

FLM5040TXSNJ6L

Street Sweeping & Washing Truck

FULONGMA GROUP CO., LTD.

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INTRODUCTION

1. Overview

The FLM5040TXSNJ6L street sweeping & washing truck has a special production line, which is designed and produced in batches and modularized, the quality is reliable. It is a special vehicle that integrates the functions of a road sweeper and a high-pressure cleaning truck.

The truck adopts the chassis of SAIC MAXUS, and consists of auxiliary engine, transmission mechanism, garbage tank, clean water tank, sweeping mechanism, dust suppression system, vacuum nozzle, high pressure cleaning system, hydraulic system, pneumatic system and electrical system.

The truck has various functions, beautiful appearance, and has the superior performance of high efficiency and reliability.



Left 45°



Right 45°



Front



Rear

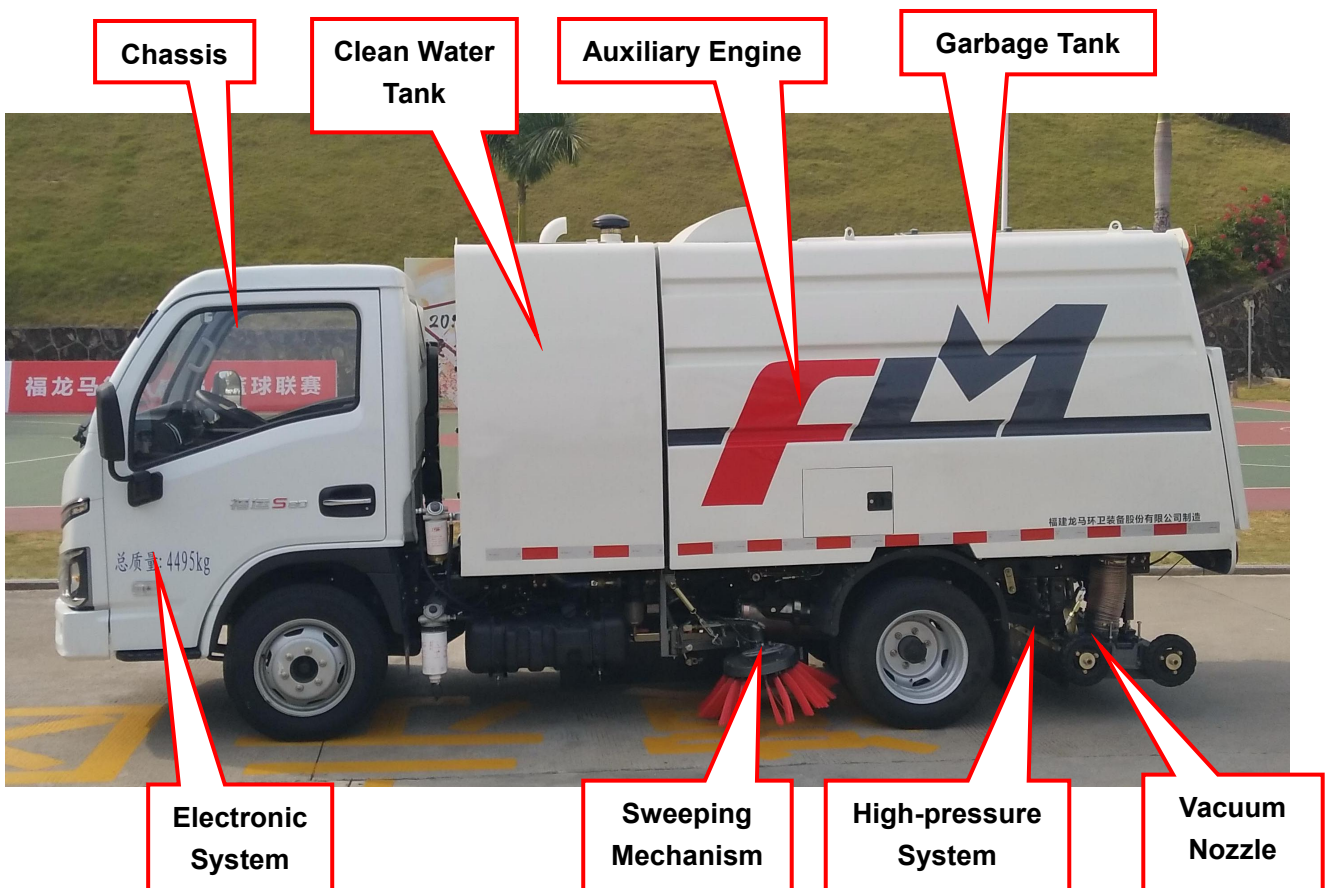
2. Functions

The truck has many functions such as road cleaning and road sweeping.

3. Applications

The truck is suitable for mechanized cleaning of urban roads, highways, squares, airports, docks, tunnels and bridges.

4. Structure & Characteristics



4.1 Chassis

Chassis: Modified with SH1043PEDBNZ2 truck chassis of SAIC MAXUS, with strong power and strong bearing capacity.

Engine: Q23-95E60 diesel engine is used, with a rated power of 70kW, a rated speed of 3000r/min, and the emission reaches the China VI standard.

4.2 Auxiliary Engine

The auxiliary engine adopts YN4A055-44CR engine with rated power of 36.8kW and rated speed of 1800r/min.

4.3 Garbage Tank

The garbage bin is made of 304 stainless steel, and the side walls are designed with large round curved ribs. The clean water tank and the garbage tank are integrated into one, and the total volume of the garbage tank is 1.4m³.

4.4 Vacuum Nozzle

It is designed with a unique double-suction narrow vacuum nozzle structure, equipped with high-pressure nozzles on both sides, which can effectively collect all the sewage and garbage to the vacuum nozzle, and the sewage recovery effect is better.

4.5 Sweeping Mechanism

The sweeping disc can be adjusted in all directions, and a single oil cylinder is used to control the lifting, lowering, extension and recovery. It also has an anti-collision avoidance function to ensure that the sweeping disc will not damage during operation.

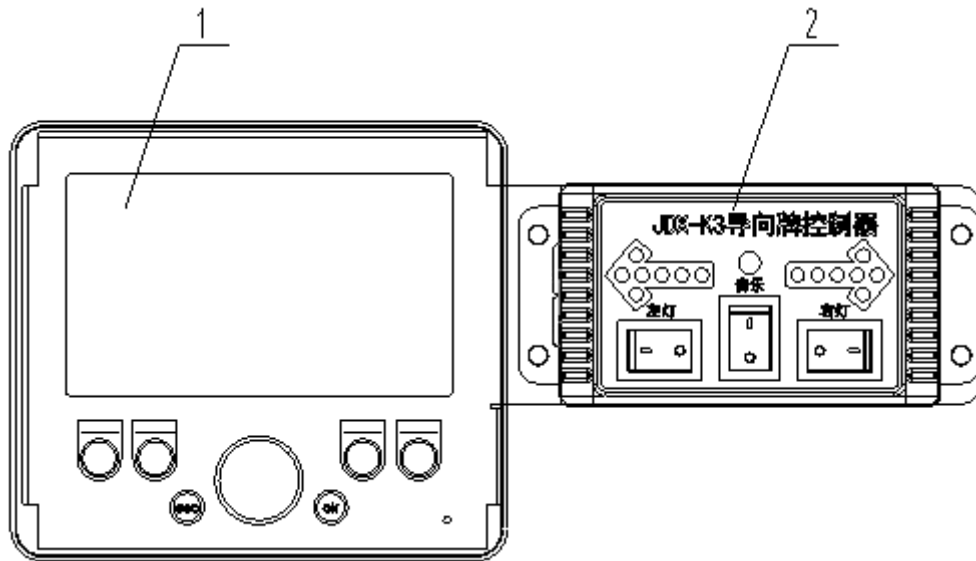
4.6 High-pressure Mechanism

Adopt well-known brand DS7215 high pressure plunger pump, rated working pressure 15MPa, rated flow 72L/min. High efficiency and good reliability.

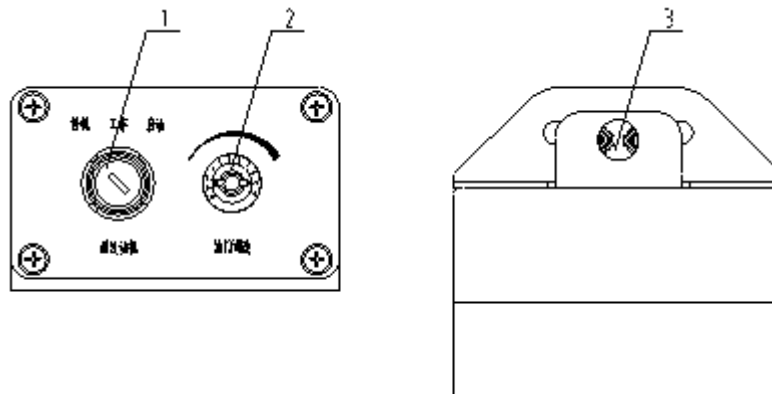
4.7 Electronic System

The vehicle adopts the control mode of "Display + Controller + CAN Bus Operation Panel". When the operation starts and stops, the auxiliary engine speed, vacuum nozzle, sweeping disc, L&R high-pressure nozzles and other operating devices are all controlled by one button, which is easy to operate. The operation of the vehicle is realized by three operating devices, two of which are located in the cab and one is located on the operation panel on the right side of the rear of the vehicle.

The display screen is located in the front right of the driver's seat and is mainly used for various cleaning and sweeping operations of the vehicle.



The operation box is located next to the shift lever on the driver's seat, and is mainly used for starting and stopping the auxiliary engine.



The system has set up various operation modes such as full sweeping, full sweeping & washing, full washing. The user can choose the appropriate mode to carry out the operation according to the needs. After the operation mode is selected, it can be started with one key, and all the mechanisms that need to participate in the operation will automatically extend and operate in the specified order. When it is necessary to stop the operation, it can be stopped with one key, and all the operating mechanisms in the work will automatically stop running in the specified order and return to the original state.



The working speed of the auxiliary engine is automatically controlled by the electrical system. After the auxiliary engine is started, it runs at idle speed, and the speed is about 800r/min. After the working mechanism starts, adjust the speed knob, the speed of the auxiliary engine will automatically increase, the user can adjust the speed of the auxiliary engine arbitrarily from the "Idle speed" to the "Highest" speed range according to the needs (the maximum speed of the auxiliary engine is set to 1800r/min).

The vehicle has a rear-view system. Cameras are installed at the rear and right side of the vehicle, and a color display is installed in the cab. When working, you can check the cleaning effect in the cab and ensure safety when reversing.



The alarm system equipped with this vehicle can issue an alarm when working and dumping garbage. It can also be equipped with music prompt information and alarm information, which is convenient and practical.

5. Main Specifications

Items		Units	Specifications		
			Type-A (Standard)	Type-B (Single-point Dredging)	Type-C (Rotation Boom)
Vehicle	Curb Weight	kg	3400		
	Payload	kg	965		
	Dimension (L×W×H)	mm	5380	5590	5380
			1700	1700	1700
			2335	2335	2380
	Front Overhang/Rear Overhang/Rear Extension	mm	1090	1300	1090
			1640	1640	1640
			0	0	0
Approach/Departure Angle	°	18/11	18/11	18/11	
Ground Clearance	mm	180			
GVW	kg	4495			
Working Performance	Sweeping Width	m	2.3		
	Water Pump Pressure	MPa	15		
	Water Pump Flow	L/min	72		
	Sweeping Speed	km/h	3~20		
	Sweeping & Washing Speed	km/h	3~8		
	Sweeping Ability	m ² /h	46000		
	Clean Water Tank Volume	M ³	1.5		
	Garbage Tank Volume	M ³	1.4		
	Tipping Angle	°	≥45		
Driving	Top Speed (Full-loaded)	km/h	100		



Performance	Gradeability	%	16.7
	Brake Distance (Full-loaded 60km/h)	m	≤30
	Turning Radius	m	12.8
Chassis	Chassis Model	SH1043PEDBNZ2	
	Passengers	2	
	Engine Model/Manufacturer	Q23-95E60/QUANCHAI ENGINE	
	Engine Rated Power	70kw/3000r/min	
	Engine Maximum Net Power	67 kw	
	Transmission Model/Manufacturer	MW5G28/MENWO	
	Transmission Type	Manual MT	
	Tires	Front	185R15LT 8PR
Rear		185R15LT 8PR	



6. Advantages

No.	Advantages	Descriptions
1	Outstanding Performance	<p>It adopts the configuration of "central two-disk sweep + rear wide vacuum nozzle + external high pressure main nozzle + left and right high-pressure side nozzles". It has a variety of operation modes, which can realize the sweeping and cleaning operation.</p> <p>The left and right sweeping disks have automatic obstacle avoidance protection functions.</p> <p>The garbage tank is made of 304 stainless steel, and the side walls are designed with large round curved ribs. It has novel shape, beautiful appearance, corrosion resistance, large volume, and there is a self-cleaning device inside.</p>


		<p>The fan has excellent performance, high efficiency, low noise, flat performance curve, and wide high-efficiency area.</p> <p>The high-pressure cleaning bar consists of left and right nozzles and built-in nozzles in vacuum system. During operation, the height of the spray bar from the ground will not change with the load of the vehicle, which can maintain the best cleaning effect.</p>
2	Good Quality	<p>High-pressure water pump, overflow valve, unloading valve, engine, electrical control and other components are well-known brands, with high quality and high reliability.</p>
3	Safe & Reliable	<p>The vehicle is equipped with a thoughtful alarm system, which can emit various alarm sounds during operation and unloading, which is convenient and practical.</p> <p>In order to facilitate the operation at night or in an environment with insufficient brightness, the left and right sweeping discs are equipped with lights.</p> <p>This model is equipped with a variety of prompting devices, such as low water level in the clean water tank, high water level in the garbage tank, operation prompts, engine water temperature, oil pressure, reversing, hydraulic oil leakage, garbage tank status, tailgate opening and closing. Make sure that the truck will not be damaged in certain conditions or mishandling.</p> <p>There are safety struts at the lower part of the garbage tank. During debugging, installation, inspection and maintenance operations, the safety struts on both sides of the bottom of the garbage bin can be propped up at the same time to ensure the safety of personnel and equipment.</p>


7. Working Modes

No.	Items	Descriptions
1	<p>Sweeping & Washing Operation</p>	
	<p>Functions</p>	<p>It is used for sweeping and washing of roads, squares and other places.</p>
	<p>Structure & Characteristics</p>	<p>The sweeping function is realized by the layout of the central two-disc sweep + the rear double-suction wide vacuum nozzle + the external high-pressure main nozzle + the left and right high-pressure side nozzles. One cleaning operation can make the road surface clean rate reach more than 96%.</p>
2	<p>Sweeping Operation</p>	
	<p>Functions</p>	<p>It is used for sweeping of roads, squares and other places.</p>
	<p>Structure & Characteristics</p>	<p>The combination of sweeping and vacuuming is carried out by using the configuration of two-disc sweeping in the middle and double-suction wide vacuum nozzles in the rear.</p>

3	Washing Operation	
	Functions	It is used for washing of roads, squares and other places.
	Structure & Characteristics	The high-pressure cleaning operation is carried out through the left and right high-pressure side nozzles and the double-suction narrow vacuum nozzles.
4	Hand-held Spray Gun	
	Functions	For body cleaning, road cleaning and other operations.
	Structure & Characteristics	Flushing flow: 30L/min When in use, it is connected to the high-pressure reel through a quick-plug connector, and the reel comes with a 10-meter water hose. High cleaning efficiency and good effect.

8. Optional Selected

No.	Items	Descriptions
1	Fix-point Dredging Nozzle	
	Functions	The cleaning device can realize the adjustment of up,

		down, left and right directions, which is convenient for removing road stains.
	Structure & Characteristics	The opening and closing of the water circuit is controlled by the electromagnetic water valve. The adjustment of the up, down, left and right directions is controlled by the motor.
2	Left & Right Side Flushing Nozzle	
	Functions	It is used for washing of roads, squares and other places.
	Structure & Characteristics	Located at the front of the vehicle, one high-pressure nozzle is arranged on the left and right. Controlled by a solenoid water valve, it is suitable for flushing road surfaces and curbs.
3	Rotate Boom	
	Functions	For truck cleaning, road cleaning and other operations.
	Structure & Characteristics	The hand-held spray gun can be rotated on the rear side of the top through the rotate boom, which is convenient for operation on the left and right sides of the truck body.