

# FLM5060ZYSJL6

## Garbage Compactor Truck

FULONGMA GROUP CO., LTD.

2021.5

# INTRODUCTION

## 1. Overview

The truck adopts the JX1061TC26 chassis produced by JMC. The truck has a wheelbase of 2.8 meters and a height of 2.12 meters. The vehicle is flexible and can be used for the collection and transfer of residential waste in areas such as communities, narrow streets, and underground parking garages. It is an ideal garbage collection and transportation vehicle for sanitation departments, factories, mines and docks. The product can be equipped with different types of bin lifter according to user needs.



Right45°



Left



Front



Rear

## 2. Functions

This product adopts the intelligent control system, which can be controlled in the cab. With automatic and manual dual control modes, it can control the operation of the garbage truck in the cab, the middle of the vehicle and the rear of the vehicle, which is convenient and efficient. Equipped with two-way compression function, providing a better compression efficiency and garbage loading capacity. When unloading, after the hopper is lifted into place,

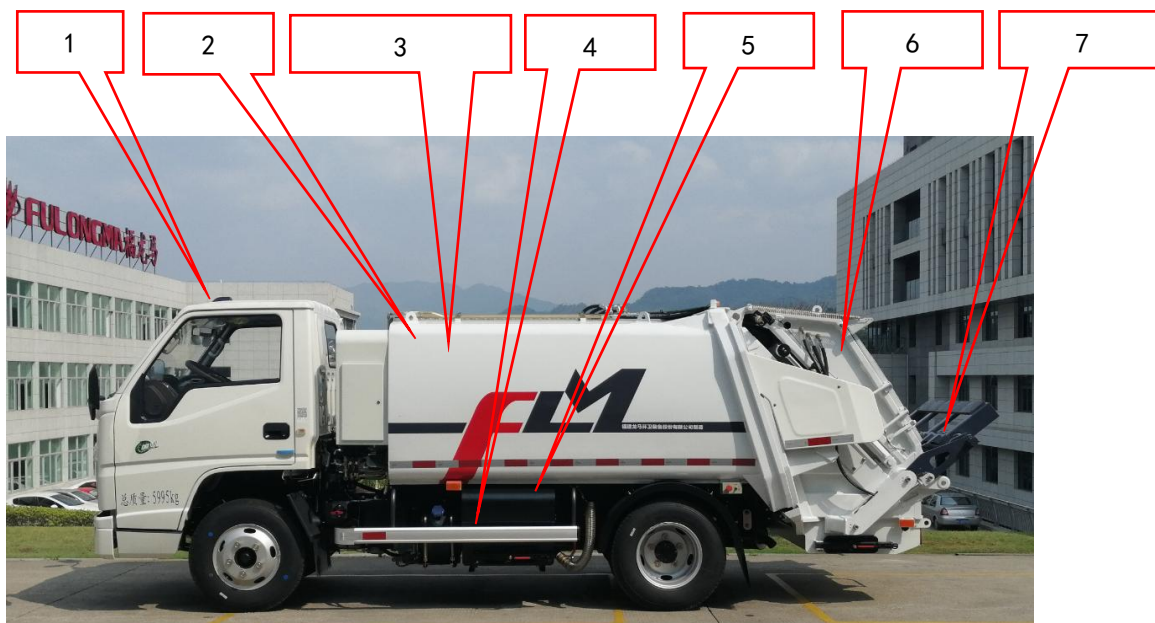
the packer plate and carrier plate will automatically realize a cycle movement, which can clean the garbage remaining in the hopper. Equipped with a large-capacity sewage tank to effectively prevent secondary pollution caused by sewage leakage.

According to the needs of users, it is equipped with various bin lifter and bucket lifter. The lifting support base and the cam clamping device of the lifting mechanism are easy to install and have a long service life, and provide the possibility to configure a variety of lifting devices.

### 3. Application

This product mainly collects and transports urban domestic waste, and can be used for domestic waste collection and transfer in living quarters, narrow streets, and commercial buildings and other underground parking garages. It is an ideal garbage collection and transportation vehicle for sanitation departments, factories, mines, and docks.

### 4. Structure & Characteristics



1. Chassis

2. Garbage Tank

3. Ejector

4. Side Guard

5. Sewage Tank

6. Hopper

7. Bin Lifter

#### 4.1 Chassis

Chassis: Modified with JX1061TC26 truck chassis of JMC, with strong power and strong

bearing capacity.

Engine: JMC's JX4D30D6H diesel engine is used, with a rated power of 85kW, a rated speed of 3200r/min, and the emission reaches the China VI standard.

#### 4.2 Garbage Tank

The effective volume of the garbage tank is 4.2m<sup>3</sup>, which is large in volume and large in loading capacity. The main components such as the side plate, bottom plate and top plate of the tank are made of B480GNQR high-strength weathering steel plate produced by Shanghai Baosteel, which has high strength, strong corrosion resistance and long service life. The side plate of the tank adopts the arc design, which is simple and beautiful with outstanding overall structural performance, strong impact resistance and reliable operation. The high-strength U-shaped integrally formed truss groove is used as the movable guide rail of the garbage ejector, which has strong compression capacity and good deformation resistance.

#### 4.3 Ejector

The main components such as the panel of ejector are made of B480GNQR high-strength weathering steel plate produced by Shanghai Baosteel, which has high strength, strong corrosion resistance and long service life.

There is an ejector mechanism in the tank. The ejector moves along the guide rails on both sides of the tank under the drive of the three-stage hydraulic cylinder. It has three functions: a. When dumping the garbage, it can push the garbage out of the tank. b. Sealed the front end of the garbage tank. c. Reversely compress the garbage in the garbage tank to improve the compaction of the garbage.

#### 4.4 Side Guard

The side protection is assembled from aluminum alloy beams and high-quality profile brackets, with a simple and elegant appearance.

#### 4.5 Sewage Tank

There are two sewage tanks, the left sewage tank at the bottom of the garbage tank has a volume of 130L, and the sewage tank at the bottom of the hopper has a volume of 100L.

Combined with the diversion sewage collection device, the sewage leaking between the

hopper and the garbage tank body due to the failure of the sealing strip can be drained to these special sewage collection tanks. It is also equipped with a flexible, reliable and easy-to-adjust sewage tank cleaning door sealing device, which can effectively prevent secondary pollution caused by sewage leakage.

#### 4.6 Hopper

The hopper is composed of a packer plate, a carrier plate and other components, which are used to complete the crushing, compacting and pressing of the garbage into the garbage tank. The effective volume of the hopper is 0.46 m<sup>3</sup>, the working cycle time of compression is not more than 11 seconds, the compression density of garbage is between 0.65-0.8 t/m<sup>3</sup>, and the maximum crushing compression force is 112kN.

When loading garbage, the ejector will be pushed into place first, and then starts to load garbage. For the oil cylinder of the ejector mechanism has a certain back pressure, the ejector retraction resistance is generated. The ejector will retract only when the pushing force of the garbage is greater than the resistance of the ejector. Therefore, when the garbage enters the garbage tank from the hopper, it will be initially compacted. The continuous loading of garbage causes the push plate to be continuously retracted into position, and the garbage is further compacted in the process.

#### 4.7 Lifting Mechanism

The lifting cycle time of the lifting mechanism is not more than 10s. According to user needs, various lifting devices with a wide range of applications can be equipped, including:

120L, 240L standard plastic trash can lifter

120L, 240L, 660L standard plastic trash can lifter

120L, 240L standard plastic trash can lifter compatible with iron trash can

120L, 240L, 660L standard plastic trash can lifter compatible with 330L iron trash can

240L standard plastic trash can with weighting system

Touch-ground bucket lifter

Bucket lifter compatible with trash can

#### 4.8 Control

#### Driving Operation

The driving can be carried out according to the driving method of a general truck. Before driving, the hopper should be closed in place, the power take-off should be in a disengaged state, and the power switch on the front control box panel should be turned off.



In-cab Control Panel



Rear Control Panel (Right side of hopper)

## Working Operation

### 4.8.1 Operation before each device works

The transmission is in neutral.

Stop the truck at the designated spot (not on an incline), apply the handbrake, and put the transmission in neutral. Confirm that the copper ball valve in the hydraulic oil tank outlet line is in the open position.

Depress the clutch pedal to start the chassis engine, operate the power take-off push rod to engage it, release the clutch pedal slowly, and the gear oil pump starts to run. At this time, the multi-way valves are all in the neutral position, and the hydraulic system is in the unloading state, ready for operation.

### 4.8.2 Garbage compression cycle operation

When the engine is at idle speed, press the power switch button and the compression cycle button on the front control box panel, then the automatic throttle device starts to work, so that the engine speed rises to the working speed of the compression cycle. At the same time, the hydraulic system drives the working device to complete the various actions of the compression cycle in turn, until the packer plate returns to its original position and automatically stops working. At the end of a single cycle, the automatic throttle also stops working and the engine returns to idle.



Continue to fill the hopper with garbage for the next compression cycle. Repeat this until the garbage tank is full of garbage.

#### 4.8.3 The operation of hopper and the unloading operation of the ejector

Turn on the power supply of the control box in the cab first, then turn the work transfer switch to the unloading position, and then turn the hopper switch to the ON position. At this time, the hopper starts to lift, until the buzzer stops, turn the ejector switch to the push-out gear, the ejector starts to push out, and let go when the garbage is pushed out completely. After confirming that the garbage is unloaded, turn the ejector switch to the retracted position to fully retract the ejector, and then turn the hopper switch to the OFF position until the hopper is closed in place and the hook is locked.

#### 4.8.4 Brake operation

There is a brake button on the rear control box. Press the brake button and the compression action stops immediately. You can also use the twist button to rotate the packer plate, and the reverse button to lift the carrier plate. After troubleshooting, you need to press the compression cycle button again to resume normal operation. When the hopper or the ejector movement encounters an emergency, loosen the handle of the multi-way valve, and the working device will stop working.

## 5. Main Specifications

Items	Specifications
Chassis Model	JX1061TC26
Chassis Manufacturer	JMC
Emission Standard	China VI
Engine Model	JX4D30D6H

Maximum Net Power/Rotation Speed (kw/(r/min))	83/3200			
Rated Power/Rotation Speed (kw/(r/min))	85/3200			
Displacement (ml)	2892			
Maximum Torque/Rotation Speed (N.m/(r/min))	285/1800			
GVW (kg)	5995			
Configurations	Bin Lifter 1	None	Bin Lifter 2	Bucket Lifter
Curb Weight (kg)	4280	4160	4435	4435
Payload (kg)	1585	1705	1430	1430
Dimension (L×W×H) (mm)	6175×2050×21 20	5815×2050×21 20	6175×2050×21 20	5975×2050×21 20
Front/Rear Overhang (mm)	1075/1740			
Approach/Departure Angle (°)	21/13			
Top Speed (km/h)	100			
Wheelbase (mm)	2800			
Hopper Volume (m³)	0.46			
Hopper Entrance Width (mm)	1465			






Hopper Entrance Height (Empty) (mm)	≤1000
Compression Method	Bidirectional
Compression Cycle Time (s)	≤11
Unloading Cycle Time (s)	≤40
Lifting Cycle Time (s)	≤10 (Bin Lifter)
Garbage Tank Volume (m <sup>3</sup> )	4.2
Sewage Tank Volume (L)	230 = front 130 + rear 100
Garbage Compression Density (t/m <sup>3</sup> )	0.65-0.8
Maximum Crushing Force (kN)	112
Maximum Pushing Force (kN)	156
Hydraulic System Pressure (MPa)	18
Air Conditioning	Warm/Cold


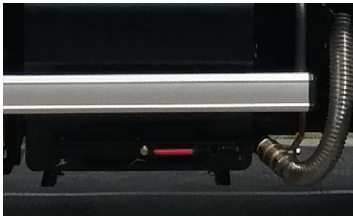

## 6. Advantages

No.	Advantages	Descriptions
1	Outstanding Performance	The product adopts a modular design, and can be equipped with a variety of compatible lifting mechanisms such as bin lifter, bucket lifter, which has a high-cost performance.
2	Good Quality	The main components such as the garbage tank are made of B480GNQR high-strength weathering steel plate produced by Shanghai Baosteel, and adopt the arc-shaped design, which is simple and beautiful, with large effective volume, outstanding overall structural performance and strong impact resistance.
3	Safe & Reliable	This product pays attention to the use of safety, and the special design of protective devices and safety devices can effectively prevent various safety problems during operation.
4	User-friendly Experience	The driver can complete various operations of garbage loading and unloading in the cab. And the operation mode can be selected according to the actual situation: control box button control or multi-way valve handle operation, and a wireless remote interface is reserved.
5	Easy Maintenance	The sewage tank has a cleaning door for maintenance. There is a detachable window at the chute of the compression mechanism to facilitate the replacement of wearing parts.




## 7. Working Devices




No.	Items	Descriptions
1	Lifting Mechanism	

	<b>Functions</b>	Used to lift trash cans.
	<b>Structure &amp; Characteristics</b>	Lifting time: $\leq 10s$ Driven by hydraulic cylinders on the left and right sides, it can lift 2 trash cans at the same time.
2	<b>Compression Mechanism</b>	
	<b>Functions</b>	For the compression and filling of garbage.
	<b>Structure &amp; Characteristics</b>	Compression cycle time: $\leq 11s$ Maximum crushing force: 112kN The lifting operation and the pressing operation can be carried out at the same time to improve the work efficiency.
	<b>Hopper Hook</b>	
3	<b>Functions</b>	Used for locking between hopper and tank.
	<b>Structure &amp; Characteristics</b>	Driven by hydraulic cylinders to avoid over-locking. Adjustable bolts ensure a reliable connection.
4	<b>Hopper Brace &amp; Safety Inter-lock</b>	
	<b>Functions</b>	Used as a safety device after the filler is lifted.
	<b>Structure &amp; Characteristics</b>	There are many safety protection measures such as the interlock switch of the hopper to prevent falling, the safety brace, and the self-locking function of the lifting cylinder of the hopper to ensure the

		safety of personnel.
5	<b>Ejector</b>	
	<b>Functions</b>	Used for unloading.
	<b>Structure &amp; Characteristics</b>	Unloading cycle time: $\leq 40s$ The high-strength U-shaped integrally formed truss groove is used as the movable guide rail of the ejector, which has strong compression capacity and good deformation resistance.
6	<b>Sewage Tank Maintenance Door</b>	
	<b>Functions</b>	To clean the sewage tank.
	<b>Structure &amp; Characteristics</b>	Simple operation and large opening area for easy flushing.
7	<b>Sewage Collection Mechanism</b>	
	<b>Functions</b>	Used to collect a small amount of sewage leaking out between the tank and the hopper.
	<b>Structure &amp; Characteristics</b>	Drain the sewage leaking between the hopper and the garbage tank body due to the failure of the sealing strip to the special sewage tank.

## 8. Optional Selected

No.	Items	Descriptions
1	<b>Bin Lifter for 120L, 240L, 660L Standard Plastic Trash can</b>	
	<b>Functions</b>	Used for lifting standard trash cans in 120L, 240L, 660L.
	<b>Structure &amp; Characteristics</b>	It is equipped with a retractable support arm, which can be adapted to different sizes of 660-liter trash cans by replacing the support arm.
2	<b>Bin Lifter for 120L, 240L Standard Plastic Trash cans and 330L Iron Trash can</b>	
	<b>Functions</b>	Used for lifting standard plastic trash cans in 120L, 240L and 330L Iron trash can.
	<b>Structure &amp; Characteristics</b>	It is equipped with a retractable hook plate, which can be adapted to 330L iron trash cans of different sizes by replacing the hook plate.
3	<b>Bin Lifter for 120L, 240L, 660L Standard Plastic Trash cans and 330L Iron Trash can</b>	
	<b>Functions</b>	Used for lifting standard plastic trash cans in 120L, 240L, 660L and 330L Iron trash can.
	<b>Structure &amp; Characteristics</b>	It is equipped with a retractable hook plate, which can be adapted to 330L and 660L trash cans of different

		sizes by replacing the hook plate.
4	<b>Bin Lifter for 240L Plastic Trash can with Weighting System</b>	
	<b>Functions</b>	Used for lifting 240L standard plastic trash can and weighting.
	<b>Structure &amp; Characteristics</b>	It is easy to disassemble and assemble, and the weight of each bin of garbage can be accurately recorded, which is convenient for monitoring and statistics.
5	<b>Touch-ground Bucket Lifter</b>	
	<b>Functions</b>	Used to lift the garbage in bucket.
	<b>Structure &amp; Characteristics</b>	It is not easy to leak, the parts are universal, and it is convenient to exchange with other lifting mechanisms.
6	<b>Bucket Lifter Compatible with Trash cans</b>	
	<b>Functions</b>	Used to lift 240L trash cans and garbage in the bucket.
	<b>Structure &amp; Characteristics</b>	It has a wide range of applications, which can be used to lift trash cans and bulk waste.