

FLM5111TCAQL6

Wet Waste Collection Truck

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2021.8

INTRODUCTION

1. Product Overview

FLM5111TCAQL6 wet waste collection truck adopts CHONGQING ISUZU QL1110ANKACY chassis, which is specially used for collecting, cleaning, and transporting kitchen garbage. The whole truck has the advantages of sealed transportation, large loading capacity, and high loading efficiency, which can fully meet the needs of the existing wet waste collection and transportation. In addition, the product can be equipped with a sewage tank heating device, screw discharge device, lifting mechanism weighing system, and automatic ejector unloading mode according to user needs.



Right 45°



Left



Front



Rear

2. Functions

The truck uses the lifting mechanism on the right side of the truck to carry out the trash can loading operation and is compatible with 120L and 240L standard trash cans. The inside of the tank body has a built-in ejector, which can be used for garbage unloading operations. The tailgate has a curved structure, which increases the loading capacity and improves the overall strength of the tailgate. Equipped with a truck-mounted hydraulic drive cleaning device, which can clean the truck and the surrounding environment. At the same time, it is equipped with night work lights and tailgate safety braces to improve the convenience and safety during night operation and maintenance.

3. Applications

This truck is suitable for the collection and transfer of wet waste in central urban areas, residential communities, hotels, canteens, and hospitals. Various options: sewage tank heating device to avoid freezing of the sewage tank and the bottom of the garbage tank during winter operations; screw unloading to improve the diversification of unloading methods to meet the personalized needs of different users; weighing system to meet the needs of the market supervision of the wet waste collection, transportation and disposal process; the automatic operation mode of feeding, pushing and unloading can improve the intelligence and level of the truck and reduce the labor intensity.

4. Main Structure & Characteristics



4.1 Chassis

The chassis is modified from the QL1110ANKACY chassis of CHONGQING ISUZU, which has strong power and strong carrying capacity.

The engine adopts the 4HK1-TCG61 diesel engine of CUMMINS, with a rated power of 139kW, a rated speed of 2600r/min, and emission standard meets the China VI Standard.

4.2 Tank Body

The tank body has a total volume of 9m³ and an effective volume of 7m³. The panel of the tank is made of all stainless-steel materials to ensure that it will not be rusted throughout the year. The truck adopts an integral frame structure, and the large curved side arc body has strong resistance to deformation, long service life, and strong loading capacity. The left side of the tank is equipped with a tire frame to prevent the truck from being unable to drive due to emergencies. The right front of the tank is equipped with night work lights, which is convenient for night work and extends the working time range. The liquid level observation window on the right side of the tank facilitates the observation of the garbage loading inside and controls the fullness of the garbage tank.

4.3 Bin Lifter

The bin lifter is arranged on the right side of the tank, which can lift standard trash cans of 120 and 240 liters. The lifting mechanism and the upper cover form a linkage mechanism through a connecting rod and a swing arm. The tilting angle of the trash can and the height of the tooth plate from the ground can be adjusted by the angle adjustment mechanism and the adjustable connecting rod located at the upper end of the lifting rail. It is also equipped with a loading buffer, the turning time of the dustbin can be adjusted, making loading stable, and the garbage splashing is avoided. The use of a lifting mechanism anti-drip device can effectively avoid the problem of sewage dripping during the lifting process, reduce secondary pollution, and be environmentally safe.

4.4 Ejector

The ejector adopts an overall inclined design, which can increase the effective volume of the garbage tank. Special thickened sealing strips are used to improve the service life. In

addition, the ejector can be pushed out of the tank, which is convenient for cleaning the garbage behind the ejector.

4.5 Tailgate

The convexly curved tailgate has a strong anti-deformation ability, long service life, and strong loading capacity. The tailgate cylinder seat is vertically arranged, which is convenient for installation and maintenance, and the sequence valve is adopted to realize the opening and closing sequence of the tailgate and the latch, which is reliable in action and lower in cost. The tailgate adopts a special rubber strip and rubber strip groove to extend the service life and improve the sealing performance of the tailgate. An anti-drip device is installed on the tailgate to collect the leaking swill, with a simple and safe structure. When the tailgate is opened for maintenance, the safety brace can be propped up to prevent the tailgate from accidentally falling down, which can improve safety.

4.6 Cleaning System

Equipped with a hydraulic cleaning device, it can clean the truck and the surrounding environment, with a compact structure and good maintainability. At the same time, it is equipped with sewage collection, discharge, and flushing devices, which can initially realize solid-liquid separation, and collect and discharge excess sewage. An external fire hydrant pipe can also be used to flush the sewage tank, which is environmentally safe and improves the loading capacity and maintainability.

4.7 Optional rear-view camera with waterproof night vision function.

4.8 Optional weighing system with functions of weighing, printing, uploading, displaying, positioning, video monitoring, and trash can reading and identification functions. The system is mainly composed of four parts, namely intelligent weighing equipment, receiving and displaying instrument, intelligent terminal, and other vehicle accessories.

4.9 Optional sewage tank heating device. It uses an independent fuel oil liquid heater to heat the circulating coolant in the heating pipe in the sewage tank through combustion heat exchange. It has the advantages of low fuel consumption, high thermal efficiency, and extremely low exhaust gas emissions, and can avoid freezing of the sewage tank and the

bottom of the tank.

4.10 Optional garbage loading reminder and alarm device. When the garbage load in the garbage bin has reached the set value, the high-level sensor will send out a signal to activate the alarm device.

4.11 Optional screw unloading device, when the tailgate is closed, the garbage can be discharged from the discharge port through the screw conveyor, which is environmentally friendly and safe.

4.12 Optional automatic modes of lifting and ejector unloading can be installed to improve the intelligence and humanization level of the truck and reduce labor intensity.

4.13 Optional aluminum alloy side guard, reducing the weight of the truck and has a beautiful appearance.

4.14 Optional automatic cleaning and disinfection device for trash cans. When the lifting mechanism lifts the trash can into place and dumps the garbage inside, the trash truck bucket can be automatically cleaned and disinfected.

4.15 Control

The operation mode adopts a combination of electric and manual mode.

There is an unloading operation box in the cab, which can operate the ejector to push out and retract, and the tailgate to open and close. It is located in the center of the instrument panel for easy operation by the driver.



The right front part of the tank is equipped with an operating handle for the lifting mechanism,

and there is also a control box beside it, which can operate the ejector and the tailgate. It is also equipped with an ejector reset indicator, a washing machine switch, and an emergency stop button, which is convenient to operate.



5. Main Specifications

Items		Units	Specifications	
Chassis Model		QL1110ANKACY		
Chassis Manufacturer		CHONGQING ISUZU		
Emission Standard		Chian VI		
Engine	Model	4HK1-TCG61		
	Maximum Net Power/Rotation Speed	kW/(r/min)	138/2600	
	Rated Power/Rotation Speed	kW/(r/min)	139/2600	
Dimension	Size	Length	mm	6545
		Width	mm	2350
		Height	mm	2750
	Wheelbase	mm	3815	
	Wheel Track (Front/Rear)	mm	1680/1650	
	Front/Rear Overhang	mm	1110/1620	
	Ground Clearance	mm	216	


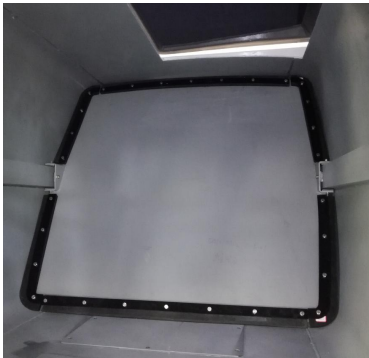
	Approach/Departure Angle	(°)	17/18
Weight	GVW	kg	10550
	Front/Rear Axle Load	kg	3500/7050
	Curb Weight	kg	5750 (Standard)/6050 (Screw)
	Payload	kg	4605 (Standard)/4305 (Screw)
Driving Performance	Turning Radius	m	14.6
	Top Speed	km/h	110
Working Mechanism	Ejector/Screw Unloading Cycle Time	s	≤65 / ≤255
	Bin Lifter Cycle Time	s	≤22
	Garbage Tank Volume	m ³	≥9
	Garbage Tank Effective Volume	m ³	≥7
	Sewage Tank Volume	m ³	≥0.45
	Clean Water Tank Volume	m ³	≥0.35
	Hydraulic System Pressure	MPa	16



6. Advantages


No.	Advantages	Descriptions
1	Prior Performance	The product adopts a connecting rod-type lifting mechanism, which has smooth movement, high work efficiency, large tank volume and high loading capacity.
2	Good Quality	The tank panel is made of stainless-steel plate to ensure that it is not rusty and has a long service life. The frame structure can ensure the overall strength and beautiful appearance.
3	Reliable	It is designed with emergency stop switch, hydraulic lock, solenoid valve, proximity switch, and safety strut to ensure safe operation. Equipped with side guard and rear guard to ensure driving safety.

4	Friendly Operation	Unloading operations can be carried out in the cab, which is very convenient. The lifting mechanism is operated by the external handle. There is an external control box for the ejector and tailgate, which is convenient and efficient.
5	Easy Maintenance	The top of the tank is designed with a manhole, which is convenient for the maintenance and cleaning of the inside of the tank. It is equipped with a cleaning system as standard, which can clean the truck body and garbage tank. The sewage tank is also equipped with a maintenance port, which is convenient for daily cleaning.

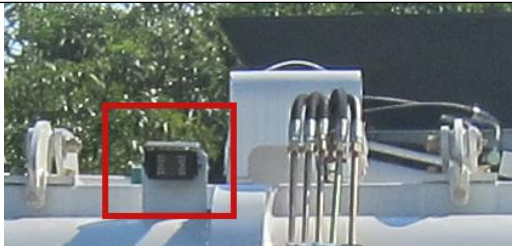
7. Working Devices

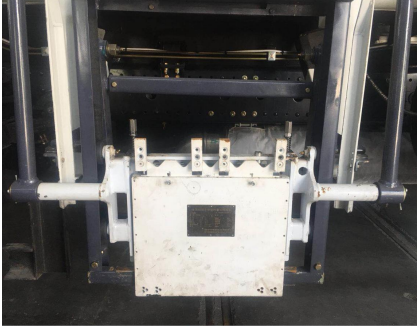
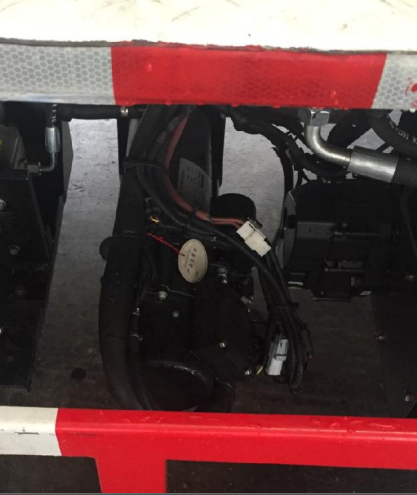
No.	Items	Descriptions
1	Tank	
	Functions	Storage wet waste and clean water.
	Structure & Characteristics	Volume: 9m ³ Effective volume 7m ³ Sewage tank volume: 0.45m ³ The panel is made of stainless steel with built-in sewage tank, clean water tank, tool box and control box.
2	Ejector	




	<p>Functions</p>	<p>Used for garbage compression and unloading.</p>
	<p>Structure & Characteristics</p>	<p>The ejector adopts an integral inclined plate design to increase the effective volume of the garbage tank. Special thickened sealing strips are used to increase the service life of the strips, and the ejector can be pushed out of the tank body, which is convenient for cleaning the garbage at the rear of the ejector.</p>
<p>3</p>	<p>Tailgate</p>	
	<p>Functions</p>	<p>Realize the sealed transportation of garbage.</p>
	<p>Structure & Characteristics</p>	<p>The convex curved tailgate has strong anti-deformation ability, long service life and strong loading capacity. The sequence valve is used to control the opening and closing sequence of the tailgate and the latch, making the action more reliable. Equipped with an anti-drip device on the tailgate to collect the leaked sewage.</p>
<p>4</p>	<p>Bin Lifter</p>	
	<p>Functions</p>	<p>Lifting dustbins and dumping garbage</p>


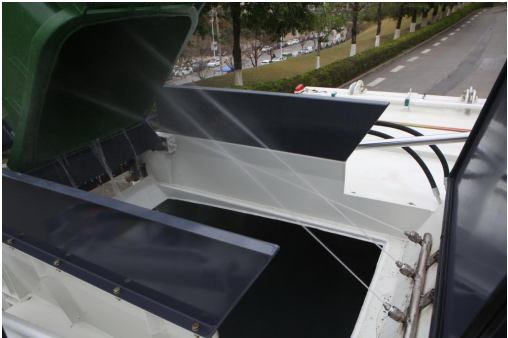
	Structure & Characteristics	The mechanism can lift standard trash cans of 120, 240 liters, and the tilting angle of the trash bin and the height of the tooth plate from the ground can be adjusted. It is also equipped with a loading buffer to avoid garbage from splashing. The anti-drip device of the bin lifter can effectively solve the problem of sewage dripping and reduce secondary pollution.
5	Cleaning System	
	Functions	It can be used to clean trash cans, vehicles and the surrounding environment.
	Structure & Characteristics	Clean water tank volume: 0.35m ³ , High Pressure Washer Model: Black Cat FLM0719 Working pressure: 4MPa

8. Optional Selected

No.	Items	Descriptions
1	Rear-view Camera	

	Functions	For reversing.
	Structure & Characteristics	Arranged on the top of the tailgate, with waterproof and night vision function.
2	Bin Lifter Weighting System	
	Functions	It has the functions of weighing, printing, uploading, displaying, positioning, video monitoring, trash can reading card recognition, etc.
	Structure & Characteristics	Good compatibility with the standard lifting mechanism, stable and reliable work.
3	Sewage Heating Device	
	Functions	Avoid freezing of the sewage tank and the bottom of the tank in winter.
	Structure & Characteristics	The independent fuel oil liquid heater can heat the circulating coolant in the heating pipe in the sewage tank through combustion heat exchange, which has the advantages of low fuel consumption, high thermal efficiency, and extremely low exhaust gas emissions.

4	Garbage Tank Overload Warning	
	Functions	Reminder and alarm for loading amount of kitchen waste.
	Structure & Characteristics	Embedded on the left side of the tailgate, the sensing function is sensitive and reliable.
5	Screw Unloading	
	Functions	There is no need to open the tailgate to realize unloading in a sealed state.
	Structure & Characteristics	When the tailgate is closed, the screw conveyor is driven by the hydraulic motor to discharge the garbage from the discharge port, which is environmentally friendly and safe.
6	Automatic Lifting & Ejecting	
	Functions	Realize the circulation function of lifting mechanism and ejector.
	Structure &	Through the sensor and related programs, realize one-key loading

	Characteristics	and ejector unloading.
7	Aluminum Side Guard	
	Functions	To protect the side of the truck.
	Structure & Characteristics	The side protection guard is made of aluminum alloy, which reduces the weight of the whole truck and has a beautiful appearance.
8	Automatic Dustbin Cleaning & Disinfection	
	Functions	After the trash can is tipped in place, the automatic cleaning can be performed.
	Structure & Characteristics	When the bin lifter lifts the trash can to the position and completely discharges the material, turn on the switch, and the high-pressure water will automatically clean and disinfect the trash can.