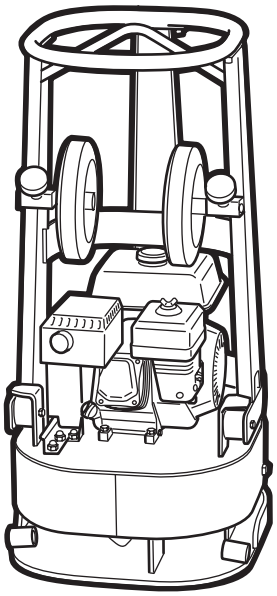
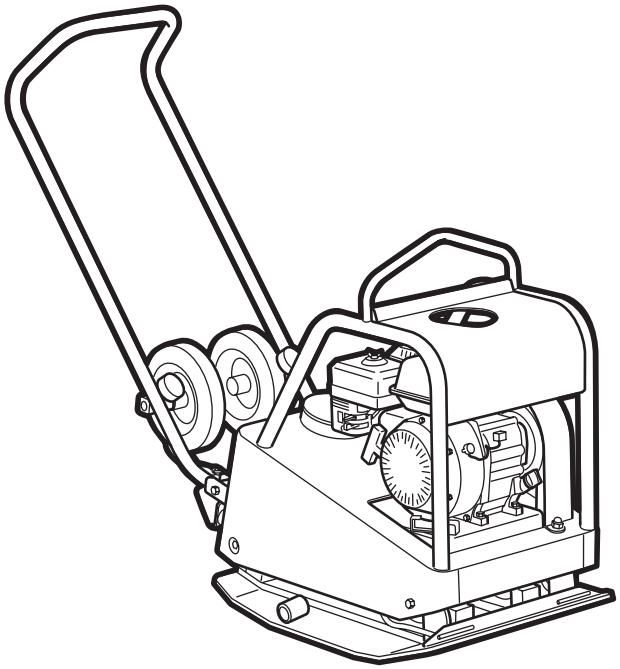
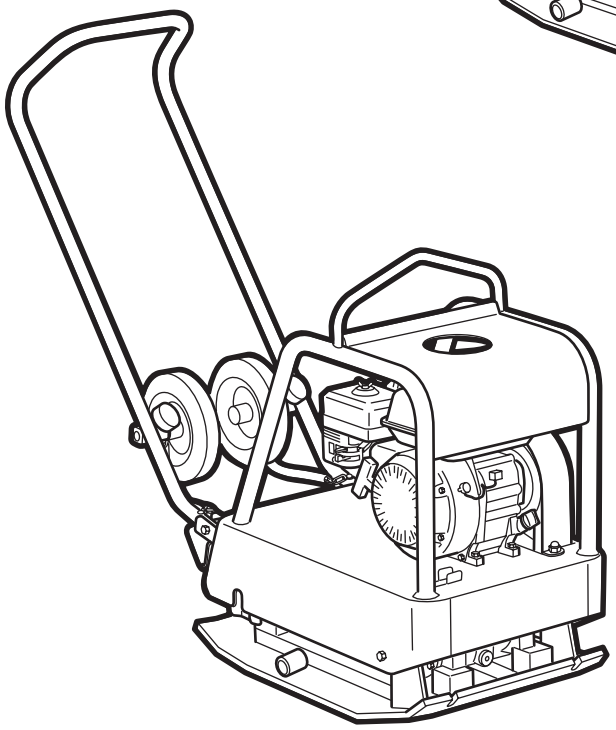
swepac

FR 85
F 70A
F 90A
F 140

USER MANUAL IN ORIGINAL







Dok: 101481D-GB 1308

Dok: 101481D-GB 1308

USE

SWEPAC FR 85
is used to pack ballast under foundations, on pavements, in trenches, etc. The rounded base plate makes the machine very suitable for packing around pillars, foundations, wells, etc. In places with poor access, for example in pipe and cable trenches, the machine is easy to use. The machine is suitable for packing sand and gravel in thin layers.

SWEPAC F 70A / F 90A
are used to pack freshly laid asphalt on pavements and garage approaches, in connection with roadworks, etc. The machine is designed to pack small asphalt areas and is particularly suitable for additional works and repair works. The compact design with an articulated control handle makes the machine very easy to manoeuvre. The machine is also suitable for packing sand and gravel in thin layers.

SWEPAC F 140
is used to pack ballast under foundations, on garage approaches and on pavements, etc. The machine is also suitable as a complement to larger packing machines, for example rollers, when packing areas with poor access. The compact design and articulated control handle make the machine very easy to manoeuvre and also suitable for use in trench works.

CONTENTS

Dok: 101481D-GB 1308

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 control handle and the start/stop controls. The machine may be operated only 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 may not incline more than 20º (FR 85, 18º).
- 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 potentionell fire or explosion danger.
- Never use the machine if you are tired or have consumed alcohol or are under medication that could affect your vision, your discretion or your coordination ability.
- Never use a machine in any way changed from the original design

STANDARDS

Noise

Measurement in accordance with the standard EN 500-4 Rev. 1:1998, Annex C:
Measurement uncertainty ± 0.5 dB (A) in 95% of the measurements.
In accordance with the conditions in Directive 2000/14/EC, Annex VI, the following values are reported:

	FR 85	F 70A	F 90A	F 140A
Sound pressure level at the operator's ears, LpA	90dB (A)	90dB (A)	90dB (A)	90dB (A)
Permitted sound power level, L_{WA}	105 dB (A)	105 dB (A)	105 dB (A)	108 dB (A)
Guaranteed sound power level, L_{WA}	105 dB (A)	105 dB (A)	105 dB (A)	105 dB (A)

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

Hand/arm vibrations

The vibration acceleration was measured in accordance with the ISO 5349 standard during operation on a surface of macadam. The measurement values were translated into the maximum daily exposure time for regular usage. For additional information about vibrations, please confer the regulation AFS 2005:15 from the Swedish Work Environment Authority, effective July 1st 2005.
Measurement uncertainty ± 0.3 m/s^2 in 95% of the measurements.

	FR 85	F 70A	F 90A	F 140A
Hand/arm vibrations, m/s^2	3,1	3,9	3,5	3,5
The maximum daily exposure time	5,2 h	3,3 h	4,1 h	4,1 h

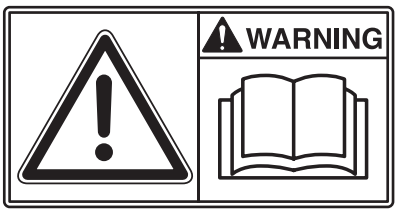
Exhaust Emissions

The machines meet the requirements for exhaust emissions in accordance with EU Directive 2002/88/EC stage 2.

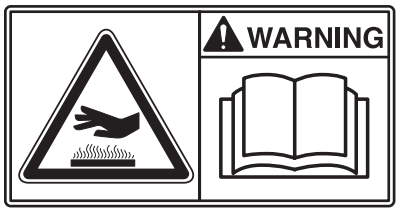
Dok:1014810-GB 1308

SIGNS

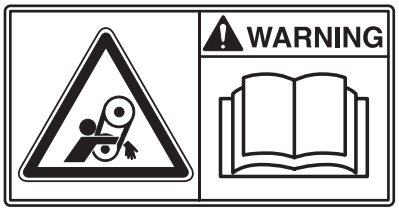
Warning Signs



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.



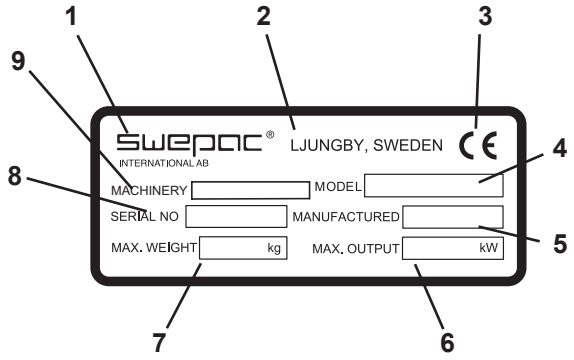
Engine, silencer: to avoid burns or discomfort, do not touch hot engine parts when the engine is on or when the machine has recently been used.



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.

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

Dok: 101481D-GB 1308

TECHNICAL DATA

FR 85

Net weight.....88 kg
Base plate, w x l.....430 x 430 mm
Speed.....approximately 25 m/min
Permitted inclination .....18°
Centrifugal force .....14,000 N
Vibration frequency .....93 Hz
Drive engine.....Honda GX 120
Engine power .....2.9 kW
Engine RPM.....3600 RPM
Fuel tank volume .....2.5 liter
Fuel type.....Unleaded petrol, 95-98 octane
Oil quantity, crankcase .....0.6 liter

F 70A

Net weight.....79 kg
Base plate, w x l.....550 x 530 mm
Speed.....approximately 23 m/min
Permitted inclination.....20º
Centrifugal force .....11,000 N
Vibration frequency .....96 Hz
Drive engine.....Honda GX 120
Engine power .....2.9 kW
Engine RPM.....3600 RPM
Fuel tank volume.....2.5 liter
Fuel type.....Unleaded petrol, 95-98 octane
Oil quantity, crankcase.....0.6 liter
Water tank volume .....12 liter

F 90A

Net weight.....108 kg
Base plate, w x l.....610 x 560 mm
Speed.....approximately 23 m/min
Permitted inclination 20º
Centrifugal force .....14,000 N
Vibration frequency .....93 Hz
Drive engine.....Honda GX 120
Engine power .....2.9 kW
Engine RPM.....3600 RPM
Fuel tank volume.....2.5 liter
Fuel type.....Unleaded petrol, 95-98 octane
Oil quantity, crankcase.....0.6 liter
Water tank volume .....21 liter

F 140

Net weight.....141 kg
Base plate, w x l.....610 x 470 mm
Speed.....approximately 25 m/min
Permitted inclination.....20º
Centrifugal force .....19,000 N
Vibration frequency .....88 Hz
Drive engine.....Honda GX 160
Engine power .....4.0 kW
Engine RPM.....3400 RPM
Fuel tank volume.....3.6 liter
Fuel type.....Unleaded petrol, 95-98 octane
Oil quantity, crankcase.....0.6 liter

METHOD OF OPERATION

The machine consists of a base plate with a vibration element and an upper part cushioned from the base plate, which is designed as both an engine plate and water tank (F 70A / F 90A). The cushioning between the base plate and the upper part consists of rubber dampers. The power is transmitted from the petrol 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. On account of the direction of rotation and the position of the vibration element at the front end of the base plate, the vibrator moves forwards under its own power. The petrol engine is well protected against damage in connection with use and transportation by a sturdy protective frame with a protective panel on the top. Transport wheels are standard (not on the F 70A)

F 70A / F 90A

The water tank holds 12 litres (F 70A) or 21 litres (F 90A). The water cock is located at the back of the tank, easily accessible for the operator. The sprinkler system pours water on the base plate and prevents asphalt from adhering to it.

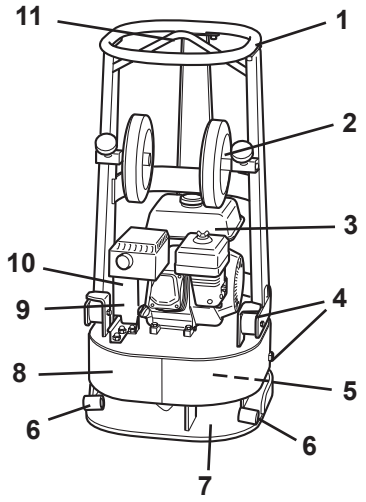
OIL and FUEL RECOMMENDATIONS

Engine oil .....SAE 10W-30
Fuel .....Unleaded petrol or alkylate
Engine oil change: first oil change after 20 hours then every 100 hours of operation.
Vibration unit F140.....SAE10W-30.....0,15 liter

Dok:101481D-GB 1308

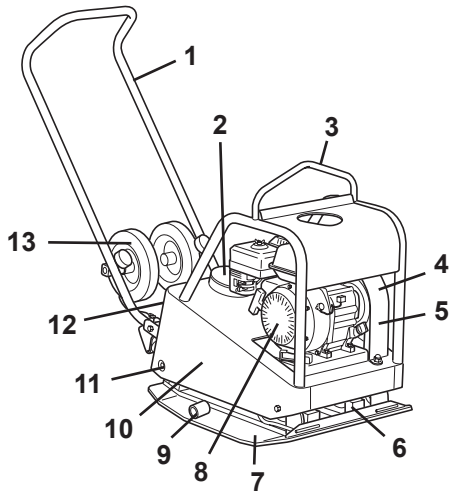
TECHNICAL DESCRIPTION

FR 85



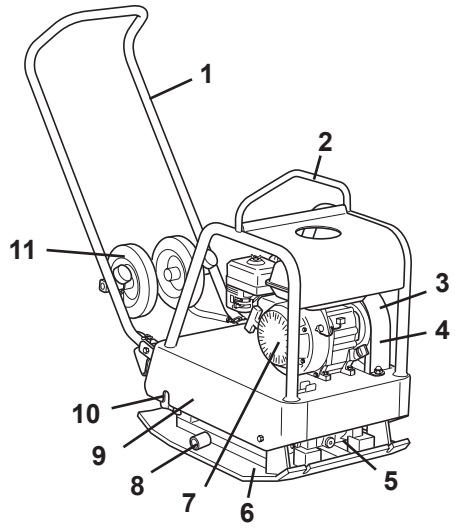
1. Control handle
2. Transport wheel (Option)
3. Petrol engine
4. Rubber damper
5. Vibration element
6. Sleeve for transport wheel
7. Base plate
8. Engine plate
9. V-belt
10. Centrifugal clutch
11. Lifting eye

F 70A / F 90A



1. Handle
2. Water tank
3. Lifting eye
4. Centrifugal clutch
5. V-belt
6. Vibration element
7. Base plate
8. Petrol engine
9. Sleeve for transport wheel (F 90A only)
10. Engine plate
11. Rubber damper
12. Water cock
13. Transport wheel (F 90A only)

F 140



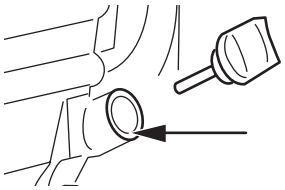
1. Handle
2. Lifting eye
3. Centrifugal clutch
4. V-belt
5. Vibration element
6. Base plate
7. Petrol engine
8. Sleeve for transport wheel
9. Engine plate
10. Rubber damper
11. Transport wheel

Dok: 101481D-GB 1308

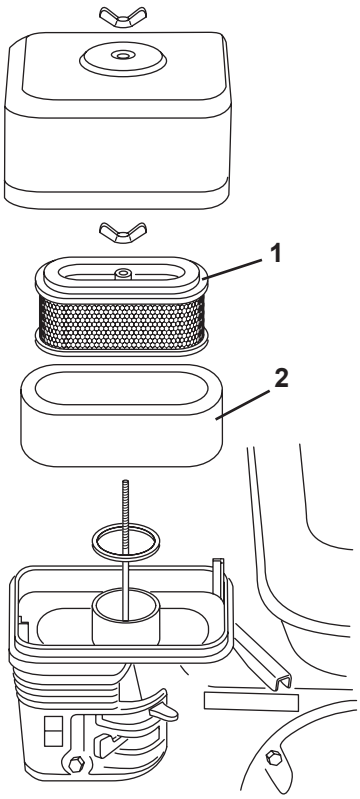
DAILY CHECKS

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.



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



1. Paper element
2. Foam plastic element

Cleaning
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.

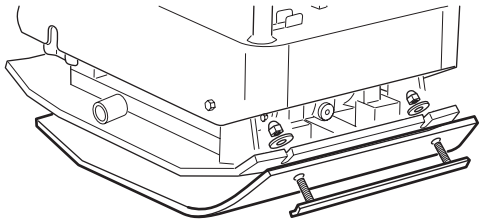
Oil/Fuel Leakage
Check every day that the engine is not leaking oil or fuel. If a leak is discovered, the machine may not be operated until the fault has been remedied.
See also the separate engine instructions!

V-belt Drive
Check the tension and condition of the V-belt regularly. Replace a damaged V-belt with the new type A 30 for FR 85 / F 70A / F 90A, B 30 for F 140.

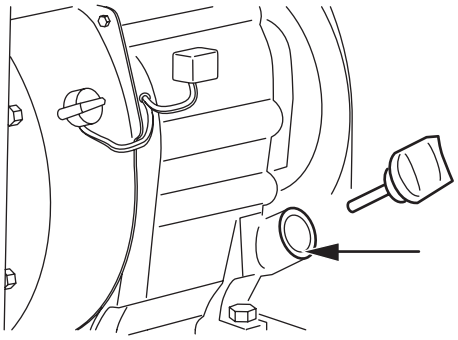
Water Sprinkling System
Use only clean water.
Always empty the tank after use. Risk of freezing! Check that the nozzles are not clogged up.

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

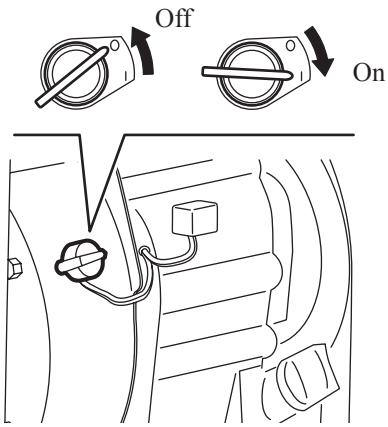
Polyuretan Pad
A polyuretan pad is used for stone paving work to protect against stones and ground clinker.



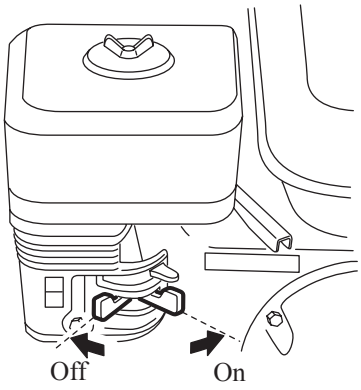
Dok:101481D-GB 1308



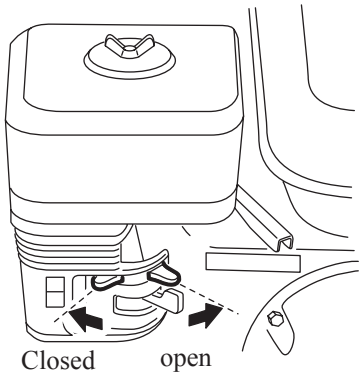
Oil level



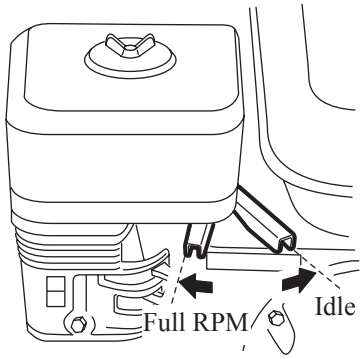
Engine power switch



Fuel cock



Choke



Throttle lever

BEFORE STARTING

See Daily Checks on page 8.

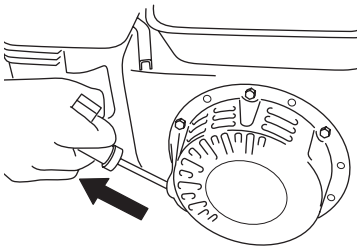
STARTING

Switch the engine power switch to “on”. Open the fuel cock.

Switch the throttle lever to 1/3 of full RPM.

Adjust the choke. If the engine is cold, close the choke completely. Do not use the choke if the engine is warm or if the air temperature is high.

Start by pulling the starting handle. Pull it first until the mechanism engages. Then pull it hard and fast.



AFTER STARTING

Switch the throttle lever to idle.

Open the choke gradually.

Run the engine warm for around 5 minutes.

STOPPING

Switch the engine to idle and let it run for a few minutes.

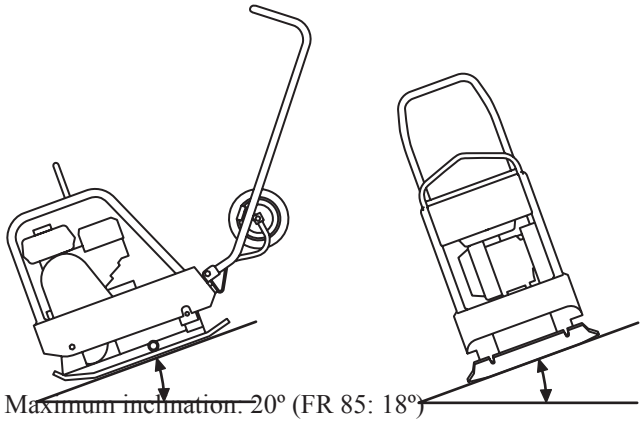
Switch the engine power switch to “off”.

Close the fuel cock.

Dok: 101481D-GB 1308

OPERATING INSTRUCTIONS

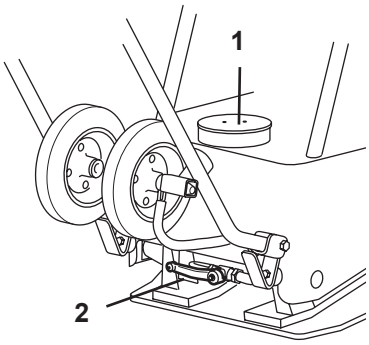
The machine's vibration elements start when the throttle is increased. The best packing is achieved at full engine RPM. Avoid running the engine at other RPM. The machine's vibration element stops when the throttle lever is switched to idle.
The machine is only designed to be used outdoors. Work with the machine in daylight or other adequate lighting. Ballast must be wetted or naturally damp. All other use is discouraged.



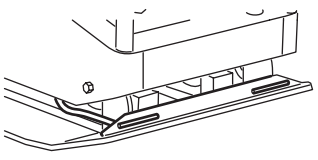
Maximum inclination: 20º (FR 85: 18º)

F 70A / F 90A
Before operation, fill the water tank with clean water and open the water cock (lever horizontal).

1. Add water here
2. Water cock



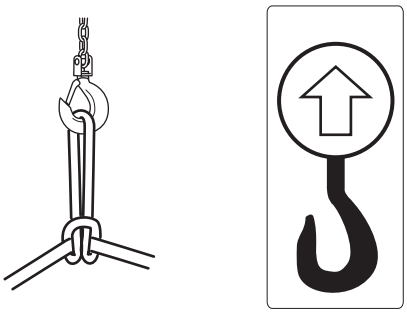
Check that all (4) drains at the front of the plate let water out.



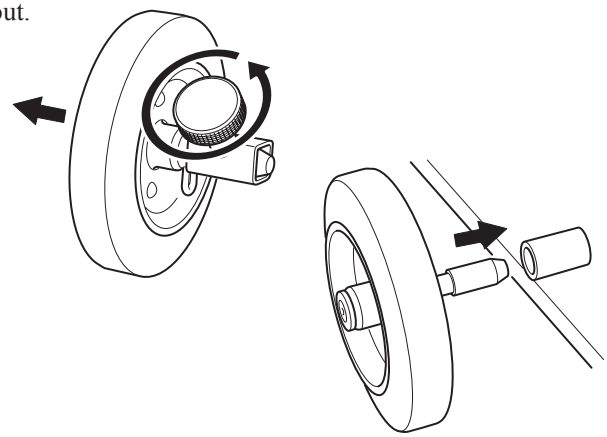
Before moving out onto freshly laid asphalt, you must ensure that the entire base plate has been covered with water by first moving over another surface with the water cock open. You should avoid running out of water as the asphalt may then adhere to the base plate, which must then be carefully scraped clean.

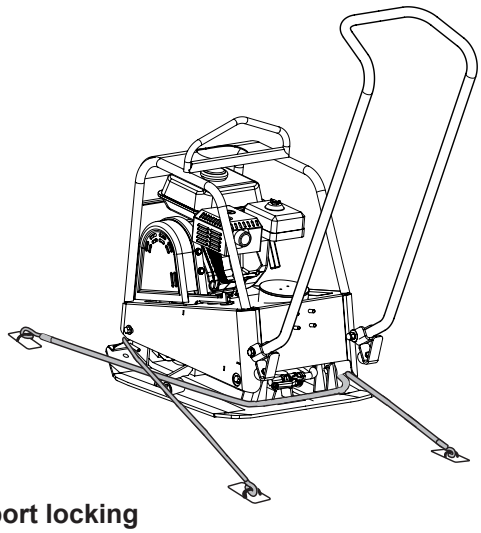
TRANSPORTATION

The machine has a lifting eye that can be used for a hook or rope.



Check before lifting that the lifting eye and its mounting on the machine are undamaged. Check also that the transport wheels and the base plate's rubber dampers are undamaged and firmly attached.
For transportation by vehicle, the machine must be secured with, for example, approved straps. Note! Secure it by the base plate and not the rubber-cushioned upper part.
The machine has transport wheels (only F 90A and F140) as standard equipment. When the wheels are not being used, they are located on brackets on the control handle.
Check that all (4) drains at the front of the plate let water out.





Transport locking
Secure the machine with straps accorrding to illustration during transportation
Note! Secure it by the base plate and not the rubber-cushioned upper part.

Dok:101481D-GB 1308

EC-declaration of conformity

Manufacturer

Swepac AB
Blockvägen 3
34132 Ljungby

1. Category: Vibratory plate

2. Type: F70A
FR85
F90A
F140

3. Engine power: F70A 2,9 kW
FR85 2,9 kW
F90A 2,9 kW
F140 4,0 kW

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
Tomas Johansson / Product Engineer

Dok:101481D-GB 1308

SWEPAC AB

Address **Blockvägen 3, 341 32 Ljungby, Sweden,** tel. **+46 (0)372-156 00**, fax **+46 (0)372-837 41**, E-mail **mail@swepac.se**, Internet **www.swepac.se**