

T1200E road cutter

Product updates may change without notice

Important security content

Most accidents involving product operation, maintenance, and repair stem from neglecting fundamental safety protocols or protective measures. By identifying potential hazards before incidents occur, accidents can be prevented. Relevant personnel must be thoroughly familiar with these risks, undergo necessary training, and possess essential skills to troubleshoot using available tools.

Incorrect operation, lubrication, maintenance and repair are dangerous and can cause death in serious cases.

Do not operate, lubricate, maintain or repair the machine without reading and understanding the contents of operation, lubrication, maintenance and repair. Safety precautions and warnings are listed in this manual and on the product. Ignoring these warnings may result in death of the person concerned.

All hazards are marked with "safety warning signs" and "signal terms", such as "danger", "warning", "attention", etc. The safety warning sign "warning" is as follows:

Four

The safety warning symbol means the following:

Attention! Watch out! Its about your safety!

The warning sign contains a written or graphic explanation of the danger.

Operations that may cause machine damage are marked with a "Caution" or "Warning" label on the machine and in this manual.

Pop cannot anticipate every hazardous working environment. Therefore, the warnings in this manual and on our products are not exhaustive. If you use tools, procedures, methods, or techniques not specifically recommended by Pop, you must ensure your own safety and that of others. You should verify that the operational, lubrication, maintenance, and repair protocols you adopt will neither damage machinery nor leave it in unsafe conditions.

The instructions, numerical values, and illustrations in this manual are prepared based on the latest available information at the time. As the machine undergoes continuous design improvements that may affect details, this manual might not fully reflect these modifications. For the latest information about the machine or any issues related to the content of this manual, please contact Pop or a Pop authorized distributor.

Introduction The operational techniques described

As people learn more about the machine and its performance, their operational

This manual contains many important instructions on the operation, lubrication, maintenance, inspection and commissioning of the machine, which is an important permanent part of the machine.

This manual should be stored in a safe, clean and convenient place for the operator to read and use. Ensure that the manual is intact and not separated from the machine when the machine is resold or rented.

Read this manual carefully to properly operate and maintain the machine to avoid possible personal injury or machine damage. The operator should be able to skillfully and correctly use the machine and ensure safety.

Do not use the machine at will except for the purposes described in the manual. If you want to modify or add other special equipment to the machine due to special needs, please contact your seller for confirmation, otherwise, all consequences caused by unauthorized modification shall be borne by yourself.

For the operation and maintenance of the machine according to the instructions in this manual

In the case of household use, Pop will give a full three guarantees, but when the machine is misused or intentionally performed outside of what the manufacturer has specified

At that time, the three guarantees will be invalid and on-site maintenance may be refused. Only trained or experienced personnel are allowed to operate the machine and only professional personnel are allowed to inspect and

Protect the machinery.

Ensure you properly document the machines product model, serial number, engine serial number, and key component identifiers. In case of theft, these numbers will be required for reporting to local authorities and tracking purposes. Your sales representative will also need these details when you inquire

about equipment status or request parts. If this manual is stored inside the machine, make sure to record the correct serial numbers in a secure location outside the unit.

maintenance

The maintenance section provides guidance for protecting the machine. The step-by-step illustrations are categorized according to maintenance cycles. Maintenance items without specific cycles are listed under "Other", and those in the "Regular Maintenance" section refer to the detailed explanations following them.

Maintenance cycle

Use a timer to determine the maintenance cycle, if using a calendar

If it is more convenient to make maintenance plans (daily, weekly, monthly) and roughly similar to the work timer shown, it can be used instead of the work timer. The recommended maintenance work

should be carried out when the above two times first expire.

In extremely harsh, dusty, or humid working environments, lubrication maintenance should be performed more frequently than what is specified in "Regular Maintenance". During maintenance, all originally required maintenance items should be carried out repeatedly. For example, when performing a 500-hour maintenance task, it should simultaneously include maintenance items listed for 250 hours, 50 hours, and those specified every 10 hours or daily.

All information, charts and specifications in this specification are the latest product information available at the time of publication. The Company reserves the right to make changes without notice.

safe

The safety matters list the basic safety precautions. In addition, it indicates the warning symbols and signs used on the machine and their text and location.

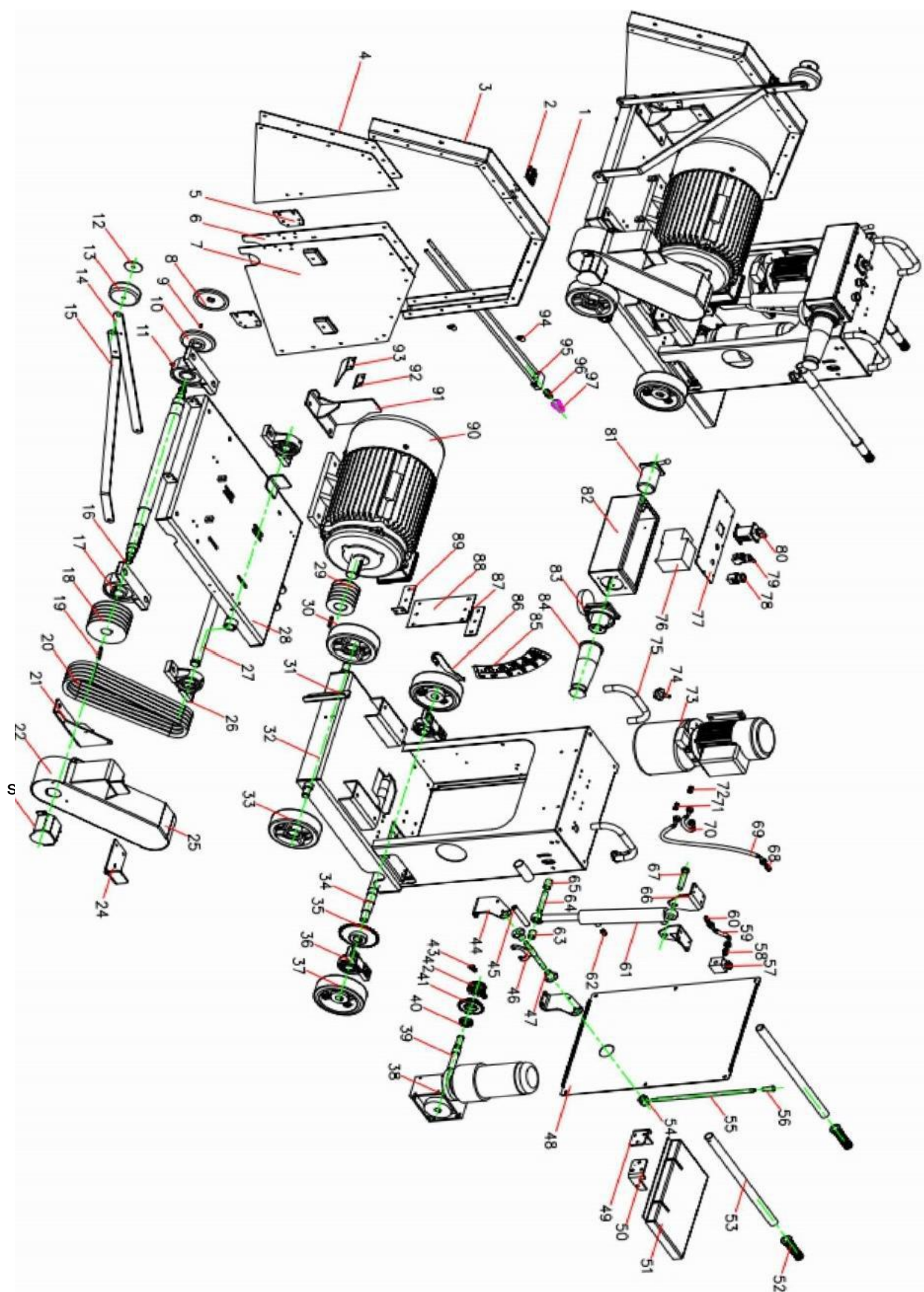
Read and understand the basic precautions listed in the safety matters before operating or performing lubrication, maintenance and repair on this machine.

operate

This part includes instrumentation, machine control devices, and working device control Data on rod, transportation and towing.

For reference by new operators and review by experienced operators, it should be kept around for constant reading and learning.

Guide the operator by illustrating the correct steps to check, start up, operate and stop the machine.



Safety matters

Safety warning signs



Safety warning signs are important to appear on machines, safety signs, manuals or anywhere else

Safety information. When you see this symbol, it means..

Safety information should be followed to guard against the possibility of personal injury or death.

Make sure that you can read all the safety signs. If you cannot clearly read the text or graphics of these safety signs, replace them or wash them with cloth and soapy water. Do not use cleaning agents, gasoline, etc. to wash them.

Safety signs that are damaged, lost or cannot be read after cleaning must be replaced. If a part with a safety sign is to be replaced, note that the new safety sign should be attached to the corresponding replacement part.

Safety signs

The words "danger", "warning" and "attention" appearing on the machine are defined as follows:

! danger

Danger: A word that means an immediate danger that, if not avoided, will result in death or serious personal injury.

! warn

Warning: This word indicates a potential danger that, if not avoided, will result in death or serious personal injury.

4. Note

Note: This word indicates a potential hazard that, if not avoided, will cause minor or moderate injury.

"Caution" is used to indicate safety matters that require vigilance against unsafe operations that may cause personal injury. "Danger" represents the most serious dangerous situation. "Danger" or "Warning" safety signs are placed near specific dangerous areas. General precautions are listed on the "Caution" safety sign.

Location and description of safety signs

There are some safety signs on the machine. This section describes where these safety signs are posted and what they mean. Take a moment to familiarize yourself with these safety signs.

General safety precautions

Please read and familiarize yourself with all safety matters, otherwise it will lead to serious casualties.

Only trained and qualified personnel can operate and maintain this machine.



If you are not feeling well, or feel sleepy after taking medication or drinking alcohol, do not operate the machine. In such cases, it may lead to poor judgment and accidents.

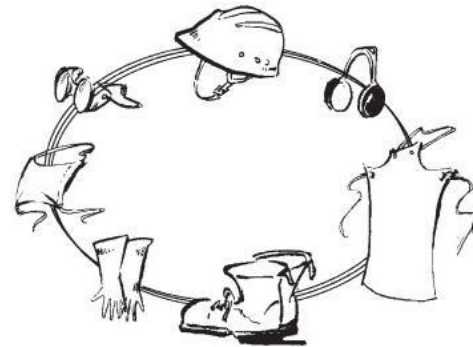
Before handling and repairing the machine, put a "Do not work" or similar warning label on the start switch or control lever.



Do not wear loose clothing, jewelry or long hair. They may get stuck in or rolled into controls or moving parts, causing serious injury or death.



When operating or maintaining the machine, wear a hard hat and safety glasses, safety shoes, face masks and gloves.



Wearing protective eyewear, safety goggles, or face shields can safeguard your eyes from high-pressure liquids during battery maintenance and protect against metal shavings when operating engines or using tools. Always wear a face shield when removing spring components or adding acid to batteries. When welding or cutting with a torch, make sure to use a safety helmet or safety goggles.



If you are working in loud noise, wear appropriate protective hearing gear. For example, earplugs or earbuds are placed to avoid hearing damage from loud noises.



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Safety matters

Ensure that all protective plates and cover plates are fixed to the machine.

Make sure there are no fragments, oil, tools and other debris on the machine. Put away loose items, such as lunch boxes, tools, etc.

not be liable for any consequences caused thereby.

When checking the open tank, prevent foreign matter from entering the system
Before opening the lid, empty the pockets and move the wrench and nut carefully.



Understand the factory's hand signals and the source of the signals, and receive signals from only one person.

Never store the maintenance solution in a glass container.

Handle harmful substances such as lubricants, fuel oil, solvents, and filters

When handling equipment, batteries and other substances, relevant laws and regulations shall be observed.

Use detergent carefully, do not use flammable materials as cleaning parts of the cleaning agent, such as diesel or gasoline, it is dangerous to fire.



Report all items needing repair in time.

Do not allow unauthorized persons to be on or around the machine.

It is prohibited to modify the machine without Pops permission, and Pop shall

compressed air

Compressed air may cause personal injury. When using compressed air for cleaning, wear a mask, protective clothing and safety shoes. The maximum pressure of compressed air used for cleaning should be less than 0.2 MPa.

High pressure solution

! warn

Avoid scalding from high pressure oil. When maintaining or replacing hydraulic system pipes, lower the load and relieve the pressure and make sure the oil has cooled

However, pressure on the hydraulic oil splashing onto the skin can cause serious damage to the skin.

Be careful when disassembling hydraulic pipes or joints. When oil is sprayed out, the released high pressure oil may cause hose swaying.

When checking for leakage, wear safety glasses and leather gloves. Do not use bare hands to check for leakage. Use board or cardboard to check for leakage.



Even a pinhole-sized pressure fluid leak can penetrate the muscle and cause injury or death. If hit by a high-pressure oil spray, contact your doctor immediately for treatment.



Safe disposal of waste liquid

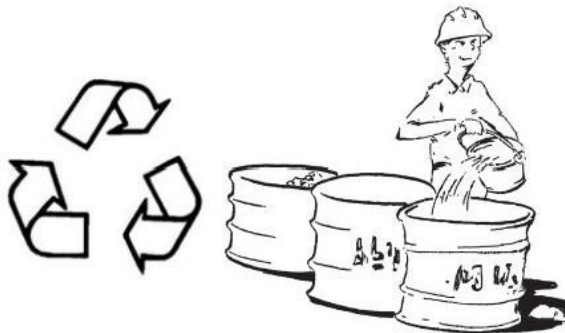
- Shower after contact with asbestos.

Improper treatment of waste liquid will harm the environment and ecology. Waste liquid should be treated in accordance with local regulations.

The liquid discharged by the machine during inspection, maintenance, test, adjustment and repair must be placed in a container.

Prepare an appropriate container to collect the liquid in advance before opening any liquid chamber or disassembling any parts containing liquid.

Use an appropriate container when emptying liquids. Do not use food or drink containers, as they may be accidentally consumed by others.



asbestine

Inhalation of asbestos dust poses a health risk. This product is asbestos-free, and Pop Machinery Manufacturing Co., Ltd. recommends the use of authentic Pop spare parts. If you need to dispose of materials containing asbestos fibers

In the meantime, please observe the following guidelines:

- Compressed gas must not be used for cleaning. Water can be used to make the dust settle.
- You can use a vacuum cleaner with high efficiency filtration performance.
- Do not grind materials containing asbestos dust.
- Where possible, operate the machine at the upwind side.
- Environmental protection regulations shall be observed when handling asbestos.

Safety matters

- Use effective protective masks if necessary.
-



Prevent squeezing or cutting

Do not place your hands, arms or any other part of your body between moving parts. For example:

- Between the cutting saw blade and the saw blade guard.
- Walk support wheel frame between the chassis.

If it is necessary to open or remove the cover during maintenance, the cover must be installed after maintenance.

No adjustments may be made while the machine is in operation or the engine is running, unless otherwise stated.

If maintenance procedures must be performed while the machine is in operation, do not leave the machine unoperated.

Do not use twisted or worn steel wire ropes. Wear gloves when using and handling.

When pushing out the latch, make sure there is no one around. To avoid eye injury, wear protective glasses.

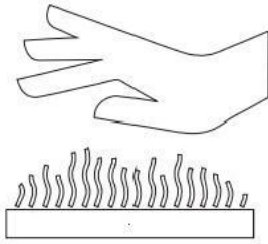
When hammering an object, make sure that the

debris does not hurt anyone. Prevent burns

After a period of operation, some parts of the machine will heat up. They should be cooled before maintenance or inspection.

oil

Hot oil and hot parts may cause injury, do not let hot oil and hot parts touch the skin.



At working temperature, the hydraulic oil tank is hot and pressurized.

When opening the hydraulic oil tank filler cap, turn off the engine and let the filler cap cool until it can be opened with bare hands.

Slowly remove the fuel tank cover to release the hydraulic tank pressure and prevent scalding from hot oil.

The system pressure should be released before all pipes, joints or related parts are removed.

storage battery

The battery may produce combustible smoke or gas which may cause explosion. Keep away from sparks and open fire.

Do not place metal on the battery, otherwise a short circuit may cause the battery to explode.

The electrolyte in the battery is an acid and can cause serious damage to skin and eyes.

When protecting the battery, protective glasses and protective clothing should be worn. Once the electrolyte comes into contact with the skin and eyes, wash the skin with a large amount of water immediately, neutralize the acid with soda or lime, rinse the eyes with water for 10-15 minutes, and treat immediately.

Fire and explosion protection

All fuels, most lubricants and some coolant mixtures are flammable.

Fuel oil leaking onto hot surfaces or electrical components may cause fire.

Do not smoke while filling up or in the filling area or where combustible materials are present.



Clean and tighten all electrode joints. Check daily for loose or worn wires. Tighten loose wires and repair or replace worn wires before starting the machine.

Check the circuit regularly to avoid fire caused by overload or short circuit.

Store fuel oil and lubricating oil in containers with appropriate labels to prevent non-staff from using them.

Store oil-soaked rags or other combustible materials in a protected container and in a safe place. Do not weld or flame cut pipes containing combustible liquids. Clean the pipes with combustible liquid before welding or cutting.

Clean up combustible materials such as fuel oil, lubricants or other debris that have accumulated on the machine.

Do not operate the machine near an open flame.

Keep the battery away from open flames and sparks. Do not smoke where the battery is being charged.

Do not charge the frozen battery to avoid explosion.

diethyl ether

Any attempt to start the engine with ether may cause serious damage to the engine or death or injury to personnel.



Fire extinguishers and first aid kits

Be sure to have a fire extinguisher, read the instructions carefully, and know how to use it.

First aid kits must be available at the site of work. They should be checked regularly and replenished with medicines if necessary.

Know what to do in case of fire or injury.

Tubes, rigid and flexible

Do not bend or hammer high pressure pipes, and do not install abnormal bent or damaged hard or soft pipes on the machine.

Repair any loose or damaged fuel and lubricants in time

Road, hydraulic system hoses and flexible hoses. Leaks can cause fire

For disaster, repair or replacement, please contact the designated distributor of Pop Machinery and Equipment Co., LTD.

If the following problems are found, replace it.

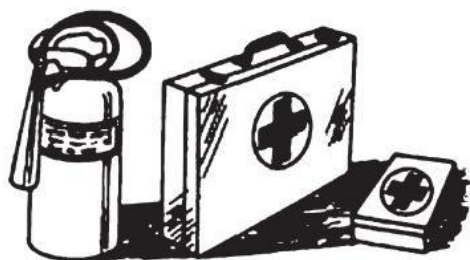
- Joint damage or leakage.
- The outer layer of the hose is worn or torn and the reinforcing steel wire is exposed.
- Local bulging of hose.
- The hose has obvious torsion or deflection.
- The hose reinforcement layer is embedded in the outer layer.
- Terminal misalignment.

Ensure that all clamps, guards and heat shields are properly installed to avoid overheating due to vibration or friction with other parts.

When removing the connecting pipeline of the air conditioning compressor, do not let open fire near it, otherwise toxic gas will be generated and poisoning will occur.

Safety matters

Select the phone number of some personnel (such as doctors, emergency center, fire station, etc.) for contact in case of emergency. Post these phone numbers in the designated place to ensure that all personnel know the number and the correct contact method.



Always check and protect fire extinguishers. Follow the recommended use instructions on the panel.

Prevent lightning damage



Notes on the annex

It must be installed and debugged by qualified personnel; operators should be trained and operate and maintain in strict accordance with the use instructions of the accessories.

When installing and using spare parts, please read the instructions, manuals and information about the spare parts in the manual.

Incorrect installation accessories or selection parts will not only lead to safety problems, but also adversely affect the operation of the machine and the service life of the equipment.

Do not use any accessories that are not licensed by us. Use unauthorized accessories

In this case, safety problems may occur, which is not conducive to the normal operation of the machine and affects the service life.

Without permission, it is strictly prohibited to modify the accessories, otherwise the consequences shall be borne by themselves.

Ludwig Construction Machinery Co., Ltd. shall not be liable for damage, accident and machine damage caused by the use of unauthorized accessories.

Operate machinery safely

Know your machine

Be able to operate all the equipment on the machine.

Understand all control systems.

Understand the weight of the operation, speed range, walking and cutting characteristics, cutting depth and height of the operating space.

Remember that rain, snow, ice, gravel and soft soil surfaces can change the working ability of machines.

Study safety signs on machines (DANGER: dangerous, Warning: Warning, CAUTION: Attention) and other signs.

Know your workspace

Learn as much as you can about the area where you will be working in advance. Check: the location of slopes, open drains, falling or hanging objects, and soil conditions

(soft or hard), waterlogged and marshy areas, rock and stumps, buried foundations, root columns or the boundary of a wall, and edges covered with rubbish or filled in

The exact location of boundaries, holes, obstacles, mud or ice, traffic volume, thick dust, thick smoke, thick fog, buried or suspended electric, gas, telephone, water, sewage or other

public pipelines. If necessary, ask the utility company to mark, shut down or relocate these facilities before you start work.

Before the engine starts

Check the machine carefully before starting work to ensure that all systems are in good operating condition. All other personnel around the machine should be removed from the working area.

Check whether all structural parts and cover parts are deformed and damaged by collision.

Check whether all safety protection devices such as guards, covers, etc. are installed correctly to avoid injury to moving parts. If they are damaged, repair them in time.

Check whether the hydraulic system is leaking oil, check whether the hose and steel pipe are worn.

Check all fasteners for looseness or loss.

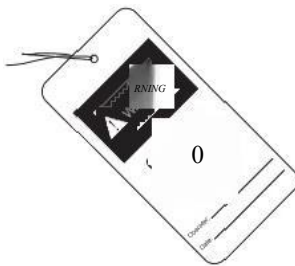
Check whether the electrical wiring harness is worn or scratched, whether the fuse is intact, and whether the joints are connected and fastened.

Check whether the oil level of the engine and fuel system is normal.

Replace all damaged or lost parts and lubricate the necessary points according to the maintenance schedule.

engine start

If the control lever is labeled "Do not operate", do not start the engine.



Before starting the machine, make sure that the driving lever is in the middle and the throttle lever is in the maximum position.

Do not start the engine by jumper, which may cause a risk of compression and damage to the electrical system.

After starting the engine, observe and listen carefully to see if there is any fault in the machine. If there is any fault or abnormal situation, stop the machine immediately and solve the fault before further operation.



Engine fumes can cause illness or death. If the engine must be started in a closed or poorly ventilated area, open doors and Windows to ensure adequate ventilation to prevent gas poisoning. If doors and Windows are opened but still not ventilated enough, install a fan.



Before operating the machine

No one should be on or around the machine.

Clear all obstacles on the path of the machine. Be careful of high voltage wires, ditches and other dangerous things.

Check for cracks and holes in the road surface that may cause damage to machinery. Ensure that there are no buildings or equipment that could be damaged by the vibration of the roller.

hardware operation

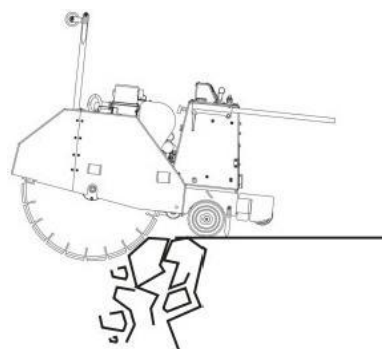
Before cutting on public roads, please check whether the machine meets the requirements of local road work laws and regulations, and obtain the road cutting permit from the relevant management department. When cutting on highways, please comply with the laws and regulations of local authorities.

Before operating the machine, make sure that the surroundings are safe and identify the relationship between the direction you want to work and the control lever.

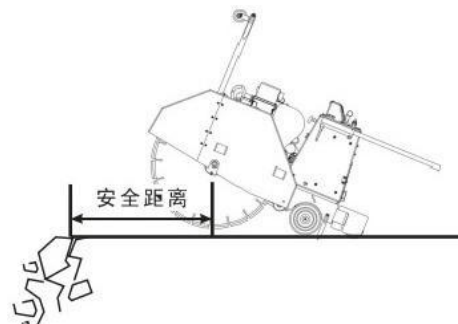
Before starting work, slowly move the machine to an open area and check that all control rods and protective devices are working properly.

If any repair items (noise, vibration, odor, incorrect instrument display, gas leakage, oil leakage, etc.) are found during operation, report the required repair items immediately.

Avoid working on the edge of a cliff, under a dam or mound, on a road surface with insufficient support capacity or where there are overhangs to prevent collapse.

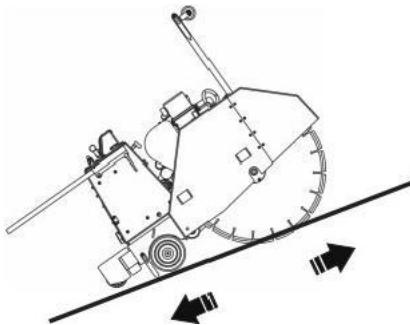


When the cutter is near the roadside or hollow to press the road surface, ensure that there is enough safety distance.



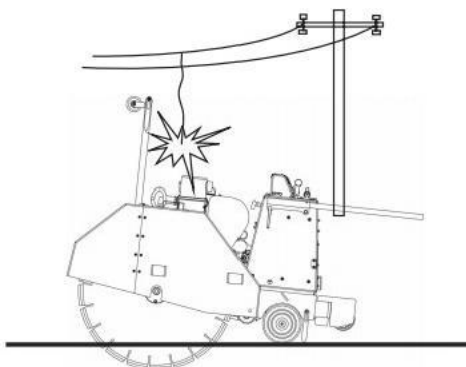
Avoid any situation that could cause the machine to tip over. When working on hills, embankments or slopes, the machine may tip over. When crossing ditches, mounds or other unexpected obstacles, the machine may also tip over.

Machines should go straight up and down when walking on a slope. Do not turn or walk sideways on a slope to prevent tipping over.



Take extra care when working near high-voltage power lines. When the machine is on a site where there is a risk of touching the cable, consult the power company before starting work to see if the actions are feasible under current regulations.

Contact with the cable may cause serious accidents or death and injury. Do not allow any part of the machine to approach the wire. Check the upper part of the machine to see if there is enough distance between the wire, the machine and the ground. If possible, it is best to cut off the power supply. If you cannot cut off the power supply, ask the signalman to guide draw .



If the machines parts are exposed to high voltage power:

- Warn others not to touch and stay away from the machine.
- If you can isolate the contact, change the operation that causes contact with the high voltage power supply, and remove the machine from the dangerous area.
- If the contact cannot be cut off, wait for the power department to cut off the wire and tell you that the power has been cut off.

- If the high voltage power supply causes extreme conditions such as fire, please leave the machine.

Shut off the engine

Make sure the machine cutting saw blade is completely off the cutting surface.

Do not turn off the engine immediately after machine load work, this will increase the speed of engine damage and reduce the life.

After the machine stops, keep the engine running at idle for 3 minutes to cool it down gradually and pull the throttle lever to the minimum position.

The machine stopped

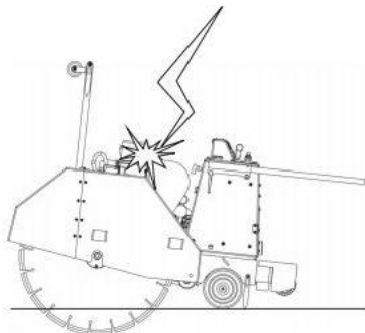
If possible, park the machine on flat ground. Ensure that the machine is not moving, otherwise it may be damaged or cause injury to personnel

flee .

The machine should be parked on flat ground where there is no danger of falling rocks or landslides. If the terrain is low, there should be no danger of flooding.

The site conditions should be considered when parking the machine. Do not park the machine on the edge of a cliff, near an open pit or pit.

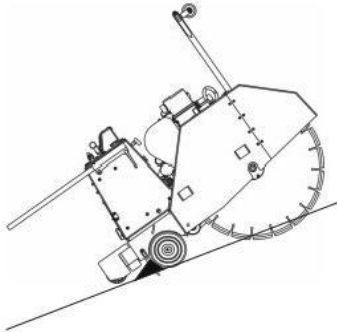
When parking the machine, environmental conditions such as flooding, snowfall, lightning, cold wind exposure should also be considered, otherwise the machine may be damaged.



After the machine is parked, consider that the safety passageway of the working site may be affected

Movement of the machine may be blocked in case of obstruction or emergency, so do not create obstacles in the parking lot.

If it is necessary to park the machine on a slope, the wedge should be placed under the drive wheel to prevent the machine from moving.

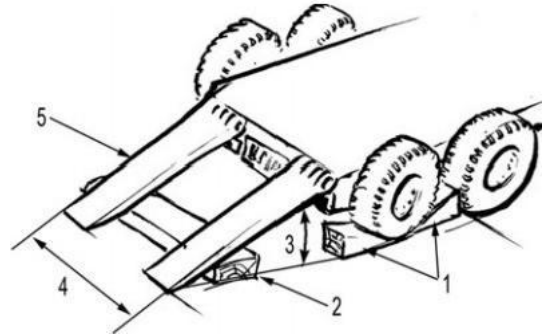


Stop cutting operation and set the travel lever to neutral to prevent movement of the machine.

Stop the engine and remove the key.



A wedge is used to wedge the wheels of a transport vehicle so that it cannot be moved.



1. voussoir
2. heel
3. Angle (maximum Angle not greater than 10°)
4. Distance between the slopes
5. rampway

Use ramps that are the right size, strong enough, low enough, and high enough. Make sure the ramps are slippery and free of mud and snow.

Secure the machine with chains and spacer blocks.

Keep bystanders away.

Welding operations

Personnel performing welding operations must hold a professional certificate and be carried out in places equipped with appropriate equipment. During welding, the operator must observe the following precautions:

In order to avoid damage to electrical components, when welding the machine, stop the machine on a flat ground, implement parking brake, disconnect the main switch of the power supply and the plug-in connector of the instrument system, otherwise the components on the dashboard will be burned out.

Remove paint from areas where welding is required to prevent the generation of harmful gases.

Do not inhale paint fumes.

Do not weld near rubber hoses, wires or pressurized pipes.

Clean the remaining pressure in the machine before welding. Do not weld on the pipeline connected to the machine.

Maintain machinery safely

Prepare the work area

Choose a repair area that is large enough, well lit, ventilated, clean and flat. Clean the floor by wiping off fuel oil, lubricant and water. Lay sand or other absorbent material on slippery floors. Keep the work area clean and dry.

Machine loading and unloading

During shipment, national and local regulations on the weight, length, width and height of materials shall be observed.

Know the correct loading and unloading procedures.

Load and unload on flat ground.

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Safety matters

Wear protective goggles and protective clothing during welding.

The ventilation of welding site should be ensured to be good.

Clean up all flammable materials, and the work site must be equipped with fire extinguishers.



Clean machines regularly

To avoid possible injury or machine damage, the machine should be cleaned regularly to remove all accumulated grease, oil or debris and keep the engine room, battery, hydraulic pipes and fuel tank clean.

When cleaning, you should wear anti-slip shoes to prevent slipping on wet surfaces. When using high-pressure water to flush the machine, you should avoid high-pressure water impact to avoid injury and avoid dirt or sludge splashing into the eyes.



Do not spray water directly on sensors, connectors and instruments in the electrical system. If water enters the electrical system, it may cause operational failure.

Usage and main technical parameters

use

The cutting machine is mainly designed for large depth high strength concrete pavement, bridge box girder and large building floor, and is often used for large airport runway and large bridge box girder cutting operations.

This machine is a general road machinery, not suitable for flammable, explosive, high dust or toxic gas environment.

Work environment requirements

1. Altitude: ≤ 3000 m
2. Environment temperature: $-15^{\circ}\text{C} \sim +40^{\circ}\text{C}$ (without additional auxiliary cold start device)

AND-NOT operation

1. Overuse.
2. Water-related operations.

! pay attention to

The preventive measures outlined in this manual regarding operation, maintenance, and safety protocols are strictly applicable only when the equipment is used for its designated purposes. Should the machine be operated beyond the specified parameters, Pop Machinery Manufacturing Co., Ltd. shall not assume any liability for safety incidents arising from such unauthorized use, with all associated risks borne by the user. Under no circumstances shall operations prohibited by this manual be performed.

Main technical
parameters of
application and
main technical
parameters

Component parameters

name	unit	numeric value	
		T1200E	
Diamond saw blade diameter	mm	1200	
Diamond saw blade diameter	mm		
Installation hole diameter	mm	50, 60,	
Cutting line speed	m/s	35-50	
Maximum cutting depth	mm	500	
Cutting width	mm	0-8	
Motor type		22KW	
power	KW	22	
motor speed	r/min	1450	
Cooling tank capacity	L		
Cooling forms		Self-weight injection + pressurized water supply	
machine weight	kg	500	
tare	kg	530	
External dimensions (length × width × height)	mm	1370*1030*1200	