PESATTO

VIBRATORY ROLLER

MODEL: V200K

OPERATION & SERVICE MANUAL

CAUTION: Read safety and operating instructions carefully before using this equipment for the first time! And keep this manual for future reference.

1. Foreword

Thanks for purchasing our product.

This manual provides information and procedures to safe operates and maintain this PESATTO model. For your own safety and protection from injury, carefully read, understand and observe the safety instruction described in this manual.

Keep this manual or a copy of it with the machine. If you lose this manual or need an additional copy, please contact PESATTO Corporation. This machine is built with user safety in mind; however, it can present hazards if improperly operated and serviced. Follow operating instruction carefully! If you have questions about operating or servicing this equipment, please contact PESATTO Corporation. This information contained in this manual was based on machine in production at the time of publication. PESATTO Corporation reserves the right to change any portion of this information without notice. All rights, especially copying and distribution rights are reserved. Nor part of the publication may be reproduces in any form or by any means, electronic or mechanical, including photocopying, without express written permission from PESATTO Corporation. Any type of reproduction or distribution not authorized by PESATTO Corporation represents an infringement of valid copyrights and will be prosecuted. We expressly reserve the right to make technical modifications, even without due notice, which aim at improving our machine or their safety standards.

2. Safety information

This manual contains DANGER, WARNNING, CATION, and NOTE callout which must be followed to reduce the possibility of personal injury, damage to the equipment, or improper service.

NOTE is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER indicates a hazardous situation which, if not avoided, DANGER will result in death or serious injury.

WARNING indicates a hazardous situation which, if not avoided. WARNING could result in death or serious injury.

CAUTION indicates a hazardous situation which, if not avoided, CAUTION could result in minor or moderate injury.

CAUTION: Used without the safety alert symbol, CAUTION indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Note: Contains additional information important to a procedure

2.1 Operating Safety

Familiarity and proper training are required for the safe operation of equipment. Equipment operated improperly or by untrained personal can be dangerous. Read the operating instructions contained in both this manual and the engine manual and familiarize yourself with the location and proper use of all controls. Inexperienced operators should instruction from someone familiar with the equipment before being allowed to operate the machine.

2.1.1ALWAYS disengage and stow the locking bar for the articulated steering joint before operating the machine. The machine cannot be steered when the locking bar is engaged.
2.1.2 ALWAYS check that all controls are functioning property immediately after start-up!
DO NOT operate the machine unless all controls operate correctly.
2.1.3ALWAYS remain aware of changing positions and the movement of other equipment and personal on the job site.
2.1.4 ALWAYS remains seated at all times while operating the machine.
2.1.5 ALWAYS remain aware of changing surface conditions and use extra care when operating over uneven ground, on hills, or over soft or coarse material. The machine could shift or slide unexpectedly.
2.1.6 ALWAYS use caution when operating near the edges of pits, trenches or platforms. Check to be sure that the ground surface is stable enough to support the weight of the machine with the operator and that there is no danger of the roller sliding, falling, or tipping.
2.1.7 ALWAYS wear protective clothing appropriate the job site when operating equipment.
2.1.8 ALWAYS keep hands, feet, and loose clothing away from moving parts of the machine.
2.1.9ALWAYS read, understand, and follow procedures in the Operator's Manual before attempting to operate the equipment.
2.1.10ALWAYS store the equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children.
2.1.11 ALWAYS operate the machine with all safety devices and guards in place and in working order.
2.1.12NEVER allow anyone to operate this equipment without proper training. People operating this equipment must be familiar with the manual.
2.1.13 NEVER touch the engine or muffler while the engine is on or immediately after it has been turned off. These areas get hot and may cause burns.
2.1.14 NEVER use accessories or attachments that are not recommended by PESATTO. Damage to equipment and injury to the user may result.
2.1.15 NEVER leave machine running unattended.
2.1.16 NEVER operate the machine with the fuel cap loose or missing2.2 Operator Safety while using internal Combustion Engines

DANGER Internal combustion engines present special hazards during operation and fueling. Read and follow the warning instructions in the engine owner's manual and the safety guidelines below. Failure to follow the warnings and safety guidelines could result in severe injury or death.
2.2 Operator Safety while using internal Combustion Engines
2.2.1 DO NOT smoke while operating the machine.
2.2.2 DO NOT smoke when refueling the engine.
2.2.3 DO NOT refuel a hot or running engine.
2.2.4 Do NOT refuel the engine near an open flame.
2.2.5 DO NOT spill fuel when refueling the engine.
2.2.6 DO NOT run the engine near open flames
2.2.7 DO NOT run the machine indoors or in an enclosed area such as deep trench unless adequate ventilation, through such items as exhaust fans or horses, is provided. Exhaust gas from the engine contains poisonous carbon monoxide gas; exposure to carbon monoxide can cause loss of consciousness and may lead to death.
2.2.8 ALWAYS refill the fuel tank in a well-ventilated area.
2.2.9 ALWAYS replace the fuel tank cap after refueling.
2.2.10 ALWAYS keep the area around a hot exhaust pipe free of debris to reduce of an accidental fire.
2.3 Service Safety
WARNING

Poorly maintained equipment can become a safety hazard! In order for the equipment to operate safety and properly over a long period of time, periodic maintenance and occasional repairs are necessary.
2.3.1DO NOT attempt to clean or service the machine while it is running. Rotating parts can cause

severe injury.
2.3.2 DO NOT crank a flooded engine with the spark plug removed on gasoline-powered engines. Fuel trapped in the cylinder will squirt out the spark plug opening.
2.3.3 DO NOT test for spark on gasoline -powered engines if the engine is flooded or the smell of gasoline is present. A stay spark could ignite the fumes.
2.3.4 DO NOT use gasoline or other types of fuels or flammable solvents to clean parts, especially in enclosed areas. Fumes from fuels and solvents can become explosive.
2.3.5 DO NOT modify the equipment without the express written approval of the manufacturer.
2.3.6 ALWAYS check all external fasteners at regular intervals.
2.3.7 ALWAYS keep the area around the muffler free of debris such as leaves, paper, cartons, etc. A hot muffler could ignite the debris and start a fire.
2.3.8 ALWAYS replace worn or damaged components with spare parts designed and recommended by PESATTO Corporation.
2.3.9 ALWAYS disconnect the spark plug on machines equipped with gasoline engines, before servicing, to avoid accidental start-up.
2.3.10 ALWAYS keep the machine clean and labels. Replace all missing and hard-to -read labels. Labels provide important operating instructions and warn of dangers and hazards.
2.3.11 ALWAYS switch off the power supply at the battery disconnect before adjusting or maintaining the electrical equipment.
2.3.12 ALWAYS do Periodic Maintenance as recommended in the Operators Manual.

2.4 Safety Labels
PESATTO machines use international pictorial labels where needed.
These labels are described below:

Ref.	Label	Meaning
A		Mooring line
B		CAUTION! Lifting point
C		Hydraulic tank
D		Hydraulic oil drain
E		Hydraulic oil reservoir level
F		Start switch operation label

3. Technical Data

Model	V200K	
Weight		
Operating Weight	2000	Kg
Static linear load	110/105	N/CM
Size		
Working width	1050	MM
Machine length	2315	MM
Height of the machine	1770	MM
Outside turning radius	2955	MM
Width of steel wheel	900	MM
Diameter of steel wheel	630	MM
Wheel track	1565	MM
Engine		
Engine make	KUBOTA	
Engine Model	D1105	
Engine Type	4-stroke, water-cooled, diesel engine	
Cylinders	3	
Output power	18.2	KW
Speed	3200	RPM
Battery	12	V
Driving means	Variable displacement pump, stepless speed change, two wheels	
Walking characteristic		
Travel speed	0-8	M/S
Grade ability	30/35(vibration on/off)	%
Brake		
Service brake	Variable displacement pumps	
Turn		
Steering	Hydraulic pressure	
Steering system	Swing articulated	
Excitation system		
Vibration steel wheel	Before	
Drive type	Hydraulic motors	
Vibration frequency	65	Hz

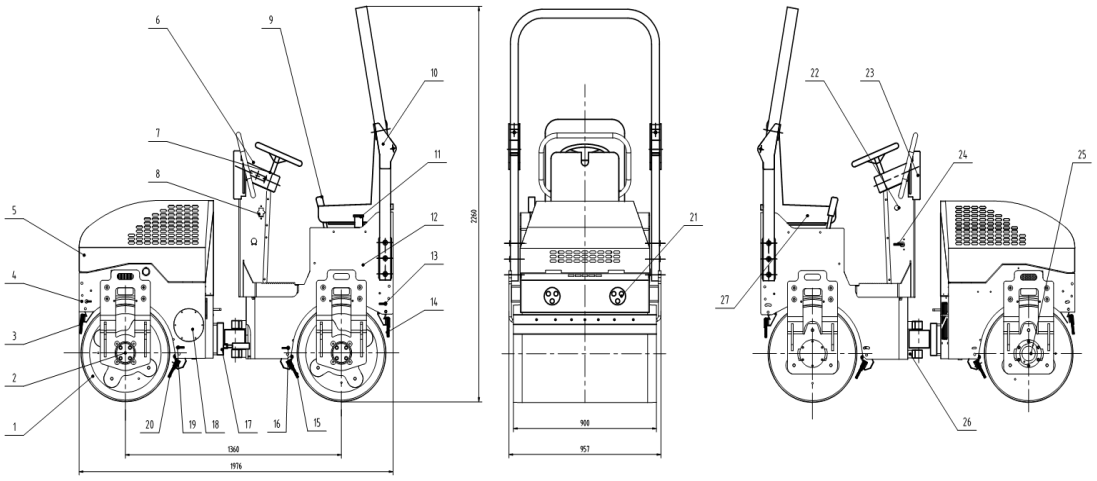
Vibration amplitude	0.5	Mm
Exciting force	30	KN
Sprinkler system		
Style	Intermittent pressure water spray	
Capacity		
Hydraulic pillow	45	L
Fuel oil	36	L
Water	200	L

Lubrication

	V200K
Engine Lubrication type	SAE 10W 30 Class SG, SF or SE rated
Hydraulic System type	Premium grade, anti-wear Hydraulic fluid 10W30
vibration	SKF
Front and rear wheel drive	Sealing shaft lubricating oil
Pillow	
Frame articulation	Portable brass oil gun

4. Operation

4.1 Operation and Service Locations



	Parts		Parts
1	Front wheel	15	Scraping the clay
2	Drive motors	16	Scraping the clay fixed pin
3	Scraping the clay	17	Articulated device
4	Before the frame	18	Clean the hole
5	Hood	19	Scraping the clay fixed pin
6	Damper	20	Scraping the clay

7	The direction	21	Work light
8	Water jet set	22	Key switch
9	Control handle	23	Shield
10	Protect the frame	24	The gas pedal
11	Water tank	25	Vibration motor
12	After the frame	26	Connection plate
13	Scraping the clay fixed pin	27	Seat
14	Scraping the clay		

4.2 Application

This machine is designed as a lightweight roller to be used in the compaction of sub-layers and finish layers of asphalt on roads, driveways, parking lots, and other types of asphalt-covered surfaces. Do not use this machine for any other purpose.

4.3 Recommended Fuel

The engine requires regular grade unleaded gasoline. Use only fresh, clean gasoline.
Gasoline containing water or dirt will damage fuel system.
Consult engine Owner's Manual for complete fuel specifications.

4.4 Before Starting

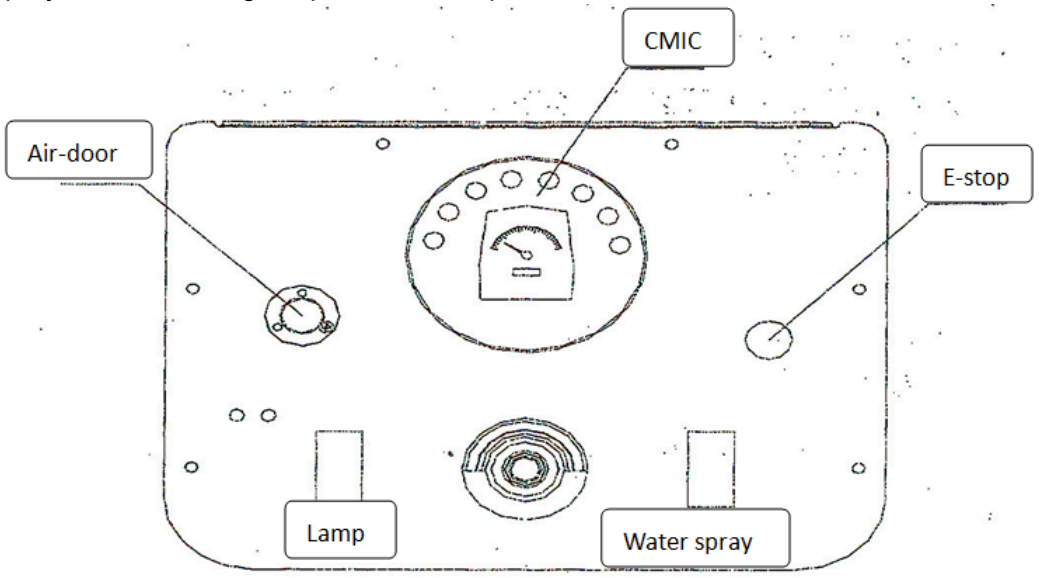
Before starting the machine check the following:
Engine oil level, Hydraulic fluid level, Condition of fuel lines, Condition of air cleaner, Operation of the brake system, Fuel level, Water level, Scraper bars are clean and properly adjusted.

Note:
All fluid levels should be checked with the machine on a level surface.
Ensure that regular maintenance has been carried out.
Ensure that the driver's platform is clean.
Always use the steps and handrails when climbing on and off the machine.

4.5 Use the control instrument

4.5.1 Integration functions of instrument panel

See the follow picture, the function: Battery voltage alarm, work time, fuel display, water spray switch, working lamp switch, e-stop button, etc.



4.5.2 Explanation of function

Voltage

The voltage of machine is 12V.If the voltage display is less than 12v,please check whether the circuit and battery are normal.

Working time

After engine starting, the machine starts to timing, and engine stop, the timing stop.
Fuel display
Can display the oil of fuel tank
water spray switch
It controls the start and stop of water spray.
The water pump supplies the pressure water to atomizing nozzle and then spray to the wheels. The spray time and interval can adjust at random. The time is controlled by twin timer relay and can adjust according to the construction needing.
The twin timer is located in bottom left of panel. Can refer to the manual of Twin timer.
Note: When machine stop, always stop the water spray and switch is in off location.
Working lamp switch
If controls the on/off of working lamp. Open the working lamp when night construction.
E-stop button
When press down the e-stop button, forward/backward stop, vibration stop, and engine stops.
4.6 Starting
4.6.1 If the engine is cold, place the choke lever in the closed position.
If the engine is warm, place the choke control in the open position.
4.6.2 Set the forward/reverse control in the neutral position.
Note: The roller will not start unless the forward/reverse control is in neutral.
4.6.3 Turn the ignition switch to start the engine.
CAUTION: Do not crank the engine starter for more than 15 seconds at one time. Longer cranking cycles could lead to starter damage.
4.6.4 Gradually place the choke lever to the open position as the engine warms up.
Allow the engine to warm up for a few minutes before operating the roller.
4.7 Stopping /Parking
4.7.1 Turn vibration off.
4.7.2 Close both watering valves.
4.7.3 Return the engine throttle to idle by pressing the throttle switch, and allow the engine to cool down.
4.7.4 Stop the engine by turning the ignition switch to CFF.
CAUTION: Avoid parking the roller on a hill or an incline. If the roller must be parked on a hill, block the drums in addition to setting the brake to prevent the roller from moving.
4.8 Direction and Speed
The forward/reverse lever controls both the direction and speed of the roller. Use the control lever, rather than the throttle, to control the speed of the machine while compacting. Daily, before operating, check the machine for drift(movement with the forward/reverse control in the NEUTRAL position)and adjust as needed. See section Adjusting the Drive Control Cable. Speed is controlled by the amount the lever is moved in the direction of travel-forward or reserve.
While operating the machine, run it at full throttle. To run the machine at full throttle, press and release the throttle switch. This ensured maximum travel speeds and will produce the best compaction results. Operating the machine at slower engine speeds will reduce compaction, slow down machine functions, and damage hydraulic components.
4.9 Braking Machine
The machine will brake automatically when the control lever is returned to neutral. If the machine continues to drift, shift the control lever slightly in the opposites direction to stop movement and then return the lever to neutral. If the machine will not remain stationary in neutral, adjust it.
Emergency stop pushbutton
When pushed, the emergency stop pushbutton not only stops all travel(either forward or reverse)and applies the brake, but also stop exciter vibration.
4.10 Vibration
CAUTION: If the machine has been turned off with the vibration on, the vibration will come on as soon as the machine is restarted. Therefore, for easier starting and to keep the surface finish smooth, be ready to switch vibration off should it come on while cranking the engine.

4.11 Watering System

The Watering system is controlled by two valves, one for each drum.

4.12 Articulation Joint Lock-arm

A lock-arm, located above the articulated joint, is provided to secure the front and rear halves of the roller together. Once secured, the lock-arm prevents the two halves from swinging together.

WARNING To avoid being pinched by machine halves, set the lock-arm before lifting the machine for transport or repairs! To set lock-arm, release it from its holder and swing it out from its stored position. Place the forward end of the arm into the hole provided in the front frame of the machine. Secure it in the position using the large hairpin cotter provided.

4.13 Adding Ballast to Rear Drum

The rear drum can be filled with ballast to provide additional weight. Add ballast through plug opening. If water is used as ballast, add antifreeze or drain drum after use, in areas where temperatures are below freezing.

4.14 Roll Over Protection Structure (ROPS)

The machine is fitted with a Roll Over Protection Structure(ROPS).

The machine is normally delivered to the customer with the ROPS folded forward to facilitates transport.

Before using the machine, Position the ROPS in the fully upright position as follows:

4.14.1 Support the ROPS using a crane and suitable rigging capable of supporting 48 kg.(105 LBS),or two individuals capable of supporting the ROPS.

4.14.2 Loosen the screws (one on each side) without removing them .

4.14.3 Raise the ROPS to the upright position.

4.14.4 insert the screws into the holes and torque all screws to 120 NM(88 FT.LBS.).

4.14.5 Remove the rigging from the ROPS.

WARNING

CAUTION: Do not use the ROPS to lift the machine. Each month, check that the screws holding the ROPS in place are tight. Check that the ROPS frame is not rusty, cracked, broken or damaged in any way.

If the frame has been removed from the machine, it must be re-installed before the machine is used. When re-installing a safety frame, use the original nuts and bolts.

WARNING

Keep the safety frame upright when working with the roller, and use the safety belt provided.

4.15 Hour meter/Tachometer

The hour meter/tachometer is located on the steering column. When the engine running. It acts as a tachometer. When the engine is shut down, it records the actual running time of the engine. Use then hour meter when planning scheduled maintenance.

4.16 Operation on slopes

When operating on slopes or hills special care must be taken to reduce the risk of personal injury or damage to the equipment. Always operate the machine up and down hills rather than from side to side. For sale operation and for protection of the engine, continuous duty use should be restricted to front/rear slopes of 17 degree(30% grade) or less.

WARNING

NEVER operate machine on side slopes. The machine may roll over, even on stable ground.

5. Maintenance

5.1 Engine Maintenance

The chart below lists basic engine maintenance. Refer to the engine manufacturer's Operation Manual for additional information on engine maintenance.

	Daily before starting	After first 20 hrs	Every 50 hrs	Every 100 hrs	Every 300 hrs
Check fuel level	●				
Check engine oil level.	●				
Inspect air filter .Replace as needed	●*				
Change engine oil and filter		●		●	
Clean air cleaner			●*		
Check and clean spark plug				●	
Clean sediment cup				●	
Check and adjust idle speed					●**
Check and adjust valve clearances					●**
Replace fuel filter					●**

*Service more frequency in dust conditions.

** These items should be serviced by an authorized Honda dealer, unless the owner has the proper tools and is mechanically proficient. See KOHLER shop manual.

Vanguard	Daily before starting	After first 20hrs	Every 50 hrs	Every 100 hrs	Every 300 hrs
Check fuel level.	●				
Check engine oil level	●				
Change engine oil.		●	●		
Change oil filter.				●	
Clean air cleaner.			●		
Check and clean spark plug.				●	
Check and adjust valve clearances.					●
Replace fuel filter					●

5.2 Maintenance Schedules

	Daily before starting	Every 100 hrs	Every 600 hrs	Every1200 hrs
Check external hardware.	●			
Check level of hydraulic fluid.	●			
Grease articulated joint.		●		
Grease rear drum drive bearing.		●		
Change hydraulic system return line filter.			●	
Check and adjust scraper bars.			●	
Clean battery terminals.			●	
Change hydraulic oil.				●

Periodically:

°Check for leaks around hydraulic hoses and connections.

°Clean engine exterior, cooling fins ,and blower housing.
°Check electrical wiring and connections.
New machines:
°Change the engine oil per engine schedule.
°Replace the hydraulic system return line filter after the first month or 100 hours of operation.
5.3 Fuel Filter
Change the in-line fuel filter once per year. Check the fuel lines and fittings daily for cracks or leaks. Replace as needed.
Gasoline is extremely flammable! Turn the engine off and allow the engine to cool before replacing the fuel filter.

 Note: The fuel filter is located under the floor panel of the operating platform. Replace the oil filter after every 200hours of operation.
To change the filter:
5.3.1 Drain the engine oil. See Engine Oil. Remove the used filter.
5.3.2 Before installing a new filter, lightly oil the filter gasket with fresh, clean engine oil. Screw the filter on by hand until gasket makes contact; then tighten an additional 7/8turn.
5.3.3 Fill the engine with the recommended oil. See Engine Oil.
5.3.4 Start and run the engine to check for leaks. Stop the engine. Recheck the oil level and add oil if required. Refer to the engine owner's manual.
5.4 Engine Oil Drain
The engine oil drain has been routed to the outside of the front half of the ST1300.This is to make draining easier and to help keep the engine compartment clean.
5.5 Engine Oil
5.5.1 Drain the oil while the engine is still warm. To drain the oil:
Remove the filler cap drain screw, and washer. Drain the oil into a suitable container.
Note: In the interests of environmental protection, place a plastic sheet and a container under the machine to collect any liquid which drains off. Dispose of this liquid in accordance with environmental protection legislation.
5.5.2 Re-insert the drain screw and washer and tighten the screw securely.
5.5.3 Fill the engine with the recommended oil to the upper limit mark on the dipstick. See Technical Data for correct oil type and amount.

 Burn hazard! Care must be taken when draining hot engine oil.
Hot oil can burn!
5.6 Spark Plug
Clean or replace the spark plug as needed to ensure proper operation. Refer to engine owner's manual!

 The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Do not touch the muffler while it is hot.
Note: Refer to the Technical Data for the recommended spark plug type and the electrode gap setting.
5.6.1 Remove the spark plug and insect it.
5.6.2 Replace the spark plug if the insulator is cracked or chipped.
5.6.3 Clean the spark plug electrodes with a wire brush.
5.6.4 Set the electrode gap.
5.6.5 Tighten the spark plug securely.
CAUTION: A loose spark plug can become very hot and may cause engine damage.
5.7 Scraper Bars
Scraper Bars, located in front of and behind each drum, are used to prevent dirt and

asphalt from sticking to and accumulating on the drum surface. These bars must be adjusted periodically as they wear.
To adjust the Scraper Bar, loosen the bolts connecting the Scraper Bars to the shock mounts on both sides of the drum. Using a 9 mm(3/8”)drive ratchet extension in the socket, rotate the assembly away from the drum until the bolts are observed to have approximately 6mm(1/4”) in slots, then tighten the bolts.
Check that the scraper bar has a slight deflection when it contacts the drum, and readjust as necessary.
Note: A large deflection of the scraper bar indicates excessive pre-loading of the rubber shock mounts, which will result in premature scraper wear.

5.8 Grease Fittings

Articulated Joint:
The articulated joint is equipped with grease fittings for lubrication.

 To avoid being pinched by the machine halves, set the lock-arm before greasing the articulating joint!
Rear Drum: The rear drum drive bearing is equipped with a grease fitting located at the center of the drum behind the right rear drum support.

5.9 Hydraulic System Cleanliness

Keep the hydraulic oil clean is a vital factor affecting the service life of hydraulic components. Oil in hydraulic system is used not only to transfer power, but also to lubricate the hydraulic components used in the system. Keeping the hydraulic system clean will help avoid costly.
Major sources of hydraulic system contamination include:

- Particles of dirt introduced when the hydraulic system is opened for maintenance or repair
- Contaminants generated by the mechanical components of the system during operation
- Improper storage and handling of hydraulic oil
- Use of the wrong type of hydraulic oil
- Leakage in lines and fittings

To minimize hydraulic oil contamination:
CLEAN hydraulic connections before opening the lines. When adding oil, clean the hydraulic tank filler cap and surrounding area before removing it.
AVOID opening the pumps, motors, or hose connections unless absolutely necessary.
PLUG or cap all open hydraulic connections while servicing the system.
CLEAN and cover the containers, funnels and spouts used to store and transfer the hydraulic oil.
CHANGE the hydraulic filters and oils at the recommended service intervals.

5.10 Hydraulic Oil Requirements

ROADWAY recommends the use of good petroleum-based, anti-wear hydraulic oil in the hydraulic system of this equipment. Good anti-wear hydraulic oils contain special additives to reduce oxidation, prevent foaming, and provide for good water separation. When selecting hydraulic oil for your machine, be sure to specify anti-wear properties. Most hydraulic oil suppliers will provide assistance in finding the correct hydraulic oil for your machine.
Avoid mixing different brands and grades of hydraulic oils.
Most hydraulic oils are available in different viscosity.
The SAE number for oil is used strictly to identify viscosity-it does not indicate the type of oil (engine, hydraulic, gear, etc.)
When selecting hydraulic oil be sure it matches the specified SAE viscosity rating and is intended to be used as a hydraulic oil. See Technical Data-Lubrication.

5.11 Hydraulic Oil Level

A hydraulic oil level sight glass is located near the bottom left side of the machine below the engine compartment.

Check that the hydraulic oi level is visible in the sight glass. If it is not, add oil through the filler port inside the engine compartment. Use only clean hydraulic oil.
Thoroughly clean the top of the filler cap before removing it from the tank. Care should be taken to prevent smaller dirt particles from entering the system.
If hydraulic oil continually needs to be added, inspect the hoses and connections for possible leaks.

5.12 Suction Filter

A hydraulic filter is located in the hydraulic tank. This filter will not normally require service and does not need to be replaced when changing the hydraulic oil.

5.13 Changing hydraulic Oil & Filter

All oils eventually shear or thin out with use, reducing their lubricating ability .In addition, heat, oxidation, and contamination may cause the formation of sludge, gum, or varnish in the system. For these reasons, it is important to change the hydraulic oil at specified intervals.
See Maintenance Schedule.

5.13.1 Remove the filter cap from the top of the hydraulic tank.

5.13.2 Remove the drain plug and allow the hydraulic fluid to drain.

Note: In the interests of environmental protection, place a plastic sheet and a container under the machine to collect any liquid which drains off. Dispose of this liquid in accordance with environment protection legislation.

5.14 Bleeding the hydraulic System

5.14.1 Fill the hydraulic system with clean hydraulic oil under it is visible in the sight glass. Do not re-use hydraulic oil.

5.14.2 Disconnect the line from the drive pump. Fill the pump case with hydraulic oil through the open connection. Reconnect the line.

5.14.3 Disconnect the spark plug wires to prevent the engine from starting and crank the engine 5-10 seconds. This will allow oil to fill inlet lines.

5.14.4 Reconnect the spark plug wires and place the forward/reverse control lever in NEUTRAL. Start the engine and run the machine at idle for 3-4 minutes.

5.14.5 With the engine still running at idle, move the control slowly back and forth from forward to reserve for a short time to bleed air trapped in the drive circuit.

5.14.6 Increase the engine speed to full throttle and operate all controls to bleed the remaining air from the hydraulic lines.

5.14.7 Check the hydraulic oil level and add oil as required.

Note: If the drive pump chatters or operation is noisy, turn the machine off and check foe air leaks in the inlet line of the charge pump.

5.15 Lifting Machine

Lock the front and rear machine halves together using the lock-arm at the articulation joint. Place slings or chains through each lifting eye on the machine (4 Place).Use four slings or chains with a minimum length of 2 meters(6 feet) on each leg connected to a central lifting device. Or two slings or chains with a minimum length of 4 meters(12 feet),one connecting the front lifting eyes and one connecting the rear lifting eyes, then brought together over the crane hook. Ensure that all lifting devices have sufficient weight-bearing capacity.

To avoid being pinched by the machine halves, set the lock-arm before lifting the machine for transport or repairs!

CAUTION: Never use anything but the lifting eyes provided to lift the machine, as severe damage to the machine can result.

5.16 Transporting Machine

When transporting the machine place blocks in front of and behind each drum and use the front and rear tie-down lugs provided to securely fasten the machine to the trailer(2 places)

CAUTION: Never use anything but the tie down lugs provided to tie down the machine, as severe damage to the machine can result.

5.17 Storage

If the unit is to be stored for more than 30 days:

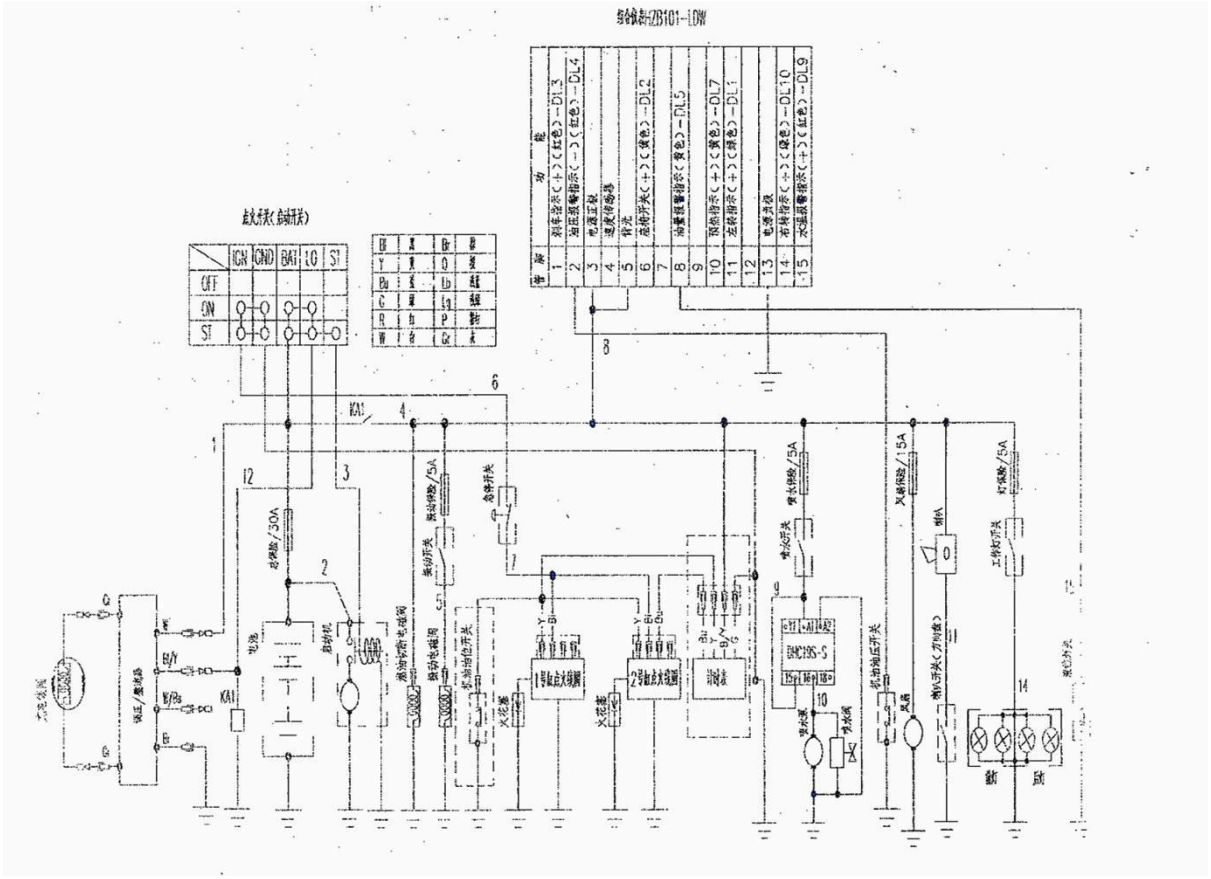
- Drain the fuel tank and the water tank. Also drain the rear drum, if ballast was added.
- Open the water valves and drain the water from the sprinkling system.
- Change the engine oil.
- Remove the spark plugs and pour approximately 3 ml(1 ounce) of SAE 30W oil into each engine cylinder through the spark plug opening.
- install the spark plugs. Leave the ignition wires disconnected to prevent the engine from starting. Crank the engine for one or two seconds to distribute oil inside engine cylinders. Connect the ignition wires.
- Clean the entire roller and engine compartment.
- Remove any dirt from the cooling fins on the engine cylinders and on the blower housing.
- Set the lock-arm to secure the roller halves together.
- Remove the battery from the machine and charge it periodically.
- Cover the entire machine and place it in a day, protected area.

5.18 Towing

CAUTION: Do not tow the roller long distances or at speeds greater than 3-5 km/h (2-3 mph).

Damage to the drive motors may occur.

5.19 V200K Electrical Schematic



Certificate of approval

Manufacturers:

Model: V200K

Product standard: GB/T 8511-2005

Production time:

The test of time:

Quality inspector:

Qualified:

Warranty

The user: Mail address:

TEL/FAX: Model:

The engine number: The cost of time:

Seller: Mail address:

TEL/FAX:

Buyers within one week, please fax to our company sales department, your company will receive a lifetime maintenance services

Note:

1, 3 packets (/ six months/three months of the year)

2, belong to one of the following circumstances, no guarantees, charging and maintenance.

1) failure and damage caused by the use of inferior oil.

2) not following the instruction manual operation, maintenance, storage methods caused by the fault and damage.

3) the company assumes 3 packets of repair, without authorization, repairing and cause damage.

4) failure and damage caused by force majors.

5) can think natural wear and tear parts and wearing parts: air filter, clutch centrifugal blocks, spark plugs, triangle, etc.