
ZBH5070ZYSEBJY6 type 7-ton American-style compression vehicle

Product Introduction

preparation

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review

approve

Changsha Zoomlion Environmental Industry Co., Ltd

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Dear customer, thank you for choosing our company's products.

This document provides you with a detailed introduction to our company's products, including their overview, scope of application, main structural and performance characteristics, key technical parameters, and main advantages. It aims to help you better understand our products. Please keep this document properly for future reference.

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Our company reserves the right to revise the content of the document due to technical improvements. Any changes will not be notified separately. We kindly ask for your understanding.

Thank you very much for your trust and support in our products. I sincerely wish you all the best.

Product Introduction of ZBH5070ZYSEBJY6 Compressed Garbage Truck

1. Product Overview

The ZBH5070ZYSEBJY6 compressed garbage truck is a rear-loading compressed garbage truck independently developed and designed by Changsha Zoomlion Environmental Industry Co., Ltd. The product utilizes the BJ1076VEJDA-51 Class II automotive chassis produced by Foton Motor Co., Ltd., and its upper body adopts rear-loading bidirectional compression technology, featuring strong loading capacity and high efficiency.



Right

45 °, left 45 °



Before and after

II. Functional Overview

It possesses multiple functions such as garbage collection, automatic loading and compaction of garbage, garbage transfer, and dumping.

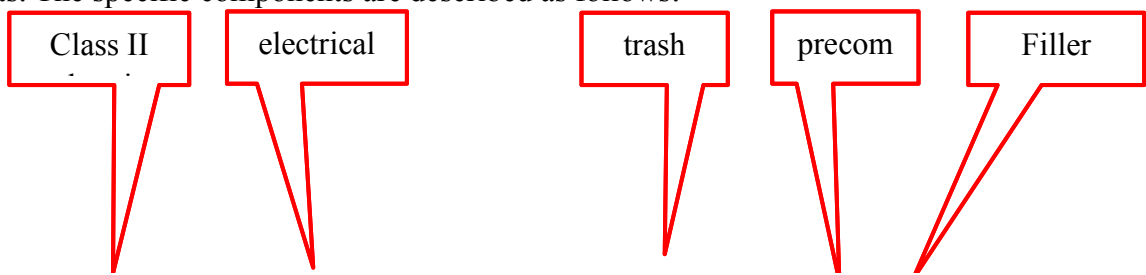
III. Scope of application

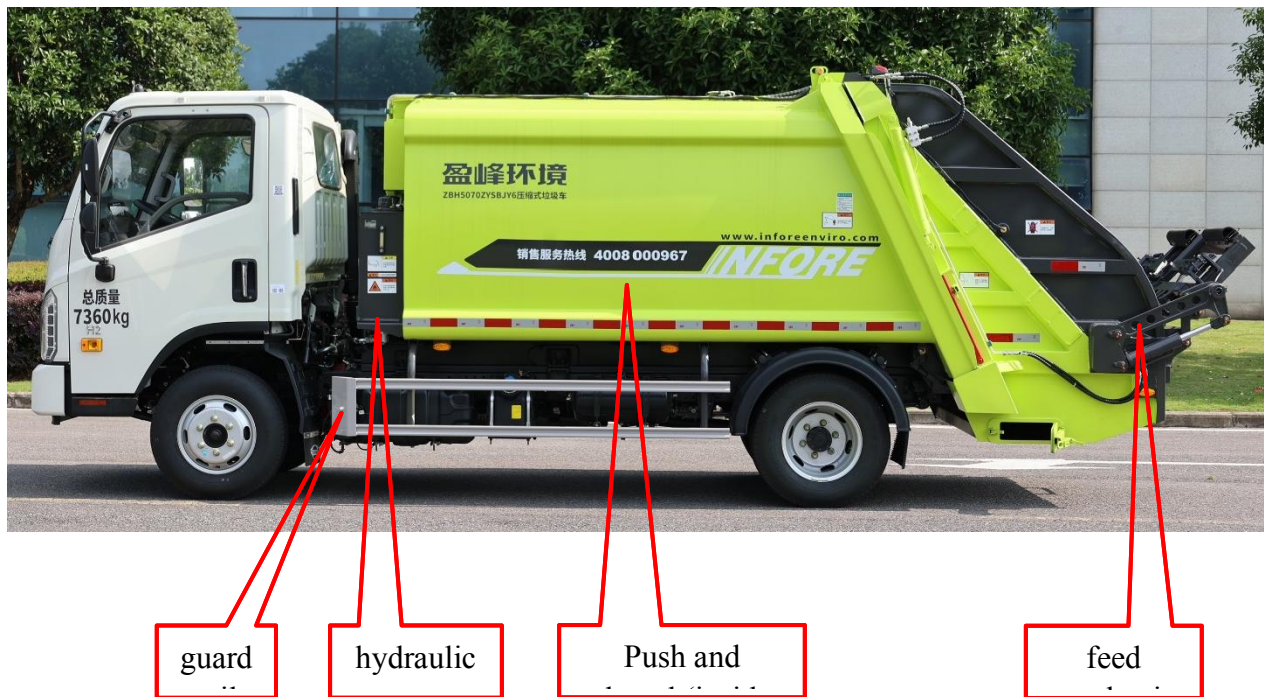
It is primarily suitable for the collection and transfer of domestic waste in barreled, bagged, and bulk forms in urban residential areas, communities, large factories and mines, institutions, colleges, and narrow streets in old urban areas.

It does not apply to the collection and transfer of construction waste, industrial waste, and kitchen waste.

IV. Main Structure and Performance Characteristics

The ZBH5070ZYSEBJY6 compressed garbage truck is primarily composed of a chassis, garbage bin, filler, push shovel, feeding mechanism, hydraulic system, electronic control system, and other components. The specific components are described as follows:





1. Chassis

Chassis. The vehicle is refitted using the BJ1076VEJDA-51 Type II automotive chassis produced by Foton Motor Co., Ltd. It boasts strong power and high load-bearing capacity. The chassis is reliable and meets the China VI emission standards.

Engine. It adopts the Q25A-150C60 diesel engine produced by Anhui Quanchai Power Co., Ltd., with a rated power of 110kW, rated speed of 3200r/min, and emissions meeting the China VI standard.

2. Upper garment structure

Pushing shovel

The push shovel, welded from high-quality profiles and high-quality carbon steel panels, is the component responsible for unloading the product. It is arranged inside the garbage bin and slides along the bin's track under the drive of a three-stage hydraulic cylinder to complete the unloading operation.

trash can

The garbage bin is a component of this product used for collecting and storing household waste, and it also serves as the connecting base for important components such as the filler. Its reasonable structural design and material selection ensure optimal product performance. The side panels are formed by bending a single plate, and the curved surface design enhances the overall frame rigidity while adding aesthetic appeal. The tail of the garbage bin is designed with a sewage drainage slot, and the bottom of the garbage bin is equipped with a filler locking mechanism.

precompressor

The filler is the component of this product that compresses and reduces the volume of household waste. The compression mechanism on the filler completes the compression of the waste in the filling bucket through the sliding motion of the sliding plate and the rotating motion of the scraper, and then loads it into the garbage bin. The bottom of the filler is designed with a sewage tank to enhance the sewage storage capacity of the product; the sealing surface of the filler is

equipped with a sealing strip, forming a fully sealed structure with the rear end surface of the garbage bin, effectively preventing sewage leakage.

feed mechanism

The feeding mechanism is the component that empties the waste from the waste collection container into the hopper of the filler. Depending on the range of applicability of the collection container, this component can accommodate different barrel capacities. The process of emptying waste into the hopper is facilitated by a four-bar linkage mechanism driven by a hydraulic cylinder.

Guardrail assembly

The guardrail assembly is assembled from high-quality carbon steel beams and high-quality carbon steel brackets, presenting an elegant and pleasing appearance.

3. Operation mode of homework

The vehicle adopts a control mode of "controller + CAN bus operation panel". During operation, each executing action can be controlled with one key, making the operation simple. The vehicle's operation is achieved by two operating devices, one located in the cab and the other on the right side of the vehicle's rear.



Driver's cab control panel

The **rear control box** is installed on the right side of the tail of the vehicle filler, and it serves as a functional button for operators to perform tasks such as lifting and unloading barrels (or buckets) and compacting and filling:



Rear area operation box

V. Main Technical Parameters of the Product

project	unit	Parameters
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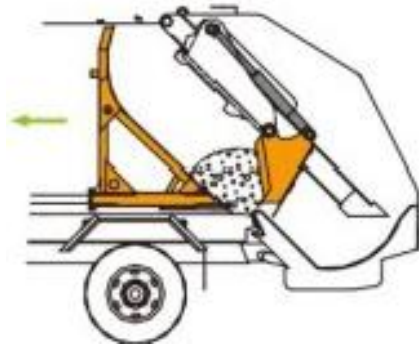
whole car ginseng number	Complete vehicle curb weight	kg	5320 (Tilting bucket type/Lifting bucket type/Tilting iron bucket type) 5410 (Tipper/Tipping bucket with flip cover)
	Maximum total mass	kg	7360
	rated load capacity	kg	1845 (turnover bucket type/lifting bucket type/turnover iron bucket type) 1755 (Tipper/Tipping Bucket Type)
	Overall dimensions (length)	mm	6990 (turnover barrel type/turnover iron barrel type) 6675 (bucket type) 6610 (dump type) 6845 (flip-type with a clamshell design)
	Overall dimensions (width)	mm	2200
	Overall dimensions (height)	mm	2470
	Ground clearance	mm	209
	Approach/departure angle	°	21/14; 9
bottom plate ginseng number	Chassis model, category, and manufacturer	Futian Class II chassis BJ1076VEJDA-51	
	Number of passengers	3	
	Engine model, manufacturer	Anhui Quanchai Power Co., Ltd. Q25A-150C60	
	Engine power rating	110 kw/3200 r/min	
	transmission model	5G32	
	Transmission type	5.595/2.848/1.691/1/0.794/5.347R	
make, do, create, compose, write, etc. karma sex can	Effective volume of garbage bin	m ³	6.2
	Filling bucket capacity	m ³	0.8
	Compress cycle time	s	≤19
	Material loading cycle time	s	≤10 (turnover bucket type)
drive performance	Maximum speed (fully loaded)	km/h	95
	Maximum climbing angle	%	22
	Minimum turning diameter	m	14.5

VI. Main Advantages of the Product

1. Superior performance

(1) Strong loading capacity and high operational efficiency

Utilizing bidirectional compression technology, it boasts strong compression capability and high loading capacity, capable of loading 100-120 plastic buckets of household waste (240L plastic buckets). The hydraulic system employs a dual oil pump, ensuring that the compaction and feeding cycles are interconnected without interference. The feeding cycle is ≤10s, and the compression cycle is ≤19s, resulting in high loading efficiency.



Bidirectional compression



Dual oil pump

(2) The feeding mechanism has good adaptability and high reliability

The standard feeding mechanism can turn over 120L/240L trash cans, with a wide range of adaptability; it is equipped with a rubber-coated barrel stopper, which can buffer the collision between the trash can and the barrel stopper when the feeding mechanism turns the can in place, reducing impact noise and preventing plastic trash cans from breaking or falling into the filling bucket due to inertia during the tilting process.



Vulcanized rubber barrel stopper rod

(3) Good sealing performance and high environmental friendliness

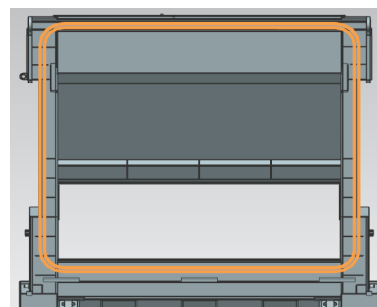
An adjustable locking mechanism controlled by an independent hydraulic cylinder is employed to secure the filler. Simultaneously, a horseshoe-shaped silicone sealing strip is utilized, forming three sealing surfaces. The sealing strip extends around the entire perimeter of the filler, ensuring complete sealing around the joint surface between the filler and the garbage bin, effectively preventing secondary pollution.



Adjustable locking mechanism



Silicone sealing strip



Fully sealed structure

(4) User-friendly operation control

The operation control boxes are installed in the cab and at the rear of the loader, respectively. The control panel in the cab can control the shoveling and unloading operations and select the operation mode, while the operation control box at the rear of the loader controls the operations of the compression mechanism and the feeding mechanism, making the operation very convenient. Especially in landfills, operators can complete the unloading without getting off the vehicle.

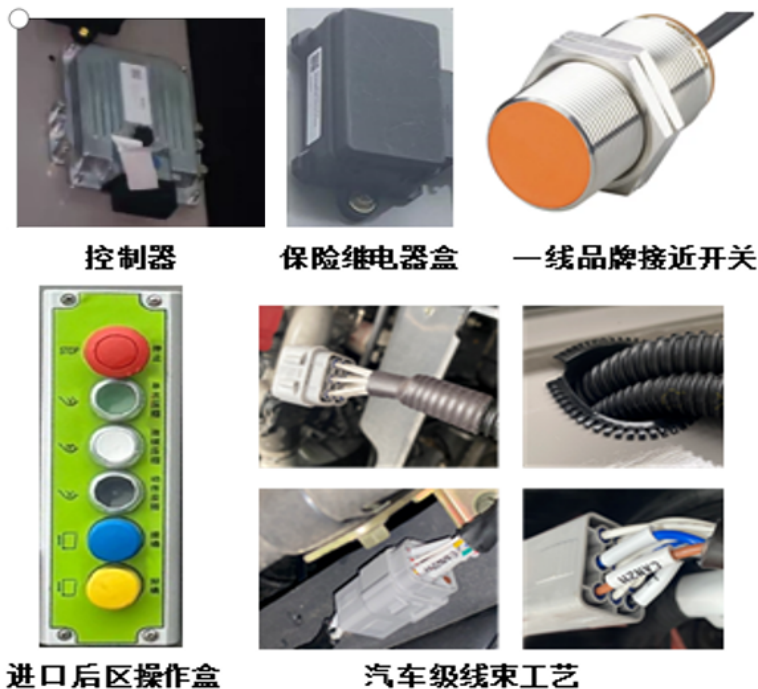


Driver's cab operation panel Tail operation box

2. Excellent quality

(1) The electrical system is advanced and reliable

Adopting the current advanced "CAN bus + dedicated controller mode" and equipped with a fuse relay box, it effectively protects the circuit. Proximity switches, plugs, and sheaths are sourced from top-tier engineering brands, while the rear operation box and wiring harness are sourced from imported brands, featuring automotive-grade wiring harness technology and an IP65 protection level. The system is safe and reliable, with a low failure rate.



(2) The motion hinge point is stable, reliable, and easy to maintain

Self-lubricating bearings are installed at the motion hinge points of the **feeding mechanism and compression mechanism** to reduce wear at the shaft holes, effectively extending the service life of the product and reducing maintenance costs.



self-lubricating bearing

(3) Integrated slider, reliable and durable

Adopting an integrated slider structure, the slider material is selected from high-quality, high-wear-resistant MC nylon, featuring self-lubricating capabilities and self-cleaning abilities, making it reliable and durable.



Integrated slider

(4) Advanced manufacturing technology, crafted with precision

Utilizing cutting and forming equipment, tooling, molds, welding robots, and other equipment, combined with advanced processes, the product has high manufacturing precision, good consistency, guaranteed quality, and is reliable and durable.



Box tooling



Filling device tooling



welding robot



Welding process

(5) Advanced coating technology, corrosion-resistant and durable

Adopting internationally mature bus painting processes, the components undergo processes such as shot blasting, degreasing, and drying, achieving a rust removal grade of Sa2.5. Subsequently, primer and topcoat are applied, with a paint film thickness of $\geq 40\mu\text{m}$. The entire vehicle exhibits good paint adhesion, excellent corrosion resistance, and a topcoat that is full-bodied, high-gloss, and has good freshness reflection.



Shot blasting line Robot electrostatic spraying system



Paint adhesion level 1



Topcoat appearance

3. Safe and reliable

(1) Configure alarm device

The equipped sound alarm system can give audible warnings during unloading and maintenance operations, prompting operators to exercise caution.

(2) Safety protection design of the filler

The lifting cylinder of the filler is equipped with a safety valve, ensuring that even in the event of a burst oil pipe, the pressure filling mechanism will not suddenly descend, thus preventing severe accidents. Additionally, a safety brace rod is installed on the filler to prevent it from descending and causing injury to personnel.



Safety brace rod



Safety valve

VII. Optional devices

serial number	name	image	function	Remarks
1	Tilting mechanism (240L plastic barrel)		It can be fitted with a 240L trash can.	standard configuration
2	Tilting mechanism (240L+660L plastic drums)		Compatible with 240L/660L trash cans	Optional configuration
3	Filler cover		Cover the filler's feeding port and adapt the barrel turning mechanism (240L/240+660L)	Optional configuration

4	Tipping mechanism		It can be adapted to a 730L Dalian-type bucket	Optional configuration
5	Flip-top and flip-bucket type		It can be adapted to fit 240L trash cans or triangular hoppers for material feeding	Optional configuration
6	wireless remote control		Remote control of vehicle loading and unloading functions	Optional configuration
7	video surveillance		Video surveillance of the filling status or the rear situation of the vehicle	Optional configuration
8	dashboard camera		Driving function recording	Optional configuration