

中联重科混凝土搅拌运输车标书

ZLJ5253GJBHE

Bids for the ZLJ5253GJBHE Concrete Truck Mixer



中联重科混凝土搅拌运输车优势简述

Advantage summary of ZOOMLION's concrete truck mixer

作为全球最大的混凝土机械成套供应商,中联重科以为客户提供最高综合性价比产品为目标,从底盘、上装、制造工艺等方面进行了全面提升。

As the largest supplier of whole set concrete machine, ZOOMLION is in order to give guests the best products on integrated performance to price, we have improved in chassis, structure, production and technology roundly.

针对混凝土搅拌运输车的实际应用情况,中联重科与重汽底盘厂家共同研发,而推出了系列中联搅拌运输车专用底盘,该系列专用底盘解决了通用重卡底盘在实际使用中的诸多问题和不足,尤其在行驶的安全性、通过性、舒适性和可靠性方面做了重大的改进,基于专业底盘厂家十多年的研发、制造体系,年产数十万台的强大生产能力和工艺技术以及供应链保障体系和质量保障体系,确保了中联搅拌车专用底盘的品质更为稳定可靠,尾气排放均达到国V排放标准。

Aiming at actual use situation of the concrete truck mixer, ZOOMLION and SINOTRUK both together have excogitated series special chassis for ZOOMLION's concrete truck mixer, the series special chassis have solved some problems and objection of the heavy truck in actual use, especially there are great improvement in security, passing capability, comfort and reliability. The manufacturer which hammer away at professional chassis have had the system of design and production 10 years, the power throughput and technology of millions chassis per year, the promise system of supply link and quality, all that ensure reliable quality of the special chassis for ZOOMLION's concrete truck mixer, the exhaust emissions are up to the national V standard.

中联重科搅拌运输车上装造型优美,涂装亮丽,操作实用。新型设计不仅彻底解决了混凝土离析现象,而且搅拌性能有着显著的提高,同时搅拌筒容量更大,寿命更长,加上稳定可靠的液压系统,使中联上装质量有可靠的保障。

ZOOMLION's concrete truck mixer have graceful sculpt, bright and colorful painting, practical operation. The new design not only has solved the problem of concrete isolation completely, but has improved capability of mix observably. The mixing drum which is lager space and longer service life, and reliable fluid drive system ensure high quality of ZOOMLION's concrete truck mixer.

拥有国内最大的搅拌机械专业制造园,拥有超大生产厂房、高精尖进口加工设备和高素质、高技能的员工队伍,拥有先进的管理和制造技术,全方位引进并吸收了欧洲 CIFA 的制造工艺和标准体系,因此中联重科高品质的产品能处于国内领先地位。

ZOOMLION is the largest manufacture base specializing in mixing machinery, we has very big workshops, high exact machines and high making employees, advanced management and technology, we have fetched in advanced technology and criterion system from Europe CIFA to assimilate in all round, so ZOOMLION's excellent products can have the leading position in China.

1.主要技术参数 Main technology parameter

整车参数 Overall Parameter	型号 Model	ZLJ5253GJBHE
	底盘型号 Chassis Model	ZZ1257N4347E1
	整备质量 Kerb Weight	kg 16000
	最大总质量 Gross Vehicle Weight	kg 25000
	驱动型式 Drive Type	6×4
	轮胎 Tyre	12.00R20 18PR (标配), 12.00R20 16PR、 11.00R20 16PR (选配)
	取力方式 P.T.O Type	飞轮取力 Flywheel P.T.O
	最高车速 Max. Vehicle Speed	km/h 86
	最大爬坡度 Max. Grade Ability	% 30
	最小转弯直径 Min. Turning Diameter	m 18.9
整车外形尺寸(长×宽×高) Overall Dimensions(L×W×H)	mm 9760×2500×3960	
发动机参数 Engine Parameter	型号 Model	D10.34-50
	型式 Type	直列 6 缸、水冷、增压中冷、电喷式柴油机 Diesel ,6-cyl.In-line, water-cooled, turbocharged and intercooler cycle、electric sprayed diesel engine
	最大功率 Max. Power	kW/r/min 249/1900
	最大扭矩 Max. Torque	N.m/r/min 1490/1200~1500
	排气量 Emission Quantity	L 9.726
	最低比油耗 Oil consumed with Min. ratio	g/(kWh) 198
排放标准 Emission Standard	国 V National V	
搅拌筒性能参数 Drum Performance Parameter	搅拌容积 Normal Volume	m ³ 12.0
	填充率 Filling Percentage	% 63
	搅拌筒倾角 Gradient of the Drum	o 11.4
	进料速度 Filling Speed	m ³ /min ≥4
	出料速度 Discharging Speed	m ³ /min ≥3
	出料残余 Surplus Ratio	% ≤0.7
	塌落度范围 Range of Slump	mm 50~210
液压传动系统 Hydraulic System	泵 Pump	伊顿/威孚或其它 EATON/Inpump or others
	马达 Motor	伊顿/威孚或其它 EATON/Inpump or others
	减速机 Gear Box	S12C 或其他 S12C or others
	液压回路 Hydraulic Circuit	闭式 Closed
供水系统 Water Supply	水箱容积 Volume of Water Tank	L 450
	供水方式 Water Supply Type	气压式 Air Pressure Type

2. 主要性能特点 Main Capability feature

2.1. 底盘部分 Chassis

中联重科携手重汽重卡两强联合，优势互补，针对搅拌运输车在实际使用过程中发现的问题共同研发的混凝土搅拌车专用底盘，具有以下优点：

Both ZOOMLION and SINOTRUK together design the special chassis of the concrete truck mixer for ZOOMLION, the special chassis solve some problems that were found in actual use, the special chassis have following virtue:

2.1.1. 安全性 Security

双回路气压行车制动，制动气压在连续 5 次全行程制动情况下，气压高于 6.5 bar，确保了制动压力足，灵敏度高。

Using double circuit air brake, the air pressure is higher than 6.5 bar after 5 continual whole journey brake, that ensure enough pressure and high delicacy.

2.1.2. 可靠性 Reliability

2.1.2.1 超低重心底盘，采用全新加厚、高强度材料，车架通过有限元分析及试验验证,抗扭刚度，稳定性佳，16 吨级加强驱动桥的使用确保搅拌车超强承载能力。

The special chassis has ultra-low center of gravity, its frame adopt and thicken new high-strength materials, high torsional rigidity have been validated by finite element analysis and experiment. The use of 16 tons driving axle ensure super carrying capacity.

2.1.2.2 底盘大梁结构根据中联上装专门优化，通过完美匹配，安装无需二次改进，维持底盘原有结构特征，不产生应力破坏，更加稳定可靠；

Beam structure of the special chassis has been optimized according ZOOMLION's structure which is perfect match, the chassis maintain the original structure without secondary improvement, so it doesn't cause stress damage to become more stable and reliable.

2.1.3. 实用性 Practicability

2.1.3.1 采用双级减速驱动桥，最小离地间隙为 296mm，比一般通用底盘高,通过性更好,更适应建筑工地的恶劣路况；

The special chassis use double reduction driving axle, which lowest position reaches 296 mm from the ground, the height is higher than general chassis, and so the whole truck has the better passing capability in order to the bad road condition of building site.

2.1.3.2 采用 300L 铝合金小油箱设计，体积小，离地高，减小油箱损坏风险，整车通过性得到

进一步提高；

The chassis use aluminum alloy oil box, which is 300L capacity and high from ground, that design reduce risk of damage and give the whole truck the better passing capacity further.

2.1.3.3 低速大扭矩输出机构，配合双中间轴结构变速箱，输出扭矩大，使搅拌车具有超强重载爬坡能力，爬坡角度高达 45%。

Low speed but large torque output mechanism with double intermediate shaft gear-box supply strong power, so the concrete truck mixer have powerful slope climbing ability with over loading, the angle of slope climbing reaches 45%.

2.1.4. 节能性 Energy saving

2.1.4.1 传动系统优化匹配，发动机、变速箱、桥三者采用最优的传动组合系数，能量转化效率更高，油耗比通用底盘降低近 5%。

Driving system is optimized: Engine, gear-box and driving axle all adopt the best modulus combination to drive, the efficiency of energy translation is higher, and oil costs reduce near 5% than general chassis.

2.1.4.2 10 档手动全同步大扭矩变速箱，多档位满足整车节能需求。

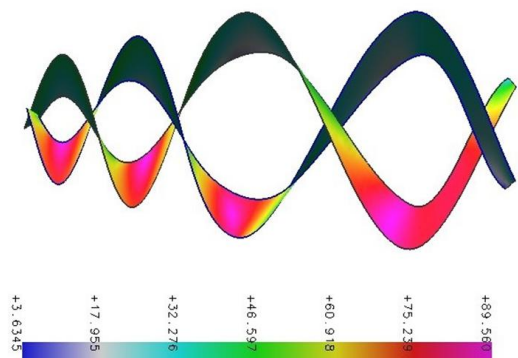
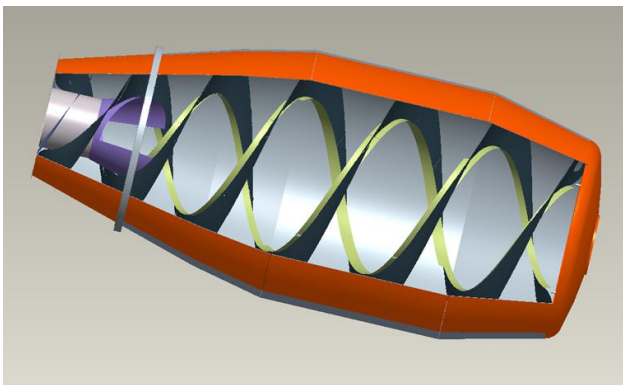
10 manual gears large torque gear-box with full synchronizing, multiple-choice gears meet need of energy saving of whole truck.

2.2 上装部分 Structure

2.2.1. 采用 CIFA 搅拌筒技术 The mixing drum from CIFA

双对数变螺距搅拌叶设计，充分保证搅拌均匀性和出料速度，多相三维立体搅拌技术，实现了干、湿料两种物料搅拌运输工况的全面适应。

The design of dual logarithm variable pitch helical vane ensures mixing uniformity and faster discharging, multiphase three-dimensional mixing technology makes both dry and wet material to achieve adaptability.



双对数变螺距 3D 设计

The three-dimensional design of dual logarithm variable pitch helical vane

2.2.2. 超大容量，低倾角设计 Larger capacity and lower angle

几何容积超大，填充率 63%，保证搅拌车有足够大的容量，超低倾角设计，在进一步增大实际容量的同时，搅拌运输车整机重心更低，保证行驶更平稳，降低了进料高度和通过高度。

Very larger geometric volume and near 68% percent-fill ensure that the concrete truck mixer have enough charging capacity; lower angle design of mixing drum make the whole truck mixer lower center of gravity and lager actual charging capacity further, so there are more running stability and lower charging basket and better passing performance .

2.2.3. CIFA“T”型条耐磨保护技术 CIFA “T” blade with abrasion resistance technology

螺旋搅拌叶片使用 CIFA “T”型条耐磨保护技术，在搅拌区提高其搅拌性能，出料区提高其出料能力，且能有效阻止径向裂纹的产生，使用寿命提高 20%，专用特种耐磨合金钢的应用,大幅提高搅拌筒使用寿命达 60%~80%。

The spiral mixer vanes which have CIFA “T” shape with wear-resisting technology can improve mixing capability and discharging speed, they also can prevent radial flaw, so service life of vanes is added 20%. And the application of special abrasion-resistant alloy steel increases the mixing drum’s service life by 60%~80%.



高耐磨T型条
High abrasion resistance T blade

CIFA “T”型叶片 CIFA “T” blade

综合 1、2、3 点，中联搅拌车根本上解决了混凝土离析现象，进出料速度同比将提高 30% 以上，出料残余率降低至小于 0.7%。

Taking point 1, 2, 3 together, the concrete truck mixer of ZOOMLION have solved isolation of

concrete completely, speed of charging and discharging increase by 30%, ratio of residue drop blow 0.7%.

2.2.4.环保接料斗 Environmental filling hopper

配备环保接料斗，避免混凝土在运输过程中撒落到地面，能很好地保护环境。

Adopting Environmental filling hopper, it can protect the environment that avoid the concrete falling in transport.

2.2.5. 采用“料磨料”技术，进出料装置平均寿命超 3 万方



2.2.6.高品质的液压传动系统 High quality fluid drive system

关键液压传动件均采用国际知名品牌，加上优秀的系统设计，运行高效，安全可靠。

Key hydraulic components are all from international famous companies. The outstanding design of the whole system ensures the high efficiency and reliability.

关键液压元件 Key hydraulic components	常用配置 Common fitting
液压油泵 Hydraulic bump	伊顿/其他 America EATON/Other
液压马达 Hydraulic motor	伊顿/其他 EATON/ Other
减速机 Gearbox	PMP/ 中船/其他 PMP/ CSIC /Other

2.2.7.智能化的管理系统 Intelligent system of manager

GPS/GPRS 或 GPS/USB 搅拌车智能管理系统，为搅拌车提供了完整的管理体系，有效管理车辆动态，实时记录各种参数，如行车里程、车速、车重、油耗、送料工地及累记送料量等，有效监控混凝土料和燃油使用情况。

The GPS/GPRS or GPS/USB intelligent system of manager supply all management for the concrete truck mixer, it can commands the concrete truck mixer at any time and minutes all kinds of parameter in real time, such as the number of miles, speed, weight, oil consumption, destination and cumulate quantity, etc, there are effective surveillance for concrete and oil.

3.制造能力 Manufacturing ability

3.1. 制造装备 Equipment

拥有预处理设备、等离子切割机、带锯机等先进的下料设备和剪板机、折边机、油压机以及滚圆机等成形加工设备；两条搅拌筒制作加工线，采用专用设备成形，高精度的圆柱度和锥度保证各部分无缝对接，自动机器人自动焊接，固化最优焊接工艺参数，避免了人为因素造成的焊接缺陷，使搅拌筒质量更加可靠，性能更加稳定；两条搅拌车总装线，高效节能，采用流水作业，保证装配质量。

ZOOMLION has advanced machine such as pretreatment machining、plasma cutting machine、band sawing machine etc. and plate shears、folding machine、hydraulic machine、rounding machine; ZOOMLION has two fabricating & processing lines for mixing drums, the mixing drum is shaped by special machine, the cylindricity and taper of each part reach high precision to link with no gap. Manipulators solder the mixing drum automatically, technologic parameter of jointing is the best and changeless, that avoid the bug from person, and so mixing drums have better quality and capability. Two assembly lines for the concrete truck mixer are high-efficiency and energy-saving, so assembly quality can be assured.



自动机器人焊接搅拌筒筒体 Manipulators solder the mixing drum

3.2. 油漆涂装 Painting

拥有先进的零部件喷砂房和零部件涂装流水线，钢材表面全部喷丸预处理，增强了材料的表面强度，并极大提高油漆的附着力，抗腐蚀能力提高 20%；使用无气喷漆工艺，高温烘干，增加了表面油漆的光泽度，延长了使用寿命。

Because of shot blast on all surface of steel, the material improves its surface strength and adhesion to painting greatly, anticorrosion also increase by 20%; the painting technology with no gas and high temperature baking give more shine and longer service life to surface paint.

3.3. 制造工艺 Process

全面吸收欧洲高端设计理念，全方位引入 CIFA 制造工艺体系，从材料入厂到整车出厂，无论

在材料选择标准、工艺考核标准以及质量评测标准各方面均执行与 CIFA 标准体系,大幅度的提高了中联搅拌运输车的质量稳定性。

EUROP advanced design theory and CIFA production system have been assimilate all round, from enter of the material to leave of the whole truck, judgment of manufacture technology and quality check-up all carry out the same standard with CIFA, so quality and stability of ZOOMLION's concrete truck mixer are risen greatly.

4.主要配置

Main components

4.1 主要总成配置

Main assembly components

序号 SN	名称 Name	型号 Model	生产单位 Manufacturer
1	底盘 Chassis	ZZ1257N4347E1	中国重型汽车集团公司 SINOTRUK
2	发动机 Engine	D10.34—50	中国重型汽车集团公司 SINOTRUK
3	变速器 Derailleur	HW19710	中国重型汽车集团公司 SINOTRUK
4	车架 Frame	原车 Original Vehicle	中国重型汽车集团公司 SINOTRUK
5	转向器 Redirector	ZF8118	德国 ZF ZF Company, Germany
6	前桥 Front Axle	HR9	中国重型汽车集团公司 SINOTRUK
7	后桥 Back Axle	HC16	中国重型汽车集团公司 SINOTRUK
8	驾驶室 Cab	HW76	中国重型汽车集团公司 SINOTRUK
9	取力器 Power Take-offer	原车 Original Vehicle	中国重型汽车集团公司 SINOTRUK
10	搅拌筒 Drum	/	中联重科 ZOOMLION
	进料装置 Filling Set	/	中联重科 ZOOMLION
	出料装置 Discharging Set	/	中联重科 ZOOMLION

4.2 电气系统主要配置

Main assemblies of electric system

序号 Numer	名称 Name	产地 Producing Area	备注 Note
1	工作灯 Work-Lamp	湖北 Hubei	
2	后示廓灯 Height lamp	江苏(丹阳) Jiangsu Danyang	
		江苏(常州) Jiangsu Changzhou	

3	侧标志灯 Width lamp	湖北 Hubei	
		江苏（常州） Jiangsu Changzhou	

5.所依据的标准

The Criterion for the Concrete Truck Mixer

①混凝土搅拌运输车技术条件和实验方法 (QC/T 667-2010)

Concrete Transit Mixer Technique Condition and Experiment Method (QC/T 667-2010)

②机动车运行安全技术条件 (GB7258-2012)

Automobile Safety Driving Technique Condition (GB7258-2012)

注意：因产品技术改进造成的技术资料的更改，恕不另行通知，请用户及时关注我公司发布的各种技术信息。车辆状态以实物为准。

Warning: Continuing improvement and advancement of product design might have caused changes to technical datum which are not informed for exception. Please consumers pay attention to all technical information delivered by ZOOMLION in time. The vehicle appearance takes real object as veracity.