



PRODUCT OPERATION MANUAL



**SIBOM ATTAMCHMENTS CONTENT YOUR
NEED**

Product name: SPD series pick-up broom

Preparation date: 2024.06.05

Warm reminder:

Please read the manual carefully before installing and using the product.

CATALOGUE

1. Safety Instruction	2
2. Products Instruction	3
3. Operation Instruction	4
4. Maintenance Instructions	6
5. Storage Instructions	6

1.Safety Instruction

1. Always read this manual carefully before installation and use.

※ Operators and maintenance personnel must read and familiarise themselves with the manual carefully before installing, operating and maintaining the machine. Incorrect installation, operation and maintenance of the machine may result in serious injury or death.

2. Read and familiarise yourself with all safety statements

※ Read and familiarise yourself with all safety markings and safety statements before working.

※ Follow all occupational safety regulations, local laws and regulations, and other professional guidelines when operating.

※ Follow good work practices when assembling, repairing, and operating.

3. Familiarise yourself with the machine

※ Familiarise yourself with the performance and parameters of the machine before operation.

※ Check the machine carefully before operation, and make sure that all devices are properly adjusted before operation.

※ Make sure the machine is securely mounted, replace any parts that may be damaged, and make sure that all hydraulic connectors and hydraulic devices are securely connected.

※ Ensure that all safety markings are in the correct position and that the lettering is clear.

4. Wear protective clothing

※ Wear safety clothing and protective glasses or masks to prevent injury from splashing liquids during operation.

5. Do not modify the machine in any way

6. Safe maintenance of machines

※ Maintenance must be lowered to the level of the ground, away from traffic and other dangerous places; if you need to raise the machine for maintenance, you must use a solid object can be cushioned in advance.

※ Specialised tools should be used for maintenance in accordance with the operating procedures. If a special tool is not available, a similar tool of some kind may be used, but a special tool must be used whenever an ordinary tool can cause damage of one kind or another to the part in question.

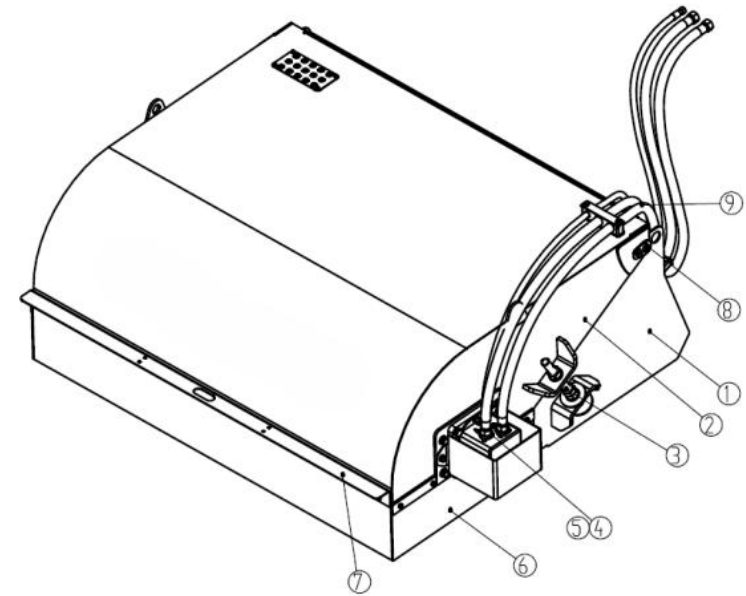
7. Safe operation of the machine

※ Do not operate the machine if you are drunk or have a reaction to medication.

※ If someone enters the danger zone of the operation, stop the machine immediately, and when you stop the operation, place the machine flat on the ground.

2. Products Instruction

1、Product Structure Description



SPD60

SPD Series

2.1 Product Structure Schematic

① Bottom bucket	② Cover	③ Adjuster bolt
④ Mandrel assembly	⑤ Hydraulic motor	⑥ Dustproof rubber sheet
⑦ Guard beam	⑧ Pin	⑨ Hydraulic hoses

2. Technical performance indicators

Model Parameters	SPD60C	SPD60B	SPD72C	SPD72B	SPD84C	SPD84B
Overall length (mm)	1442	1442	1442	1442	1442	1442
Overall width (mm)	1782	1837	2082	2137	2392	2437
Overall height (mm)	678	678	678	678	678	678
Total weight (kg)	435	435	495	495	550	550
Hopper capacity (m ³)	0.39	0.39	0.46	0.46	0.54	0.54
Effective sweeping width (mm)	1530	1530	1830	1830	2130	2130
Brush roller diameter (mm)	φ660	φ660	φ660	φ660	φ660	φ660
Allowable maximum pressure (Mpa)	21	21	21	21	21	21
Main machine flow rate (L/min)	60-80	60-80	60-80	60-80	60-80	60-80
Applicable models	Skid steer loaders/compact loaders					
Option	Fogging dust removal system, side brush sweeping system, footrest, anti-collision beam, hydraulic quick-change					

Table 2.1 Product Technical Parameters

3. Main features of the product

The attachment can be mounted on machines such as skid steer loaders and

compact loaders and can sweep dust and waste from the road surface, quickly cleaning sites such as car parks, pavements, docks, warehouses and ports. The swept waste can be placed in the aggregate hopper to the designated location. It can easily solve the problem of cleaning before road paving, and efficiently complete the cleaning operation with good construction effect and high efficiency.

1. Using hydraulic drive, it can realise sweeping in both directions, and the bottom of the bucket has replaceable wear-resistant plate to prolong the service life of the bucket.
2. The brush adopts new type 6/4 mixed wire brush, among which: the plastic wire is high elasticity, wear-resistant, diamond-shaped polyethylene propylene engineering materials, and the steel wire adopts high elasticity, wear-resistant material 32SiMnTi, which greatly improves the service life of the brush and the sweeping effect.
3. Anti-tangle device is designed on the motor end to prevent the wire from wrapping around the motor to reduce the service life of the motor.
4. Unique anti-turnover design can effectively prevent the upper cover from over-turning and damaging the cab.
5. Optional side brush can be used for roadside, wall and drainage ditch cleaning.
6. Optional high-pressure fogging dust removal system to achieve the role of dust removal and dust suppression.

3. Operating Instructions

Please read the ‘Safety Instructions’ carefully before using this product.

Before operation and use:

1. Be operated in a safe area. Check whether all controls of the host and tyre air pressure are normal.
2. When the sweeper is connected to the power source, the oil circuit of the host generator should be kept disconnected.
3. Ensure that the sweeper is firmly connected to the host.
4. Ensure that all hydraulic fittings and hydraulic devices are firmly connected.
5. Replace the damaged fittings or oil pipe.
6. To determine the pressure of the power source, the pressure does not meet the requirements will affect the working performance of the sweeper
7. Remove all items in the sweeping area that may be damaged by flying debris.
8. Always wear appropriate clothing, such as: long-sleeved shirts with buttoned cuffs; wear protective goggles or face shields and dust masks.

Operational Usage

1. When operating, adhere to all government regulations, local laws and regulations.
2. Before leaving the operating area for any reason, the operator must lower the sweeper to the ground, stop the engine, activate the parking brake, and remove the key.
3. Keep non-operators away from sweeper equipment to prevent injury.
4. When operating the sweeper on rough terrain, reduce speed to avoid bouncing the sweeper and reduce damage to the sweeper.
5. Not close to crowds, buildings, vehicles or other easily damaged items.
6. Adjust the speed of the sweeper and the travelling speed of the main

machine according to the actual road condition.

Operation sequence:

1. After starting the main engine, make the main engine quick-change mechanism connect with the hangers of the implements, and trigger the rocker so that the quick-change mechanism is pinned with the hangers of the implements.
2. Connect the hydraulic quick coupling of the implement to the main engine and make sure the quick coupling is correctly connected.

★ Warm Tip:

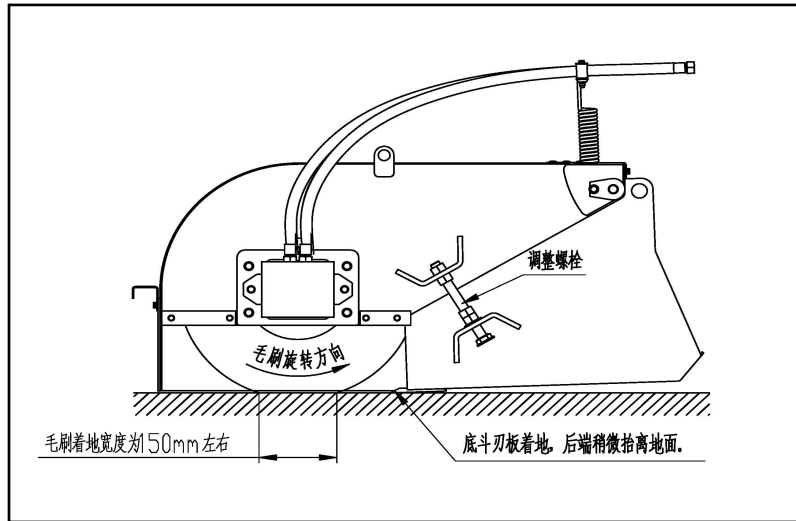
In order to improve the service life of the motor, the motor drain port line should be returned directly to the main engine oil tank as far as possible.

3、 Adjustment of brush roll

Maintaining appropriate brush compression can make the cleaning effect better, the adjustment method can refer to the following steps:

- 1- Move the sweeper to the flat and dirty ground.
- 2- Turn the brush roller at low speed, lower the sweeper to the lowest level and run it under working condition for 1 minute.

3- Raise the sweeper and reverse, start the brake, turn off the power source, check the sweeping marks, the sweeping width should be about 150mm, the



length is equivalent to the length of the brush roll.

4- If you find that the sweeping width is not near the reference value, you can change the sweeping width by adjusting the brush compaction through the adjusting bolts at both ends of the sweeper.

★ Warm Tip:

In order to improve the service life of the brush should be adjusted as evenly as possible on both sides of the bolt

3.1 Schematic diagram of cleaning

4. Start the machine so that the brush roll starts to rotate. Lower the sweeper to the ground so that the bottom bucket blade plate lands on the ground and the back end of the bottom bucket is slightly lifted off the ground, and then the main machine travels and sweeps at the same time. In order to get a better sweeping effect, please try to reduce the driving speed

5. In order to reduce the wear and tear of the brushes, the downward pressure action of the sweeper should be reduced as much as possible. After a period of time, check the wear of the brushes and adjust the amount of brush compaction through the adjusting bolts to ensure a better sweeping effect.

6. After cleaning, stop the brush rotation, lift the sweeper off the ground for a certain distance, and transport it to the unloading place. You can close the bucket slightly to prevent the material in the bottom bucket from falling out during the transport. During the transport, it is forbidden to lift the cleaner too high from the ground to prevent accidents.

7. After transporting to the discharging place, lift up the sweeper to turn the bucket, so that the material is poured out. When unloading, it is forbidden to knock the bucket, shock bucket, brute force operation.

8. Low speed operation of the brush roller and moderate driving speed can better remove the hard ground gravel. If the driving speed is too fast, it will raise dust and affect the operator's sight.

9. the sweeping width should be less than the width of the road, if the particles are larger than the driving speed can be reduced appropriately.

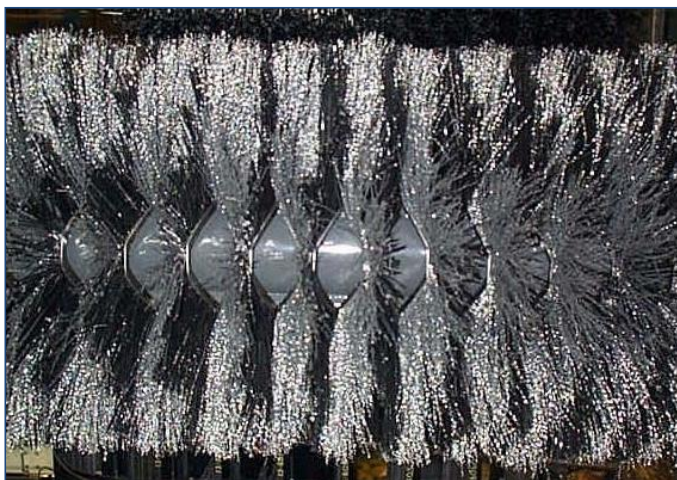
10. Start and close the sweeper at idle speed.

4. Accessory Replacement

1. Brush replacement

- 1) Remove the motor mounting plate, side rubber plate, oil pipe retaining clip and bulkhead retaining plate bolts.
- 2) Remove the attachment bolts and side rubber stoppers from the bearing mounting plate.
- 3) Remove the brush roll section

- 4) Remove the brush fixing disc on the bearing side (bearings and housings do not need to be removed)
- 5) Remove the old brush (no need to remove the motor) and stand the arbor with the motor side on a flat surface.
- 6) Install the new brushes as follows: 1, 2, 3 in a positive and negative order.



4.1 Brush effect after assembly

2、 Replacement of blade plate

After a period of time, if the blade plate is used, if it is worn out, in order to prevent wear and tear of the bottom bucket, it is necessary to replace the blade plate in time.

Replacement method:

- (1) Remove the adjusting bolt from between the upper cover and the bottom bucket, and turn the upper cover up to a certain height. **(Pay attention to the safety measures to prevent the upper cover from falling off suddenly.)**
- (2) Remove the old blade and install the new one.

5.Maintenance instructions

Closed sweeper should be arranged to carry out daily maintenance, daily maintenance of the contents of the following table.

Maintenance content	Maintenance frequencies	Remarks
Check safety labels	Before each use	Replace damaged or blurred labels promptly
before each use	Before each use	Products with damaged or missing nameplates are not warranted.
Check brush wear	Before each use	Timely adjustment or replacement of brushes
Check hydraulic hoses and fittings for leaks or damage	Before each use	Timely replacement of damaged or potentially hazardous fuel lines and fittings
Fill lubrication points with grease or oil	Before each use	Fill the bearing grease nipple with grease; fill the bearing and shaft connection with oil to prevent rusting.
Check the oil level and cleanliness of the main engine's hydraulic oil	Before each use	Regular cleaning of the main engine hydraulic system

Check whether the connecting bolts of the cleaner are loose. Tighten the loose bolts and nuts before each use.	Before each use	Tighten bolts, nuts, etc. that have loosened.
Check whether the structural parts are deformed and whether the welding channel is cracked before each use. If the structural parts are deformed or the welding channel is cracked, they should be repaired before use.	Before each use	Structural parts that are deformed or have cracked weld joints must be repaired before use.
The bucket and brush should be cleaned with a high pressure water gun.	After each use	
Thoroughly clean the surface of the product of all dirt, grime and grease.	After each use	

Table 5.1 Routine maintenance schedule

Warm tips:

- ① Routine maintenance of the machine can effectively extend the service life of the machine and improve the efficiency of the product.
- ② Need to replace parts, only the parts approved by the manufacturer.
- ③ Please pay attention to the protection of the product nameplate, the product nameplate is mutilated or lost will not be warranted.

6. Storage Instructions

- 1. Before storage, mud, dirt and grease should be removed from the product.

Hydraulic oil pipe, motor interface, etc. Sealed with a cover.

- 2. The products should be stored in a dry and non-corrosive environment to avoid rust and corrosion.
- 3. When storing, the brushes shall not touch the ground to prevent the brushes from bending and deforming for a long time, which will affect the use of the brushes.
- 4. When storing, the lubrication points should be filled with grease, and the bearing and shaft connection should be filled with oil to prevent rust and corrosion.
- 5. It is forbidden to store heavy objects on top of the product, which may cause deformation of the product and affect the performance of the sweeper.
- 6. Brush material polypropylene, away from intense heat or flame, polypropylene brush can not be stored directly in the direct sunlight to the place.
- 7. Maintain this product regularly.

7. Troubleshooting enclosed sweepers

Defective phenomenon	Possible causes	exclusion method
Sweeper motor doesn't work	Hydraulic hose not connected to main unit	Connect the hydraulic hose to the main unit
	Clogged mainframe piping	Cleaning of mainframe piping
	Clogged cleaner line	Cleaning the cleaner line
Sluggish sweeper operation	Insufficient oil supply to main engine	Increase main engine throttle moderately
	Insufficient hydraulic fluid in the main engine	Increase hydraulic fluid level
	Cleaner motor sealing problem	Replace seals or motor
	Mainframe hydraulic oil filter clogged	Replace hydraulic oil filter element

	Arbor entangled in foreign matter	Clean out foreign matter
Motor runs but arbor does not	Problems with motor to mandrel connection	Checking Connections
Motor oil leakage	Damaged motor seal	Replace seals or motor
	Loose or damaged fittings	Tighten or replace fittings
	Loose or damaged hydraulic line	Tighten or replace hydraulic line
	Motor drain line not connected	Connect motor drain line
Brush speed slows down or stops	Excessive brush compaction	Adjust brush compaction with reference to operating instructions
	Motor travelling too fast	Reduce travelling speed
	Damaged motor	Replacement of motor
Brushes wear out too fast	Excessive brush compaction	Adjust brush compaction with reference to operating instructions
Hydraulic oil temperature is too high	Insufficient hydraulic oil in the main engine	Add hydraulic oil to the main machine
	Hydraulic oil pipe blockage	Clean the hydraulic oil pipe
	Clogged radiator	Clean the radiator
	Hydraulic oil too dirty or dirty filter	Replace the hydraulic oil or filter element
	Excessive brush compaction	Adjust the amount of brush compaction by referring to the operating instructions.
	Damaged motor	Replace the motor
Hydraulic quick coupling oil	Loose or damaged quick	Reconnect or replace quick

leakage	couplings	disconnect
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Table 7.1 Troubleshooting Reference Table