

FLM5181TXSDG6S

Street Sweeping & Washing Truck

FULONGMA GROUP CO., LTD.

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INTRODUCTION

1. Overview

Compared with the same class of models, FLM5181TXSDG6S has lower diesel consumption, lower working noise, longer working time, and lower manufacturing cost. The truck adopts the China VI chassis, and is equipped with an auxiliary engine and its transmission structure, a garbage tank, a clean water tank, a cleaning mechanism, a dust suppression system, a vacuum nozzle, a low-pressure washing system, a high-pressure washing system, a hydraulic system, a pneumatic system, and an electrical system.

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

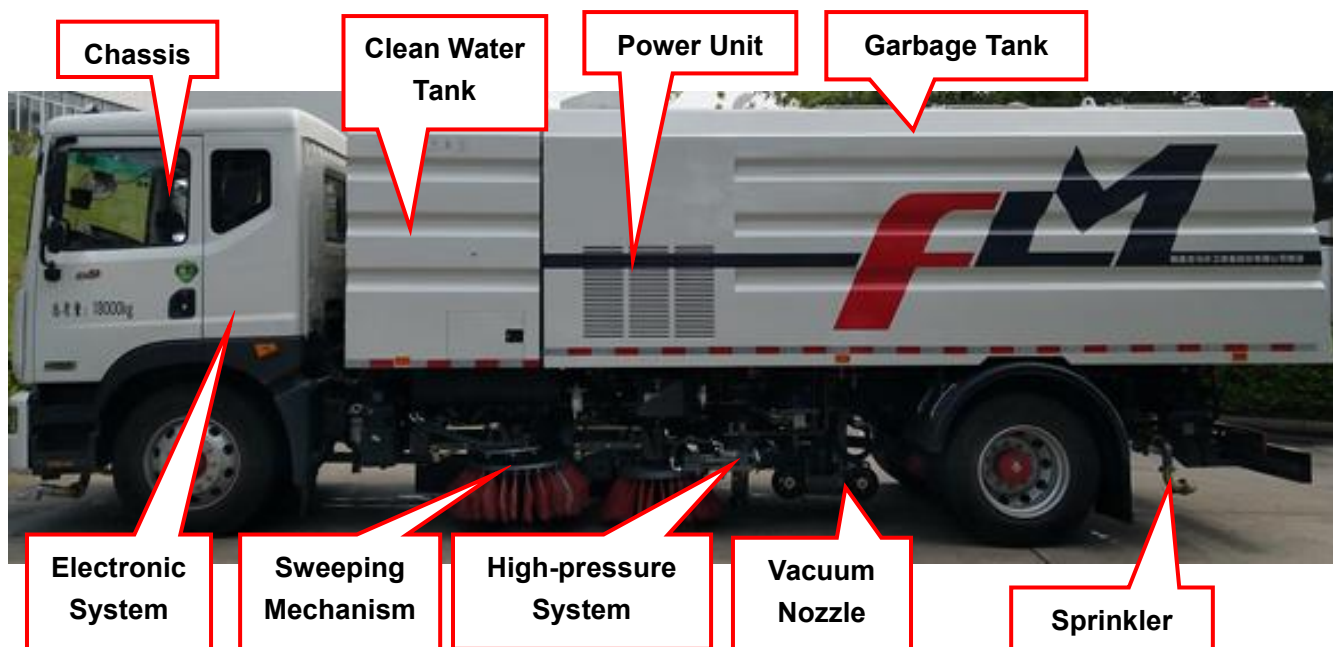
2. Functions

The truck has multiple functions such as road washing, road sweeping, curbstone cleaning, low pressure flushing, and dust reduction.

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 EQ1185LJ9CDE truck chassis of DONGFENG, with strong power and strong bearing capacity.

Engine: D4.5NS6B220 diesel engine is used, with a rated power of 162kW, a rated speed of 2300r/min, and the emission reaches the China VI standard.

4.2 Auxiliary Engine

The auxiliary engine is a CHONGQING ISUZU 4JB1-TCH diesel engine with a rated power of 68kW, a rated speed of 3000r/min, and the emission reaches the China III standard.

4.3 Garbage Tank

The garbage tank is made of 304 stainless steels, 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 7m³.

4.4 Vacuum Nozzle

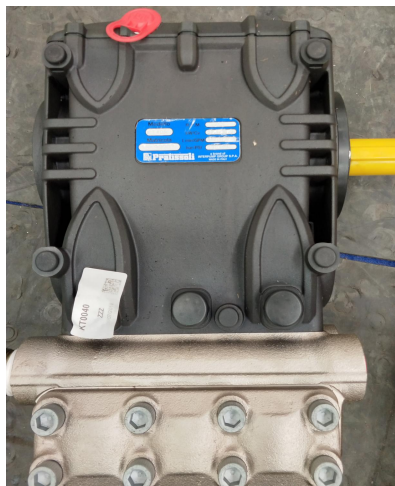
The unique double-suction narrow vacuum nozzle together with the V-shaped nozzle, can effectively gather all the sewage and garbage to the vacuum nozzle, and the sewage recovery effect is good.

4.5 Sweeping Mechanism

The brush adopts hydraulic automatic adjustment technology, so that the contact force and contact surface between the brush and the ground remain unchanged. After wear, it can be automatically compensated without manual adjustment to ensure that the cleaning efficiency is not affected by the environment.

4.6 High-pressure Water Pump

Adopt GT30 (PINFL) high pressure plunger pump, rated working pressure 17.5MPa, rated flow 80L/min, high efficiency and good reliability.



4.7 Electronic System

The truck adopts the control mode of "Displayer + Controller + CAN Bus Operation Panel". The control of the speed of the drive motor, the vacuum nozzle, the sweeping disc, and the left and right spray bars are all operated by one button. Vehicle operation is realized by two operation devices, one in the cab and one in 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 operation control of the vehicle.



The operation box is located in front of the driver's seat and is mainly used for starting and stopping the auxiliary engine.

The operation panel is located on the right rear side of the vehicle and is mainly used for the control of the tailgate, garbage tank, auxiliary air blower, and hand-held water spray gun.



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. 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 is manually controlled by the throttle flexible shaft. After the auxiliary engine is started, it runs at idle speed, and the speed is about 800r/min. After the operation is started, the auxiliary engine speed can be manually and steplessly adjusted through the throttle soft shaft.

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
Vehicle	Curb Weight	kg	10760
	GVW	kg	18000
	Payload	kg	7045

	Dimension (L×W×H)	mm	8860×2530×3055
	Ground Clearance	mm	240
	Approach/Departure Angle	°	13/13
Working Performance	Sweeping & Washing Width (m)	m	4.1
	Water Pressure	MPa	17.5
	Water Flow	L/min	80
	Sprinkling Width	m	24
	Sweeping Width	m	3.5
	Sweeping Speed	km/h	3~20
	Sweeping & Washing Speed	km/h	3~8
	Cleaning Ability	m ² /h	70000
	Clean Water Tank Volume	M ³	11.5
	Garbage Tank Volume	M ³	7
	Tipping Angle	°	≥45
Driving Performance	Top Speed (Full-loaded)	km/h	105
	Gradeability	%	14
	Brake Distance (Full-loaded 30km/h)	m	≤10
	Turning Radius	m	13.5
Chassis	Chassis Model	EQ1185LJ9CDE	
	Passengers	3	
	Engine Model	D4.5NS6B220	
	Engine Rated Power	162kw/2300r/min	
	Engine Maximum Net Power	157kw	
	Transmission Model	DT0690	
	Transmission Type	6.75/4.08/2.48/1.55/1.00/0.74/6.06R	

	Tires	Front	10.00R20 18PR
		Rear	10.00R20 18PR

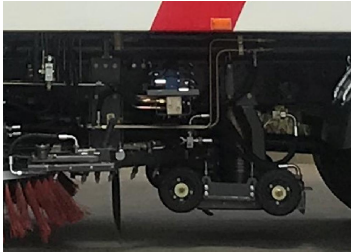
6. Advantages

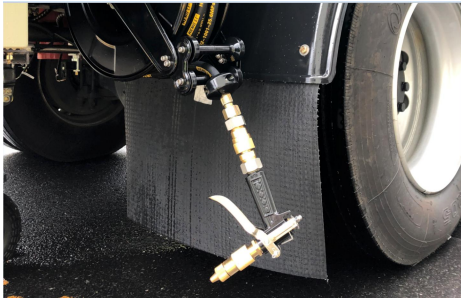
No.	Advantages	Descriptions
1	Outstanding Performance	The structure of "central four-disc sweep + central V-shape spray bar + central double-suction narrow vacuum nozzle" has a variety of operation modes, which can realize the sweeping, washing of the road surface. The left and right front sweeping discs and the left and right water spray frames have automatic obstacle avoidance and reset functions. The garbage tank is made of 304 stainless steels, and the side walls are designed with a large round surface, which is novel in shape, beautiful in appearance, corrosion resistance and large in volume. It is convenient for dumping garbage and has an internal self-cleaning device. The fan has the characteristics of high efficiency, low noise, flat performance curve and wide high-efficiency area. It is one of the important accessories for this type of products for a long time, with mature technology and reliable work. The high-pressure cleaning spray bar consists of left and right spray bars and the inner spray bar of the vacuum nozzle. During operation, the height of the boom from the ground is fixed and will not change with the load of the truck, so as to achieve the best cleaning effect. The left and right spray rods can be swung out and retracted, which is driven by the cylinder and automatically controlled by the electronic control system. When the left and right spray bars are swung out at the same time, the cleaning width is

		not less than 3.5m.
2	Good Quality	High-pressure water pumps, relief valves, unloading valves, main and auxiliary engines, and electrical control components are well-known brands with high quality and high reliability.
3	Safe & Reliable	The vehicle is equipped with a thoughtful alarm system, which can emit various alarm sounds during operation and unloading, which is convenient and practical. 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. 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. 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.

7. Working Modes

No.	Items	Descriptions
1	Sweeping & Washing Operation	

	Functions	For the cleaning of roads and squares.
	Structure & Characteristics	Use the mechanism of central four-disc sweep + central double-suction narrow vacuum nozzle to clean the road surface, and one operation can make the road surface clean rate reach more than 95%.
2	Sweeping Operation	
	Functions	For the cleaning of roads and squares.
	Structure & Characteristics	The central four-disc sweep + central double-suction narrow vacuum nozzle is used for the combined operation of sweeping and vacuuming.
3	Washing Operation	
	Functions	For the cleaning of roads and squares.
	Structure & Characteristics	Through V-shape spray bar and built-in spray bars of the vacuum nozzle, combined with the wide vacuum nozzle, the high-pressure cleaning operation is carried out.
4	Front Sprinkling	

	Functions	For the cleaning of roads and squares.
	Structure & Characteristics	The nozzle is controlled by the cylinder, which is suitable for sprinkling the road surface and the curb, and the flushing direction of the duckbill nozzle can be adjusted within a certain range.
5	Side Flushing Operation	
	Functions	For the cleaning of highways and expressways.
	Structure & Characteristics	Flushing Width $\geq 24\text{m}$ There is a nozzle on the left and right, all controlled by a pneumatic shut-off valve. By adjusting the angle of the two connecting flanges, the nozzle angle can be adjusted.
6	Hand-held Spray Gun	
	Functions	It is used to connect the car wash gun for vehicle cleaning, trash can cleaning and other operations.
	Structure & Characteristics	Water 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 20m long water hose. It has high cleaning efficiency and good effect.

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	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.