



XZJ5090GLQ(XLS403) Intelligent Asphalt
Distributor

Technical Specification

XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD.

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XZJ5090GLQ(XLS403) Intelligent Asphalt Distributor

Technical Specification

XZJ5090GLQ (XLS403) 智能型沥青洒布车

技术规格书

1. Overview

XZJ5090GLQ(XLS403) intelligent asphalt distributor is an automation product specialized in spraying emulsified asphalt, diluted asphalt, hot asphalt, modified asphalt. The product controls the whole process of asphalt spraying through the controller, thus the asphalt spraying amount is not affected by the change of speed and the high-precision spraying is achieved. It is mainly used for construction and maintenance projects of highway, all grades of roads and municipal roads, suitable distributing construction of prime coat, bonding layer, upper and lower sealing layers of different grades of road surface.

1 概述

XZJ5090GLQ (XLS403) 智能型沥青洒布车是专业喷洒乳化沥青、稀释沥青、热沥青、改性沥青的自动化产品。该产品通过控制器控制沥青喷洒的全过程，实现沥青洒布量不受车速变化的影响和高精度的洒布。其主要用于高速公路、各等级公路和市政道路的建设及养护工程，适合不同等级路面的透层、粘结层、上下封层等沥青的洒布施工。

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:

JT/T276 Asphalt Distributor

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：

JT/T276 《沥青洒布车/机》

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

- ◆ Starting strong spraying control technology realizes zero-distance starting spraying and uniform and reliable spraying of asphalt
- ◆ Spraying width can be adjusted freely, one-control-three nozzles.
- ◆ Touch display in driver's cab records asphalt spraying area, distance and total amount
- ◆ Automatic and manual operation systems, convenient and reliable
- ◆ Intelligent control system, just set distributing amount of asphalt spraying per square meter, automatic spraying can be achieved
- ◆ Heat transfer fluid cyclically heats and preserves the heat for the tank, asphalt pump, nozzle, spraying beam and asphalt pipeline in all directions to meet construction requirements for different kinds of asphalt

◆ Manual spraying gun is optional for local asphalt spraying to corners and special positions

◆ Dongfeng Duolika 4×2 China Tier-V 9t chassis, powerful and comfortable to drive

3 主要性能与特点

◆ 起步强喷控制技术，可实现零距离起步喷洒，洒布均匀可靠

◆ 喷洒宽度可自由调节，喷嘴一控三

◆ 驾驶室内触屏显示器，实时记录沥青喷洒面积、喷洒距离、喷洒总量

◆ 自动和手动两套操作系统，操作方便可靠

◆ 智能控制系统，只需设定每平方米沥青洒布量，即可实现自动洒布

◆ 导热油对罐体、沥青泵、喷嘴、喷洒梁、沥青管路全方位循环加热、保温，满足不同种类沥青施工需求

◆ 整车可选配手动喷枪，对边角和特殊部位局部喷洒沥青，满足特殊工况要求

◆ 东风多利卡 4×2 国 V 排放的 9t 底盘，动力强劲，驾驶舒适

4. Main technical parameters and parts and components

4 主要技术参数及配套件

4.1 Technical parameters table

Item	Unit	Parameters
Product model	-	XZJ5090GLQ (XLS403)
Working performance parameter		
Max. spraying width	m	4
Asphalt spraying amount	Kg/m ²	0.2 -3.0
Deviation of spraying amount	Kg/m ²	±0.07
Capacity of asphalt tank	m ³	4 (Notice 2)
Operating speed	km/h	1.5 -15
Chassis performance parameter		
Chassis model	-	Dongfeng Duolika EQ1090SJ8BDC (China Tier V)
Engine type	-	CY4SK251
Engine power	kW/ (r/min)	115 / 2800
Driving mode	-	4×2
Maximum traveling speed	km/h	103
Fuel tank capacity	L	120

Curb weight	kg	7300
Total mass	kg	9400
Overall dimension parameter		
Minimum ground clearance	mm	210
Approach Angle/Departure Angle	°	21 / 9.8
Overall dimension	mm	7010×2100×2515

4.2 List of main parts and components

No.	System name	Parts name	Brand
1	Chassis system	Chassis	Donfeng Duolika
2		Reduction box	Jinding, Zhenjiang
3	Asphalt system	Asphalt pump	Jinding, Zhenjiang
4		Heat conducting pump	Hebei Zhaohong
5	Asphalt tank	Burner	BECKETT America
6	Spraying beam	Nozzle cylinder	Ningbo EMC (kai pu)
7	Gas circuit system	Lifting cylinder	Ningbo EMC (kai pu)
8		Solenoid valve	Ningbo EMC (kai pu)
9	Hydraulic system	Hydraulic pump	Fuxin Beixinxing Co., Ltd.
10		Asphalt pump motor	Beijing Huade Hydraulic
11		Heat conducting pump motor	Hefei Changyuan
12	Electrical system	Touch screen	Beijing Kunluntongtai
13		CPU	IDEC Japan

4.3 Optional parts and components

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

4.1 技术参数表

项 目	单 位	参 数
产品型号	-	XZJ5090GLQ (XLS403)
作业性能参数		
最大洒布宽度	m	4
沥青洒布量	kg/m ²	0.2-3.0
洒布量偏差	kg/m ²	±0.07
沥青罐体容积	m ³	4 (公告 2)
工作速度	km/h	1.5-15
底盘性能参数		
底盘型号	-	东风多利卡 EQ1090SJ8BDC (国 V)
发动机型号	-	CY4SK251

发动机功率	kW/ (r/min)	115/2800
驱动方式	-	4×2
最高行驶速度	km/h	103
燃油箱容积	L	120
整备质量	kg	7300
总质量	kg	9400
整机尺寸参数		
最小离地间隙	mm	210
接近角/离去角	°	21/9.8
外形尺寸	mm	7010×2100×2515

4.2 主要配套件明细

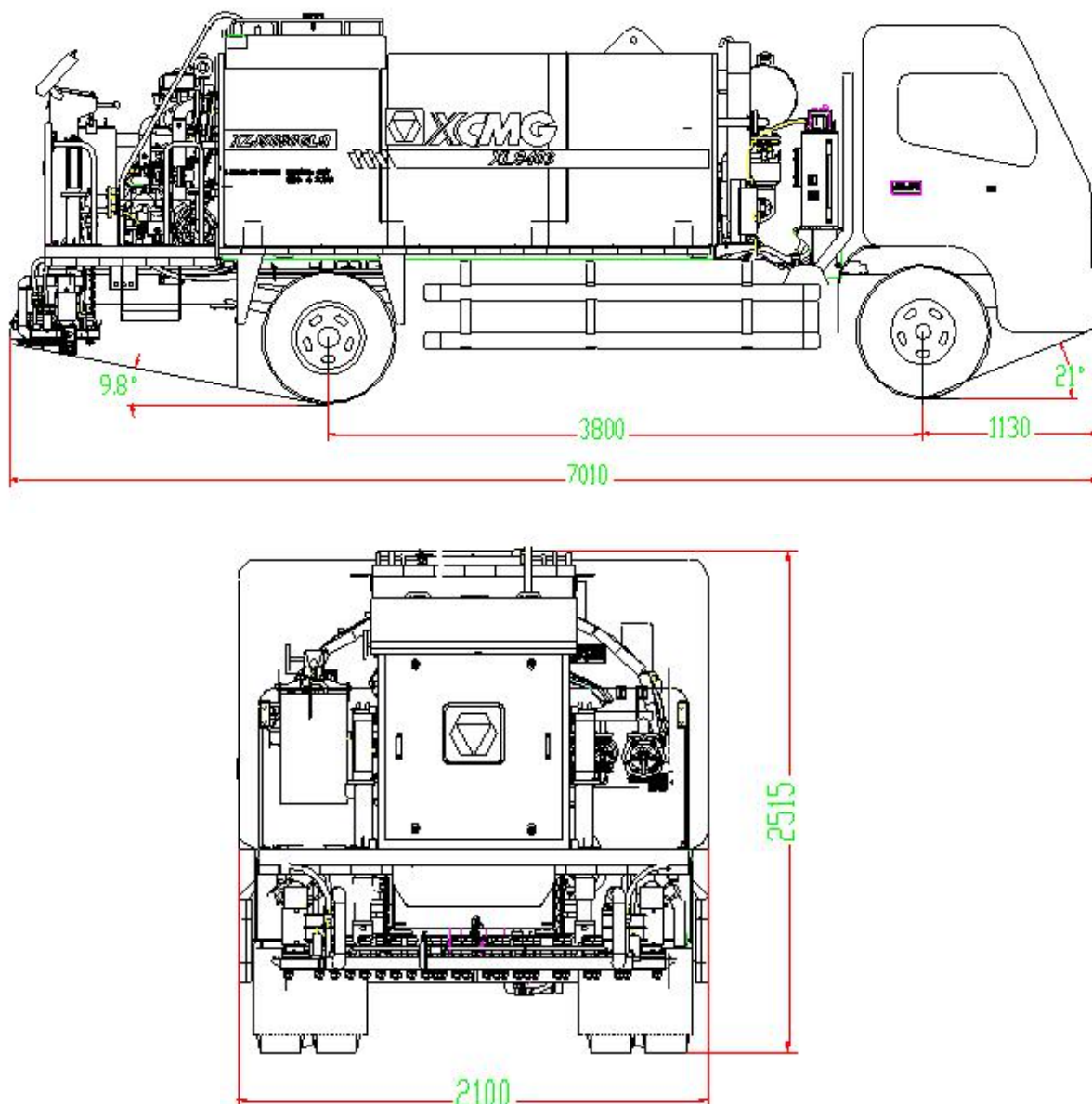
序号	系统名称	零部件名称	品牌
1	底盘系统	底盘	东风多利卡
2		减速箱	镇江金鼎
3	沥青系统	沥青泵	镇江金鼎
4		导热油泵	河北兆宏
5	沥青罐	燃烧器	美国贝克特 Beckett
6	喷洒梁	喷头气缸	宁波亿太诺（锆濮）
7	气路系统	提升气缸	宁波亿太诺（锆濮）
8		电磁阀	宁波亿太诺（锆濮）
9	液压系统	液压泵	阜新北鑫星
10		沥青泵马达	北京华德
11		导热油泵马达	合肥长源
12	电气系统	触摸屏	北京昆仑通泰
13		CPU	日本和泉 IDEC

4.3 可选配套件

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

4.4 Appearance and overall dimension(unit: mm)

4.4 外形及外形尺寸 (单位: mm)



5. Features of main structure(system)

XZJ5090GLQ (XLS403) Asphalt Distributor mainly consists of chassis system, spraying system, heating system, asphalt conveying system, electric control system and hydraulic pneumatic system.

5 主要结构 (系统) 特点

XZJ5090GLQ (XLS403) 型沥青洒布车主要由底盘系统、喷洒系统、加热系统、沥青输送系统、电气控制系统、液压气动系统等部分组成。

5.1 Chassis system

- ◆ With Dongfeng Duolika 4×2 China Tier V 9t chassis engine and engine type CY4SK251, with power of 115kW/2800/r/min, powerful, safe, reliable and comfortable;
- ◆ The cab is equipped with PTO(Remote electronic throttle), which can stabilize the engine speed and operate conveniently
- ◆ Equipped with air conditioning, ABS anti-lock system.
- ◆ Vehicle traveling data recorder is equipped to record the information in traveling process in real time
- ◆ Chassis engine PTO is adopted to supply power for working devices, reliable performance and convenient maintenance available
- ◆ Special modified chassis reducer, minimum stable speed of 1.5km/h meets operation in various limited working conditions

5.1 底盘系统

- ◆ 选用东风多利卡 4×2 国 V 排放的 9t 底盘，发动机型号 CY4SK251，发动机功率为 115kW/2800/r/min，动力强劲，安全可靠，操作舒适
- ◆ 驾驶室配置 PTO（远程电子油门），工作时可稳定调节发动机转速，操作方便
- ◆ 配置冷暖空调，ABS 防抱死系统
- ◆ 配置行驶记录仪，实时记录行驶过程信息
- ◆ 采用底盘发动机取力器为工作装置提供动力，性能可靠，维护保养方便
- ◆ 特殊改装的底盘减速箱装置，最低稳定车速 1.5km/h，满足各种极限工况作业

5.2 Sprinkling system

- ◆ The max. spraying width is 4m, 3-section manual folding spraying beam
- ◆ The spraying beam can be elevated to realize dual and triple spraying
- ◆ Heat transfer fluid heating pipe is equipped inside spraying beam to ensure spraying medium unobstructed

5.2 喷洒系统

- ◆ 最大喷洒宽度为 4m，三段手动折叠式喷洒梁
- ◆ 洒布梁可升降，实现双重、三重喷洒
- ◆ 洒布梁内设导热油加热管，保证洒布介质畅通无阻

5.3 Heating system

- ◆ The heating system uses Beckett diesel burner with heating power of 116kW(10×10^4 kcal/h), 8l/h fuel consumption and high heating efficiency
- ◆ Heat transfer fluid heating system can heat the tank, pipeline and spraying device in the whole course, the operation of burner can be automatically controlled depending on setting temperature of asphalt and heat transfer fluid

5.3 加热系统

- ◆ 选用美国贝克特柴油燃烧器，加热功率 116kW (10×10^4 kcal/h)，油耗为 8L/h，加热效率高
- ◆ 导热油加热系统可对罐体、管路、喷洒装置全程加热，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 Asphalt conveying system

- ◆ Asphalt pump can adapt to various asphalt spraying except rubber asphalt and high viscosity modified asphalt
- ◆ Manual spraying gun is optional for local asphalt spraying to corners and special positions.

5.4 沥青输送系统

- ◆ 沥青泵可以适应除橡胶沥青及高粘改性沥青外各种沥青的洒布
- ◆ 可选配手动喷枪，对边角和特殊部位局部喷洒沥青，满足特殊工况要求

5.5 Electrical control system

- ◆ Automatic and manual operation systems, automatic operation system is used in driver's cab, just set distributing amount of asphalt spraying per square meter, the controller can detect current speed of spraying width in real time and automatically adjust rotation speed of asphalt pump to ensure the spraying amount of unit area unchanged; manual operation can be achieved at rear control console
- ◆ The touch screen in driver's cab displays construction parameters in real time
- ◆ Strong spraying at start control technology realizes zero-start spraying of asphalt
- ◆ Asphalt and heat transfer fluid level monitoring technology prevents dry burning of burner and ensures personnel and equipment safety

5.5 电气控制系统

- ◆ 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，控制器根据洒布宽度实时检测当前车速，自动调整沥青泵转速，保证单位面积洒布量不变,在后操作台可以实现手动操作
- ◆ 驾驶室内触摸屏实时显示施工参数
- ◆ 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监测技术，防止燃烧器干烧，保证人员及设备安全

5.6 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

5.6 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

6 Transport safety requirements

Users or organizations shall ensure when transferring:

- ◆ Check main parts such as the fasteners of asphalt tank, sub-frame and spraying beam 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. We will perform continuous improvement of relevant contents without 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。