

FLM5110TXSQL6S

Street Sweeping & Washing Truck

FULONGMA GROUP CO., LTD.

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INTRODUCTION

1. Overview

The FLM5110TXSQL6S adopts CHONGQING ISUZU chassis, and its emission reaches the China VI standard. It adopts the configuration of central four-disc sweeper + central V-shaped high-pressure nozzle + rear single vacuum nozzle to clean, sweep and vacuum the road. It has the "V-shaped nozzle + semi-circumferential gapless high-pressure nozzle" arrangement and the patented technology of "pneumatic net pipe".

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



Left 45°



Right 45°



Front



Rear

2. Functions

This product can perform road sweeping, road washing functions. It integrates the functions

of road sweepers and high-pressure cleaning vehicles, and has the ability to work around the clock.

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 QL1110ANMACY truck chassis of CHONGQING ISUZU, with strong power and strong bearing capacity.

Engine: 4HK1-TCG61 diesel engine is used, with a rated power of 139kW, a rated speed of 2600r/min, and the emission reaches the China VI standard.

4.2 Auxiliary Engine

The auxiliary engine adopts the 4JB1-TCH diesel engine produced by CHONGQING ISUZU, with a rated power of 68kW, a rated speed of 3000r/min, and the emission reaches the

China III standard.

The superstructure power output device takes power through the transmission shaft and the clutch friction plate, and has a simple structure and reliable performance, which not only improves the transmission efficiency, but also provides convenience for daily maintenance.

4.3 Garbage Tank

The side walls are designed with a large round surface, which is beautiful in appearance. 304 stainless steel plate is used to ensure that the tank will not rust. The total volume of the garbage tank is 3m³. The clean water tank and the garbage tank are independently distributed, the effective space utilization is maximized, and the continuous operation time is long. There are multiple high-flow high-pressure nozzles in the garbage tank, which can quickly clean the tank.

4.4 High-pressure Water System

The well-known brand GT30 high-pressure water pump is used, with a rated working pressure of 14MPa and a rated flow of 96L/min, with high efficiency and good reliability.

The original V-shaped nozzle and semi-circular suction nozzle are arranged without gaps, which can effectively gather all the cleaned sewage and garbage to the vacuum nozzle, and absorb them in the garbage tank, so that no dust and water are left on the road. The cleaning effect is better.

The hand-held spray gun and reel can clean the entire vehicle, and can also remove trash cans, sidewalks and small street advertisements.

4.5 Sweeping Mechanism

The ground contact pressure of the sweeping brush is automatically controlled by hydraulic pressure to avoid uneven contact between the sweeping brush and the ground. The height of the sweeper can also be adjusted through the auxiliary chain + spring device, which is convenient and quick. The rotating speed of the sweeping disc can be selected according to different cleaning conditions: high, medium and low, to ensure good cleaning effect under various pollution conditions.

4.6 Vacuum Nozzle

The suction nozzle is equipped with 4 high-pressure nozzles to ensure road cleaning. There is an enhanced dust pressure port at the vacuum nozzle. When the road sweeping mode is used, the enhanced dust pressure function can be turned on. The water in the clean water tank will flow into the suction nozzle enhanced dust pressure water pipe through the copper ball valve to realize the combination of sweeping and vacuuming and wet dust removal. Optional leaf suction nozzle, when there are many leaves on the road, the front baffle of the suction nozzle can be opened to facilitate the suction of leaves.

4.7 Electronic System

The vehicle adopts the control mode of "CAN bus operation panel", and all actions can be executed in the cab. The display screen adopts a 7-inch MC9777 screen, and the working mode can be directly on the screen, with a good human-computer interaction interface. Different pages on the display screen can realize different operations and information display.



The system has set up various operation modes such as full sweeping, full washing and full sweeping and washing. Users can choose the appropriate operation mode according to their needs. It can also be equipped with full sweeping, left sweeping, right sweeping, full sweeping & washing, left sweeping & washing, right sweeping & washing, full washing, left washing, and right washing, a total of 9 operating modes.

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 normal working speed of the auxiliary engine can be controlled in the cab. After the

auxiliary engine is started, it will run at idle speed with a speed of about 800r/min. After the job is started, the speed of the engine can be controlled by the throttle lever (the maximum speed of the auxiliary engine is set to 2200r/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.

There is an external operation box at the rear of the vehicle, which is convenient and quick for users to perform operations such as car washing and unloading.



5. Main Specifications

Items		Units	Specifications
Vehicle	Curb Weight	kg	6970
	GVW	kg	10550

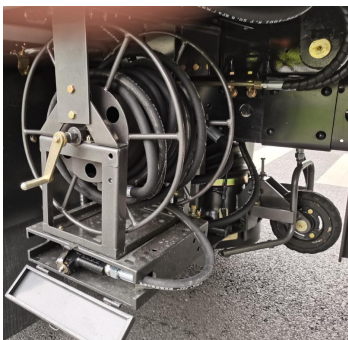
	Payload		kg	3385
	Dimension (L×W×H)		mm	7480×2345×2580
	Ground Clearance		mm	215
	Approach/Departure Angle		°	20/13
	Sweeping Width		m	≥3.2
	Water Pressure		MPa	6
	Water Flow		L/min	85
	Sweeping Width		m	3.2
	Sweeping Speed		km/h	3~20
	Sweeping & Washing Speed		km/h	3~8
	Clean Water Tank Volume		M³	6
	Garbage Tank Volume		M³	3
	Tipping Angle		°	≥45
	Tipping Angle		°	≥45
Driving Performance	Top Speed (Full-loaded)		km/h	110
	Gradeability		%	30
	Brake Distance (Full-loaded 30km/h)		m	≤10
	Turning Radius		m	17.5
Chassis	Chassis Model		QL1110ANMACY	
	Passengers		3	
	Engine Model		4HK1-TCG61	
	Engine Rated Power		139kw/2600r/min	
	Engine Maximum Net Power		138kw	
	Transmission Model		MLD-6Q	
	Transmission Type		Manual	
	Tires	Front	235/75R17.5 16PR	
		Rear	235/75R17.5 16PR	

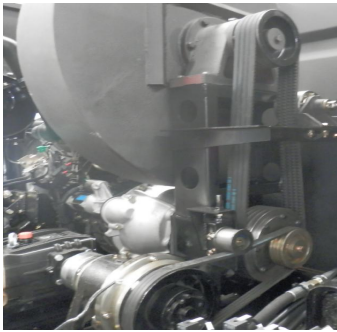
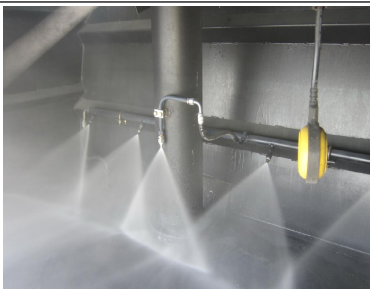
6. Advantages

No.	Advantages	Descriptions
1	Outstanding Performance	The product has the functions of road cleaning, high pressure cleaning, road cleaning, spray dust reduction, and road edge cleaning, with high-cost performance.
2	Good Quality	The tank is designed based on finite element analysis, with high structural strength and good corrosion resistance. Relief valves, main and auxiliary engines, and control components are well-known brands, with high quality and high reliability.
3	Safe & Reliable	The product pays attention to the safety of use, and is equipped with a variety of electronically controlled alarm devices, night lighting devices, and warning devices to effectively ensure operational safety.
4	Easy Operation	The driver is humanized, and the driver can complete various operations in the cab.
5	Easy Maintenance	The high-pressure water circuit is equipped with a pneumatic anti-freezing device to prevent the product from being damaged by freezing and cracking in a low temperature environment. There are large doors and windows on the left and right sides of the power compartment, which are convenient for daily maintenance and refueling.

7. Working Devices

No.	Items	Descriptions
1	Central 4-disc Sweeper	
	Functions	
		For road and curb cleaning.

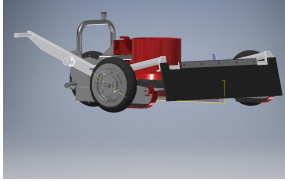
	Structure & Characteristics	Cleaning width $\geq$ 3.2 meters The front sweeping disc adopts vertical sweeping brush, which can clean the road edge.
2	Central V-shaped water spray frame	
	Functions	It is used for road flushing in roads, squares, communities, schools, factories and other places.
	Structure & Characteristics	Cleaning width $\geq$ 3.2 meters The left and right water spray racks have automatic obstacle avoidance function.
3	Hand-held Spray Gun	
	Functions	Vehicle cleaning, trash can cleaning, sidewalk flushing.
	Structure & Characteristics	Cleaning pressure 6Mpa Equipped with a 10-meter hose, and a 20-meter hose can also be configured according to user needs.
4	Vacuum Nozzle	
	Functions	Used for picking up garbage.

	Structure & Characteristics	Nozzle width 700mm Equipped with three 9-inch wear-resistant rubber wheels, the height of the suction nozzle from the ground is easy to adjust.	
5	Water Pump Electromagnetic Clutch		
	Functions	Used to control the water pump.	
	Structure & Characteristics	The electromagnetic clutch is used to control the start and stop of the water pump, so that the vehicle can perform waterless operation, and the vehicle can also be used to sweep the road in winter.	
6	Garbage Tank Cleaning Device		
	Functions	Used for garbage tank cleaning.	
	Structure & Characteristics	High-pressure water flushing with high-flow nozzles to quickly flush the garbage tank.	

8. Optional Selected

No.	Items	Descriptions	
1	Upper Mist Sprayer		

	Functions	Carry out dust suppression, heatstroke prevention, and cooling operations.
	Structure & Characteristics	The rear upper spray pipe is located at the upper part of the rear end of the tank, equipped with stainless steel nozzles, which has a good effect of dust reduction and cooling.
2	Rear Mist Sprayer	
	Functions	Carry out dust suppression, heatstroke prevention, and cooling operations.
	Structure & Characteristics	The rear lower spray pipe is located in the rear bumper, equipped with stainless steel nozzles, which has a good effect of dust reduction and cooling.
3	Automatic Reel	
	Functions	It is used to connect the car wash gun for vehicle cleaning, trash can cleaning and other operations.
	Structure & Characteristics	The reel length is 20 meters.
4	Side High-pressure Flushing	

	Functions	It is used for flushing the bottom of pavement and guardrail.
	Structure & Characteristics	Flushing width up to 12 meters Flushing pressure 6Mpa Controlled by solenoid valve.
5	Single-point Dredging	
	Functions	For removing road stains.
	Structure & Characteristics	Flushing pressure 6Mpa The opening and closing of the water circuit is controlled by the electromagnetic water valve, and the cleaning direction of the fixed point can be controlled by pushing and pulling the flexible shaft.
6	Leaves Vacuum Nozzle	
	Functions	The height of the front baffle of the vacuum nozzle is adjustable. When there are many leaves, the front baffle is opened to facilitate the suction of leaves.
	Structure & Characteristics	The baffle is manually controlled to open and close, and the structure is simple and practical.
7	Curbstone Cleaning Nozzle	
	Functions	Used for cleaning curbstones.

	Structure & Characteristics	One raised nozzle is set on the left and right water spray frames, and the road edge can be washed with high-pressure water when the vehicle is operating.
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