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# XZJ5252TFS(XKC163) Powder Binder Spreader

## Technical Specification

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LDQ-V1

**XUZHOU CONSTRUCTION  
MACHINERY GROUP CO., LTD.**

XZJ5252TFS(XKC163) Powder Binder Spreader

**Technical Specification**

XUZHOU CONSTRUCTION MACHINERY GROUP  
CO., LTD.

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# XZJ5252TFS(XKC163) Powder Binder Spreader

## Technical Specification

### XZJ5252TFS (XKC163) 粉料撒布车

### 技术规格书

#### 1. Overview

XCMG XZJ5252TFS (XKC163) powder binder spreader is mainly suitable for distributing powder materials such as cement, lime and fly ash, and used for cement spraying for highway cold regeneration construction, stabilized soil and a variety of adhesives spraying for roadbed, and can also be used for powder material spraying for other working conditions. Powder binder spreader is key equipment for highway cold-in-place regeneration construction it is special equipment for stabilized soil construction, widely used in highway and municipal construction. With characteristics of high efficiency, environmental protection, simple operation, good construction quality and high reliability.

#### 1 概述

XZJ5252TFS (XKC163) 粉料撒布车主要用于撒布水泥、石灰粉、粉煤灰等粉状物料，可用于公路冷再生施工水泥撒布、路基稳定土多种粘合剂的撒布，也可用于其他场合粉状物料的撒布。粉料撒布车是公路现场冷再生施工配套的关键设备，也是路基稳定土施工必须的专用设备，广泛应用于公路及市政建设。具有效率高、环保性好、操作简单、施工质量好、可靠性高的特点。

#### 2. Executive Laws, Rules, Safety Standards and Product Standards

In the process of product design, strictly abide by the “Standardization Law”, “Product Quality Law”, “Measurement Law”, “Standardized Review and Management Methods for New Mechanical and Electrical Product”, “Enterprise Standardization Management Method” and “Environmental Protection Law” and other laws and regulations.

This product executes and complies with the following relative standards:

GB/T 23579 Road construction and road maintenance machinery and equipment - Powder binder spreaders - Terminology and commercial specifications

GB16735 Road vehicle — Vehicle identification number (VIN)

GB 7258 Safe Specification for Motor Vehicles Operating on Roads

GB4785 Prescription for installation of the external lighting and light signaling devices for motor vehicles and their trailers

GB11567 Motor vehicles and trailers-lateral and rear underrun protection requirements

GB15084 Motor vehicles — Rear view mirrors — Requirements of performance and installation

GB1589 Limits of dimensions, axle load and masses for road vehicles

GB23254 Retro-reflective markings for trucks and trailers

GB15741 The license plates (crackets) and its position on motor vehicles and trailer

GB25990 Rear-marking plates for vehicles and their trailers

## 2 产品执行的法律、法规、安全标准和产品标准

在产品的设计过程中，严格遵守《标准化法》、《产品质量法》、《计量法》、《机电新产品标准化审查管理办法》、《企业标准化管理办法》和《环境保护法》等法律法规。

本产品执行并符合以下相关标准：

GB/T 23579 《道路施工与养护机械设备粉料撒布机术语和商业规格》

GB16735 《道路车辆车辆识别代号（VIN）》

GB7258 《机动车运行安全技术条件》

GB4785 《汽车及挂车外部照明和信号装置的安装规定》

GB11567 《汽车及挂车侧面和后下部防护要求》

GB15084 《机动车辆后视镜的性能和安装要求》

GB1589 《道路汽车外轮廓尺寸、轴荷及质量限值》

GB23254 《货车及挂车车身反光标识》

GB15741 《汽车和挂车号牌板（架）及其位置》

GB25990 《车辆尾部标志板》

## 3 Main performance and characteristics

◆ Use Sinotruk HOWO ZZ1257N4347E1 chassis engine, in compliance with 6 x 4 China-V emission standards, the total mass of 25 tons and engine models D10.31-50, power 228 kw /

1900 r/min, powerful, high travel speed;

- ◆ The chassis is equipped with the secondary deceleration and PTO knob, and the performance is stable for low-speed construction;
- ◆ The material silo is equipped with a pressure reducing beam, and the resistance of screw feeding is low;
- ◆ Variable pitch screw feeding, strong conveying capacity and high reliability;
- ◆ The rear hopper is equipped with a feeding roller to ensure the filling efficiency of the metering roller;
- ◆ The metering roller has closed-loop control, accurate measurement and uniform distribution;
- ◆ The connecting parts of feeding screw, feeding roller, metering roller and powder tank adopt unique sealing structure, which is reliable and maintenance free;
- ◆ Equipped with dust removal system, environmental friendly
- ◆ The hydraulic system is designed to combine the variable power sensitive hydraulic pump and load sensitive hydraulic system, providing power output for screw shaft, the system produces less heat, energy conservation and high efficiency.
- ◆ The electrical system is equipped with manual and automatic control system, and the powder is evenly distributed
- ◆ Roller speed is associated with vehicle speed, ensuring that the spreading quantity of every square do not change with the vehicle speed
- ◆ The computer RIMS platform based on GPS remotely monitors the important construction information and positioning of the whole vehicle.
- ◆ The mobile APP can monitor the important construction data, positioning and driving trajectory of the vehicle in real time.
- ◆ Vehicle traveling data recorder is equipped to record the information in traveling process in real time
- ◆ The whole machine can be equipped with weighing system, and the accuracy of weighing system is up to 1%.

### 3 主要性能与特点

- ◆ 采用中国重汽 HOWO 底盘 ZZ1257N4347E1, 6×4 国V 排放, 总质量 25 吨底盘, 发动机型号 D10.31-50, 功率 228kw/1900r/min, 动力强劲, 转场速度高
- ◆ 底盘配备二级减速和 PTO (远程电子油门) 旋钮, 低速施工性能稳定
- ◆ 料仓内部配有减压梁, 螺旋输料阻力小
- ◆ 变螺距螺旋输料, 输送能力强, 可靠性高
- ◆ 后部料仓配备拨料辊, 保证计量辊的填充效率
- ◆ 计量辊转速闭环控制, 计量精确, 撒布均匀
- ◆ 输料螺旋、拨料辊、计量辊与粉料箱体连接部位采用独特的密封结构, 密封性可靠, 维修简单
- ◆ 配备打料除尘系统, 环保性好
- ◆ 整机液压系统采用变功率液压泵配合负载敏感液压系统设计, 为螺旋轴提供动力输出, 节能高效, 系统发热少
- ◆ 电气系统配备手动和自动两套控制系统, 粉料撒布均匀
- ◆ 计量辊转速与车速关联, 有效保证每平方撒布量不随车速变化
- ◆ RIMS 平台基于 GPS 远程监控整车重要施工信息及定位
- ◆ 用户登陆手机 APP 可实时监控整车重要施工数据、定位和行驶轨迹
- ◆ 配置行驶记录仪, 实时记录行驶过程信息
- ◆ 整机可选配称重系统, 称重系统精度高达 1%



#### 4. Main technical parameters and parts and components

##### 4.1 Technical parameters table

Item	Unit	Parameter
Product model	-	XZJ5252TFS (XKC163)
<b>Working performance parameter</b>		
Powder Silo volume	m <sup>3</sup>	16
Spreading width	mm	400~ 2400
Spreading density	Kg/m <sup>2</sup>	5~ 40
Spreading precision	%	±5
Min. Working speed	km/h	2.5
<b>Chassis performance parameter</b>		
Type	-	HOWO ZZ1257N4347E1 (China- V )
Engine type	-	D10.31 -50
Engine power	kW/ (r/min)	228 / 1900
Driving type	-	6×4
Emission standard	-	China Stage V
Maximum traveling speed	km/h	80
<b>Overall dimension parameter</b>		
Minimum ground clearance	mm	314
Approach Angle/Departure Angle	°	16 / 13
Overall dimension(length× width× height)	mm	9550×2500×3360
<b>Mass parameters of whole machine</b>		
Fuel tank	L	400
Curb weight	kg	17500
Total mass	kg	25000

##### 4.2 List of main parts and components

No.	System name	Parts name	Brand
1	Chassis system	Chassis	SINOTRUCK
		PTO	Yijie Shaan'xi
2	Hydraulic system	Radiator	Taihang Xinxiang
		Piston pump	DANFOSS
		Control valve group	DANFOSS
		Radial piston motor	Poclain
		Gear pump	Fuxin Beixinxing Co., Ltd.
3	Electrical system	High speed controller	EPEC
4	Gas circuit system	Solenoid valve, gas cylinder	Ningbo EMC (kai pu)

## 4 主要技术参数及配套件

### 4.1 技术参数表

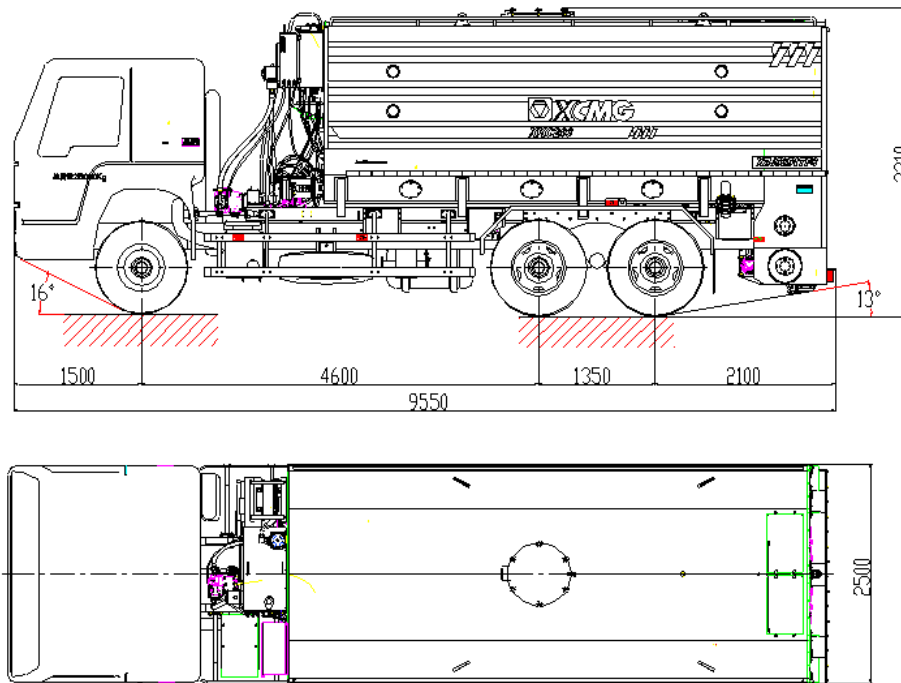
项目	单位	参数
产品型号	-	XZJ5252TFS (XKC163)
<b>作业性能参数</b>		
粉料仓容积	m <sup>3</sup>	16
撒布宽度	mm	400~2400
撒布密度	kg/m <sup>2</sup>	5~40
撒布精度	%	±5
最低工作速度	km/h	2.5
<b>底盘性能参数</b>		
型号	-	重汽豪沃 ZZ1257N4347E1 (国V)
发动机型号	-	D10.31-50
发动机功率	kW/ (r/min)	228/1900
驱动型式	-	6×4
排放标准	-	国V
最高行驶速度	km/h	80
<b>整机尺寸参数</b>		
最小离地间隙	mm	314
接近角/离去角	°	16/13
外形尺寸 (长×宽×高)	mm	9550×2500×3360
<b>整机质量参数</b>		
燃油箱	L	400
整备质量	kg	17500
总质量	kg	25000

### 4.2 主要配套件明细

序号	系统名称	零部件名称	品牌
1	底盘系统	底盘	中国重汽
		取力器	陕西益杰
2	液压系统	散热器	新乡太行
		柱塞泵	丹麦丹佛斯 Danfoss
		控制阀组	丹麦丹佛斯 Danfoss
		径向柱塞马达	法国波克兰 Poclain
		齿轮泵	阜新北鑫星
3	电气系统	高速控制器	芬兰 EPEC
4	气路系统	电磁阀、气缸	宁波亿太诺 (错濮)

### 4.3 Appearance and overall dimension(unit mm)

### 4.3 外形及外形尺寸 (单位: mm)



## 5. Features of main structure(system)

XZJ5252TFS(XKC163) composed of chassis system, silo assembly(powder tank, pressure reducing beam, feeding spiral, segregation roller, measuring roller), hydraulic system, pneumatic system, electrical system and other components.

### 5 主要结构（系统）特点

XZJ5252TFS (XKC163) 粉料撒布车主要由底盘系统、料仓总成（料仓体、减压梁、输料螺旋、拨料辊、计量辊等）、液压系统、气路系统、电气系统等部分组成。

#### 5.1 Chassis system

- ◆ Using Sinotruk ZZ1257N4347E1 chassis, configured with China-V emission standards, type D10.31-50, power 228 kw / 1900 r/min, strong power;
- ◆ The chassis is equipped with a two-stage gearbox, with the minimum stable speed of 2.5km/h, and good low-speed walking performance meets the construction requirements; The maximum driving speed is 80km/h, fast transport speed and high working efficiency.
- ◆ The chassis is equipped with PTO knob, simple operation and stable working speed;
- ◆ Equipped with air conditioner, ABS anti-lock braking system

#### 5.1 底盘系统

- ◆ 选用中国重汽 ZZ1257N4347E1 底盘，配置国V 排放发动机，型号 D10.31-50，功率 228kw/1900r/min，动力强劲
- ◆ 底盘配备二级分动箱，最低稳定车速 2.5km/h，低速行走性能好，满足施工要求；最高行驶速度 80km/h，转场速度快，工作效率高
- ◆ 底盘配备 PTO（远程电子油门）旋钮，操作简单，工作车速稳定
- ◆ 底盘配备冷暖空调，单卧铺，ABS 防抱死系统

5.2 Silo assembly (powder tank, pressure reducing beam, feeding spiral, segregation roller, measuring roller,etc.)

- ◆ The warehouse volume is 16m<sup>3</sup>, can hold 20 tons of powder, reduce the transport time and cost, ensuring high work efficiency.
- ◆ It is equipped with a pressure relief beam above the feeding screw, which can effectively reduce the resistance and improve the feeding efficiency
- ◆ The feeding screw adopts the variable pitch transport to prevent the local accumulation phenomenon during the conveying process, the conveying capacity is strong and the reliability is high
- ◆ The segregation roller is installed inside the tail hopper body, which can be used to disperse the powder, and ensure the powder filling in the metering roller to improve the accuracy
- ◆ The metering roll is closed loop controlled, enables accurate and uniform spreading
- ◆ The silo body is equipped with a full silo sensor and the buzzer alarm
- ◆ The mixing dust removal system at the rear tank body effectively prevents the dust leakage in the feeding process, environmental friendly
- ◆ The connecting parts between feeding screw, segregation roller, metering roller and powder tank adopt unique sealing structure, which is reliable and easy to maintain;

### 5.2 料仓总成（料仓体、减压梁、输料螺旋、拨料辊、计量辊等）

- ◆ 仓体容积 16m<sup>3</sup>，可容纳约 20t 粉料，容积大，可减少往返拉料时间，工作效率高
- ◆ 仓体内部输料螺旋上方配备有减压梁，可有效减少输料螺旋阻力，提高输料效率
- ◆ 输料螺旋采用变螺距输送，防止粉料在输送过程中出现局部堆积现象，输送能力强，

### 可靠性高

- ◆ 料仓尾部箱体内配备拨料辊，对螺旋输送的粉料进行打散，同时保证计量辊内粉料充分填充，提高撒布精度
- ◆ 计量辊转速采用闭环控制，计量精确，撒布均匀
- ◆ 仓体上方配备满仓报警传感器，满仓蜂鸣报警
- ◆ 料仓后箱体配备打料除尘装置，有效阻止加料过程中产生的粉尘外泄，环保性好
- ◆ 输料螺旋、拨料辊、计量辊等转动部件与仓体连接部位采用独特的密封结构，密封可靠，维修简单

### 5.3Hydraulic system

- ◆ The hydraulic system is designed to combine the variable power sensitive hydraulic pump and load sensitive hydraulic system, providing power output for screw shaft, the system produces less heat, energy conservation and high efficiency.
- ◆ The system is stable and reliable with imported Danfoss variable pump and load sensing valve.

### 5.3 液压系统

- ◆ 整机液压系统采用变功率液压泵配合负载敏感液压系统设计，为螺旋轴提供动力输出，节能高效，系统发热少
- ◆ 采用进口丹佛斯变量泵和负载敏感阀，系统性能稳定、可靠

### 5.4Gas circuit system

- ◆ The gas circuit system is equipped with six separate material doors to ensure that the spreading width is adjustable from 400mm to 2400mm;

### 5.4 气路系统

- ◆ 气路系统配备六个可独立启闭的料门，保证撒布宽度在 400mm~2400mm 可调节

### 5.5Electrical system

- ◆ The electric control system is equipped with automatic and manual control system. The operation is simple and the powder is evenly distributed.
- ◆ Roller speed is associated with chassis speed, ensuring that the spreading quantity of every square do not change with the vehicle speed.

## 5.5 电气系统

- ◆ 电气控制系统配备自动和手动两套控制系统，操作简单，粉料撒布均匀
- ◆ 电气系统将计量辊转速与车速关联，保证每平方撒布量不随车速改变而变化

## 6 Transport safety requirements

Requirements that users or organizations should ensure when transferring:

- ◆ Carefully check whether spare parts correspond to the packing list, and place the spare parts neatly and fixed in right position.
- ◆ For long time transport, the PTO must be disconnected with the chassis engine, the controller must be powered off, to avoid accidents caused by maloperation of the controller during transport.
- ◆ As the whole vehicle is long, vehicle shall be driven slowly in particular at the corner;
- ◆ During long-distance transportation, should regularly check if the equipment lost contents etc.
- ◆ Minimize driving at height speed and emergency braking.

## 6 运输安全要求

用户或使用单位在转场时应确保的要求：

- ◆ 新车出厂时，认真检查备件与装箱单是否相符，并将备件安放整齐、固定在相应位置上
- ◆ 长距离运输必须保证取力器与底盘发动机断开，上装控制器电源关闭，避免长途运输中对控制器误操作引发事故
- ◆ 因整机较长，在行驶途中特别是转弯处应慢速行驶
- ◆ 长途运输时，应注意经常检查设备有无物品丢失等
- ◆ 尽量减少高速行驶和紧急刹车


## 7. Construction Case

### 7 产品施工案例

● Construction case 1

Date: 2018	Location: Xuzhou	Spreading density: 8 -15kg/m <sup>2</sup> (lime)
		

● Construction case 2

Date: 2018	Location: Indonesia	Spreading density: 32kg/m <sup>2</sup> (Cement)
		

8 Disclaimers

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.

8 声明

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。