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**GR2153 平地机**  
**GR2153 Motor Grader**  
**技术规格书**  
**Technical Specification**

徐州徐工筑路机械有限公司

**Xuzhou Xugong Road Construction Machinery Co., Ltd.**

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# GR2153 平地机

## GR2153 Motor Grader

### 技术规格书

### Technical Specification

## 1. 概述

### 1. Overview

GR2153 平地机主要用于公路、机场、农田等大面积的地面平整和挖沟、刮坡、推土、松土、除雪等作业。是国防工程、矿山建设、城乡道路等建筑施工和水利建设、农田改良等所必须的工程机械。

The GR2153 motor grader is mainly used for ground leveling, ditching, slope scraping, bulldozing, scarification, snow removal for large areas such as highway, airports, farmlands etc. It is the necessary construction machinery for national defense construction, mine construction, urban and rural road construction and water conservancy construction, farmland improvement and so on.

## 2. 主要技术性能与特点

### 2. Main technical performance and characteristics

- 1) 节能降噪：采用低转速发动机传动路线，额定点的比油耗低，节能环保；传动系统进行低速比配置，平均油耗降低 8%左右；发动机、驾驶室、座椅三级减振；驾驶室六点组合支承；发动机降频减速、风扇大直径低速比、机罩内贴吸音海绵、驾驶室良好密封，整机噪音降低。

Energy saving and noise reduction: adopt low speed engine transmission line, low fuel consumption and energy saving and environmental protection; The transmission system is equipped with low speed ratio, and the average fuel consumption is reduced by about 8%. Three levels of engine, cab and seat vibration reduction; The cab is supported by six points; Deceleration of engine, cooling fan with large diameter, sound absorption sponge inside the hood, good sealing of the cab reduces noise of the whole machine.

- 2) 动力强劲：采用东康高效国III变功率发动机，匹配采孚变速箱，选用最优的变矩器循环圆直径，实现变矩器与发动机的最佳匹配，减少整车启动提速时间，加大低速工作时的扭矩输出，强劲有力。选配人字形花纹轮胎，在松土、平整等工况整车附着力可提升 10%左右，进一步提升动力输出。

Strong power: Dongfeng Cummins efficient China stage III engine and hydraulic torque converter, the optimal torque converter achieves the best matching of torque converter and engine, reducing the start time, increase the work of torque output at low speed, strong and powerful. The optional herringbone tread tires, the adhesion can be increased by 10% in loosening soil and leveling, further enhance the power output.

- 3) 带载回转：提高液压系统系统压力，铲刀回转力大大提高，齿圈高频淬火处理，耐磨性和寿命提高，实现带载回转作业。

Rotation under load: improve the pressure of hydraulic system, the rotary force of the blade, the high frequency quenching treatment improves the wear resistance and life span, and realize the rotation operation.

- 4) 高效作业：提高了液压泵和液压马达的排量，实现油缸速度提高 20%，作业效率行业领先，对铲刀弧形进行优化，能够快速高效地翻土和排土，实现最佳的负载分配和回转盘区域内最小的物料堆积。

Efficient operation: improves the displacement of hydraulic pump and hydraulic motor, increase the oil cylinder speed by 20%, realizes the industry leading work efficiency, the optimized blade shape can turn and remove the soil quickly and efficiently, and realize optimal load distribution and the minimum material accumulation within the rotary disc area, adopt the integral angle device, increase the reliability and service life of the working device.

- 5) 安全可靠：全液压制动系统，负荷传感转向系统，关键元件国际化配套，系统安全可靠；结构件 CAE 全局优化，联合高校、研究院进行专项研究。

Safe and reliable: full hydraulic braking system, load sensing steering system, international supporting key components, ensuring safe and reliable system; CAE global optimization of the structural parts, joint special research with universities and research institutes.

- 6) 机动灵活：具有徐工专利技术的单油缸大转向角前桥，结合铰接车架，转弯半径小，机动灵活。

Maneuverability: single oil cylinder large steering angle front axle is XCMG patented technology, combined with articulated frame, small turning radius guarantees the flexible maneuvering.

- 7) 操纵舒适：菱形驾驶室六点支承减震，操纵机构优化，减小操纵力及操作行程，操纵力减小 30%，操纵更加灵活舒适，符合人机工程的操纵系统、操作环境更加舒适。

Control comfortability: diamond shape cabin with bearing damping at six points, control structure is optimized, reduce the control force and operating stroke, operating force decreases by 30%, the control is more flexible and comfortable, accords with the man-machine engineering control system, the operation environment is more comfortable.

- 8) 工艺先进：重要零部件均采用国际先进焊接设备—机械手焊接，具有焊缝强度高、焊缝均匀、焊接质量高的特点。

Advanced processing technology: all important parts and components are welded by international advanced welding equipment, which is characterized by high weld strength, uniform welding line and high welding quality.

- 9) 整机外观：体现与众不同和徐工产品的特色喷涂外观设计。

Appearance of the whole machine: it reflects the special painting design of XCMG products.

- 10) 维修保养方便：采用后翻式液压升降机罩，机罩上大开门，方便整机的维护和保养。

Maintenance accessibility: adopting the backflip hydraulic lift hood, the machine cover is has large opening, easy for maintenance and repair of the machine.

- 11) 功能扩展：多种选装件，扩展了机器性能和工作范围。

Functional extension: a variety of optional parts, extending the machine performance and application range.

### 3. 主要技术参数

### 3. Main technical parameters

#### 3.1 技术参数表

#### 3.1 Technical parameters table

表 3-1 GR2153 平地机技术参数表

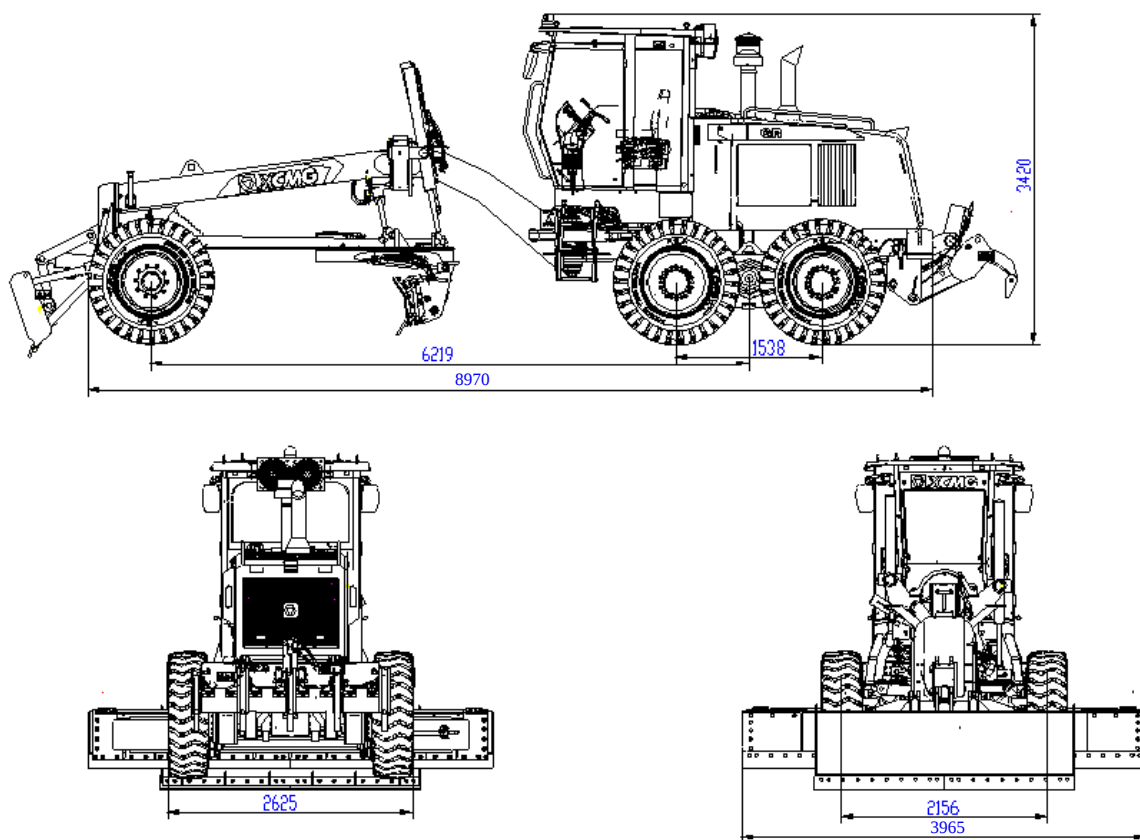
Table 3-1 technical parameter table of GR2153

| 项目<br>Item                       |                                              | GR2153              |
|----------------------------------|----------------------------------------------|---------------------|
| 基本参数<br>Basic<br>parameter       | 发动机型号<br>Engine type                         | QSB6.7              |
|                                  | 额定功率/转速<br>Rated power/Speed                 | 164kW/2000rpm       |
|                                  | 整机外型尺寸（标配）<br>Machine dimension(standard)    | 8970×2625×3420 mm   |
|                                  | 整机重量（标配）<br>Machine weight(standard)         | 16500 kg            |
|                                  | 轮胎规格<br>Tyre specification                   | 17.5-25             |
|                                  | 离地间隙（前桥）<br>Ground clearance (Front axle)    | 430mm               |
|                                  | 轮距<br>Wheel base                             | 2156mm              |
|                                  | 前后桥距<br>Axle distance between front and rear | 6219 mm             |
|                                  | 中后轮距<br>Wheel base between middle and rear   | 1538 mm             |
| 性能参数<br>Performance<br>parameter | 前进速度<br>Forward speed                        | 5、8、11、19、23、38km/h |
|                                  | 后退速度<br>Rearward speed                       | 5、11、23km/h         |
|                                  | 牵引力 f=0.75<br>Traction force f=0.75          | ≥85 kN              |
|                                  | 最大爬坡能力<br>Maximum gradeability               | ≥25%                |
|                                  | 轮胎充气压力<br>Inflation pressure of tire         | 260kPa              |
|                                  | 工作系统压力<br>Work system pressure               | 20MPa               |

|                              |                                                          |                                  |             |
|------------------------------|----------------------------------------------------------|----------------------------------|-------------|
|                              | 变速箱压力<br>Transmission pressure                           |                                  | 1.3—1.8Mpa  |
| 工作参数<br>Working parameters   | 前轮最大转向角<br>Maximum steering angle of front wheel         |                                  | ±48°        |
|                              | 前轮最大倾斜角<br>Allowable angle of inclination of front wheel |                                  | ±17°        |
|                              | 前桥最大摆动角<br>Maximum swinging angle of front axle          |                                  | ±15°        |
|                              | 平衡箱最大摆动角<br>Maximum swinging angle of balance box        |                                  | 前 15°、后 15° |
|                              | 车架最大转向角<br>Maximum steering angle of frame               |                                  | ±27°        |
|                              | 最小转弯半径<br>Minimum turning radius                         |                                  | 7.3m        |
|                              | 铲刀<br>Blade                                              | 最大提升高度<br>Maximum lifting height | 400mm       |
|                              |                                                          | 最大铲土深度<br>Maximum scraping depth | 500mm       |
|                              |                                                          | 最大侧倾角度<br>Maximum tilt angle     | 90°         |
|                              |                                                          | 切削角<br>Cutting angle             | 28°—70°     |
|                              |                                                          | 回转角<br>Angle of revolution       | 360°        |
|                              |                                                          | 长度×弦高<br>Length × Height         | 3965×610mm  |
| 加注油量<br>Oil filling capacity | 冷却液<br>Coolant                                           |                                  | 50L         |
|                              | 燃油箱<br>Fuel tank                                         |                                  | 280L        |
|                              | 发动机<br>Engine                                            |                                  | 24L         |
|                              | 变速箱<br>Transmission box                                  |                                  | 38L         |
|                              | 平衡箱<br>Balance box                                       |                                  | 46L         |
|                              | 驱动桥<br>Drive axle                                        |                                  | 28L         |
|                              | 液压油<br>Hydraulic oil                                     |                                  | 110L        |

### 3.2 外形及外形尺寸

### 3.2 Shape and dimension



## 4. 主要系统结构

## 4. Main system structure

### 4.1 动力系统

### 4.1 Power system

采用康明斯三阶段涡轮增压柴油机。输出扭矩和功率储备系数大，油耗低。

Using Cummins stage 3 turbocharged diesel engine. Large output torque and power reserve coefficient and low oil consumption.

变速箱及变矩器为电控动力换档、定轴式变速箱。变矩器变矩系数大、效率高、高效区宽，与发动机匹配具有良好的联合工作特性。变速箱为前进六档，后退三档，具有空档起动保护功能，档位变换为电液控制，操纵灵活，换档时无冲击，速比分布合理，满足了各种工况要求。

The transmission and the torque converter are of electronically controlled power shift countershaft transmission. Torque converter has big torque coefficient, wide high efficiency area. It has good combination

working characteristics with engine. The transmission box has six forward gears, three backward gears, with neutral start protection function, gear shift controlled by electro-hydraulic, flexible operation, shift without impact, reasonable speed ratio distribution, meet the requirements of various working conditions.

驱动桥为徐工专用后桥，后轴采用平衡悬挂方式能够保证四个车轮负荷均匀，有利于充分发挥它的附着能力。后桥主传动装有“NO—SPIN”无自转自锁差速器。当一侧车轮打滑时，另一侧车轮仍然能传递其原有扭矩。因此，无论路面情况如何均能保证整机有足够的牵引力。

The drive axle is XCMG special used rear axle. The rear axle adopts balanced suspension to ensure the uniform load of four wheels, which is conducive to the full use of its adhesion ability. The main drive of the rear axle is equipped with “NO - SPIN” self-locking differential. If one side of the wheels is slipping, the other side can still deliver its original torque. Therefore, enough traction be can ensured under any road conditions.

轮胎采用 17.5-25 低压宽基工程轮胎，其断面尺寸大，弹性好，接地比压大具有良好的越野性能和附着性能。

17.5-25 low pressure wide base engineering tires are adopted. It has large section size, good elasticity, high grounding ratio and good off-road performance and adhesion property.

## 4.2 制动系统

### 4.2 Braking system

由行车制动系统(即脚制动)和驻车制动系统(即手制动)组成。行车制动为双回路液压制动系统，作用于平地机的四个中后轮上，制动安全可靠。驻车制动系统由操纵器和制动器组成。制动器装在动力箱输出端，通过操纵手制动器手柄可使中后轮制动。

The braking system consists of the braking system (i.e. the foot brake) and the parking brake system (i.e. hand brake). The service brake is a double - loop hydraulic braking system, which acts on the rear wheels of the motor grader, and the brake is safe and reliable. The parking brake system consists of the manipulator and brake. The brake is mounted on the output end of the power box, and use the brake handle to brake the middle and rear wheel.

## 4.3 前桥

### 4.3 Front axle

前桥为转向桥。桥体可左右摆动。为了提高机器的机动性，进一步减小转弯半径，该

机除前轮转向外，还采用了铰接车架，可使转弯半径进一步减小。

The front axle is steering axle. The axle can swing from side to side. The turning radius is further reduced to improve the machine mobility. In addition to the front steering, it also uses the articulated frame, which can further reduce the turning radius.

#### 4.4 工作装置

#### 4.4 Working devices

本机工作装置由牵引架、回转圈、回转支承、过载保护蜗轮箱、铲刀、角位器等组成。牵引架的前端是个球形铰，与车架前端铰接，因而牵引架可绕球铰在任意方向转动和摆动。回转圈支承在牵引架上，可在回转驱动装置的驱动下绕牵引架转动，从而带动刮刀回转。铲刀的背面有上下两条滑轨支撑在两侧角位器的滑槽上，可以在铲刀侧移油缸的推动下侧向滑动。两侧角位器为整体式结构，下部与回转圈两侧翼板下端铰接，中间通过与单油缸连接来调整角位器摆动，从而带动铲刀改变铲土角，该结构可使铲土角变换角度达到前 $40^{\circ}$ 后 $5^{\circ}$

The working device consists of the hitch frame, the turning circle, slewing bearing, overload protection worm box, the blade and the integral angle adjustment device, etc. The ball joint at the front end of the hitch frame, articulated with frame, allows rotation arbitrary around the ball joint. The turning circles at the hitch frame can rotate under drive of the slewing drive device, to turn the blade. Two sliding rails behind the blade support in the chute of the angle adjustment device, side shifting realizing by cylinder. The two sides of the angle device is integral structure, lower part is articulated to the bottom of two wing plates of the turning circle, the middle part is connected to the single cylinder to adjust the swing of the angle device, therefore to drive the blade to change the shovel angle, this structure can change the shovel angle to front  $40^{\circ}$  and rear  $5^{\circ}$ .

#### 4.5 液压系统

#### 4.5 Hydraulic system

本机液压系统主要由三部分组成：

The hydraulic system is composed by three main parts:

作业液压系统

Operating hydraulic system

该系统为双泵双回路液压系统。其组成主要由油箱、双联齿轮泵、两个整体式五联多路换向阀和各作业装置的液压缸、马达以及管路等组成。用来控制前轮倾斜，铲刀的回转、倾斜、升降、切削角变换等各种动作，操纵灵活方便。

The system is double - pump double - loop hydraulic system. It is mainly composed of the oil tank, double gear pump, two integral multi-way directional valves and the hydraulic cylinder, motor and pipeline of each operating unit. It is used to control the front wheel inclination, the rotation, inclination, lifting, angular transformation of the blade and so on.

#### 转向液压系统

#### Steering hydraulic system

由于平地机经常在松软的土地上工作，转向阻力大，为减少司机的操作强度，该机前轮转向采用负荷传感式全液压转向装置。它们是由齿轮泵、优先阀、负荷传感全液压转向器组成。用来控制前轮的转向。

As the grader works often in the loose land, the steering resistance is big, in order to reduce the intensity of the driver's operation, the machine front wheel steering utilizes the load sensing hydraulic steering device. They are composed of gear pumps, priority valves, load sensing all-hydraulic steering gear. It is used to control the steering of the front wheel.

#### 行车制动系统

#### Service brake system

行车制动为双回路的液压系统，作用于平地机的四个后轮上。它们是由齿轮泵、制动阀、充油阀，蓄能器、制动分泵组成。用来控制行车制动。

Double - loop hydraulic system, which operates on the four rear wheels of the motor grader. They are made up of gear pump, brake valve, oil filling valve, accumulator, brake cylinder, etc. It is used to control the service brake.

## 4.6 机罩

### 4.6 Hood

机罩采用结构件，造型美观流畅，两侧开侧门，整体可翻转，提高了维修性。

The hood is structural part, well shaped with turnover function; the two side double door is reversible, which enhances the maintainability.

#### 4.7 驾驶室内饰件及电器装置

#### 4.7 Interior trim parts and electrical appliances

采用密封驾驶室，配置空调系统，内饰件为造型流畅的压塑件，充分体现了人机工程的需要。本机电气系统由仪表盘、操纵箱、线束、检测传感器、各种照明和行车指示灯等组成。可对发动机运行、平地机行驶、各种照明和行车指示灯、雨刮、喇叭进行控制。还可对发动机、变矩器、液压系统、制动系统、蓄电池充放电和各种滤芯进行监控，使司机随时掌握整机运行状况，当出现异常情况时报警，以提醒司机注意。

Sealed cab includes air conditioning system, the interior design is made of high quality and smooth materials, fully embodies the man-machine engineering needs. The electrical system consists of instrument panel, control box, wire harness, detection sensor, various lighting and driving indicator lights. The engine running, driving, various lighting and driving indicators, rain scraping and horn can be controlled. The engine, torque converter, hydraulic system, braking system, storage battery charging and discharging and all kinds of filter can be monitored here, feedback of the machine status can be provided instantaneously to the operator.

### 5. 主要零部件配置表

### 5. Main parts configuration list

GR2153 主要配置明细表

Main configuration list of GR2153

| 序号<br>No. | 名称<br>Name              | 型号<br>Type | 生产厂家<br>Manufacturer     |
|-----------|-------------------------|------------|--------------------------|
| 1         | 发动机<br>Engine           | QSB6.7     | 康明斯<br>Cummins           |
| 2         | 变速箱<br>Transmission box | 6WG200     | ZF                       |
| 3         | 驱动桥<br>Drive axle       | TG506-01   | 徐工专用<br>Special for XCMG |

### 6. 运输安全要求

### 6. Transport safety requirements

平地机运输常采用自行和载运两种方法：

The transportation of the motor grader is usually in two ways:

- 自行式运输

- Self-propelling transport

- 1) 行驶距离规定：一般情况下，自行不得超过 100 千米。

Driving distance: usually no more than 100 km.

- 2) 行走间距规定：30~50 米。

Driving space: 30 to 50 meters

- 3) 长距离行车时，中途要计划停车，使轮胎和部件得以冷却。 每行车 40 km (25 mi) 或每行车一小时，就要停车 30 分钟。

For long distance driving, shall plan to stop the machine and allow the tires and parts to cool down. Every 40 km or one hour driving shall stop for 30 minutes.

- 公路拖板车装运：

- Trailer transport:

- 1) 装载尺寸规定：从地面至平地机顶部高度不得超过 4.5 米。

Loading dimensions: the height from ground to top of the machine shall not exceed 4.5 meters.

- 2) 装载方法：

Stowage recommendation:

平地机多采用自行装载，特殊情况下亦可采用吊装。

The grader is loaded more by self-loading and hoisting in some special cases.

- 1) 自行装载

- 1) Self-loading

装载地点要选择平坦位置，平板车跳板后方应有 10 米左右的空间，以供平地机调整方向。平板车定位后，应使拖车制动。平地机在指挥人员的指挥下应缓慢开上平板车，停机后，拉紧手制动，并用垫木在车轮下掩好，并用绳索在从牵引钩和吊装钩处与平板车捆绑固定。

The loading location shall be flat and even, 10 meters from the springboard of the flat car shall be reserved for adjustment of the direction of the motor grader. The trailer shall be braked when the platform is positioned. Motor grader shall drive to the flat car under the command of the commander, after stopping, tighten the hand brake, and put the wood under the wheels, and use the rope to bind and fix it with the flat car through the towing hook and lifting hook.

## 2) 吊装方式

## 2) Hoisting

利用前后车架上的起吊钩进行。见图 12

Use the lifting hook of the front and rear frame. See picture 12

吊装的注意事项：

Matters need attention:

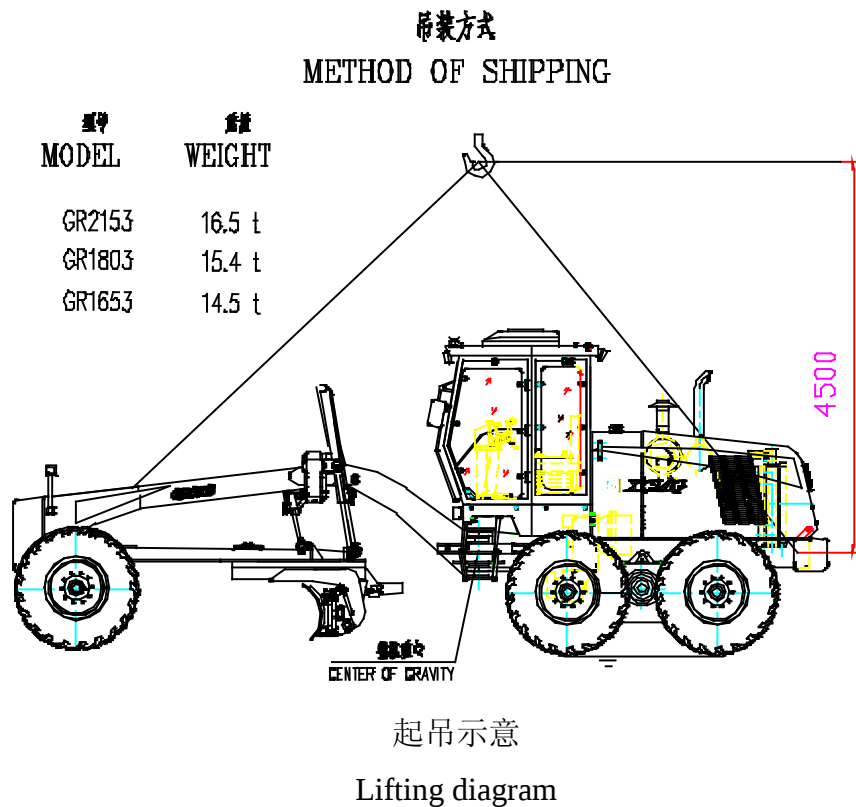
- 关闭发动机，用钥匙将所有设备锁好，取下钥匙。
- Turn of engine, lock all equipment with the key and take off the key.
- 使用锁杆将前后车架锁定，成一体使其不能摆动。
- Apply articulation lock, ensuring that the machine will not sway.
- 起吊时，绳索只能穿过起吊钩！
- Thread ropes only through lifting hook when hoisting!
- 前后车架各设有左右对称两只吊钩，必须将这两对吊钩同时挂上才可起吊，单侧挂或交叉挂两对吊钩都容易引起倾翻，不可试之。
- Set two bilaterally symmetric lifting hooks on front/rear frames; put both hooks before hoisting; it is prone to cause tipping over if hanging on one side or hanging cross.
- 吊具要求：一个吊环上必须带有同等长度的四根吊钩，以保证吊装时四个吊耳同时受力，保持机子吊起后能处于水平位置。
- Hoisting tools: one lifting ring must have four lifting hooks with the same length to ensure the machine placed in a horizontal position.
- 吊装时应注意吊具的许用极限，超出其极限吊装，这会十分危险，应特别注意。
- Pay attention to allowable use limit of lifting appliance when hoisting; it is very dangerous and requires special attention in case of exceeding use limit.
- 平地机吊装完毕运输过程中，都应固定并用木楔楔紧轮胎并用绳锁索捆绑固定。遵守运输载荷的重量、宽度、长度等管理规则。
- In the process of transport after hoisting, it is necessary to fix reliably and caulk tires tightly with wood wedges and fix with ropes. Comply with administration rules on weight, width and length etc. for transported load.

**注意：车辆的装卸要谨慎小心**

**Note: pay attention to the loading and unloading of the vehicle.**

起吊时，请勿让行人或车辆进入起吊车辆下面。请注意避免使液压管道损坏。

**It's strictly prohibited to stand or drive under the crane when hoisting.  
Please avoid damaging the hydraulic pipeline.**



## 7. 随机装箱件清单

### 7. Packing list

#### 7.1 随机工具明细表

#### 7.1 Attachment tools list

表 7-1 随机工具明细表

Table 7-1 Attachment tools list

| 序号<br>No | 产品名称<br>Name                                     | 规格型号<br>Specification | 数量<br>Num | 备注<br>Remark |
|----------|--------------------------------------------------|-----------------------|-----------|--------------|
| 1        | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 8-10 MM               | 1         |              |
| 2        | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 10-12 MM              | 1         |              |
| 3        | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 14-17 MM              | 1         |              |

|    |                                                  |          |                           |  |
|----|--------------------------------------------------|----------|---------------------------|--|
| 4  | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 17-19 MM | 1                         |  |
| 5  | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 19-22 MM | 1                         |  |
| 6  | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 24-27 MM | 1                         |  |
| 7  | 双头镜面开口扳手<br>Double-ended mirror-face open wrench | 30-32 MM | 1                         |  |
| 8  | 双头镜面梅花扳手<br>Double-ended mirror-face torx wrench | 13-16 MM | 1                         |  |
| 9  | 双头镜面梅花扳手<br>Double-ended mirror-face torx wrench | 19-22 MM | 1                         |  |
| 10 | 内六角<br>Hexagonal socket wrench                   | 3-14 MM  | 8 件套<br>1 set of 8 pieces |  |
| 11 | 内六角<br>Hexagonal socket wrench                   | 17MM     | 1                         |  |
| 12 | 黄油枪<br>Grease gun                                | 400CC    | 1                         |  |
| 13 | 圆头锤<br>Hammer                                    | 1.5LB    | 1                         |  |
| 14 | 钢丝钳<br>Pliers                                    | 200MM    | 1                         |  |
| 15 | 螺丝刀(一字)<br>Level screwdriver                     | 150*6MM  | 1                         |  |
| 16 | 螺丝刀(十字)<br>Crisscross screwdriver                | 75*5MM   | 1                         |  |
| 17 | 活扳手<br>Adjustable spanner                        | 300MM    | 1                         |  |
| 18 | 重型套筒头<br>Heavy-duty socket head                  | 27MM     | 1                         |  |
| 19 | 重型套筒头<br>Heavy-duty socket head                  | 30MM     | 1                         |  |

|    |                                                    |             |              |                                  |
|----|----------------------------------------------------|-------------|--------------|----------------------------------|
| 20 | 重型套筒头<br>Heavy-duty socket head                    | 36MM        | 1            |                                  |
| 21 | JB 接杆 (3 件套)<br>JB extension rod (3-piece package) | 420*415*320 | 1 套<br>1 set |                                  |
| 23 | 电镀扭力扳手<br>torque wrench                            | 300N.M      | 1            | 电镀扭力扳手盒内<br>In torque wrench box |
| 24 | 镜面公制六角套筒<br>sleeve                                 | 17MM        | 1            |                                  |
| 25 | 镜面套筒直接杆<br>sleeve straight rod                     | 125MM       | 1            |                                  |
| 26 | 锁<br>Lock                                          |             | 1            |                                  |

## 7.2 随机附件明细表

### 7.2 Attachment list

表7-2 随机附件明细表

Table 7-2 Attachment list

| 序号<br>No | 代号<br>Code | 名称<br>Name                  | 规格<br>Specification | 数量<br>Num | 备注<br>Remark                       |
|----------|------------|-----------------------------|---------------------|-----------|------------------------------------|
| 1        | 381601244  | 铜导槽<br>copper groove        | PY180G.10.1-3 II    | 4         |                                    |
| 2        | 803689056  | 保险随车装箱包<br>Fuse box         | PDJBX-1             | 1 包       |                                    |
| 3        | 803418915  | 油缸密封圈<br>cylinderseal ring  | PDJ-15              | 1 包       |                                    |
| 4        | 803190294  | 空气滤清器滤芯<br>air-cleaner core | AF25276             | 1         |                                    |
| 5        | 803190368  | 变速箱滤清器<br>gear-box filter   | AF25277             | 1         |                                    |
|          |            |                             | 0750 131 053H       | 1         |                                    |
| 6        | 803544552  | 13336 飞利浦灯泡<br>lamp         | H370W/13336ML       | 2         | 工作灯<br>operatinglamp               |
| 7        | 803587786  | 13844 飞利浦灯泡<br>lamp         | 5W/ C5W             | 1         | 顶灯<br>head light                   |
| 8        | 803544550  | 13961 飞利浦灯泡<br>lamp         | 5W/ T10             | 1         | 示廓灯<br>width lamp                  |
| 9        | 803587787  | 13342 飞利浦灯泡<br>lamp         | H4 75/70W/13342ML   | 1         | 远近光灯<br>Far and near light<br>lamp |
| 10       | 803544549  | 13496 飞利浦灯泡                 | 21W/13496NA         | 1         | 转向灯                                |

|    |           |                                  |                          |   |           |
|----|-----------|----------------------------------|--------------------------|---|-----------|
|    |           | lamp                             |                          |   | Lamp bulb |
| 11 | 803191355 | 测量软管<br>Measure the soft<br>tube | HTH2-T/MG1/4-2000<br>A   | 1 |           |
| 12 | 803192198 | 压力表<br>Manometer                 | HTG063/25Mpa/psiG<br>1/4 | 1 |           |
| 13 | 381400223 | 手压泵操纵杆<br>Joy Stick              | PY160G.2.4-1             | 1 | 工具箱内      |

## 8. 易损件备件明细表

### 8. Wear parts list

#### 8.1 易损件备件明细表

#### 8.1 Wear parts list

表 8-1 GR2153 备件明细表

Table 8-1 Attachment tools list of GR2153

| 序号<br>No | 物料代码<br>Material<br>code | 名称规格<br>Name and specification                                      | 单位<br>Unit | 数量<br>Quantity | 备注<br>Note   |
|----------|--------------------------|---------------------------------------------------------------------|------------|----------------|--------------|
| 1        | 380905122<br>380602506   | GR215DVIII.10.1-4 刀片(GR215)<br>GR180DVIII.10.2-4 刀片<br>Blade plate  | 个<br>Piece | 2              | 4270<br>3965 |
| 2        | 380602507                | GR180DVIII.10.2-5( 螺栓 3/4-70)<br>GR180DVIII.10.2-5 ( bolt 3/4-70)   | 个<br>Piece | 38             |              |
| 3        | 381301531                | GR300 II .10.2-11 II 螺母(达克罗)<br>GR300 II .10.2-11 II Nut (Dacromet) | 个<br>Piece | 38             |              |
| 4        | 805338297                | GB/T1230-2006 垫圈 20(达克罗)<br>GB/T1230-2006 washer 20(Dacromet)       | 个<br>Piece | 38             |              |
| 5        | 381600372                | PY180G.10.1-4A 铜套<br>PY180G.10.1-4A copper sleeve                   | 个<br>Piece | 4              |              |
| 6        | 381601244                | PY180G.10.1-3II 铜导槽<br>PY180G.10.1-3II Copper bushing               | 个<br>Piece | 8              |              |
| 7        | 381600397                | PY180G.13-5 铜套<br>PY180G.13-5 copper sleeve                         | 个<br>Piece | 4              |              |
| 8        | 381600393                | PY180G.13.1-5 衬套<br>PY180G.13.1-5 bush                              | 个<br>Piece | 4              |              |
| 9        | 381600396                | PY180G.13-4 衬套<br>PY180G.13-4 bush                                  | 个<br>Piece | 4              |              |

|    |           |                                                                        |            |   |  |
|----|-----------|------------------------------------------------------------------------|------------|---|--|
| 10 | 381601221 | PY180G.10.1-1 II 挡板<br>PY180G.10.1-1 II Baffle                         | 个<br>Piece | 6 |  |
| 11 | 381601222 | PY180G.10.1-10 II 挡板 II<br>PY180G.10.1-10 II Baffle II                 | 个<br>Piece | 2 |  |
| 12 | 380300747 | GR135.06.1.1.1 回转接头<br>GR135.06.1.1.1 Swivel joint                     | 个<br>Piece | 1 |  |
| 13 | 803011053 | 403-7975-09-X 液压转向器<br>403-7975-09-X Hydraulic steerer                 | 个<br>Piece | 1 |  |
| 14 | 803087364 | 1162302085I 双联齿轮泵<br>1121302385 Double gear pump                       | 个<br>Piece | 1 |  |
| 15 | 803192968 | TFX-250×100 液压吸油滤芯<br>TFX-250×100 Hydraulic oil suction filter element | 个<br>Piece | 1 |  |
| 16 | 803192566 | NX400×10 液压回油滤芯<br>NX400×10 Hydraulic oil suction filter element       | 个<br>Piece | 1 |  |
| 17 | 803418915 | 油缸密封圈<br>cylinderseal ring                                             | 个<br>Piece | 1 |  |
| 18 | 803093139 | YTG40-320ADL 油缸<br>YTG40-320ADL oil cylinder                           | 个<br>Piece | 1 |  |
| 19 | 803094284 | WE-16ADL 手压泵<br>WE-16ADL Hand pump                                     | 个<br>Piece | 1 |  |
| 20 | 803011164 | 140A0300DWG/09 平衡阀<br>101001190 balance valve                          | 个<br>Piece | 1 |  |
| 21 | 800154731 | 柴粗滤 FS36210<br>Diesel prefilter FS36210                                | 个<br>Piece | 1 |  |
| 22 | 800158417 | 柴精滤 C4989106 FF5612<br>Diesel refined filter C4989106 FF5612           | 个<br>Piece | 1 |  |
| 23 | 800107857 | 机滤 3937736、LF3970<br>Oil filter 3937736, LF3970                        | 个<br>Piece | 1 |  |
| 24 | 800153497 | FS36230 油水分离器                                                          | 个<br>Piece | 1 |  |
| 25 | 803190294 | 空滤器滤芯 AF25276/25277<br>Air filter core AF25276/25277                   | 个<br>Piece | 1 |  |
| 26 | 800107060 | 0750131053H 滤油器<br>0750131053H Filter                                  | 个<br>Piece | 1 |  |
| 27 | 800554251 | HR32018XJ 轴承<br>Bearing                                                | 个<br>Piece | 4 |  |
| 28 | 803506776 | HBM1-001A 前组合灯<br>HBM1-001A Front assembled lamp                       | 个<br>Piece | 2 |  |
| 29 | 803548022 | HBM-X002/24V 后组合灯<br>HBM-X002/24VRear combination lamp                 | 个<br>Piece | 2 |  |

|    |           |                                                                                                     |            |   |  |
|----|-----------|-----------------------------------------------------------------------------------------------------|------------|---|--|
| 30 | 803546714 | LW210A LED 工作灯<br>LW210A LED work lamp                                                              | 个<br>Piece | 2 |  |
| 31 | 803587269 | A2C93044500 点阵组合仪表<br>A2C93044500 Combination instrument                                            | 个<br>Piece | 1 |  |
| 32 | 803590019 | 323/805/003/001N 油温传感器<br>323/805/003/001N Oil temperature sensor                                   | 个<br>Piece | 1 |  |
| 33 | 803587270 | 360-081-038-003C 变速箱油压传感器(1/8 螺纹)<br>360-081-038-003C Transmission oil pressure sensor (1/8 thread) | 个<br>Piece | 1 |  |
| 34 | 803506732 | DL125B/24V 电喇叭<br>DL125B/24V Electric Horn                                                          | 个<br>Piece | 1 |  |
| 35 | 803685348 | 1411-18 电源总开关<br>1411-18 Battery main switch                                                        | 个<br>Piece | 1 |  |
| 36 | 803611480 | M105R3502SE-12-000000 继电器总成<br>M105R3502SE-12-000000 relay assembly                                 | 个<br>Piece | 1 |  |
| 37 | 803504584 | PRECO-380 倒车报警器<br>PRECO-380 reversing alarm                                                        | 个<br>Piece | 1 |  |
| 38 | 800341017 | 7207-577B 传动轴<br>7207-577B Drive shaft                                                              | 个<br>Piece | 1 |  |
| 39 | 381601204 | GR215 X .13.1-1A/-4 叉子总成<br>GR215 X .13.1-1A/-4 fork assembly                                       | 个<br>Piece | 3 |  |

## 9. 产品可选择特殊非标配置说明

## 9. Optional configuration description

### 9.1 前推土板、后松土器、前松土器、中松土器、液压拔销、自动找平装置

9.1 Front bulldozer, rear ripper, front ripper, middle ripper hydraulic pull pin, automatic leveling device.

## 10. 产品随机技术文件清单

## 10. Attached technical files list

表10-1 随机技术文件清单

Table 10-1 Attached technical files list

| 序号<br>No | 代号<br>Code | 名称<br>Name | 数量<br>Num | 备注<br>Remark |
|----------|------------|------------|-----------|--------------|
|----------|------------|------------|-----------|--------------|

|                                                                                                                                                                                                                                                                                                                             |  |                                                                               |   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------|---|--|
| 1                                                                                                                                                                                                                                                                                                                           |  | 合格证<br>Acceptance Certificate                                                 | 1 |  |
| 2                                                                                                                                                                                                                                                                                                                           |  | 维修保养手册&徐工 logo U 盘<br>Operator's Manual & XCMG logo Pen<br>Drive              | 1 |  |
| 3                                                                                                                                                                                                                                                                                                                           |  | 简易操作手册<br>Facility Operator's Manual                                          | 1 |  |
| 4                                                                                                                                                                                                                                                                                                                           |  | 零件图册<br>Parts Handbook                                                        | 1 |  |
| 5                                                                                                                                                                                                                                                                                                                           |  | 柴油发动机操作与保养手册<br>Engine operation and Maintenance Manual                       | 1 |  |
| 6                                                                                                                                                                                                                                                                                                                           |  | 液力变速器使用说明书<br>Hydromedia Transmission Service Manual                          | 1 |  |
| 7                                                                                                                                                                                                                                                                                                                           |  | 平地机桥使用说明书<br>Grader Axle User's Manual                                        | 1 |  |
| 8                                                                                                                                                                                                                                                                                                                           |  | 工程车辆空调通用使用说明书<br>General instructions engineering vehicle air<br>conditioning | 1 |  |
| 9                                                                                                                                                                                                                                                                                                                           |  | 产品质量保证书<br>Quality Guarantee of Motor grader                                  | 1 |  |
| <p>注：对出口或合同要求增加随机文件数量的，装箱人员按实际提供数量修改本栏中相应随机文件的数量。</p> <p>Note: If required by exports or contract to increase the quantity of technical documents accompanying the machine, the packing person will revise directly in the above table the quantity of technical documents according to the quantity actually provided.</p> |  |                                                                               |   |  |

## 11. 声明

### 11. Statement

本公司遵循可持续发展的原则，因此，我们保留在不预先通知的情况下，对产品进行持续改进的权力。相关内容的持续改进，恕不另行通知。

The Company follows the principles of sustainable development, and reserves the right to continuously improve our products without prior notice. We will perform continuous improvement of relevant contents without notice.

注：

Note:

1) 以上条款各产品根据自身特点进行编写。

1) The above clauses shall be prepared according to their own characteristics.

2) 技术规格书的内容也可根据招标单位提出的招标要求做相应的编写。

2) The contents of technical specifications may also be prepared according to the bidding requirements submitted by the tendering unit.

本规范自发布之日起执行。

This specification shall be implemented from the date of promulgation.