



XZJ5251TFCTB(XTF1003) Asphalt Chip

Synchronous Sealer

# Technical Specification

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# XZJ5251TFCTB (XTF1003) Asphalt Chip Synchronous Sealer Technical Specification

## XZJ5251TFCTB (XTF1003) 沥青碎石同步封层车 技术规格书

### 1. Overview

XZJ5251TFCTB (XTF1003) asphalt synchronous chip sealer can realize the synchronous spreading of asphalt and gravel, improve the quality of pavement seal coat; It can be used to spread rubber asphalt, matrix asphalt, modified asphalt and emulsified asphalt; It is applicable to the construction of lower and upper seal coat, wearing course construction for new and old road surface, layer spread method of asphalt pavement, the separate spreading of asphalt and gravel in special case, etc.; It can not only be used for the interlayer treatment and medium maintenance construction of high-grade highway, but also can be used for the construction of rural roads with less traffic.

#### 1 概述

XZJ5251TFCTB (XTF1003) 沥青碎石同步封层车可实现沥青和碎石的同步洒布，改善和提高路面封层质量；可喷洒橡胶沥青、基质沥青、改性沥青、乳化沥青等多种沥青；适用于公路表面、桥面的下封层、上封层施工，新旧路面加铺磨耗层施工，沥青路面的层铺法施工，沥青碎石特殊情况下的分别洒布等；不仅可用于对高等级公路的层间处理和中期养护施工，还可直接用于交通量较小的乡村道路施工。

### 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 7258 Safe Specification for Motor Vehicles Operating on Roads

GB/T28393 Road construction and road maintenance machinery and equipment —  
Synchronous chips seal truck

GB 16735 Road Vehicle - Vehicle Identification Number (VIN)

GB 4785 Prescription for Installation of External Lighting and Light-Signaling Devices for  
Motor Vehicles and Trailers

GB 11567 Motor vehicles and trailers-lateral and rear underrun protection requirements

GB 15084 Performance and Installation Requirements of Motor Vehicles-Rear View

Mirrors

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

GB 23254 Retro-reflective Markings for Vehicles and Trailers

GB 15741 License Plates (Brackets) And Its Position on Motor Vehicles and Trailer

GB 25990 Rear-Marking Plates for Vehicles and 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 7258 《机动车运行安全技术条件》

GB/T 28393 《道路施工与养护机械设备 沥青碎石同步封层车》

GB 16735 《道路车辆车辆识别代号（VIN）》

GB 4785 《汽车及挂车外部照明和信号装置的安装规定》

GB 11567 《汽车及挂车侧面和后下部防护要求》

GB 15084 《机动车辆后视镜的性能和安装要求》

GB 1589 《道路汽车外轮廓尺寸、轴荷及质量限值》

GB 23254 《货车及挂车车身反光标识》

GB 15741 《汽车和挂车号牌板（架）及其位置》

GB 25990 《车辆尾部标志板》

## 3. Main performance and characteristics

- ◆ Internal lifting silo, low height, strong adaptability for culvert and under bridge construction
- ◆ Split plate type gravel spreader, suitable for different types of stone, spread evenly.

- ◆ Hydraulic folding asphalt spraying beam, safe and convenient
- ◆ Dual diesel burner asphalt tank, fast heating speed, good insulation performance; Paddle mixer, mix well.
- ◆ Chassis engine full power right-angle drive, maintenance convenient, effectively guarantee the power system security.
- ◆ Imported Belgian JOHNSON asphalt pump, imported hydraulic system, high reliability.
- ◆ Intelligent control system, just set distributing amount of asphalt spraying per square meter, automatic spraying can be achieved
- ◆ The touch screen in driver's cab displays construction parameters and monitor picture in real time
- ◆ Strong spraying at start control technology realizes zero-start spraying of asphalt
- ◆ The control system is equipped with the alarm function of the material silo, which is timely reminding the user to lift the silo before shortage.
- ◆ The asphalt pipeline is pneumatically-controlled gate valve, automatic cleaning function, easy to operate.
- ◆ SINOTRUCK HOWO 6×4 heavy load chassis, strong power and comfortable driving

### 3 主要性能与特点

- ◆ 内举升式碎石料仓，上料高度低，桥涵、隧道施工适应性好
- ◆ 分料板式碎石撒布器，适应不同类型石料，撒布均匀
- ◆ 液压折叠式沥青喷洒梁，操作安全方便
- ◆ 双柴油燃烧器沥青罐体，加热速度快，保温性能好；桨叶式搅拌装置，搅拌均匀
- ◆ 底盘发动机全功率直角传动取力器，维护保养方便，有效保证动力系统安全
- ◆ 进口比利时 JOHNSON 沥青泵，进口液压系统，可靠性高
- ◆ 智能控制系统，只需设定每平方米沥青洒布量，即可实现自动喷洒
- ◆ 驾驶室内触屏显示器，实时显示施工参数及监视画面
- ◆ 起步强喷控制技术，实现沥青的零起步喷洒
- ◆ 控制系统有料仓缺料报警功能，料仓缺料前及时提醒用户举升料仓
- ◆ 沥青管道全程气控阀门控制，自动清洗功能，操作方便快捷
- ◆ 中国重汽 HOWO 6×4 重载底盘，动力强劲，驾驶舒适

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

##### 4.1 Technical parameters table

Item	Unit	Parameters
Product model	-	XZJ5251TFCTB (XTF1003)
<b>Working performance parameter</b>		
Maximum seal width	m	4
Asphalt spraying amount	Kg/m <sup>2</sup>	0.2 -3.0
Gravel quantity	L/m <sup>2</sup>	3 -22
Distributing accuracy	%	±1.5
Capacity of asphalt tank	m <sup>3</sup>	6
Gravel silo volume	m <sup>3</sup>	10
Gravel diameter	mm	3 -25
Working speed	km/h	3 -10
<b>Chassis performance parameter</b>		
Chassis model	-	HOWO ZZ1257N4347E1 (China-V)
Engine type	-	D10.31 -50
Engine power	kW/r/min	228 / 1900
Driving mode	-	6×4
Maximum traveling speed	km/h	80
Curb weight	kg	19500
Fuel tank capacity	L	400
Total mass	kg	25000
<b>PTO</b>		
Type	-	XTF1003-QLQ1
Rated torque	N.m	650
<b>Overall dimension parameter</b>		
Minimum ground clearance	mm	280
Approach Angle/Departure Angle	°	16 / 10
Overall dimension	mm	9920×2500×3790

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

No.	System name	Parts name	Brand
1	Chassis system	Chassis	HOWO SINOTRUCK
2	Chassis system	PTO	Yijie Shaanxi
3	Asphalt conveying system	Asphalt pump	JOHNSON
4		Heat conducting pump	Hebei Zhaohong

5	Asphalt tank	Burner	BECKETT
6	Spraying beam	Nozzle cylinder	Ningbo EMC (kai pu)
7	Gas circuit system	Hopper cylinder	Ningbo EMC (kai pu)
8		Lifting cylinder	Ningbo EMC (kai pu)
9		Solenoid valve	Ningbo EMC (kai pu)
10	Hydraulic system	Gear pump	PERMCO
11		Lifting cylinder	Hefei Changyuan
12		Hydraulic motor	Danfoss
13		Hydraulic motor	Eaton
14		Hydraulic motor	Danfoss
15		Solenoid valve	Germany Argo
16		Roller valve group	Germany Argo
17	Electrical system	Display	Shanghai Hongying
18		Controller	Shanghai Hongying

#### 4.3 Optional parts and components

No.	Parts name	Brand	Purpose
1	Manual spray gun and hose	XCMG	Manual asphalt spraying device
2	Asphalt suction pipe	XCMG	Asphalt suction
3	One set of fogging sealing nozzles	XCMG	Used for the construction of fog sealing layer

## 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	-	XZJ5251TFCTB (XTF1003)
<b>作业性能参数</b>		
最大封层宽度	m	4
沥青洒布量	kg/m <sup>2</sup>	0.2-3.0
碎石撒布量	L/m <sup>2</sup>	3-22
沥青洒布精度	%	±1.5
沥青罐体容积	m <sup>3</sup>	6
碎石料仓容积	m <sup>3</sup>	10
碎石粒径	mm	3-25
工作速度	km/h	3-10
<b>底盘性能参数</b>		
底盘型号	-	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
驱动方式	-	6×4
最高行驶速度	km/h	80
整备质量	kg	19500
燃油箱容积	L	400
总质量	kg	25000
<b>取力器参数</b>		
型号	-	XTF1003-QLQ1
额定扭矩	N.m	650
<b>整机尺寸参数</b>		
最小离地间隙	mm	280
接近角/离去角	°	16/10
外形尺寸	mm	9920×2500×3790

### 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	中国重汽豪沃
2	底盘系统	取力器	陕西益杰
3	沥青输送系统	沥青泵	比利时 JOHNSON
4		导热油泵	河北兆宏
5	沥青罐	燃烧器	美国贝卡特



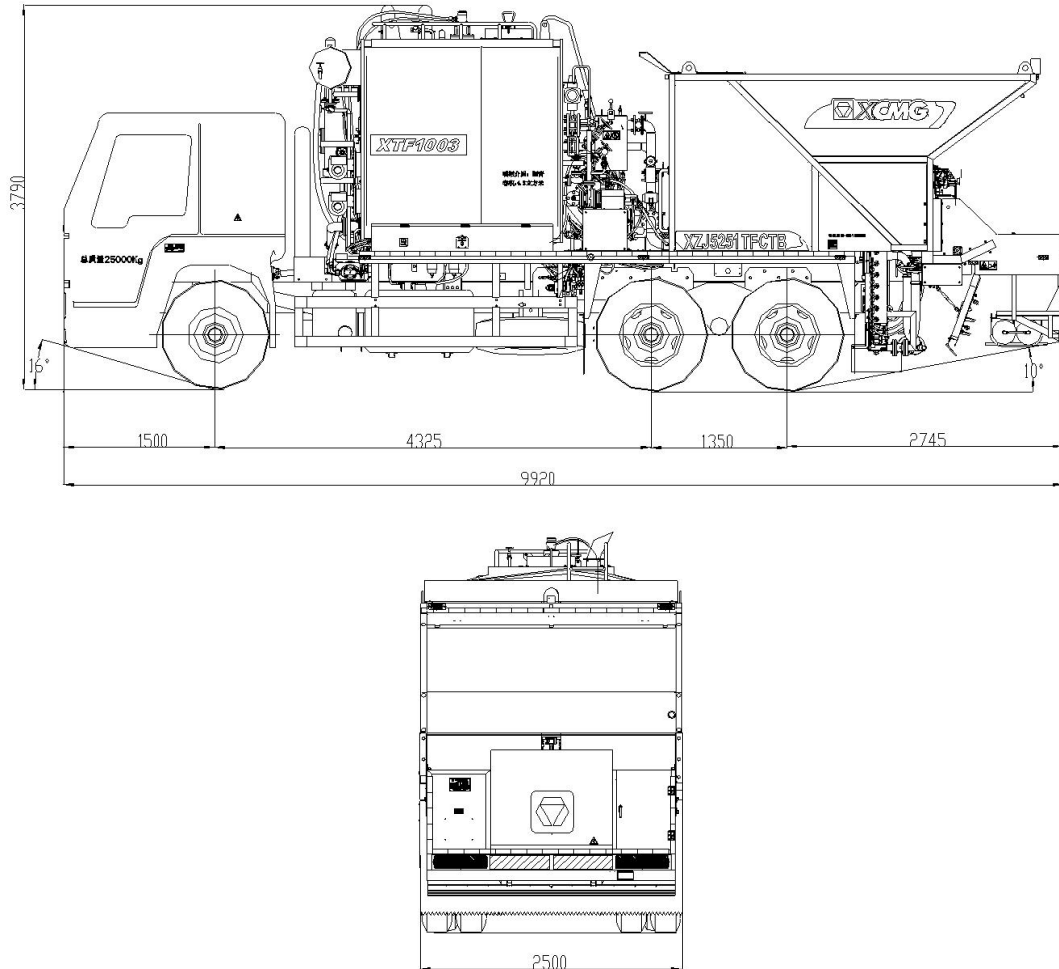
6	喷洒梁	喷头气缸	宁波亿太诺（锴濮）
7	气路系统	料门气缸	宁波亿太诺（锴濮）
8		提升气缸	宁波亿太诺（锴濮）
9		电磁阀	宁波亿太诺（锴濮）
10	液压系统	齿轮泵	美国泊姆克
11		料仓举升油缸	合肥长源
12		液压马达	美国丹佛斯
13		液压马达	美国伊顿
14		液压马达	美国丹佛斯
15		电磁阀	德国雅歌
16		滚筒阀组	德国雅歌
17	电气系统	显示器	上海宏英
18		控制器	上海宏英

#### 4.3 可选配套件

序号	零部件名称	品牌	用途
1	手动喷枪及软管	徐工	沥青手动喷洒装置
2	沥青抽吸管	徐工	沥青抽吸
3	雾封层喷嘴一套	徐工	用于雾封层施工

#### 4.4 Shape and dimension

#### 4.4 外形及外形尺寸



#### 5. Features of main structure(system)

The XZJ5251 TFCTB type asphalt synchronous chip sealer is mainly composed of chassis system, asphalt spreading system, stone distributing system, hydraulic pneumatic system, control system and so on.

#### 5 主要结构（系统）特点

XZJ5251TFCTB 型沥青碎石同步封层车主要由底盘系统、沥青洒布系统、石料撒布系统、液压气动系统、控制系统等组成。

##### 5.1 Chassis system

- ◆ With HOWO 6×4 China-V emission chassis and engine power of 228/1900kW/r/min, powerful, safe, reliable and comfortable;

- ◆ The cab is equipped with PTO, which can stabilize the engine speed and operate conveniently
- ◆ Equipped with air conditioning, imported ABS anti-lock system.
- ◆ Chassis engine full power right-angle drive PTO, the hydraulic pump is arranged on the side of the chassis, convenient to maintain; The PTO device is equipped with protection, effectively guarantee the safety of power system.

### 5.1 底盘系统

- ◆ 选用中国重汽 HOWO 6×4 国 V 排放底盘，发动机功率为 228/1900 kW/r/min，动力强劲，安全可靠，操作舒适
- ◆ 驾驶室配置 PTO，工作时可稳定调节发动机转速，操作方便
- ◆ 配置冷暖空调，进口 ABS 防抱死系统
- ◆ 底盘发动机全功率直角传动取力器，液压泵布置在底盘侧面，维护方便；取力器设置有保护装置，有效保证动力系统安全

### 5.2 Asphalt distributing system

- ◆ Imported Belgian JOHNSON thermal insulation jacket; High viscosity asphalt pump can adapt to various asphalt spraying
- ◆ The asphalt tank is equipped with dual diesel burner, and the heating speed is fast; the top part of the asphalt tank is equipped with a paddle mixing attachment, can mix well and effectively solve the precipitation and segregation problem of rubber asphalt.
- ◆ The asphalt pipeline is controlled by pneumatic butterfly valve, which can automatically realize the large, small circulation and spraying function of asphalt; automatic cleaning function, easy to operate.
- ◆ The upturned spraying beam is driven by hydraulic cylinder, easy to operate, and can achieve three overlapping spraying; the spray beam is equipped with a thermal oil heating tube, reduces the construction preparation time; The removable nozzle cylinder is adopted for easy maintenance and replacement.
- ◆ Heat transfer fluid heating system can heat the tank, pipeline and spraying device in the whole course, meet the construction requirements of rubber asphalt; the operation of burner can be automatically controlled depending on setting temperature of asphalt and heat transfer fluid
- ◆ It has the function of self-priming and discharging function, improves the working efficiency.
- ◆ Flexible hand-held spraying system can spray asphalt to special parts of the road.

### 5.2 沥青洒布系统

- ◆ 采用进口比利时 JOHNSON 保温夹套高粘度沥青泵，可以适应各种沥青的洒布
- ◆ 沥青罐体配置双柴油燃烧器，加热速度快；沥青罐顶部配有桨叶式强力搅拌装置，搅拌均匀，可有效解决橡胶沥青沉淀、离析问题
- ◆ 沥青管路采用气动蝶阀控制,可自动实现沥青的大、小循环及喷洒功能；自动清洗功能，操作方便快捷
- ◆ 上翻式喷洒梁采用液压缸推动，操作方便，可实现三重叠喷洒；喷洒梁内设有导热油加热管，施工准备时间短；采用可拆卸式喷头气缸，便于维修更换
- ◆ 导热油加热系统可对罐体、管路、喷洒装置全程加热，满足橡胶沥青施工要求；可根据设定沥青和导热油的温度，自动控制燃烧器工作
- ◆ 具有自吸外排功能，可进行自加自排沥青，提高工作效率
- ◆ 备有灵活的沥青手持喷洒系统，可对路面特殊部位喷洒沥青

### 5.3 Asphalt tank

- ◆ The asphalt tank is equipped with America 24V Beckett diesel burner, and fuel consumption is 8 l/h, quick heating; the top part of the asphalt tank is equipped with a paddle mixing attachment, can mix well and effectively solve the precipitation and segregation problem of rubber asphalt.
- ◆ Heat transfer fluid heating system can heat the tank, pipeline and spraying device in the whole course, meet the construction requirements of rubber asphalt; the operation of burner can be automatically controlled depending on setting temperature of asphalt and heat transfer fluid

### 5.3 沥青罐

- ◆ 沥青罐体配置美国进口 24V 贝克特柴油燃烧器，油耗为 8L/h，加热速度快；沥青罐顶部配有桨叶式强力搅拌装置，搅拌均匀，可有效解决橡胶沥青沉淀、离析问题
- ◆ 导热油加热系统可对罐体、管路、喷洒装置全程加热，满足橡胶沥青施工要求；可根据设定的沥青和导热油温度，自动控制燃烧器工作

### 5.4 gravel sprinkling system.

- ◆ Internal lifting silo, low height, convenient feeding, strong adaptability for culvert and under bridge construction
- ◆ In the silo is equipped with screen, which can effectively prevent large stone plugging the charging door.

- ◆ Split plate of gravel spreader can be wide-angle adjusted, suitable for different types of stone, spread evenly.
- ◆ The maximum width of the stone spreading is 4m, which is suitable for all kinds of highway construction requirements.
- ◆ Unique antiskid design of roller solves the problem of stones in the roller skidding and not falling.
- ◆ The distributor doors are all equipped with fine tuning mechanism, the gravel is evenly distributed.

#### 5.4 碎石撒布系统

- ◆ 内举升式碎石料仓，上料高度低，装料方便，桥涵、隧道施工适应性好
- ◆ 料仓内配置有筛网，可有效防止大石料堵塞料门
- ◆ 撒布器分料板可大角度调节，适应不同类型石料，撒布均匀
- ◆ 石料撒布最大宽度达 4m，适应各种等级公路施工要求
- ◆ 独特的滚筒防滑设计，解决了石料在滚筒上打滑不下落的难题
- ◆ 撒布器各料门均设有微调机构，碎石撒布均匀

#### 5.5 Hydraulic, pneumatic system

- ◆ The hydraulic and pneumatic elements all adopt international famous brands with reliable quality and stable performance
- ◆ With electro-hydraulic proportional closed-loop control system, the amount of asphalt spraying is not affected by the change of travel speed

#### 5.5 液压、气动系统

- ◆ 液压、气动元件采用国际知名品牌，质量可靠，性能稳定
- ◆ 电液比例闭环控制系统，沥青洒布量不受车速变化影响

#### 5.6 Control System

- ◆ It is equipped with automatic and manual operating system, in the cab through auto control system only need to set the asphalt spray quantity per square meter, can achieve the automatic spraying; the rear console can be operated manually.
- ◆ The touch screen in driver's cab displays construction parameters in real time, the construction effect can be observed on camera monitoring screen
- ◆ Strong spraying at start control technology realizes zero-start spraying of asphalt
- ◆ Asphalt and heat transfer fluid level control technology prevents dry burning of burner and ensures personnel and equipment safety

- ◆ The nozzle and cylinder is one-to-one controlled, the good adjustment continuity of spray width; The opening and close of nozzle and material door is pneumatic, the computer can control each door and nozzle independently.
- ◆ In the distributing (spraying) process the width can be adjusted according to requirements.

## 5.6 控制系统

- ◆ 配备有自动和手动两套操作系统，在驾驶室内通过自动操作系统，只需设定每平方米沥青洒布量，即可实现自动喷洒；在后操作台可以实现手动操作
- ◆ 驾驶室内触屏显示器实时显示施工参数，摄像头监视画面实时观察施工效果
- ◆ 起步强喷控制技术，实现沥青的零起步喷洒
- ◆ 沥青和导热油低液位控制技术，防止燃烧器干烧，保证人员及设备安全
- ◆ 喷头气缸一控一，喷洒宽度调节连续性好；喷嘴及料门开闭全气动，电脑可对每个料门和喷嘴进行单独控制
- ◆ 洒(撒)布过程中随时可对洒(撒)布宽度任意调节

## 6. Transport safety requirements

Users or organizations shall ensure when transferring:

- ◆ Check main parts such as the fasteners of asphalt tank, sub-frame, spraying beam and belt support for looseness, if there is, tighten them
- ◆ Lift the spraying beam to the highest position, hang up the safety chain, and fix the spraying beam with fastening tape
- ◆ Turn off the main valve of working devices at chassis air pocket
- ◆ Turn off all valves of asphalt pipeline and heat transfer fluid pipeline
- ◆ It is strictly forbidden to stand on rear control console during transportation
- ◆ Try to reduce high-speed bumpy driving and emergency brake
- ◆ Do not use burner for heating during transportation

## 6 运输安全要求

用户或使用单位在车辆转场时应确保：

- ◆ 检查主要部件如沥青罐、副车架、喷洒梁、输料带架的紧固件是否松动，如松动须紧固
- ◆ 将喷洒梁提升至最高处，并挂上安全挂链，使用紧固带将喷洒梁固定
- ◆ 将底盘气包处的工作装置总阀门关闭
- ◆ 将沥青管路、导热油管路的所有阀门关闭

- ◆ 运输过程中后操作平台严禁站人
- ◆ 尽量减少高速颠簸行驶和紧急刹车
- ◆ 运输过程中禁止使用燃烧器进行加热

## 7. Disclaimers

The Company follows the principles of sustainable development, and reserves the right to continuously improve our products without prior notice.

## 7 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。