

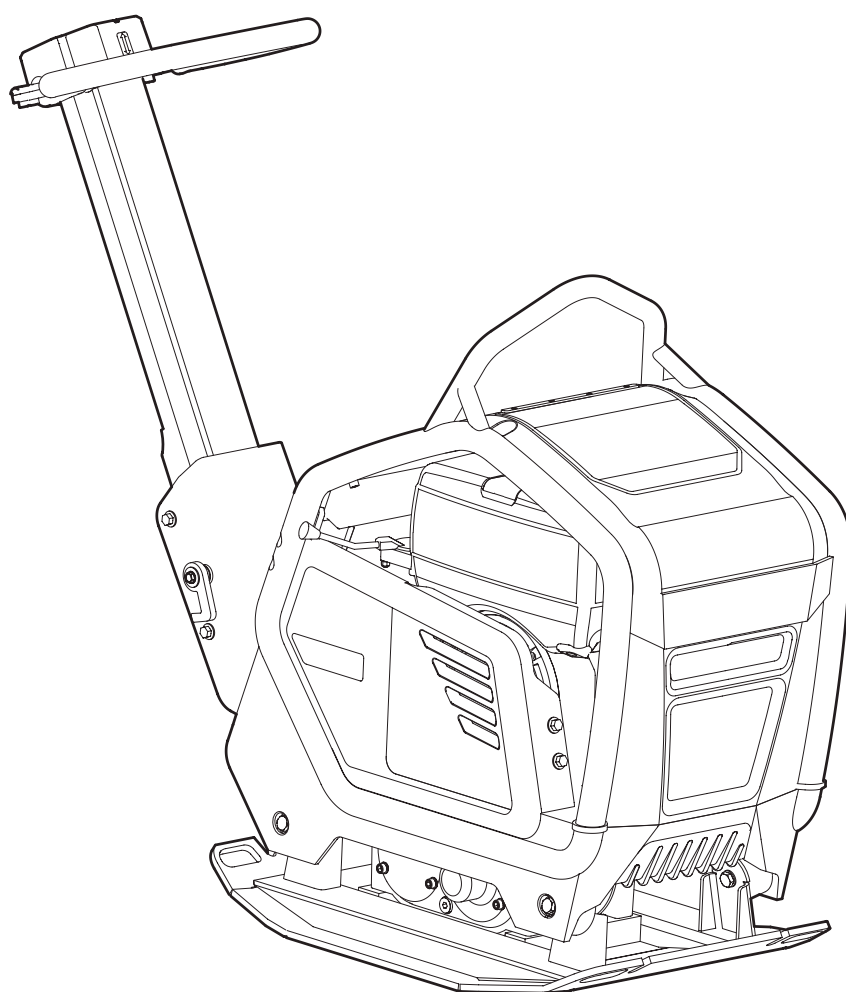
SWEPAC

FB 270

FB 280

FB 300

USER MANUAL IN ORIGINAL



USE

SWEPAC FB 270 / FB 280 / FB 300

is used to pack ballast under foundations, roadwork construction, in pipe and cable trenches, etc. Due to the forward / reverse function, the machine is highly suited for packing ballast in places with poor access and as a complement to larger packing equipment in hard-to-reach places.

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SAFETY INSTRUCTIONS

- Before using the machine, the operator must be informed of the manufacturer's safety instructions and instructions for use.
- The machine may only be used outdoors.
- The machine may not be used if protection and safety devices are not present or not working.
- The operator may not leave the machine unattended when the engine is on. When the vibrator is connected, the operator must be able to control the movement of the machine using the operating lever and the start/stop controls. The machine may only be operated by a trained operator.
- During maintenance work or other interventions in the machine, the engine must always be off.
- Switch the engine off before adding fuel. Avoid fuel spillage and immediately wipe off any spilled fuel. Add fuel only in well ventilated areas.
- Avoid touching hot engine parts, for example the silencer.
- Before lifting the machine, check that the lifting device and its mounting are not damaged and that the rubber dampers on the base plate are undamaged and tightened.
- During transportation and storage, the fuel tank should be empty and the fuel cock switched off.
- When the machine is parked, ensure that it cannot tip over. The machine must not incline more than 20°.
- The operator must use ear protectors when working with the machine.
- The operator must ensure that no unauthorised persons are in the immediate vicinity of the machine.
- Always wear personal protective equipment as heavy, non-slip shoes, ear protectors and approved eye protection.
- The machine may not be used in environments with potential fire or explosion danger.
- Never use the machine if you are tired or have consumed alcohol or are using medication that could affect your vision, your discretion or your coordination ability.
- Never use a machine that, in any way, has been changed from its original design.

STANDARDS

Noise

Measurement according to the standard EN 500-4 Rev.1: 1998, Annex C:

Measurement uncertainty $\pm 0,5\text{dB (A)}$ i 95% of measurements.

In accordance with the conditions in Directive 2000/14/EC, Annex VI, the following values are reported: As the sound pressure level at the operator's ears exceeds 80 dB (A), ear protectors must be used during operation!

	FB 270	FB280	FB300
Sound pressure level at the operator's ears, L_{pA}	91 dB (A)	95 dB (A)	95 dB (A)
Permitted sound power level, L_{wa}	108 dB (A)	108 dB (A)	108 dB (A)
Guaranteed sound power level, L_{wa}	108 dB (A)	108 dB (A)	108 dB (A)

Hand/arm vibration

Vibration acceleration has been measured according to the ISO 5349 standard when driving on macadam substrates. The measured values have been converted to maximum daily exposure during regular use. Further information is available in the work environment regulations AFS 2005:15 on vibration, valid from 1 July 2005.

Measurement uncertainty $\pm 0,3 \text{ m/s}^2$ in 95% of measurements.

	FB 270	FB 280	FB 300
Hand/arm vibrations m/s^2	2.5	2.5	2.7
Maximum daily exposure time	8h	8h	6.9h

Exhaust Emissions

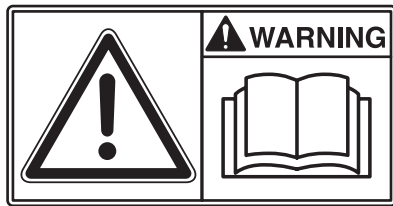
FB 270 and FB 280/FB 300 meet the requirements for exhaust emissions in accordance with EU Directive 97/68/EC.

Additional information

Environmentally approved for use in large cities, STAGE V.

SIGNS

Warning Signs



Before use, carefully read through the manual and safety regulations in order to be able to handle the machine in a proper manner. Make sure that the manual is always available.



Engine and silencer: In order to prevent burns or discomfort, make sure not to touch hot motor parts when the motor is running or when the machine has recently been used.

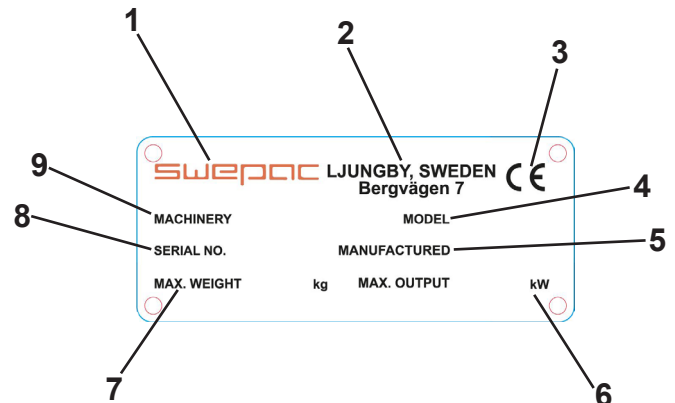


Belt drive: Keep hands, tools or other objects away from the belt drive when the machine is in operation in order to avoid injury. See the safety instructions in the manual.



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

Machine plate



1. Manufacturer.
2. Country of manufacture.
3. CE label.
4. Model name.
5. Year of manufacture.
6. Maximum motor power.
7. Maximum weight.
8. Serial number.
9. Machine type

TECHNICAL DATA

FB 270

Net weight267 kg
 Base plate,w x l 550 x 790 mm
 Operational speed approximately ...ca 25 m/min
 Permitted inclination20°
 Centrifugal force40,000 N
 Vibration frequency78 Hz
 Driving engineYanmar L70N
 Engine power..... 4.5 kW
 Engine RPM..... 3400 RPM
 Fuel tank volume3.5 litre
 Fuel typeDiesel Mk1
 Battery12 V 40Ah

FB 280

Net weight283 kg
 Base plate,w x l 550 x 790 mm
 Operational speed approximately ...ca 25 m/min
 Permitted inclination20°
 Centrifugal force40,000 N
 Vibration frequency78 Hz
 Drive engineHatz 1B 30
 Engine power..... 4.8 kW
 Engine RPM3400 RPM
 Fuel tank volume3.5 litre
 Fuel typeDiesel Mk1
 Battery12 V 40Ah

FB 300

Net weight298 kg
 Base plate,w x l 550 x 790 mm
 Operational speed approximately ...ca 25 m/min
 Permitted inclination20°
 Centrifugal force40,000 N
 Vibration frequency78 Hz
 Drive engineHatz 1B 30
 Engine power4.8 kW
 Engine RPM3400 RPM
 Fuel tank volume3.5 litre
 Type of fuelDiesel Mk1
 Battery12 V 40Ah

METHOD OF OPERATION

The machine consists of a base plate with vibrating elements and a top-mounted suspended plate. The cushioning between the base plate and the upper part consists of rubber dampers. The power is transmitted from the engine to the vibration element via a V-belt which can be adjusted with a belt tensioner. The engine V-belt pulley is fitted with an integrated centrifugal clutch, which allows the engine to be started and run idle without the vibrator being connected. The engine is well protected against damage in connection with use and transportation by a sturdy protective frame with a protective panel.

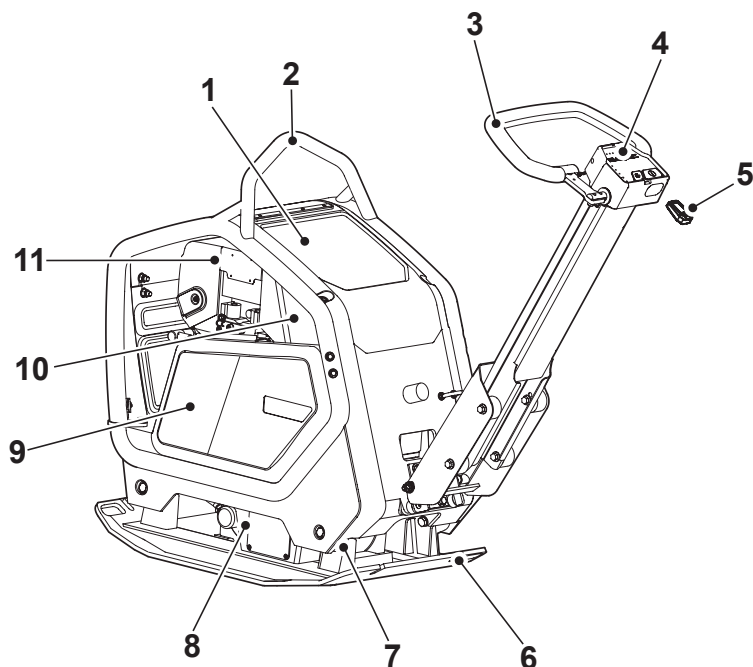
OIL and FUEL RECOMMENDATIONS

Fuel	Diesel Mk1
Engine oil	SAE10W-30
Oil quantity, crankcase	1 litre
Engine oil change	First oil change after 50 hours then every 200 hours of operation. Change filter each time.
Type of hydraulic oil/ amount	Statoil Hydraway Bio PA 0.24 litre
Hydraulic oil filter, change	After 3 years
vibrating element, oil/ amount	SAE10W-30 0.5 litre

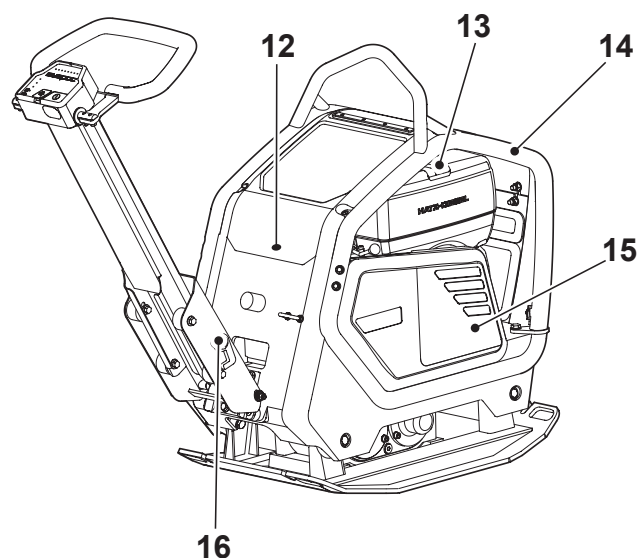
TECHNICAL DESCRIPTION

FB 270 / FB 280 / FB 300

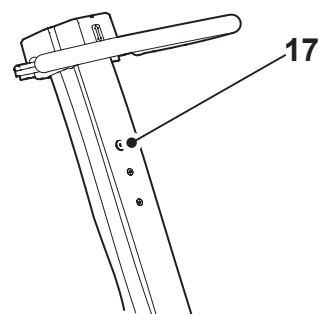
Left side view



Right side view



Handle view



Left side view

1. Cap
2. Yoke
3. Operating lever (forward/reverse lever)
4. Control panel
5. Starter key "dead man's switch" (some machines)
6. Bottom plate
7. Rubber dampers
8. Vibrating element
9. Belt guard
10. Air filter
11. -Engine

Right side view

12. Battery
13. Refueling
14. Protective frame
15. Side protection
16. Transport security

Handle view

17. Oil tank

DAILY SUPERVISION

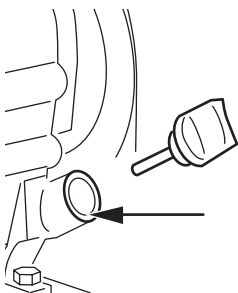
Fuel Check

Check that there is fuel in the tank. Top up if necessary.

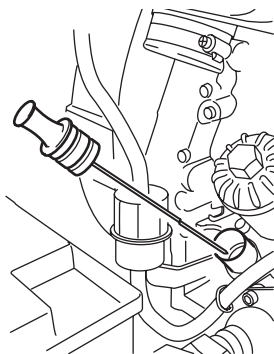
Engine Oil Level Check

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.

FB270



FB280 / FB300



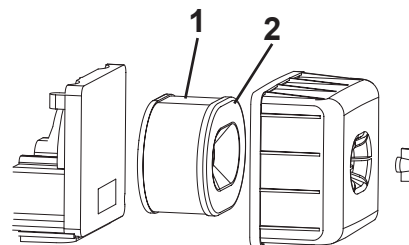
Oil/Fuel Leakage

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.

Air Filter Check.

The air filter must be checked at least once every working week. When working in dusty conditions, check daily.

YANMAR

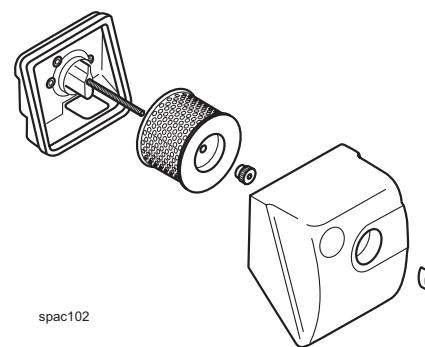


1. Foam plastic element
2. Paper element

Cleaning Yanmar Air Filter

1. Remove the foam plastic element and the paper element and check that they are undamaged. Replace damaged parts.
2. Wash the foam plastic element in liquid with a high flashpoint and let it dry properly. Dip in engine oil and squeeze dry.
3. Strike the paper element against a hard object a few times to loosen any dirt.

HATZ



Cleaning Hatz Air Filter

1. Remove the paper element and check that it is undamaged. Replace damaged parts.
2. Strike the paper element against a hard object a few times to loosen any dirt.

V-belt drive

Check the tension and condition of the V-belt regularly. Replace a damaged V-belt with a new type according to the table below.

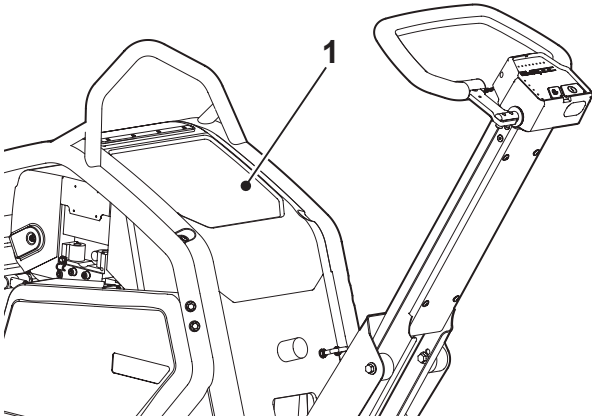
Machine designation	V-belt type
FB 270	XPA 990 6T43
FB 280	XPA 990 6T43
FB 300	XPA 990 6T43

Charging the battery



If the “Charging” warning light on the control panel shines red or if the machine is left unused for a long period, the battery needs to be charged.

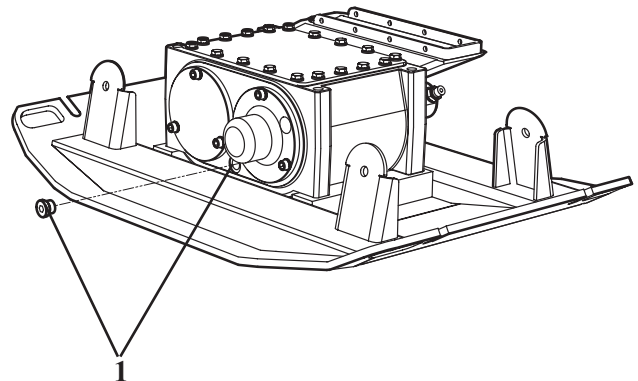
This is done by removing the rear cover (1) to allow access to the battery. Connect the charger cables to the battery terminals.



Vibrating element

Check for oil leaks regularly. Seal any leaks. NOTE! the machine must under no circumstances be operated if there are any indications of leakage.

Note! The amount of oil in the vibrating element is **0,5 L**.



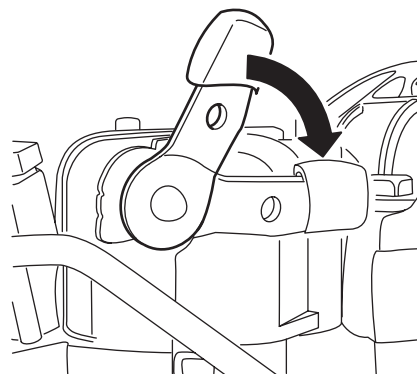
1. Draining / refilling openings

Rubber dampers

Check the condition of the rubber dampers regularly. Replace damaged dampers.

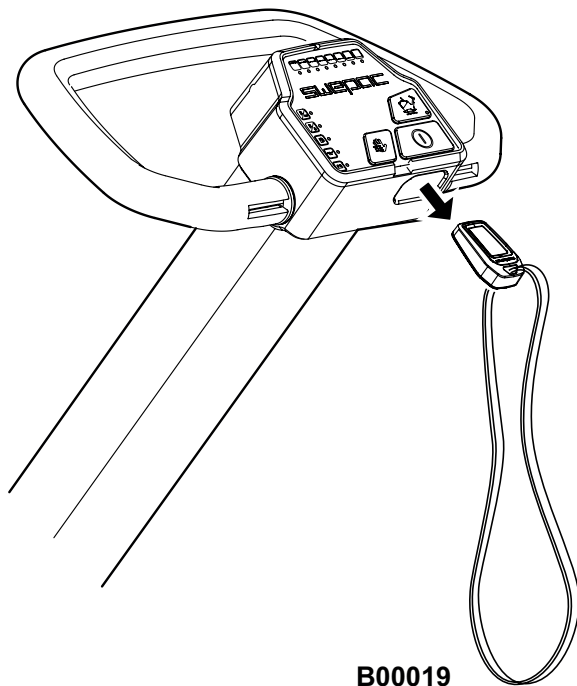
Yanmar decomposition lever

In cold weather or if the machine has trouble starting, try opening the decomposition valve, then try again. Remove the front cover to access the decomposition valve, the decomposition lever will return to its original position when the engine starts.



BEFORE STARTING

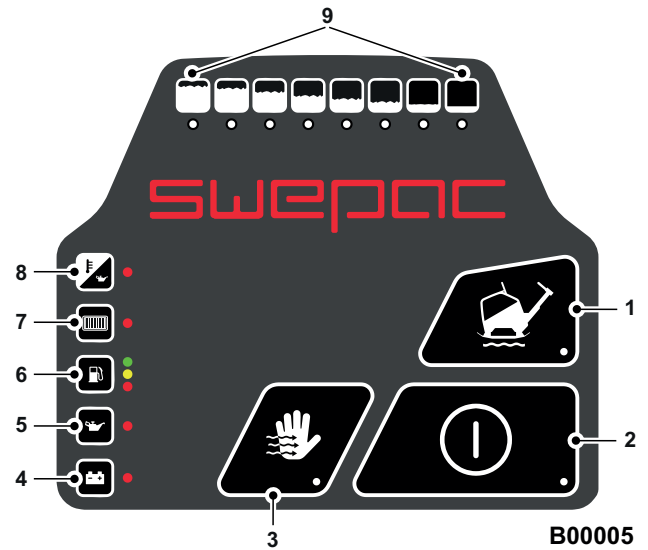
See “DAILY SUPERVISION”, page 7.



Attach the strap (1) that is located together with the ignition key (2) in a suitable place in the operator's clothing.

This is an important safety feature, since the key acts as a dead man's switch and will be pulled out of position and stop the machine if the operator loses control. The key is unique and only works for your machine if it is not programmed to work for other machines, e.g. within a work area.

Control panel



1. Vibration switch, push the switch to increase the engine speed and begin compaction.
 2. Start/Reset switch, press and hold the switch there for 1 second, the machine will begin to idle.
 3. Switch for handle heating, push in the switch to heat the handle when the engine is running (Some machines).
 4. Indicator lamp “Charging”, red when battery is low.
 5. Oil pressure Warning Light, red when oil pressure is low (after having displayed red, the control system must be reset by holding down the Start/Reset switch for 7 seconds).
 6. Fuel Level Warning light, green when full, yellow when half-full and red when the tank is empty. When the light is red, refill fuel. Tap the machine's operating lever lightly and the last measured value will be displayed even when the engine is switched off (Some models).
- (NOTE! The engine is switched off before the fuel tank is completely empty, which means that the fuel system does not need to be vented after stopping due to lack of fuel).
7. Air Filter Warning Light, shines red when the air filter is clogged (some models).
 8. Hydraulic Oil Temperature Warning Light, shines red when the hydraulic oil temperature is too high (the warning light is present on all models, but is only used on certain models).
 9. Swepac Compaction Indicator (SCI). The lights are turned on from left to right as compaction progresses (some models).

STARTING THE MACHINE

Put the key in its slot on the control panel. Press the Start/Reset switch, press and hold the switch there for 1 second, the machine will then start. Let the machine idle for at least 30 seconds before pressing the vibration switch to activate it and begin working. If the machine has difficulty starting, e.g., in cold weather, keep the Start/Reset switch down for a period of time and the starter motor will start up in 15 seconds

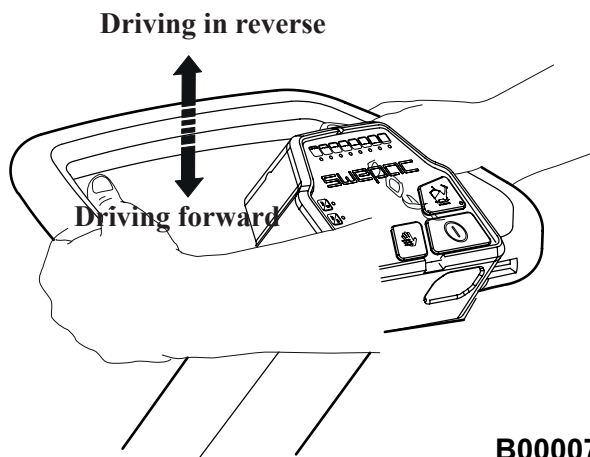
If the machine still won't start, check the following:

- is there fuel in the tank?
- is the battery charged?
- if the machine is programmed to be used within a specific area, make sure you are not outside the area.
- if the machine still will not start, try resetting the machine's control system by holding down the Start/Reset switch (2) for 7 seconds.
- contact service repairman

Start and stop the machine's vibration element with the vibration switch on the control panel.

When the control bar on the handle is pulled backwards, the machine reverses and when the bar is pressed forward, the machine moves forward.

Note! When packing, always run the engine at full throttle.



STOPPING THE MACHINE

Press the vibration switch (1) once to stop vibrations and then press the Start/Reset switch (2) once to stop the machine. Retract the starter key.

EMERGENCY STOP/ DEAD MAN'S SWITCH (Some machines)

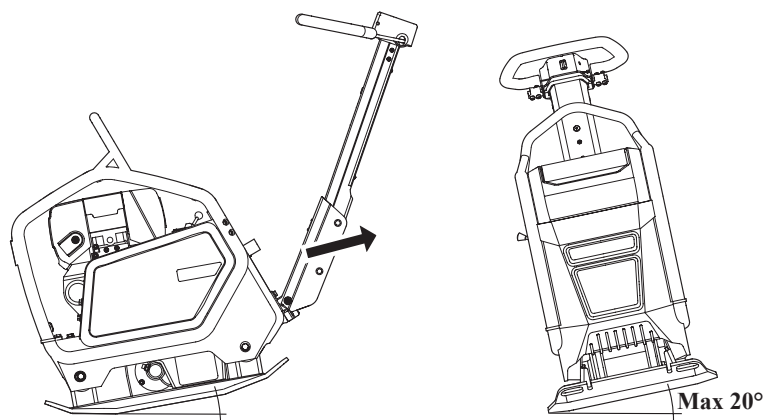
Retract the starter key to stop the machine immediately.



The machine is only intended for outdoor use. Operate the machine in daylight or other adequate lighting. Ballast must be wetted or naturally damp. All other uses are advised against.

Note! When driving uphill, the machine should be driven in reverse.

The machine may not incline more than 20° sideways or during installation.



Lever heating

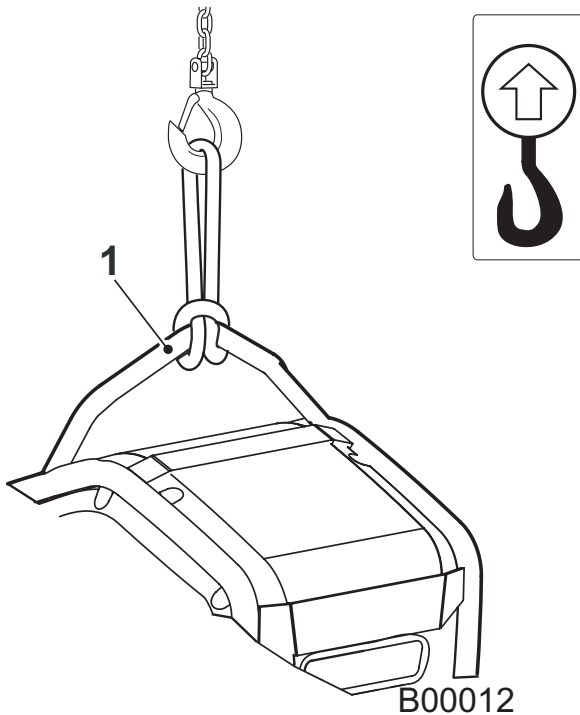


Some machines are equipped with lever heating. The lever heating is activated by the lever heating switch on the control panel: The lever heating can only be used when the engine is running in order to prevent the heating coil from wasting the battery when the machine is not in use.

TRANSPORTATION

The machine has a lifting yoke.

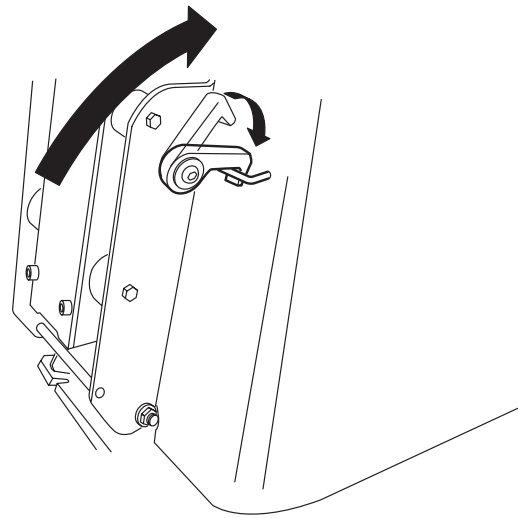
Note! Only use the lifting point (1) of the protective frame when lifting the machine.



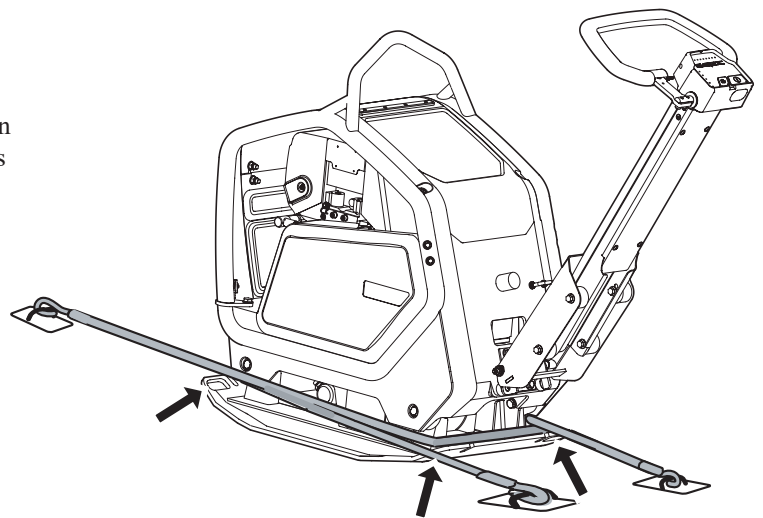
Check before lifting that the lifting yoke and its mounting on the machine are undamaged. Check also that the base plate's rubber dampers are undamaged and firmly attached.

Transport security

For transportation by vehicle, the lever must be in the forward position and secured with, for example, approved straps. Note! Secure it to the lifting yoke on the base plate and not the rubber-cushioned upper part.



Always secure the machine with a strap as shown in the illustration or the lifting yoke on the base plate during transport.



NOTES

NOTES

NOTES



EC Declaration of Conformity

Manufacturer

**Swepac AB
Bergvägen 7
34132 Ljungby**

1. Category: Plate compactor

2. Type: FB 270
FB 280
FB 300

3. Motor power: FB 270.....4.5 kW
FB 280.....4.8 kW
FB 300.....4.8 kW

The product complies with the following directives:

2006/42/EC

2000/14/EC

2004/108/EC

EN 500-1

EN 500-4

Technical documentation available from:

Swepac AB, Bergvägen 7 34132 Ljungby SE Tomas Johansson / Product Engineer

SWEPAC

SWEPAC AB

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