
USER MANUAL IN ORIGINAL



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SAFETY INSTRUCTIONS

To reduce the risk of serious injury or death to yourself or others read and understand the Safety and operating instruction before installing, operating, repairing, maintaining, or changing accessories on the machine.

Post this Safety and operating instruction at work locations, provide copies to employees, and make sure that everyone reads the Safety and operating instruction before operating or servicing the machine.

In addition, the operator or the operator's employer must assess the specific risks that maybe present as a result of each use of the machine.

Additional instructions for the engine can be found in the manufacturer's engine manual.

Personal precautions and qualifications

Only qualified and trained persons may operate or maintain the machine. They must be physically able to handle the bulk, weight, and power of the machine. Always use your common sense and good judgement.

Personal protective equipment

Always use approved protective equipment. Operators and all other persons in the working area must wear protective equipment, including at a minimum:

- Protective helmet
- Hearing protection
- Impact resistant eye protection with side protection
- Respiratory protection when appropriate
- Protective gloves
- Proper protective boots
- Appropriate work overall or similar clothing (not loose-fitting) that covers your arms and legs.

Drugs, alcohol or medication

Drugs, alcohol or medication may impair your judgment and powers of concentration. Poor reactions and incorrect assessments can lead to severe accidents or death.

Never use the machine when you are tired or under the influence of drugs, alcohol or medication.

OPERATION, PRECAUTIONS

DANGER Explosion hazard

If a warm machine or exhaust pipe comes into contact with explosives, an explosion could occur. During operating with certain materials, sparks and ignition can occur. Explosions will lead to severe injuries or death.

Never operate the machine in any explosive environment.

Never use the machine near flammable materials, fumes or dust.

Make sure that there are no undetected sources of gas or explosives.

Avoid contact with the warm exhaust pipe or the bottom of the machine.

DANGER Fire hazard

If a fire starts in the machine, it can cause injury.

If possible use an ABE-class powder extinguisher, otherwise use a BE-type carbon dioxide fire extinguisher.

DANGER Fuel hazard

The fuel is flammable and fuel fumes can explode when ignited, causing serious injury or death.

Protect your skin from contact with the fuel. If fuel has penetrated the skin, consult a qualified health professional.

Never remove the filler cap, or fill the fuel tank when the machine is hot.

Fill the fuel tank outdoors or in a clean and well ventilated place, free from sparks and open flames. Fill the fuel tank at least ten meters (30 feet) from the place where the machine is to be used.

Release the filler cap slowly to let pressure escape.

Never over fill the fuel tank.

Make sure the filler cap is screwed on when the machine is used.

Avoid spilling fuel on the machine, wipe off any spilled fuel.

Check regularly for fuel leaks. Never use the machine if it is leaking fuel.

Never use the machine in the proximity of material that can generate sparks. Remove all hot or spark-generating devices before starting the machine.

Never smoke when filling the fuel tank or when working with the machine or servicing it.

Only store fuel in a container that is specially constructed and approved for the purpose.

Consumed fuel and oil containers must be taken care of and returned to the retailer.

Never use your fingers to check for fluid leaks.

WARNING Unexpected movements

The machine is exposed to heavy strains during operation. If the machine breaks or gets stuck, there may be sudden and unexpected movement that can cause injuries.

Always inspect the machine prior to use. Never use the machine if you suspect that it is damaged.

Make sure that the handle is clean and free of grease and oil.

Keep your feet away from the machine.

Never sit on the machine.

Never strike or abuse the machine.

Pay attention and look at what you are doing.

WARNING Dust and fume hazard

Dusts and /or fumes generated or dispersed when using the machine may cause serious and permanent respiratory disease, illness, or other bodily injury. Some dusts and fumes created by compaction work contain substances known to cause respiratory disease, cancer, birth defects, or other reproductive harm.

Dust and fumes in the air can be invisible to the naked eye, so do not rely on eye sight to determine if there is dust or fumes in the air. To reduce the risk of exposure to dust and fumes, do all of the following:

Perform site-specific risk assessment. The risk assessment should include dust and fumes created by the use of the machine and the potential for disturbing existing dust.

Wear, maintain and correctly use respiratory protection as instructed by your employer and as required by occupational health and safety regulations. The respiratory protection must be effective for the type of substance at issue (and if applicable, approved by relevant governmental authority).

Work in a well ventilated area.

If the machine has an exhaust, direct the exhaust so as to reduce disturbance of dust in a dust filled environment.

Operate and maintain the machine as recommended in the operating and safety instructions.

Wear washable or disposable protective clothes at the worksite, and shower and change in to clean clothes before leaving the work site to reduce exposure of dust and fumes to your self, other persons, cars, homes, and other areas.

Avoid eating, drinking, and using tobacco products in areas where there is dust or fumes.

Wash your hands and face thoroughly as soon as possible upon leaving the exposure area, and always before eating, drinking, using tobacco products, or making contact with other persons.

Comply with all applicable laws and regulations, including occupational health and safety regulations.

Participate in air monitoring, medical examination programs, and health and safety training programs provided by your employer or trade organizations and in accordance with occupational health and safety regulations and recommendations. Consult with physicians experienced in relevant occupational medicine.

Work with your employer and trade organization to reduce dust and fume exposure at the work site and to reduce the risks. Effective health and safety programs, policies and procedures for protecting workers and others against harmful exposure to dust and fumes should be established and implemented based on advice from health and safety experts. Consult with experts.

DANGER Exhaust gas hazard

The exhaust gas from the machine's combustion engine contains carbon monoxide which is poisonous, and chemicals which cause cancer, birth defects, or other reproductive harm. Inhalation of exhaust fumes can cause serious injury, illness, or death.

Never inhale exhaust fumes.

Ensure good ventilation (extraction of air by fan if necessary).

WARNING Projectiles

Failure of the work piece, of accessories, or even of the machine itself may generate high velocity projectiles. During operating, splinters or other particles from the compacted material may become projectiles and cause personal injury by striking the operator or other persons. To reduce these risk:

Use approved personal protective equipment and safety helmet, including impact resistant eye protection with side protection.

Make sure that no unauthorized persons trespass into the working zone.

Keep the work place free from foreign objects.

WARNING Rotating blades hazards

There is a risk of hands and feet getting caught by the rotating blades when the machine is running. This can cause personal injury.

Never place your hands or feet inside the protection ring when the machine is running

WARNING Motions hazards

When using the machine to perform work-related activities, you may experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.

Adopt a comfortable posture whilst maintaining secure footing and avoiding awkward off-balanced postures.

Changing posture during extended tasks may help avoid discomfort and fatigue.

In case of persistent or recurring symptoms, consult a qualified health professional.

WARNING Vibrations hazards

Normal and proper use of the machine exposes the operator to vibration. Regular and frequent exposure to vibration may cause, contribute to, or aggravate injury or disorders to the operator's fingers, hands, wrists, arms, shoulders and/or nerves and blood supply or other bodyparts, including debilitating and/or permanent injuries or disorders that may develop gradually over periods of weeks, months, or years. Such injuries or disorders may include damage to the blood circulatory system, damage to the nervous system, damage to joints, and possibly damage to other body structures.

Operate and maintain the machine as recommended in these instructions, to prevent an unnecessary increase in vibration.

The following may help to reduce exposure to vibration for the operator:

Make sure that the machine is well-maintained and not worn out.

Immediately stop working if the machine suddenly starts to vibrate strongly. Before resuming the work, find and remove the cause of the increased vibrations.

Participate in health surveillance or monitoring, medical exams and training programs offered by your employer and when required by law.

When working in cold conditions wear warm clothing and keep hands warm and dry.

See the "Noise and vibration declaration statement" for the machine, including the declared vibration values. This information can be found on the page 9.

WARNING Trapping hazards

There is a risk of neck ware, hair, gloves, and clothes getting dragged into or caught by rotating machine parts. This may cause choking, scalping, lacerations, or death. To reduce the risk:

Never grab or touch a rotating machine part.

Avoid wearing clothing, neck ware or gloves that may get caught.

Cover long hair with a hair net.

DANGER Electrical hazard

The machine is not electrically insulated. If the machine comes in to contact with electricity, serious injuries or death may result.

Never operate the machine near any electric wire or other source of electricity.

Make sure that there are no concealed wires or other sources of electricity in the working area.

DANGER Concealed object hazard

During operating, concealed wires and pipes constitute a danger that can result in serious injury.

Check the composition of the material before operating.

Watch out for concealed cables and pipes for example electricity, telephone, water, gas, and sewage lines.

If the machine seems to have hit a concealed object, switch off the machine immediately.

Make sure that there is no danger before continuing.

WARNING Involuntary start

Involuntary start of the machine may cause injury.

Keep your hands away from the start and stop device until you are ready to start the machine.

Learn how the machine is switched off in the event of an emergency.

WARNING Noise hazard

High noise levels can cause permanent and disabling hearing loss and other problems such as tinnitus (ringing, buzzing, whistling, or humming in the ears). To reduce risks and prevent an unnecessary increase in noise levels:

Risk assessment of these hazards and implementation of appropriate controls is essential.

Operate and maintain the machine as recommended in these instructions.

If the machine has a silencer, check that it is in place and in good working condition.

Always use hearing protection.

TRANSPORT, PRECAUTIONS**WARNING Loading and unloading hazard**

When the machine is lifted by a crane and similar appliance, this can lead to injury.

Use marked lifting points.

Make sure that all lifting devices are dimensioned for the weight of the machine.

Never remain under or in the immediate vicinity of the machine.

MAINTENANCE, PRECAUTIONS**WARNING Unexpected start hazard**

During maintenance or when changing blades on the machine, there is a risk that the engine backfires or that the machine unexpectedly starts. This applies especially when the engine is hot and if the engine power switch is in position ON. This can result in serious personal injury.

Always let the engine cool down.

Always turn the engine power switch to position OFF.

Always take the cap off the spark plug.

WARNING Unexpected start hazard

Any machine modification may result in bodily injuries to yourself or others.

Never modify the machine. Modified machines are not covered by warranty or product liability.

Always use original parts, insertion tools, and accessories.

Change damaged parts immediately.

Replace worn components in good time.

CAUTION High temperature

The machine's engine exhaust pipe, and bottom become hot during operation. Touching them can lead to burns.

Never touch a hot machine.

Never touch the bottom of the machine when its hot.

Wait until the engine, exhaust pipe, and bottom of the machine have cooled down before carrying out maintenance work.

STORAGE, PRECAUTIONS

Keep the machine in a safe place, out of the reach of children and locked up.

SAFETY PRECAUTIONS

Always keep unauthorized, inexperienced, untrained people away from this machine.

Rotating and moving parts will cause injury if contacted. Make sure guards are in place. Keep hands and feet away from moving parts.

Fuel the machine only when the engine is stopped, using all necessary safety precautions.

The engine must always be stopped before attempting any repair or adjustments. Ignition key should be off.

Danger: Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes. Repair fuel leaks immediately. Refer to your engine owner's manual for more safety instructions.

Be careful not to come in contact with the muffler when the engine is hot, serious burns may result!

Always operate the machine in a seated position to maintain machine balance.

The transporter is designed for moving the unit around the job site only. It is not to be used for towing the Ride-On unit off-site.

When starting the trowel, do not exceed the $\frac{1}{4}$ throttle position as recommended. A higher setting could cause the centrifugal clutch to engage, turning the trowel blades.

Be careful with the trowel around the stub pipes or other obstructions on the floor. Should the machine catch, or operator may be thrown from the machine. Excess surface water may result in sudden loss of control of steering. Disconnect battery before attempting any electrical maintenance.

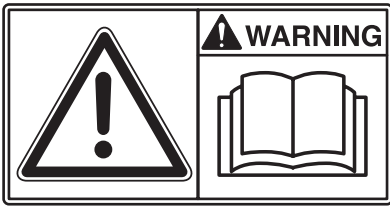
Ensure that the electrical dead-man switch is operating. (Left foot pedal).

Left foot pedal: Place foot on the pedal to engage. The engine will not start without this. To stop the engine release the foot pedal.

To reduce the risk of serious injury or death to yourself or others, read the Safety instructions section found on the previous pages of this manual before operating the machine.

SIGNS

Warning Signs



Before use, carefully read the manual and its safety instructions so that you can handle the machine safely. Ensure that the manual is always accessible.



Engine and silencer: To avoid burns or discomfort, do not touch hot engine parts when the engine is on or when the machine has recently been used.



Belt drive: Keep hands, tools and other objects away from the belt drive when the machine is on to avoid injury and damage. See the safety instructions in the manual.



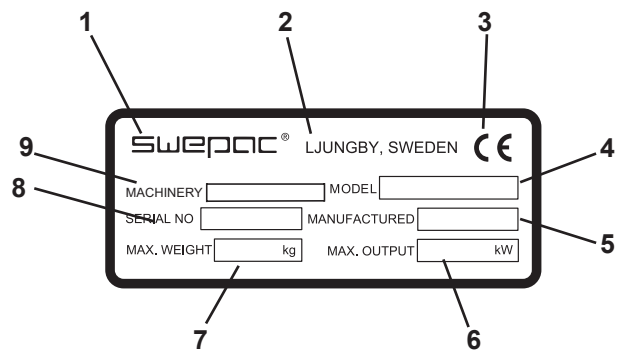
As the sound pressure level at the operator's ears exceeds 80 dB (A), ear protectors must be used when working with the machine to prevent hearing damage.

Always remove the leveling disc before lifting the machine!



NOTE! Use only the machine's lifting eye to lift the machine.

Machine Signs



1. Manufacturer
2. Place, country of manufacture.
3. CE mark.
4. Model name.
5. Year of manufacture.
6. Max. engine power.
7. Max. weight.
8. Serial number.
9. Machine type

To reduce the risk of serious injury or death to yourself or others, read the Safety instructions section found on the previous pages of this manual before operating the machine.

TECHNICAL DATA

TR 2000-HRM

Engine, petrol.....Honda GXV 690
 (2 cylinder OHV 90° V engine. 4 stroke air-cooled
 gasoline engine with electric start)
 Engine output.....16,5 kW (22,1HP)
 Speed, (engine shaft)3600 rpm
 Speed, (rotor shaft)Max-165 rpm
 Fuel tank capacity15 liter
 Engine weight (dry weight).....46,7kg
 Battery.....12V - 55Amp

Dimensions and weights

Protecting ring.....2000 x 1000 mm
 Working diameter trowels blades.....935 mm
 Diameter discs.....950 mm
 Net weight.....285kg
 Weight leveling disc.....16.00 kg
 Weight transport wheels, device.....20,6 kg
 Water tank capacity15 liter

Hand/arm vibrations.....0,7m/s²

Whole body vibrations according to ISO 2631.....
 x = 0,6 m², y = 0,4 m², z = 0,25 m²

Guaranteed sound-power level, L_{WA}.....104 dB(A)
 Sound pressure level (at operators ear).....88 dB(A)

Note! At full rpm and with discs/pans assembled on the blades. This description belongs to the measurement of the vibration and the sound level.

Lubricants	TR 2000-HRM	Quantity
Fuel type	Petrol (gasoline) Use unleaded petrol of standard quality	15l
Engine oil	SAE 10W/30	2.2l
Grease, shaft for blade adjustments	Shell Regina Grease 2 or equivalent	
Gearbox oil	Exxon Mobile Glygoyle 320 or equivalent	0,77l

ASSEMBLY INSTRUCTIONS (If the trowel arrives in unpacked carton)**SEAT ASSEMBLY**

Remove protective wrapping from seat. The seat is now ready to secure to the frame. Use provided pin pos. 1 and spring pos. 2.

See the picture below!

**STEERING HANDLE ASSEMBLY**

The steering handles are shipped ready to connect.

Position the handles over the handle sleeves so that the set-screws are lined up with the tapped holes on the sleeves. Tighten the set-screws and test the mobility of the handles.



OPERATION

DESCRIPTION

The Riding Trowel is a modern, high production machine. Finishing rate will vary depending on operator skill and job conditions. The heavy-duty gearboxes are designed to provide exceptional performance, low maintenance, and trouble-free use in most conditions. The low speed unit is designed to provide higher torque, to optimize performance with the use of pans. However, either machine can be configured to be non-overlapping or overlapping, and can therefore use either two pans or ten finishing blades.

SWEPAC Riding Trowel is equipped with a fail-safe kill circuit and a low oil shutdown added job safety and engine protection.

Operating time between fuel refills is approximately 4–4½ hours with rotor speeds between 80 and 120 rpm.

Trowel will provide you with exceptional service.

TR 2000-HRM are intended to be used for finishing newly cast concrete surfaces. The concrete surface can be power floated with a floating disc and power trowelled with trowelling blades of steel. The surface achieved will be even, dense and have a high finish.

No other use is permitted.

TR 2000-HRM must only be used in well-ventilated areas, as is the case for all combustion engine machines.

Before starting

Before starting the trowel, check the following:

- fuel level
- oil level in the engine
- condition of the air filter
- condition of trowel arms and blades

Grease the trowel arms regularly

Check the oil lever in the gearbox regularly

Starting

Before starting the operator must know the location and function of all controls.

Push down on the left foot pedal, and activate the dead-man switch.

Turn the engine keyswitch and hold it until the engine starts.

Note: If the engine is cold, pull out the choke control knob fully.

NOTICE: Cranking the engine for more than 5 seconds can cause starter damage. If the engine fails to start, release the keyswitch and wait 10 seconds before operating the starter again.

Note: The engine has an oil alert switch designed to stop the engine automatically if the oil level gets too low. If engine will not start, or stops during operation, check engine oil level.

Allow the engine to warm up before operating the trowel.

Stopping

To stop trowel movement, return joystick(s) or control levers to their neutral position and release pressure on the throttle foot pedal.

To stop the engine, turn the keyswitch to “O” (off).

OPERATION

OPERATING INSTRUCTIONS

1 Starting procedures-warm temperatures

Prior to starting the trowel, check the engine and gearbox oil levels. Be sure the fuel tank is full.

Check engine and gearbox oil levels.

WARRANTY IS VOID IF RUN WITHOUT OIL. Fill tank with safety approved fuel containers. DO NOT MIX OIL WITH FUEL, OR THE USE OF OTHER INCORRECT TYPES OF FUEL.

Maintain left foot pressure on the dead-man safety switch. Engine will disengage and stop if safety switch is released. Do not tape, tie-down, or otherwise attempt to bypass safety device.

Turn ignition key all the way. Allow engine to warm up before proceeding with full trowel operation.

2 Starting procedure-cold temperatures

Follow same procedure as above but allow for a longer warm up period 3-5 min. (In cold weather oil is much heavier to move. Extra time is required to heat the oil.)

3 To Stop engine

Bring throttle to low idle, wait a few seconds.

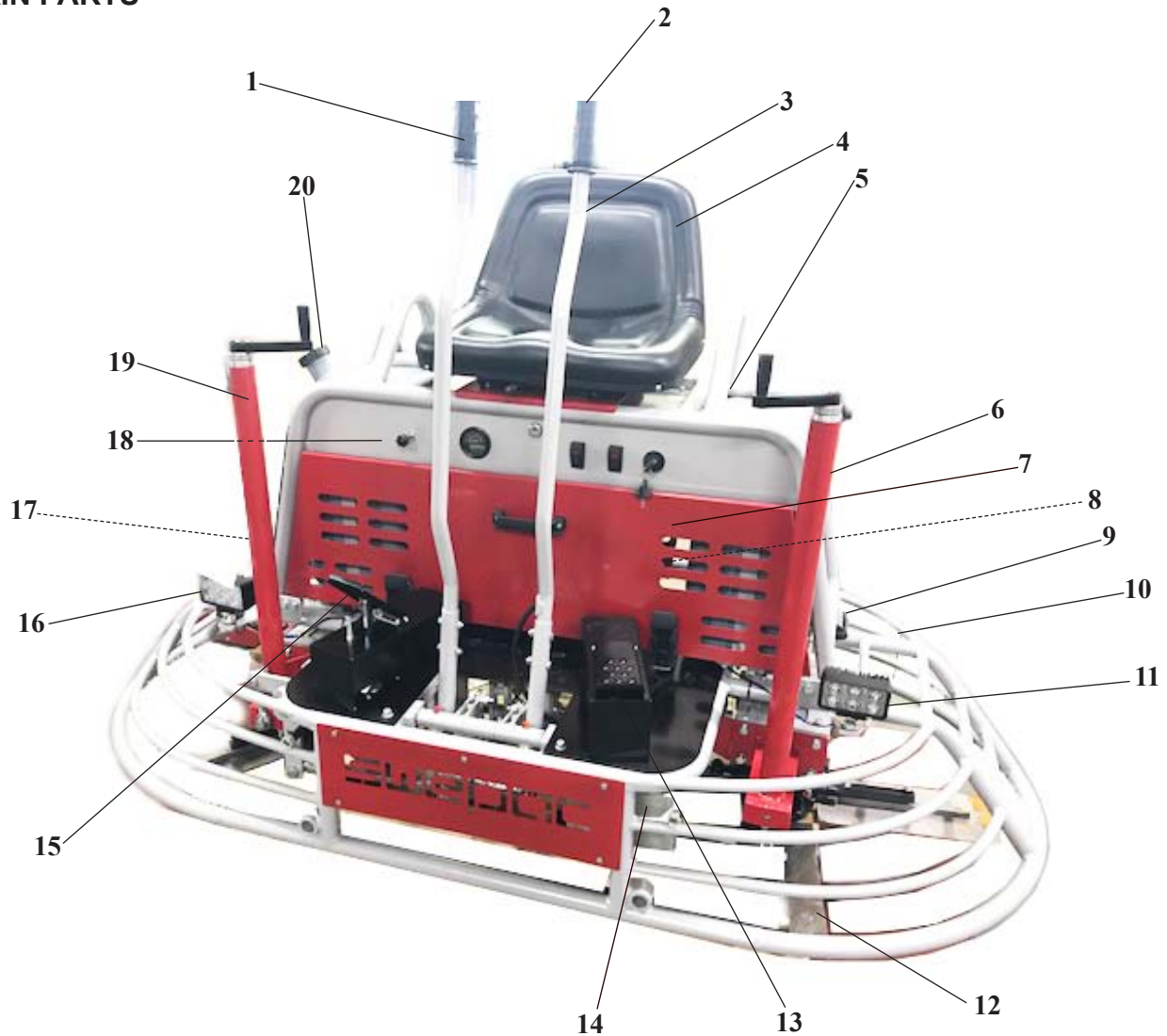
Remove left foot from dead-man safety switch.

Turn off ignition key.

OPERATION

DESCRIPTION

MAIN PARTS

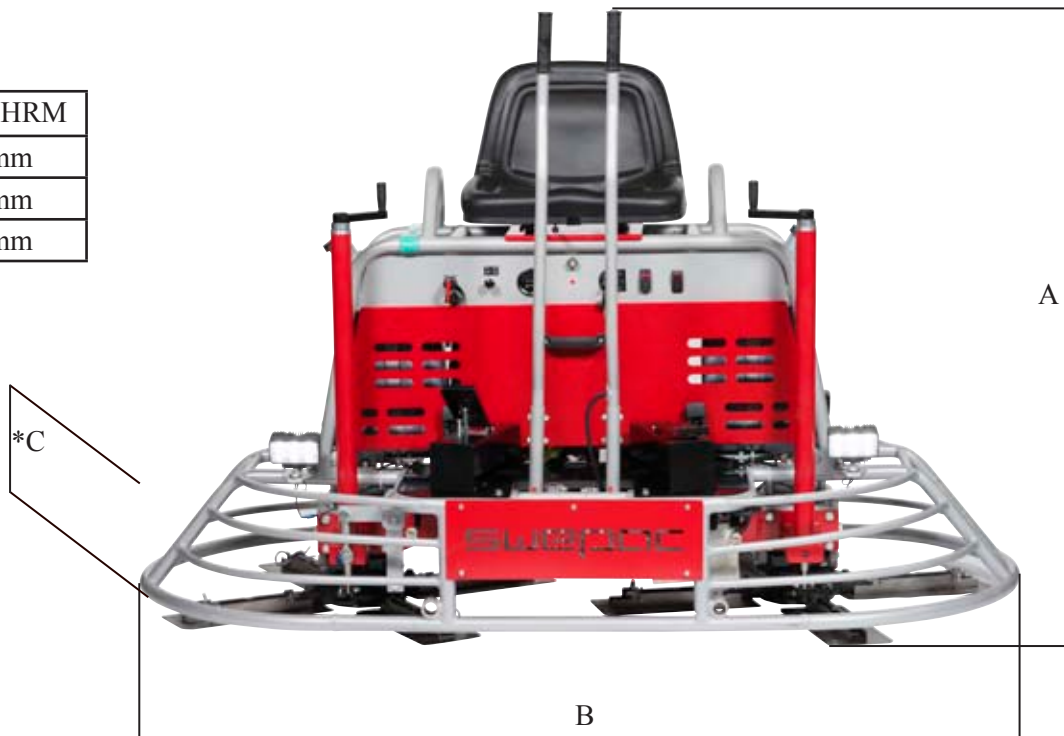


Ref.	Description	Ref.	Description
1	Right steering handle	11	Left frontside work light
2	Water spray control	12	Troweling blades
3	Left steering handle	13	Hold to run pedal (Dead man's pedal)
4	Operator's seat	14	Battery in a protective box
5	Water tank	15	Throttle control pedal
6	Left pitch control	16	Right frontside work light
7	Service hatch	17	Right backside work light
8	Engine	18	Control panel
9	Left backside work light	19	Right pitch control
10	Protective frame	20	Fuel tank

OPERATION

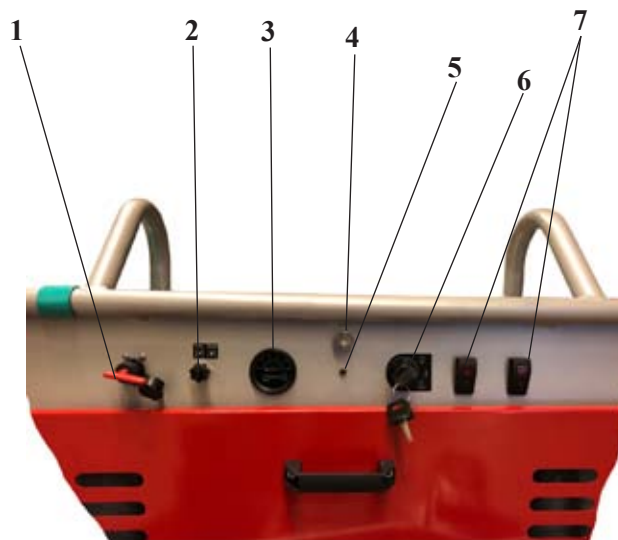
DIMENSIONS

	TR 2000-HRM
A	1330 mm
B	2000 mm
*Depth C	1000 mm



DESCRIPTION

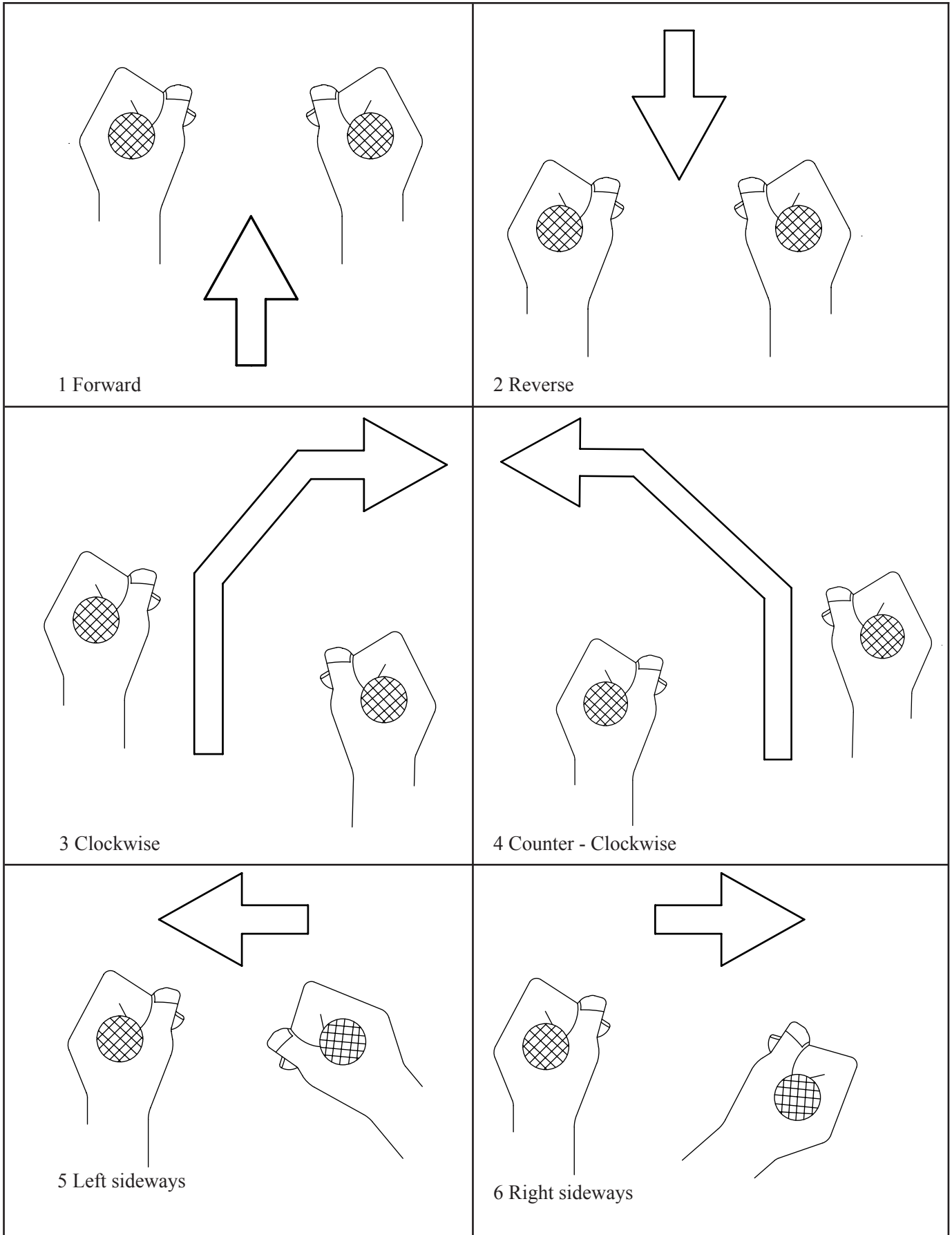
Control panel



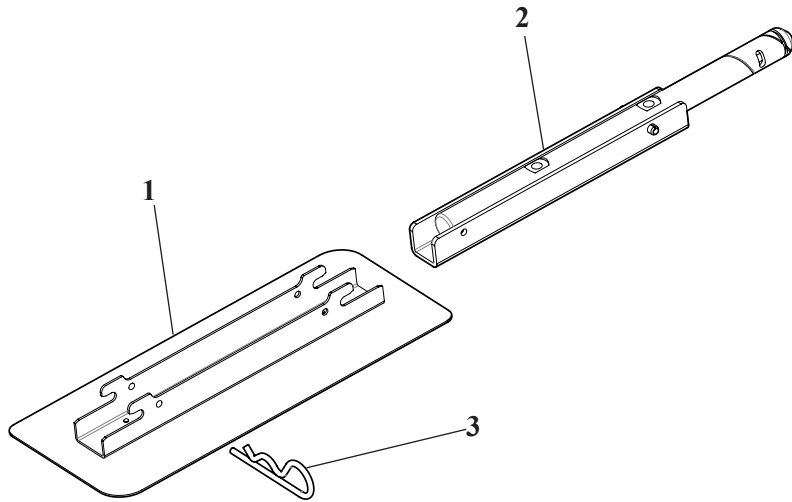
Ref.	Description	Ref.	Description
1	Main switch	5	Ignition light
2	Choke	6	Start and ignition key
3	Hour meter and battery charge	7	Work lights
4	Seat locking		

STEERING

Refer to the illustration for the necessary hand motions to move the trowel in the desired direction, described below.



WORKING CONDITION OF CONCRETE



1; Trowel blade

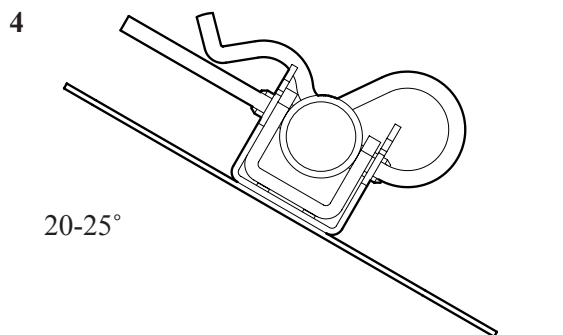
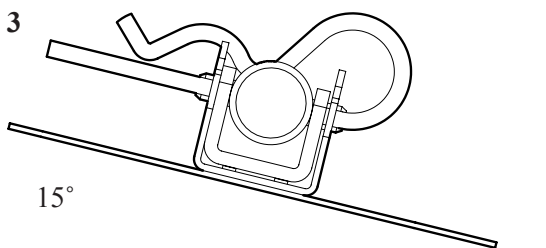
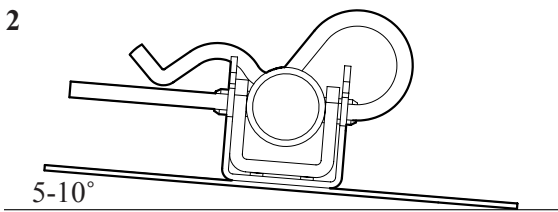
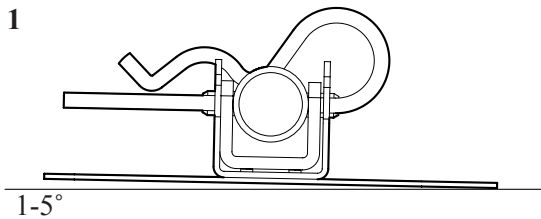
2; Trowel blade shaft

3; Pin

To change or turn around the trowel blades, pull out the pin (3).

Pull forward the trowel blades (1) from the trowel blades shaft.

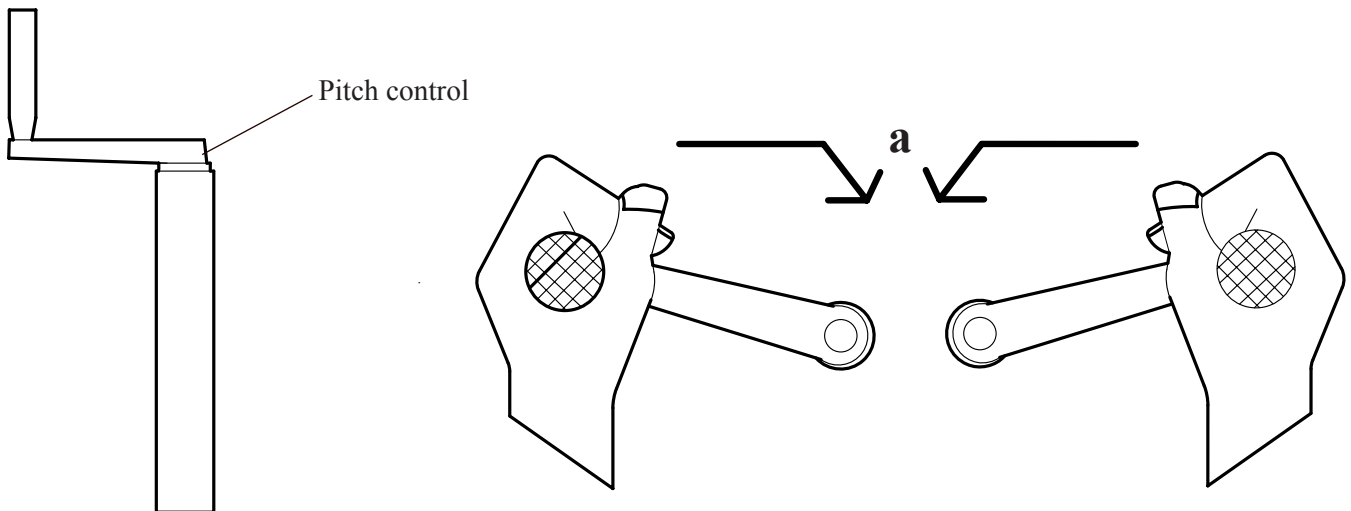
Change or turn around the the trowel blades. Don't forget to put back the pin



Working Conditons of Concrete	Suggested Working Pitch
1. Wet surface working stage	Almost flat (small angle)
2. Wet to plastic working stage	Slight Pitch
3. Semi-hard working stage	Additional Pitch
4. Hard finishing stage (burnishing)	Maximum Pitch

When changing or setting the pitch (angle) of the trowel blades, slow the machine, set the desired pitch on the left side of the machine, then adjust the right side to match.

To increase the pitch, turn the pitch control inward (a).



Guiding the machine on the slab is quite simple but does require some familiarity before actually working with the machine. The controls respond as shown in figure 2a below.

Test the machine on a finished section of the floor, with the blades in a flat position, and the engine at a low revolution to gain the necessary feel for the steering.

For straight line movement, move the handles in opposite directions to produce rotation on the machines axis. Left handle forward, right handle backward for clockwise rotation. Left handle backward, right handle forward, for counter-clockwise rotation. Sideways direction is achieved by sideways movement of the right handle in the required direction of travel.

WARNING: SERIOUS INJURY OR PROPERTY DAMAGE MAY RESULT DUE TO TEMPORARY LOSS OF CONTROL IF OPERATED WITH EXCESS LIQUID ON THE CONCRETE SURFACE.

5 Float/Trowel pitch setting

Once you are familiar with the steering functions on a flat floor, you are ready to combine the steering with float/trowel pitch settings to produce the finish you require. The pitch adjustment feature of the Beton Trowel RIDE-ON TROWEL permits quick and accurate pitch changes of the finishing/float blades, without having to stop the machine. Turning the adjustment crank-handle at the end of the pitch control tubes enables you to change the pitch whenever necessary to allow for varying conditions over the slab surface.

Each spider plate is adjusted independently. The pitch setting will affect the steering of your unit. Experiment with the settings as you test drive so you will know what to expect.

CAUTION: Do not let the machine stand in one spot on the soft concrete; This may place unnecessary strain on the clutch to break it free of the concrete. If the unit has been sitting for any length of time, break it free from the concrete before attempting operation.

CAUTION: When finishing concrete above grade, erect a situation barrier along the edge of the slab as a protective measure. The barrier must follow all applicable codes and should be such that it will stop the trowel from riding over the edge of the slab in case of loss of control.

MAINTENANCE

1 Preventative maintenance and routine service plan

This trowel has been assembled with care and will provide years of service. Preventative maintenance and routine service are essential to the long life of your trowel. Your dealer is interested in your new machine and has the desire to help you get the most value from it. After reading through this manual thoroughly, you will find that you can do some of the regular maintenance yourself. However, when in need of parts or major service, be sure to see Beton Trowel.

GENERAL

- Keep engine oil clean. Change according to engine manufacturer's specifications.
- Maintain the oil levels in the engine and gearbox assemblies. Change as required.
- Use only clean fuel in the engine.
- Check for loose nuts and bolts on the trowel and tighten as necessary.
- Check "V" belts for wear, replace if worn.
- Grease all fittings daily. See diagram.
- Clean the unit after every use to prevent hardening of concrete residue. Hard efficient subsequent operation of unit.
- Check clutch linings regularly for wear. Linings should be changed when $\frac{3}{4}$ worn. Do not allow metal to metal contact as this will damage the clutch drum. (New lining is 8mm)

AIR CLEANER

- Maintaining a clean engine will extend engine life. Keep air filter clean at all times. Clean air filter using the recommended solvent. See engine manual for proper cleaning procedure. Let the filter dry before reinstalling.

SPARK PLUG

- Check and clean spark plugs regularly. A fouled, dirty spark plug causes hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

1 Lubrication

ENGINE OIL

The long life and successful operation of any piece of machinery is dependent on frequent and thorough lubrication.

Before using the trowel, always check your engine for oil. Use proper engine oil as recommended in the engine manufacturer's manual. Fill crankcase to levels as recommended.

SPIDER PLATE

There are 8 (eight) grease fittings on the spider plates, 4 (four) on each must be greased regularly.

GEARBOX

Check the oil level sight plugs on both gearboxes daily to ensure the oil is half way on the sight glass.

TO CHANGE GEARBOX OIL

Place a pan beneath the drain plug to catch the oil. Remove the drain plug and the filler plug from the gearbox. After the oil has drained completely, replace the drain plug and tighten. Fill the gearbox through the filler plug. Replace the filler plug and tighten.

GREASE FITTINGS Grease all steering and drive link.

Routine Service Intervals		Each use	After 1,5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
General Inspections:							
Operations of lights	Check		X	X	X	X	X
Battery	Clean / Check			X	X	X	X
	Recharge			X	X	X	X
	Replace						2 yrs
Guards	Check	X	X	X	X	X	X
Warning stickers	Check		X	X	X	X	X
Test run	Check operation			X	X	X	X

Controls:

Dead-man Switch operation	Check	X	X	X	X	X	X
Throttle pedal operations	Check	X	X	X	X	X	X
Steering linkages	Check	X	X	X	X	X	X
	Lubricate		X	X	X	X	X
	Replace						As req'd
Pitch control levers	Check	X	X	X	X	X	X
	Lubricate		X	X	X	X	X
Joystick controls (N/A)	Check	X					
Hydraulic system (N/A)	Check levels			X	X	X	X
	Check hoses			X	X	X	X
	Replace hoses						2 yrs

Engine:

Check		X	X	X	X	X
Fuel pipes & clamps	Replace					2 yrs
	Change		X		X	X

Engine oil	Check level	X	X	X	X	X	X
	Change		X		X		X
Engine oil filter	Replace				X		X
Oil cooler	Clean			X	X	X	X
Cooling fins	Clean		X	X	X	X	X
Air cleaner	Check-clean	X	X	X	X	X	X
Air Intake Line	Check				X		
	Replace						2 yrs
Fan Belt	Check-tightness				X		X
	Replace						500 hrs
Valve clearance	Check-adjust				X		X
Fuel filter	Check-clean			X	X	X	X
	Replace				X		X
Fuel Tank	Clean						500 hrs
Fuel Injections Nozzles	Check pressure						500 hrs
Fuel Injections Timer	Check						500 hrs
Injections Pump	Check						500 hrs
Engine wiring	Check						0

SERVICE

Due to the nature and environment of use, power trowels are exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your trowel

- The initial service for your power trowel should be performed after 25 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above.
- Regular service according to the schedule above will prolong the life of the power trowel and prevent expensive repairs.
- Keeping your power trowel clean and free from concrete residue is the single most important regular maintenance operation, over and above the checks in the service schedule above, that can be performed. Components such as oil seals, belts, drive line parts and bearings are prone to premature wear from exposure to concrete residue. Using a spray-on release agent on your power trowel before each use will make clean-up after use easy and extend the time between replacements of most of the wearing components of the machine.
- After each use your power trowel should be cleaned to remove any concrete residue from the undercarriage and surrounding components. Use of a power washer will make clean up quick and easy, especially if a release agent was applied prior to use.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by "o" in the appropriate column. Not all power trowel models include the same features and options and as such not all service operations may have to be performed. For ease of recording place a checkmark (✓) through the "o" when the item is complete. If an item is not required or not completed place an "x" through the "o" in the box.
- For all fuel-line powered trowels the governed speed of the engine is 2000 to 3600 rpm. See engine manufacturer's manual for exact specifications. Care should be used when making any adjustment to the power trowel not to change the governed speed. Increasing the governed speed of the engine may lead to premature failure and void the manufacturer's warranty.
- Failure to have your power trowel regularly serviced and properly maintained in accordance with the manufacturer's instructions will lead to premature failure and void the warranty.

Engine Oil Level Check

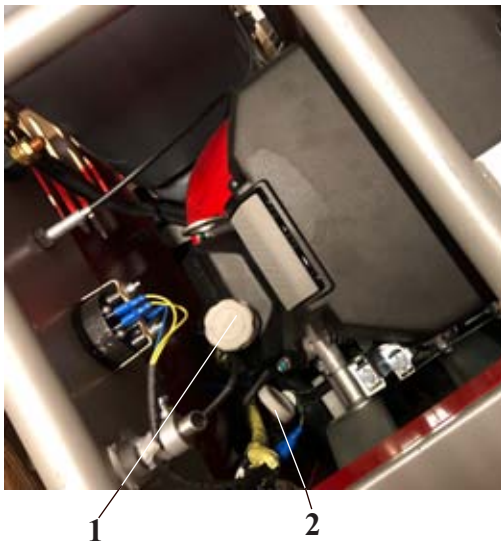
Check the oil level in the crankcase every day. The oil must reach the edge of the filling hole when the machine is on a level surface.

Oil/Fuel Leakage

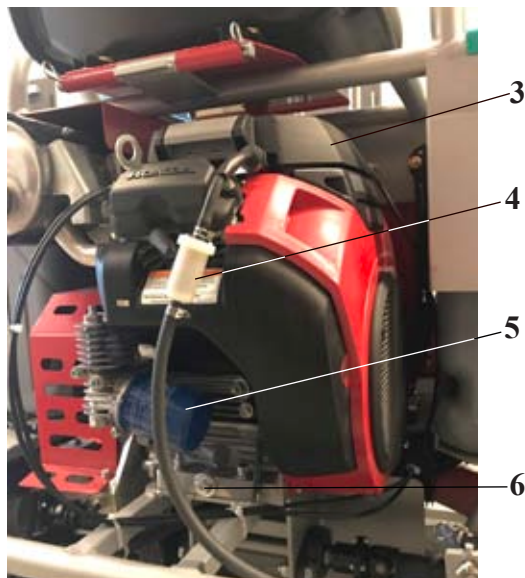
Check every day that the engine is not leaking oil or fuel. If a leak is discovered, the machine may not be operated until the fault has been remedied.

NOTE To fill the oil in the engine and to check the air filter, the driver's seat needs to be folded backward first.

Pull out the sprint that holds the seat in place



Ref.	Description
1	Oil filler cap
2	Dipstick
3	Air filter
4	Fuel filter
5	Oil filter
6	Oil draining screw

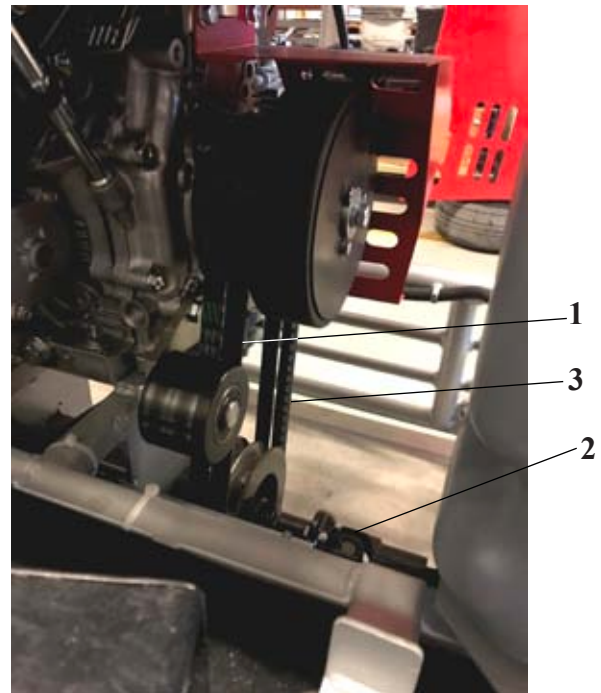


V-belt Drive

Changing the V-belt:

- Loosen the belt tensioner pos. 1
- Dismount the cardan shaft pos. 2
- Remove the V-belt pos. 3

Reassembly in reverse order.



Replace a damaged V-belt with the new type according to the table below

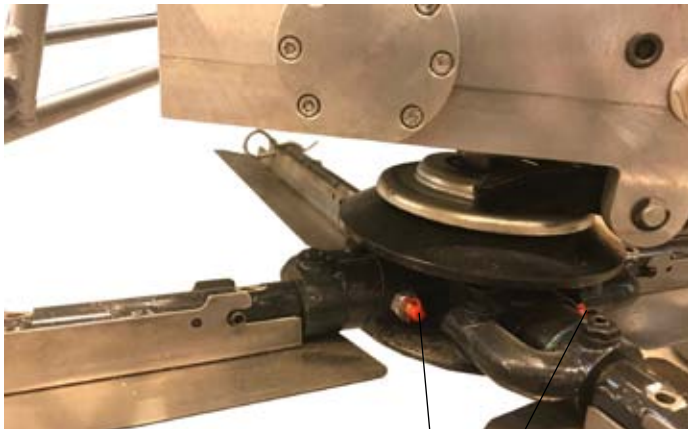
Machine type	V-belt type	Quantity
TR 2000-HRM	V15 X 1010	2 pieces

Lubrications of blade shafts and joints

It is important that the lubricating is performed regularly to prevent premature wear and stiff metal contact surfaces.

See the different lubrications points (nipples) in the pictures below.

See the lubricant list on the page 9



Lubrications points (nipples)

BATTERY REPLACEMENT

1. Loosen and remove the pedal plate



2. Loosen and remove the service panel



3. Remove the battery cover



Disconnect the battery cables and change the battery. Remount all part in reverse order.

TROUBLESHOOTING

Problem	Cause	Solution
The trowel does not start.	1; Main switch in off position. 2; Fuel tank empty. 3; Cold engine 4; Engine faulty.	1; Turn the switch on. 2; Fill up the tank. 3; Activate the choke. 4; See engine manual.
The blades do not rotate or rotate too slow, when the clutch handle is activated.	1; The V-belt is broken. 2; The V-belt is slipping or does not tension against the pulleys. 3; The clutch is broken	1; Replace the V-belt 2; Adjust the tensioning of the clutch wire. 3; Replace the broken part or the complete clutch.
The blade cross has difficulty to rotate.	1; Cold engine. 2; To low r.p.m. when activating the clutch. 3; Floating disc is used and the concrete is too fresh. 4; Engine faulty. 5; Gear box faulty.	1; Warm the engine up at idle speed. 2; Increase r.p.m. 3; Wait until the concrete has dried out more. 4; See engine manual. 5; Repair or replace the gear box.
The trowel is shaking.	1; One or more blades are bent or faulty. 2; One or more blades are not moving in the hub. 3; The pressure plate is askew.	1; Replace the broken units. 2; Disassemble the blades and clean the contact area. Put new grease on all contact areas. 3; Replace the pressure plate.
The blade adjustment system is out of order.	1; The blade adjustment wire is broken. 2; One or more of the blades are not moving in the hub. 3; The pressure plate is not moving vertically. 4; The blade adjustment in the operating handle is faulty.	1; Replace adjustment wire. 2; Disassemble the blades and clean the contact area. Put new grease on all contact areas. 3; Disassemble the blade cross and clean all contact areas. 4; Check all involved parts and replace if necessary.

Lifting the machine

WARNING Lifting hazard

Never lift the machine without checking if it is intact. A damaged machine can fall apart, which can result in serious injury.

Check that all equipment is dimensioned in accordance with applicable regulations.

Never walk or stand under a lifted machine.

Always remove the leveling discs before lifting the machine!

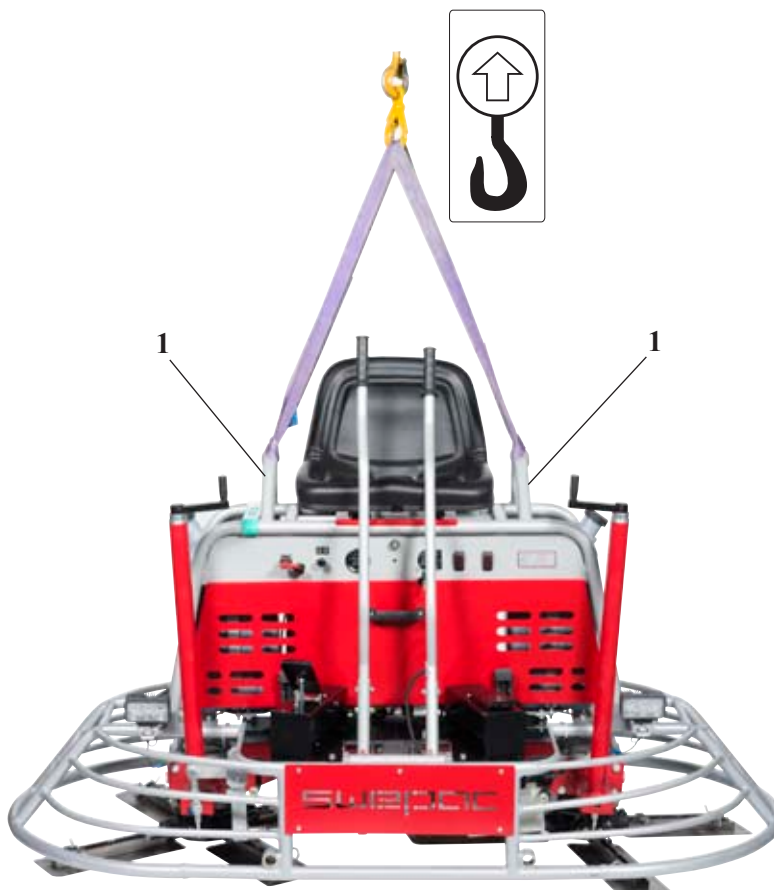
Never use the protection ring as a lifting device.

Never stand near the machine when lifting and transporting.

Check the machine's data plate for weight information.

Lifting the machine

Always use the machine's lifting eye (1) to lift the machine.



Lifting equipment must be dimensioned in order to fulfil all regulations.

TRANSPORTATION

WARNING Transport

Secure the machine for all transportation.

Use the protection frame to strap it on 4 places and corners to the base.

Transport the machine at the workplace

The machine is equipped with transport wheels (option) for shorter transports at the workplace.

NOTE! The machine should be transported with the transport wheels mounted on even ground

To transport the machine follow the following steps:

Lift the machine on any of the short sides, picture 1



Push the transport wheels in the housing on the frame, picture 2



Secure the transport wheels on the inside of the housing, picture 3

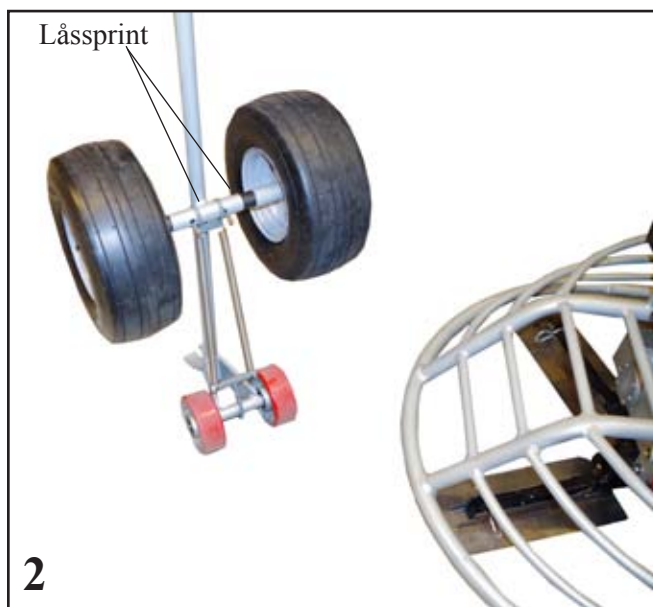


Move the machine according the picture 4



TRANSPORT LOCK FOR WHEEL UNDERCARRIAGE

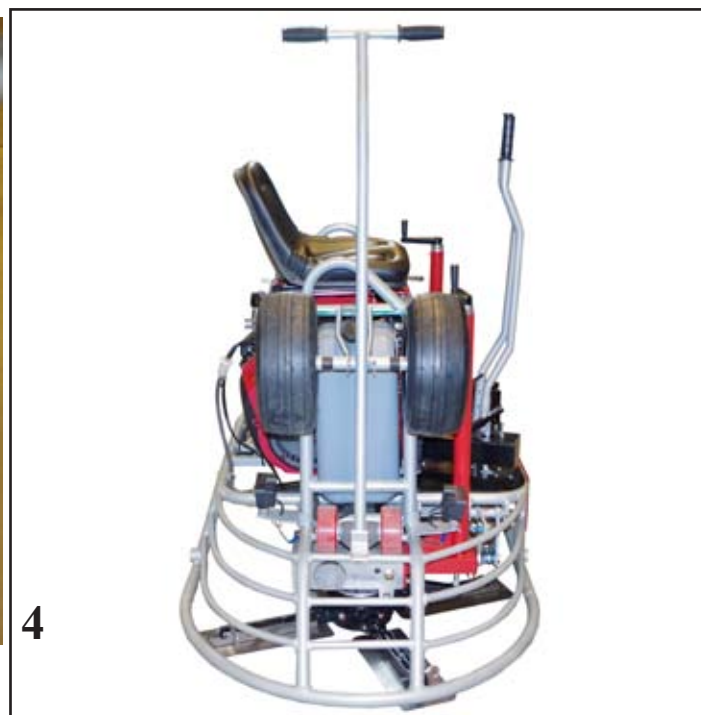
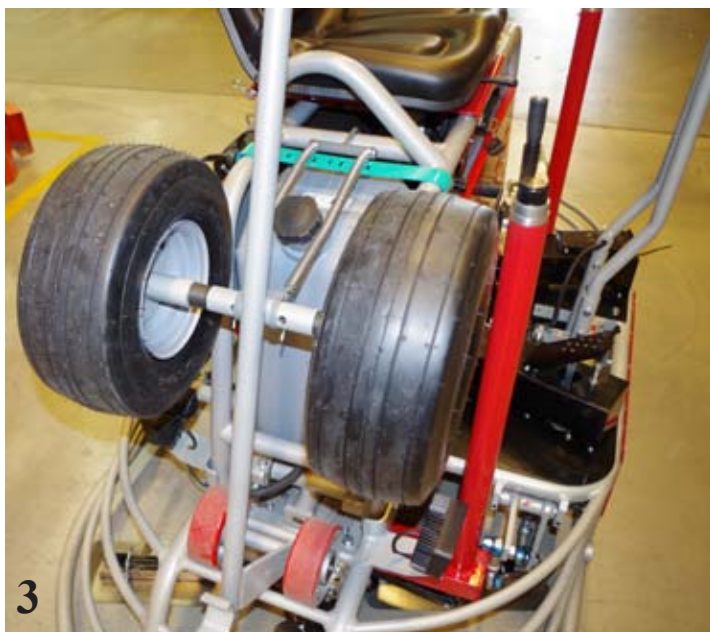
The transport wheel kit is equipped with a transport lock assembly, please refer to Figure 1. The transport lock assembly consists of a plate with two loops, two springs and a hook. The whole assembly is fastened on the tire fastening pipe with two locking pins, please refer to Page 2. The locking pins should be mounted on the outside of the loops



The transport wheel kit should during transport be upright and locked against the pipe at the lift jaw on the fuel tank side of the machine. The springs should be on both sides of the fuel tank cap.

The two small wheels should be in the safety frame's middle and top compartment, according to the Figures 3 and 4.

N.B.! The transport wheel kit should always be removed from the frame when work on the machine is performed!



STORAGE

Clean the machine properly before storage, in order to avoid hazardous substances. See “Dust and fume hazard”

Always store the machine in a dry place.

DISPOSAL

A used machine must be treated and disposed in such a way that the greatest possible portion of the material can be recycled and any negative influence on the environment is kept as low as possible, and in accordance with local restrictions.

Before a fuel driven machine is deposited it must be emptied and cleaned of all oil and fuel. Remaining oil and fuel must be dealt with in a way that does not adversely affect the environment.

Always send used filters, drained oil and fuel remnants to environmentally correct disposal.

NOTES

NOTES

NOTES



EC-declaration of conformity

Manufacturer

**Swepac AB
Blockvägen 3
34132 Ljungby**

1. Category: Trowel
2. Type: TR 2000-HRM
3. Engine power: TR 2000-HRM

The product complies with the following directives:

2006 / 42 / EG

2000 / 14 / EG

2004 / 108 / EG

EN 500-1

EN 500-4

Technical documentation held by:
Swepac AB, Blockvägen 3 SE-34132 Ljungby
Hans Holmlund / Product Manager

SWEPAC

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