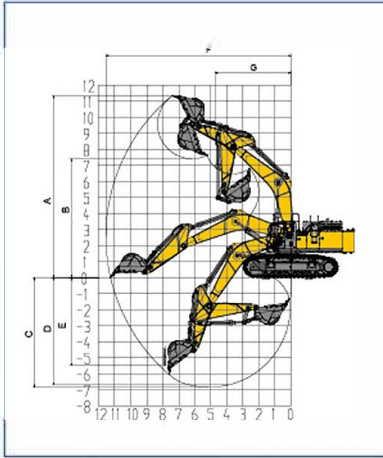
# 铲斗配置

## Configuration of bucket



铲斗配置表 Configuration of bucket		XE700D			
		标配 Standard configuration		选配 Optional configuration	
类型 type	宽度 Width	斗容 Bucket capacity	重量 Weight	BE动臂 BE boom: 6.6m	动臂 boom: 7.3m
	mm	m³	kg	BE斗杆 BE stick: 2.9m	斗杆 stick: 3.5m
冻土斗 Frozen soil bucket	1554	2.4	3721	■	×
岩石斗 Rock bucket	1628	2.8	3145	■	×
岩石斗 Rock bucket	2038	3.1	3094	×	■
岩石斗 Rock bucket	1920	3.5	3503	■	×
加强斗 Strengthen bucket	2028	3.8	3640	□	×
加强斗 Strengthen bucket	1975	4	4034	□	×
土方斗 Soil bucket	2190	4.6	4350	○	×

- : 适用于密度小于2100 kg/m³或以下物料 Suitable for the material which density is less than 2100kg/m³  
□: 适用于密度小于1800 kg/m³或以下物料 Suitable for the material which density is less than 1800kg/m³  
○: 适用于密度小于1500 kg/m³或以下物料 Suitable for the material which density is less than 1500kg/m³  
○: 适用于密度小于1200 kg/m³或以下物料 Suitable for the material which density is less than 1200kg/m³  
△: 适用于密度小于900 kg/m³或以下物料 Suitable for the material which density is less than 900kg/m³



## 主要参数/Main Specifications

型号 Model	单位 Unit	参数 Parameters
操作重量 Operation Weight	kg	69000
铲斗容量 Bucket Capacity	m <sup>3</sup>	2.4-4.6
<b>发动机 Engine</b>		
发动机型号 Model	/	QSX15
电喷 Electronic fuel injection	/	√
4冲程 Four strokes	/	√
水冷 Water cooling	/	√
涡轮增压 Turbo-charging	/	√
空空中冷 Air to air intercooler	/	√
缸数 No. of cylinders	/	6
额定输出功率/转速 Output power	kW/rpm	336/1800
最大扭矩/转速 Torque/speed	N.m/rpm	2102/1400
排量 Displacement	L	15.0
<b>主要性能 Main performance</b>		
行驶速度(高/低) Travel speed (H/L)	km/h	4.2/3.0
回转速度 Rotating speed	r/min	7
爬坡能力 Gradeability	°	35°
接地比压 Ground pressure	kPa	101.4
铲斗挖掘力 Bucket digging force	kN	363
斗杆挖掘力 Arm digging force	kN	300
最大牵引力 Maximum traction	kN	450
<b>液压系统 Hydraulic system</b>		
主泵 Main pump	/	2个柱塞泵
主泵额定流量 Rated flow of main pump	L/min	2×450
主安全阀压力 Pressure of prime valve	MPa	31.4/34.3
行走系统压力 Pressure of travel system	MPa	34.3
回转系统压力 Pressure of swing system	MPa	28.5
先导系统压力 Pressure of pilot system	MPa	3.9

型号 Model	单位 Unit	参数 Parameters
<b>外形尺寸 Appearance size</b>		
A 总长 Overall length	mm	12130
B 总宽 Overall width	mm	4410
C 总高 Overall height	mm	4700
D 转台宽度 Width of platform	mm	4410
E 履带长度 Length of crawler	mm	5955
F 底盘总宽 Overall width of chassis	mm	4000
G 标准履带板宽度 Width of crawler	mm	650
H 履带轴距 Track length on ground	mm	4685
I 轨距 Crawler gauge	mm	2800/3350
J 配置离地间隙 Clearance under counterweight	mm	1565
K 最低离地间隙 Min. ground clearance	mm	853
L 尾部回转半径 Min. tail swing radius	mm	4090
M 履带高度 Height of crawler	mm	1286
<b>工作范围 Working scope</b>		
A 最大挖掘高度 Max. digging height	mm	11350
B 最大卸载高度 Max. dumping height	mm	7370
C 最大挖掘深度 Max. digging depth	mm	6900
D 8英尺水平面挖掘深度 Excavation depth of 8 feet level	mm	6750
E 最大垂直挖掘深度 Max. vertical wall digging depth	mm	5500
F 最大挖掘半径 Max. digging reach	mm	11580
G 最小回转半径 Min. swing radius	mm	4750
<b>油类容量 Oil capacity</b>		
燃油箱容量 Fuel tank capacity	L	950
液压油箱容量 Hydraulic tank capacity	L	500
发动机油容量 Engine oil capacity	L	48

材料和规格可随时间改变，恕不另行通知  
Materials and specifications may be changed at any time without prior notice