

集装箱空箱堆高机 / Empty Container Handler

XCH90



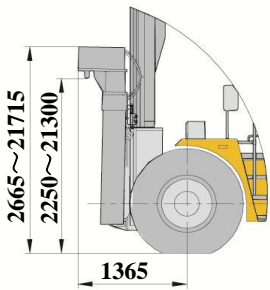
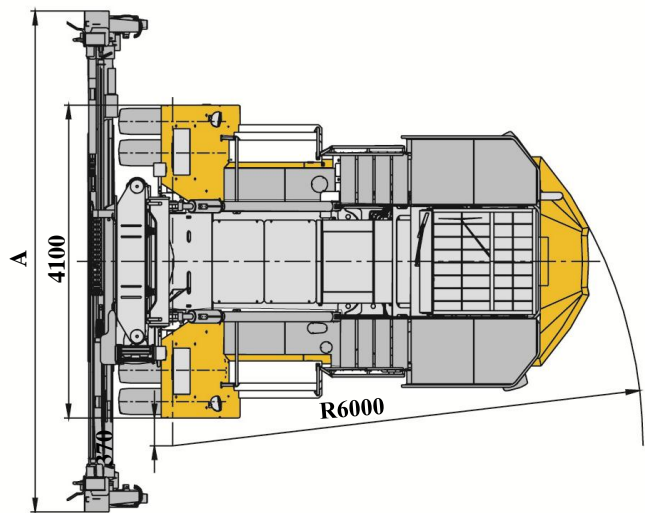
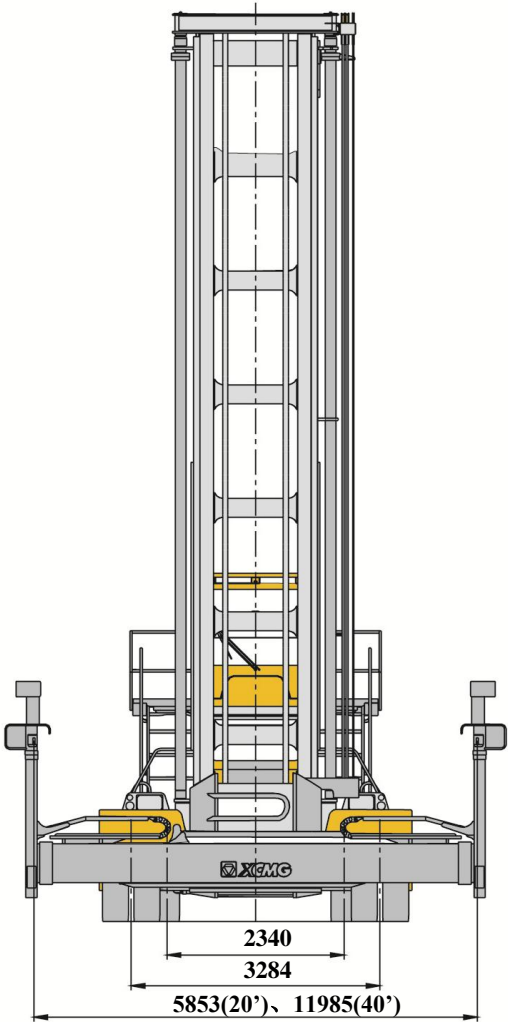
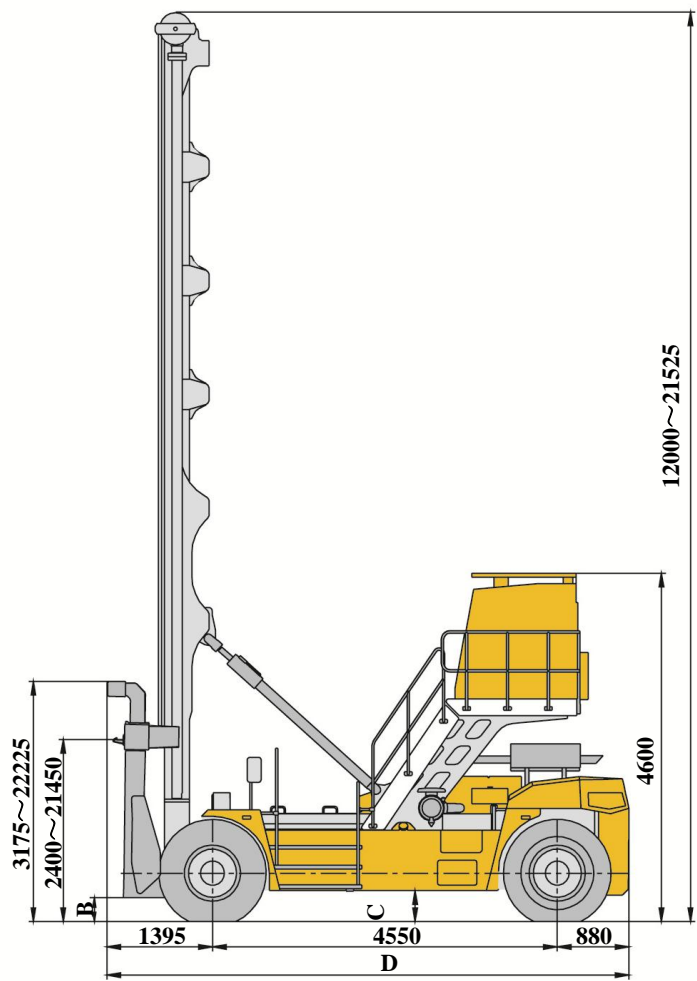
9层 (双箱吊具)
9 high(double container)
8层 (单箱吊具)
8 high(single container)



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尺寸参数
Dimensions



| 吊具 Spreader | A | B | C | D |
|-------------------------|------|-----|-----|------|
| 单箱 For single container | 6038 | 315 | 410 | 6855 |
| 双箱 For double container | 6615 | 315 | 410 | 6825 |

技术规格

Technical specifications

标准配置

双箱吊具

徐工品牌双箱伸缩式吊具，具有伸缩和侧移功能，适用于20'和40'国际标准集装箱作业。
吊具最大起重量：9t。
侧移距离：±600mm。

司机室

驾驶、操纵一体化设计，外观简洁、动感。全景式、低仪表台设计，视野开阔。人机工程设计的内部空间，宽阔舒适。配置大功率冷暖空调、大屏幕显示器使用方便。

发动机

美国康明斯QSB6.7，直列六缸水冷电控柴油增压发动机；
额定功率：164kW/2300r/min，最大扭矩：949Nm/1500r/min；
发动机排放：非道路三阶段、U.S.EPA Tier 3、EU Stage III。
燃油箱有效容积：370L。

变速箱

德国ZF 3WG211，自动变速箱（手自一体），3个前进挡，3个后退挡。

驱动桥

德国Kessler重载驱动桥，型号：D81PL488
可靠性高、维护简便。

轮胎

6个14.00-24 28PR斜交轮胎，承载力大、专用的港机机械花纹，适合集装箱空箱堆高机产品各种使用工况。

悬挂

前桥与车架刚性连接，吊箱行驶稳定性高；后桥与车架铰接，行驶时，后桥可通过铰接机构实现减震功能，缓和路面冲击。

制动

行车制动：湿式盘式制动器，作用于前轮，系统压力过低时，具有自动制功能。
驻车制动：弹簧制动，液压解除的独立盘式制动器，作用于前桥。

转向

后桥全液压动力转向，后轮转角可达73°，整机转弯半径5950mm。

液压系统

电比例变量泵系统，具有负载敏感功能，节能型好。大功率风冷式液压油散热器，系统散热好。
液压油箱有效容积：400L。

电气系统

24V DC，负极搭铁，2个蓄电池，照明系统中设置有前大灯，倒车灯、转向灯等。

安全装置

动载防倾翻保护技术，根据车辆载荷情况，实时限制车辆行驶速度，带箱行驶安全。整机还具有过载保护、倒车影像、倒车雷达功能。

车架

车架采用细晶粒高强度钢焊接而成，抗扭转大截面框架结构，承载能力强。
设计过程中运用有限元分析计算、零阶设计优化方法对核心结构进行优化设计，保证了结构件的强度和刚度。

门架

2级C型伸缩门架，采用抗扭曲设计，作业性能好、抗扭能力强。

选装配置

单箱吊具

徐工品牌单箱伸缩式吊具，适用于20'和40'国际标准集装箱作业。
吊具最大起重量：9t。
侧移距离：±600mm。

单箱吊具

Bromma单箱伸缩式吊具，适用于20'和40'国际标准集装箱作业。
吊具最大起重量：9t。
侧移距离：±600mm。

冷却液加热

加热发动机冷却液，辅助发动机启动，适用于寒冷地区。

产品各部件明细如上所述，具体部件明细请参照产品报价单。

技术规格

Technical specifications

| Standard equipment | |
|-------------------------------|--|
| Spreader for double container | XCMG spreader for double-container has telescoping and side shift functions and is applicable to handling ISO 20' and 40'containers. Its maximum lifting capacity is 9 t, and side shift is ±600 mm. |
| Cab | Integrated design for driving and operating functions, simple and artistic appearance. Panoramic, low-instrument panel design, wide view. Ergonomically designed inner space, spacious and comfortable with high power heating and air conditioning device equipped. A large screen display is easy to use. |
| Engine | QSB6.7, in line, six-cylinder, water-cooled, turbocharged, electric control diesel engine, manufactured by Cummins, US; Rated power 164 kW/2300rpm, max. torque 949 Nm / 1500 rpm; Emission compliance: compliant with off-road U.S. EPA Tier 3/EU Stage IIIA; Fuel tank capacity: approx. 370 L. |
| Transmission | 3WG211, automatic transmission (with manual shift) manufactured by ZF Germany, with 3 forward and 3 reverse gears available. |
| Drive axle | D81PL488, German KESSLER heavy duty drive axle, high reliability and easy to maintain. |
| Tires | 6 diagonal tires, with large bearing capacity and specialized pattern for port machines, suitable for the requirements of empty container handler under various working conditions. Tire specifications: 14.00-24 28PR. |
| Suspensions | Front axle is rigidly connected with frame for high stability while driving with a container suspended; rear axle is hinged with frame for buffering road shock through the hinged mechanism. |
| Brakes | Service brake: wet disc brake, acting on the front wheels. Automatic braking is available in case of lower system pressure. Parking brake: spring-loaded brake and hydraulic-released independent disc brake, acting on the front axle. |
| Steering | Rear axle is full hydraulic power steering, the turning angle of rear wheels is up to 73°, and the turning radius of whole machine is 5950 mm. |

| | |
|------------------|---|
| Hydraulic system | Electric proportional variable pump system, with load sensitive function, energy economy. A high power, air cooled hydraulic oil radiator is used to cool the system. Oil tank capacity: 400 L. |
| Electric System | DC 24 V, negative ground, 2 batteries. There are headlamps, reverse lamp and turn lamps available in lighting system. |
| Safety devices | Dynamic load protection technology makes the traveling speed be limited according to machine load, contributing to driving safety of the machine with a container suspended. Overload protection, backup camera and reverse alarm are available. |
| Frame | Frame is made of fine grain high tension steel, with anti-torsion large cross-section, strong carrying capacity. Finite element analysis and zero order design optimization method adopted for key structures ensure the strength and stiffness of structural members. |
| Mast | Two-stage, C-typed telescopic mast, anti-torsion design, leading to better operating performance and anti-torsion ability. |

| Additional equipment | |
|-------------------------------|---|
| Spreader for single container | XCMG spreader for single container, applicable to handling ISO 20' and 40'containers. Its maximum lifting capacity is 9 t, and side shift is ±600 mm. |
| Spreader for single container | Bromma spreader for single container, applicable to handling ISO 20' and 40'containers. Its maximum lifting capacity is 9 t, and side shift is ±600 mm. |
| Coolant heating device | It is used to heat engine coolant, facilitating to start engine, applicable in cold areas. |

Product parts list is as mentioned above, refer to the product quotation for specific parts.

重量
Weight

| 项目 Item | 前轴 Front Axle | 后轴 Rear Axle | 总重量 Total weight |
|------------------|------------------|-----------------|---------------------|
| 空载 Unloaded | 25230kg | 15230kg | 40460kg |
| 满载 Rated load | 38150kg | 11310kg | 49460kg |

轴荷为门架处于垂直状态时的数值。
The axle loads listed in the table are the values when mast is vertical.

作业速度
Working speeds

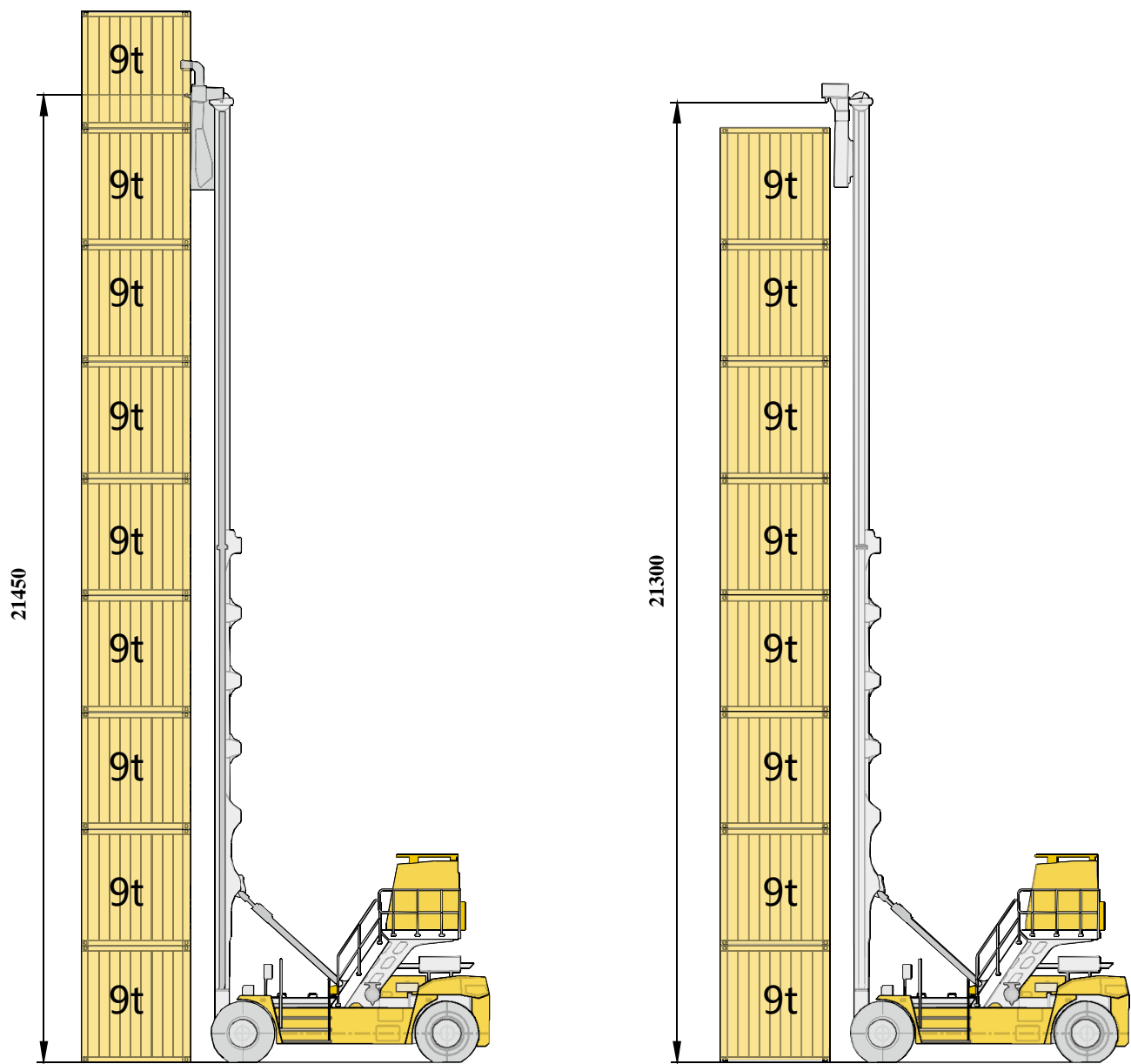
| 项目 Item | 空载 Unloaded | 满载 Rated load |
|-------------------------|----------------|------------------|
| 起升速度 Lifting speed | 675mm/s | 625mm/s |
| 下落速度 Lowering speed | 550mm/s | 600mm/s |
| 行驶速度 Traveling speed | 30km/h | 28km/h |

吊具参数 Spreader specifications

| 项目 Item | 双箱吊具 Spreader for single container | 单箱吊具（徐工） Spreader for double-container (XCMG) | 单箱吊具（Bromma） Spreader for single container (Bromma) |
|---------------------------|---------------------------------------|--|--|
| 起重量 Lifting capacity | 9000kg | 9000kg | 9000kg |
| 侧移距离 Side shift | ±600mm | ±600mm | ±600mm |
| 伸缩时间 Telescoping time | 22s | 22s | 22s |
| 开闭锁时间 Lock\unlock time | 1s | 1s | 1s |

起重能力

Lifting capacities

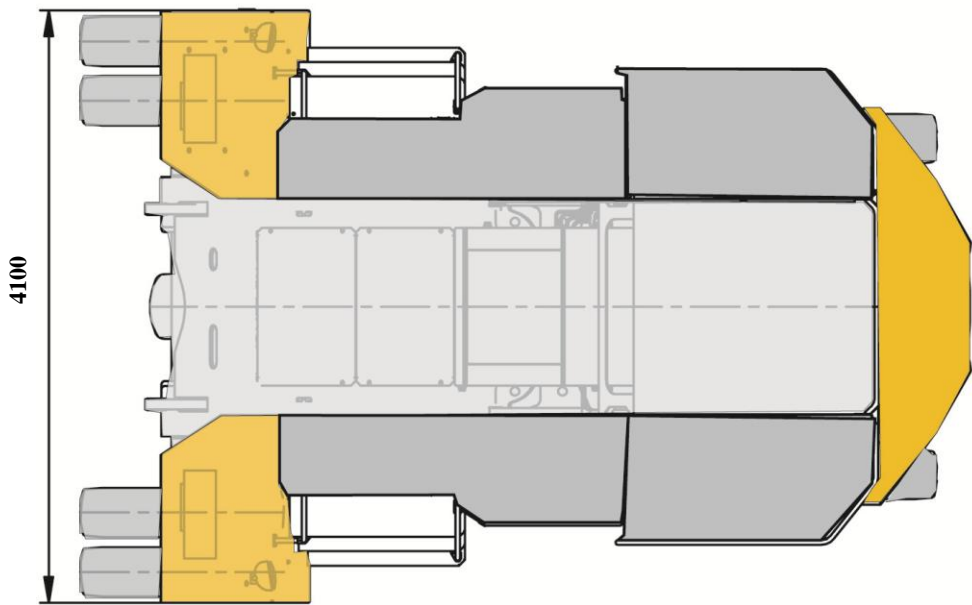
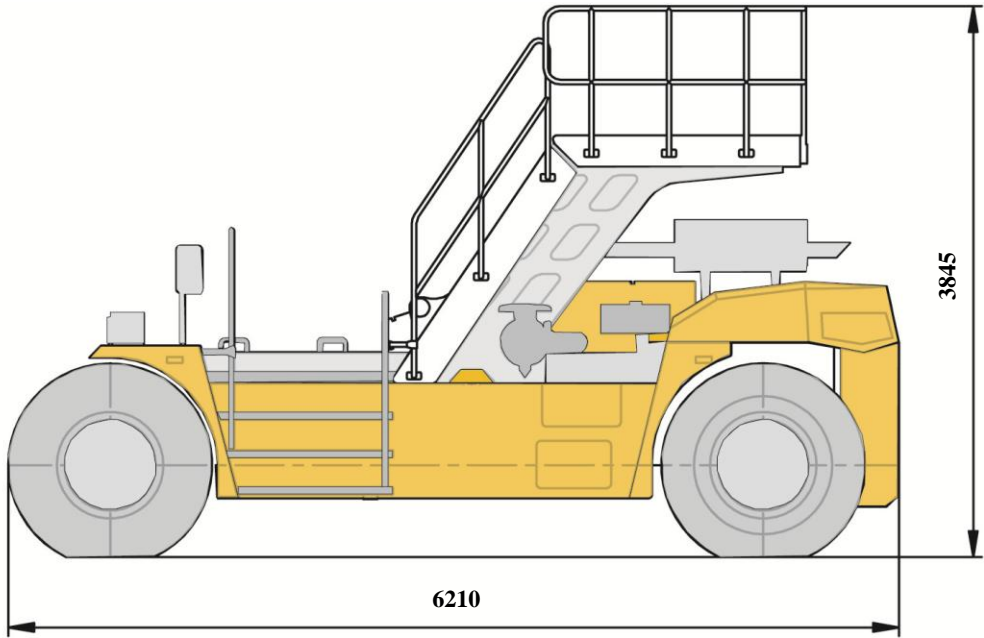


| 吊具 Spreader | 最大起升高度 Max. Lifting Height | 最大起重量 Max. Lifting Capacity | 堆码层数 Number of Stacking |
|-------------------------------|-------------------------------|--------------------------------|----------------------------|
| 单箱 吊具 For single container | 21300mm | 9t | 8 (8'6") / 7 (9'6") |
| 双箱 吊具 For double-container | 21450mm | 9t | 9 (8'6") / 8 (9'6") |

运输部件尺寸

Dimensions of transported parts

| | |
|-----------|-----------------|
| 1 | 主机 Main machine |
| 重量 Weight | 22150kg |
| 数量 Qty | 1 |

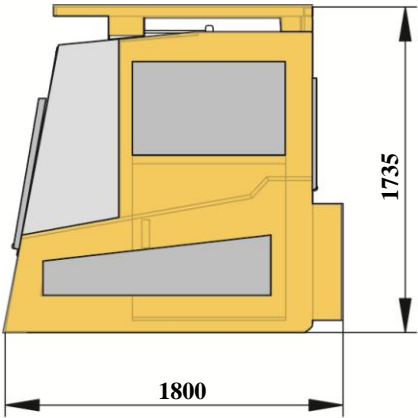


运输部件尺寸
Dimensions of transported parts

2

司机室 Cab

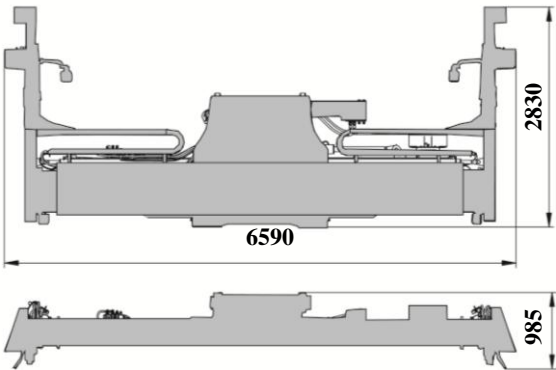
| | |
|-----------|-------|
| 重量 Weight | 610kg |
| 数量 Qty | 1 |



3

吊具 Spreader

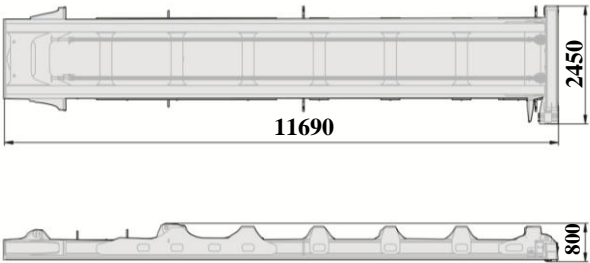
| | |
|-----------|--------|
| 重量 Weight | 4370kg |
| 数量 Qty | 1 |



4

门架组件 Mast assembly

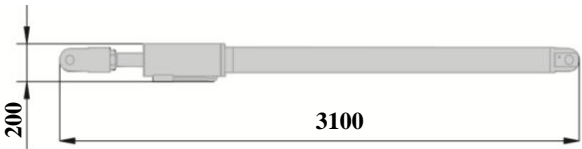
| | |
|-----------|---------|
| 重量 Weight | 12600kg |
| 数量 Qty | 1 |



5

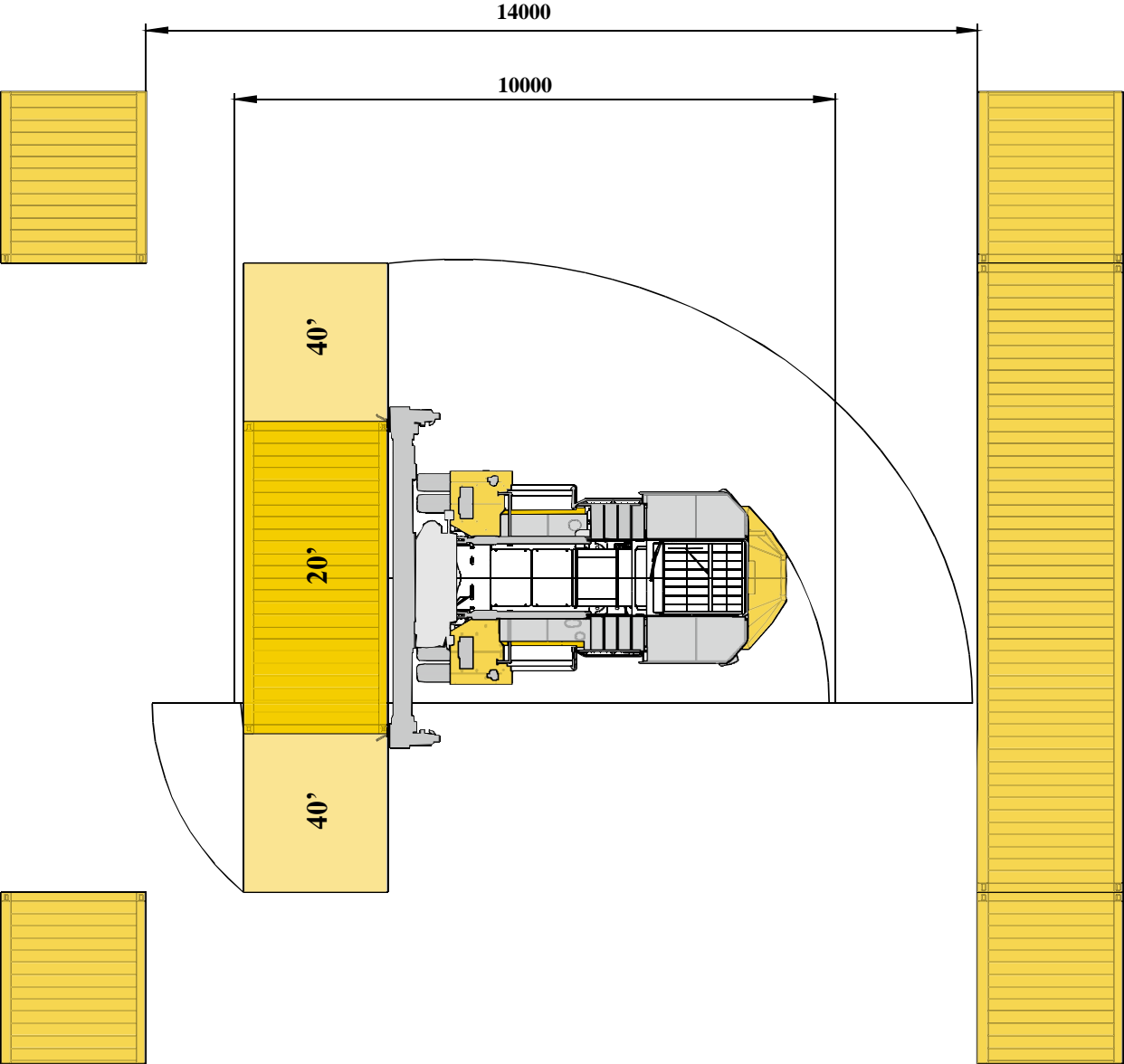
俯仰油缸 Tilt cylinder

| | |
|-----------|-------|
| 重量 Weight | 365kg |
| 数量 Qty | 2 |



注：以上均为单件重量，门架组件包含门架和起升油缸。
NOTES: All of these are single piece weight, and mast assembly include mast and lifting cylinders.

通道宽度
Aisle width



注意事项

Notes

- 1. 本手册仅供参考，所有信息均仅供说明，不应依赖它去操作堆高机，堆高机的正确操作说明请参见操作手册。
- 2. 堆高机属于非道路车辆，车辆的行驶需遵守当地的交通规则和法规要求。车辆长途转移时，必须使用其它车辆拖运，同时考虑车辆的总重、轴荷和轮廓尺寸的限制要求。
- 3. 堆高机必须在坚实的地面上工作，地面坡度不得大于3%。
- 4. 堆高机作业时，风力不得大于6级。堆高机在有风条件下作业时，必须认真观察和注意风速、设备状态及作业环境等各个方面。另外，必须考虑到地面与高空，平地与街道地区的风速有很大差别。

- 1. All information in the brochure is provided for reference only. Never rely on it to operate the machine. Refer to the operation manual for operation instructions of the machine.
- 2. Container handlers belong to off-road machines. Local traffic rules and regulations must be observed. For long-distance job site transfer, use a trailer and take GVW, axle load and dimensions of the machine into consideration.
- 3. The machine must be operated on firm ground, which gradient does not exceed 3%.
- 4. Operation of the machine is permissible only when the wind force is below grade 6.
When operating the machine under wind, it is necessary to observe wind speed, equipment status and operating environment. In addition, the wind velocity on the ground is different with that in the high air, and it is also different on flat ground and in city air, which shall be taken into account.



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This print does not belong to the contract. We reserve the right to modify the design (such as product model, parameters and configuration) without notice for improvement. The pictures are just for reference. The product in the picture may not be standard configuration. Some parts need to be purchased separately. Conform to the local laws for license application and road traveling.

主要技术参数

Main Technical Data

| 序号 No. | 项目 Item | | | 单位 Unit | 参数 Parameter | 允差 Tolerance | |
|-----------|----------------------------------|-----------------------------------|---------------------------------------|------------|-----------------|-----------------|-------|
| 1 | 长度 length | 单箱吊具Spreader for single container | | mm | 6855 | ±1% | |
| 2 | | 双箱吊具Spreader for double-container | | mm | 6825 | ±1% | |
| 3 | 宽度 Width | 单箱吊具Spreader for single container | | mm | 6038 | ±1.5% | |
| 4 | | 双箱吊具Spreader for double-container | | mm | 6615 | ±1.5% | |
| 5 | 高度 Height | 门架 Mast | | mm | 12000 | ±1% | |
| 6 | | 司机室 Cab | | mm | 4600 | ±1% | |
| 7 | | 最大高度 Max.height | 单箱吊具 Spreader for single container | mm | 21715 | ±1% | |
| 8 | | | 双箱吊具 Spreader for double-container | mm | 22225 | ±1% | |
| 9 | 轴距 Wheelbase | | | mm | 4550 | ±1% | |
| 10 | 轮距 Trace | 前 Front | | mm | 3284 | ±2% | |
| 11 | | 后 Rear | | mm | 2340 | ±2% | |
| 12 | 悬距 Overhang | 前 Front | 单箱吊具 Spreader for single container | mm | 1365 | ±3% | |
| 13 | | | 双箱吊具 Spreader for double-container | mm | 1395 | ±3% | |
| 14 | | 后 Rear | | mm | 880 | ±3% | |
| 15 | 最小离地间隙 Min. ground clearance | | 门架下端 Under mast | | mm | 315 | ≥95% |
| 16 | | | 轴距中心 Center of Wheelbase | | mm | 410 | ≥95% |
| 17 | 最大行驶速度 Max. traveling speed | | 空载 Unloaded | | km/h | 30 | ±10% |
| 18 | | | 满载 Rated load | | km/h | 28 | ±10% |
| 19 | 最小转弯半径 Min. turning radius | | | mm | 5950 | ≤105% | |
| 20 | 最大牵引力 Max. drawbar pull | | | kN | 180 | ≥90% | |
| 21 | 最大爬坡能力 Max.gradeability | | | % | 28% | ≥90% | |
| 22 | 自重 Dead weight | | | kg | 40460 | ±3% | |
| 23 | 额定起重量 Rated lifting capacity | | | kg | 9000 | ±5% | |
| 24 | 自由起升高度 Height under twistlock | | 单箱吊具 Spreader for single container | | mm | 2250 | ±1.5% |
| 25 | | | 双箱吊具 Spreader for double-container | | mm | 2400 | ±1.5% |
| 26 | 最大起升高度 Max. lifting height | | 单箱吊具 Spreader for single container | | mm | 21300 | ±1.5% |
| 27 | | | 双箱吊具 Spreader for double-container | | mm | 21450 | ±1.5% |
| 28 | 门架倾角 Mast tilting | | 前 Front | | ° | 2 | ±0.5° |
| 29 | | | 后 Rear | | ° | 4 | ±0.5° |
| 30 | 最大起升速度 Max. lifting speed | | 空载 Unloaded | | mm/s | 675 | ±10% |
| 31 | | | 满载 Rated load | | mm/s | 625 | ±10% |
| 32 | 最大下降速度 Max. lowering speed | | 空载 Unloaded | | mm/s | 550 | ±10% |
| 33 | | | 满载Rated load | | mm/s | 600 | ±10% |

主要配套件明细表

Main parts list

| 序号 N0. | 名 称 Name | 型 号 Model | 厂 家 Manufacturer |
|-----------|---|--------------|--|
| 1 | 吊具（双箱） Spreader (for double-container) | XCH90.01 | 徐州重型机械有限公司 Xuzhou Heavy Machine Co.,Ltd. |
| 2 | 吊具（双箱） Spreader (for double-container) | XCH80.01II | 徐州重型机械有限公司 Xuzhou Heavy Machine Co.,Ltd. |
| 3 | 吊具（单箱） Spreader (for single container) | SLV40 | 瑞典 Bromma Sweden Bromma |
| 4 | 发动机 Engine | QSB6.7 | 美国康明斯 America Cummins |
| 5 | 变速箱 Transmission | 3WG211 | 德国采埃孚 Germany ZF |
| 6 | 驱动轴 Drive Axle | D81PL488-NLB | 德国 Kessler Germany Kessler |
| 7 | 轮胎 Tire | 14.00-24 | 贵州轮胎股份有限公司 Guizhou Tyre Co., Ltd. |
| 8 | 轮辋 Rim | XCH90.29.1.1 | 吉凯恩动力机械（柳州）有限公司 GKN Power Solution (Liuzhou) company Limited |
| 9 | 司机室 Cab | CZS1270HQ.00 | 湖北齐星汽车车身股份有限公司 Hubei Qixing Cabin Manufacturing Co., Ltd. |