

# OPERATOR'S MANUAL

## SALT AND SAND SPREADER City Ranger 2200



**Nilfisk  
Egholm**  
Rangers at heart

**Dear Customer,**

**Congratulations with your new Nilfisk-Egholm product.**

The City Ranger 2200 is a Danish designed and manufactured product, which offers a very flexible way of maintaining outdoor areas.

**Optimal use of your Nilfisk-Egholm Salt and Sand Spreader:**

To ensure optimal performance of your Nilfisk-Egholm Salt and Sand Spreader, please read this manual carefully before using the machine. Failure to do so can result in personal injury and damage to the machine.

**Safety:**

The Salt and Sand Spreader is equipped with various devices to ensure optimal operational safety, both for the user and the surroundings. We ask you to pay particular attention to section 1.1 Safety. The machine must only be serviced by professionals.

The Salt and Sand Spreader is designed only for use by professionals. On delivery, the user will receive thorough training to become a competent operator.

Do not lend the machine to anyone who has not been thoroughly trained and has not read this manual carefully.

The operator's manual should be considered as a permanent part of the machine and must remain with it if the machine is sold.

**Warnings:**

Some items in this operator's manual are marked with this warning symbol. The warning indicates areas where extra care has to be taken to avoid personal injury or damage to the machine and its accessories. The warning also shows what you should pay special attention to.



**Reservations:**

As it is the Nilfisk-Egholm policy to make continuous improvements, we reserve the right to alter the machine's specifications and equipment at any time without notice. Nilfisk-Egholm A/S accepts no liability for errors or omissions in the operator's manual.

**Contact us:**

Should you have questions of any kind regarding your Nilfisk-Egholm product, do not hesitate to contact Nilfisk-Egholm A/S.

Best regards

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The Nilfisk-Egholm Salt and Sand Spreader is a sturdy machine that keeps slippery paths out of your way!

An optional cover to stop material from getting wet is available.

The Salt and Sand Spreader is made of robust components. The spreader plate is extremely hard wearing and can handle salt, sand and gravel of 8 mm.

The Salt and Sand Spreader is supplied with a specially-developed frame that makes it very easy for one person to fit or remove the attachment.

The Salt and Sand Spreader is designed so that every part that is in contact with the material being spread is made of stainless steel, glass fibre or durable plastic.

The Salt and Sand Spreader can easily be combined with the Dozer Blade, Snow Blower and Snow Sweeper. The City Ranger 2200 clears snow while simultaneously leaving a safe and passable path behind.

The Salt and Sand Spreader ensures precise and uniform spreading – and even thawing of the ground, for example cycle paths, pavements or parking areas. It is manually set, depending on weather conditions and driving speed, spreading only the sand and salt that is needed.

### Useful tips

Make sure the snap couplings are clean before attaching, as this protects the hydraulic system.

The spread width can be adjusted from 1–5 m.

Daily cleaning and maintenance will extend the lifetime of both the machine and the attachment.

# General information

## 1.1 Safety

Make sure no one is standing close to the machine:  
Make sure that no one is near the machine while it is in use as there is a danger of crushing.



### N.B:

As it is articulated, the rear end of the machine swings out when turning. Make sure that no one is standing near the machine while it is in use. (Picture 1)



### Make sure the Salt and sand spreader is secure:

Check the Salt and Sand Spreader is firmly secured to the machine. (Picture 2)



### Avoid accidents at the rear of the Salt and Sand Spreader:

Keep fingers and feet well away from the rotating spreader plate. (Picture 3)

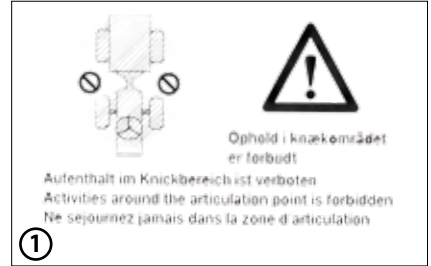
### Keep clear of the Salt and Sand Spreader:

Make sure there is no one close to the Salt and Sand Spreader when it is in use.



### Avoid roll-overs:

Do not drive the machine in a place where it can slide, tip or roll. Do not drive on slopes with an incline of more than 10°. (Picture 4)



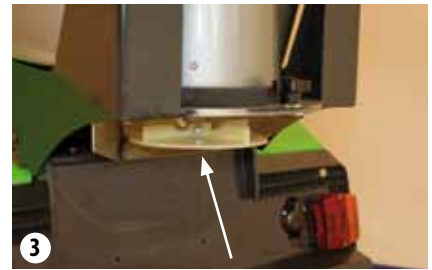
①

Prevent people from standing in the working area.



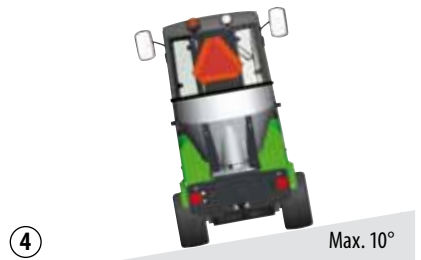
②

Locking handle



③

Spreader plate



Do not drive on slopes with an incline of more than 10°

**Risk of injury from lifting bar:**

Careful attention must be given when lowering the Salt and Sand Spreader. Keep a secure hold of the lifting bar until the Salt and Sand Spreader is resting on the machine. (Picture 1)

**Safety grill:**

The safety grill must be fitted before the Salt and Sand Spreader can be used. (Picture 2)

**Loading salt and grit:**

Do not fill the container all the way to the rim.



Salt and Sand Spreader being lowered onto the machine.



Safety grill

## 1.2 EC Declaration of Conformity for Machinery

Manufacturer: **Nilfisk-Egholm A/S**  
Address: **Transportvej 27 · DK-7620 Lemvig**  
Telephone: **(+45) 97 81 12 05**

hereby declares that

The machine: **Salt and Sand Spreader 2200**  
Type: **22SG**

· has been manufactured in conformity with the provisions of the Machinery Directive, 2006/42/EU

Place: **Lemvig**

Date:

Signature:



Knud Olsen, Senior Engineer

## 1.3 Technical data

<b>Dimensions</b>	Assembled:	Storage dimensions:
Length (L)	2,680 mm	1,250 mm
Width (W)	1,050 mm	880 mm
Height with cab (H)	1,960 mm	
Weight	70 kg	
Frame weight	31 kg	
Tank volume	240 L	
Spread width	1 - 5 m	
Loading height	1,280 mm	

### **Technical data:**

Type 22 SG

### **N.B:**

Specifications may be changed without prior notice.

**Spreading material must have a radius of 8 mm. Material that is larger can become stuck and may damage the Salt and Sand Spreader.**

### **Extra equipment:**

09723170 Cover

## 2.1 Assembling the frame

Assemble the frame using the two supplied bolts. It is now ready for use. (Picture 1)

## 2.2 Assembly/Disassembly

### Fitting the Salt and Sand Spreader:

1. Back the machine up to the Salt and Sand Spreader mounted on the frame.

2. Stop the machine.

3. Check that the locking handle is in the unlocked position. The hooks must be positioned as shown in the picture. (Picture 2)

4. Check that the hydraulic couplings are clean and dirt-free. If not, clean with a dry cloth. (Picture 3)

5. Push the Salt and Sand Spreader in over the carrier console. (Picture 4)

The Salt and Sand Spreader must be lined up with the centre of the machine.

The Salt and Sand Spreader must be empty before being fitted or removed.



2 bolts on the tank frame



Locking lever – unlocked



Cleaning the couplings



Mounting the Salt and Sand Spreader



6. Press the lifting bar down, push the locking ratchet to free the lifting bar from the catch and lower the Salt and Sand Spreader down onto the machine. (Picture 1)
7. Check the Salt and Sand Spreader is firmly secured to the machine. (Picture 2)
8. Release the frame from the Salt and Sand Spreader.
9. Push the locking handle grip in and turn anti-clockwise and then pull the locking handle out and swing it up. (Picture 2)
10. Attach the Salt and Sand Spreader securely to the machine by turning the locking handle clockwise 1/3 of the way around. (Picture 3)
11. Push the locking handle in and turn it clockwise.



Locking handle grip    Lifting bar



Pull out locking handle.



Turn locking handle.



### **Warning!**

Avoid crushing fingers and keep a secure hold on the locking handle when the Salt and Sand Spreader is being lowered.

### **Removing the Salt and Sand Spreader:**

Follow the procedure for fitting in reverse order.

## 2.3 Start-up

1. Start the machine.
2. Start the Salt and Sand Spreader by activating PTO-rear. (Picture 1)



### Warning!

Make sure no one is standing close to the machine when it is in use.



### N.B!

When turning, the rear of the machine swings out, so there is a risk of crushing or collision.

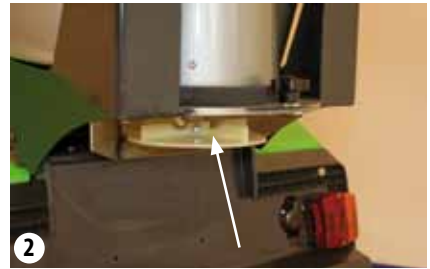


### Avoid accidents at the rear of the Salt and Sand Spreader:

Keep fingers and feet well away from the rotating spreader plate. (Picture 2)



PTO-rear



Spreader plate

## 2.4 Adjusting the spread quantity and width

### Spread amount:

The spread quantity can be adjusted at the rear of the Salt and Sand Spreader.

Turn handle. (Picture 3)

- a. Turn the feed plate clockwise to reduce the supply.
- b. Turn the feed plate anti-clockwise to increase the supply.



Turn handle

## Spread width:

The spread width is the width at which the Salt and Sand Spreader covers the ground. The material is spread in a semi-circular direction to ensure equal amounts of material on either side of the machine.

The spread width can be set by turning the knob on the left side of the Salt and Sand Spreader. The width can be adjusted from 1–5 m. (Picture 1)

Turn the knob clockwise to decrease the width, and anti-clockwise to increase the width.



Adjusting the spread width



### Important!

Spreading material must have a radius of 8 mm. Material that is larger can become stuck and may damage the Salt and Sand Spreader.

## Tank frame

The tank frame must always be positioned on solid and level ground before the Salt and Sand Spreader is fitted/disconnected. Moving the Salt and Sand Spreader while fitted to the frame must only take place on solid and level ground.

## 2.5 Application

The Salt and Sand Spreader may only be used with the City Ranger 2200.

The Salt and Sand Spreader must not be used to manure or fertilise fields, or to spread lime.

It must not be used to store corrosive materials.

# Service and maintenance

## 3.1 Cleaning

### Cleaning the Salt and Sand Spreader:

Daily cleaning and maintenance will extend the lifetime of both the machine and the attachment.

It is recommended that the Salt and Sand Spreader and machine are cleaned with water immediately after use to remove salt residues and waste in the container. Avoid high-pressure cleaning of the snap couplings.

Wipe snap couplings clean with a cloth. (Picture 1)  
Remember to clean the machine thoroughly.



Clean the couplings with a cloth

### Storage outside the season:

When the Salt and Sand Spreader is to be stored outside the season, the following steps are recommended:

1. Remove any loose paint and repaint any damaged areas.
2. Spray the Salt and Sand Spreader with protective lubricant.

If the Salt and Sand Spreader is to be stored for long periods or when the season is over, it is important to clean it to prevent rust from forming.

## 4.1 Warranty

The warranty period for the materials and manufacture of this Salt and Sand Spreader is 12 months from the date of purchase.

In the case of errors or defects on the machine within the warranty period, Nilfisk-Egholm A/S will carry out the necessary repairs without charge for materials and working hours in accordance with the terms and conditions listed below.

### **The scope of warranty:**

1. The Nilfisk-Egholm warranty is only valid on presentation of the original receipt, supplied with model description, serial number and date of purchase.
2. Regular checks, adjustments, services and technical alterations are not covered by the warranty.
3. All inquiries concerning the warranty are to be addressed to the distributor, from whom the machine was purchased.
4. This warranty does not cover faults and defects which cannot be traced back to defects in material or production errors.
5. This warranty is valid for persons who have legally acquired the machine within the warranty period.
6. In the event of failure to perform and substantiate service in accordance with the applicable instructions, Nilfisk-Egholm reserves the right to reject any claim made within the warranty period.
7. Nilfisk-Egholm A/S reserves the right to make improvements and design-related alterations to the machine without being obliged to modify previously delivered models in relation hereto.

### **The warranty does not cover:**

- Wear and tear, accidents, damage to the equipment caused by operating errors, negligence, changes to the construction of the machine or use of non-Nilfisk-Egholm spare parts or implements.
- Machines with illegible serial numbers.
- Damage caused by force majeure such as lightning, flood, fire, war, civil disturbance, etc. or other causes over which Nilfisk-Egholm A/S has no control.

## 4.2 Complaints

All inquiries regarding the machine should be made at the distributor from whom the machine was purchased. This applies to inquiries concerning normal use, service, maintenance and spare parts, as well as to any complaints.

If there are questions that the distributor cannot answer, please do not hesitate to contact Nilfisk-Egholm A/S directly. Also feel free to contact us with suggestions or requests for special implements and/or features for the machine.

We wish you many years of safe and satisfied use of your machine.

Regards

Nilfisk-Egholm A/S · Transportvej 27 · DK-7620 Lemvig

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## 4.3 Disposal

When, in many years from now, your Salt and Sand Spreader has reached the end of its working life, it should be disposed of in a responsible manner that conforms with relevant disposal regulations.

1. Used hydraulic oil is to be disposed of at an approved waste disposal facility or site.
2. Remove all plastic and rubber parts and dispose of.
3. After the parts mentioned have been removed, the machine is ready to be handed over to one of your local approved scrap merchants.

## 5.1 Spare parts - City Ranger 2200 Salt and Sand Spreader



09723940 Stirrer bushing



41202430 Axle



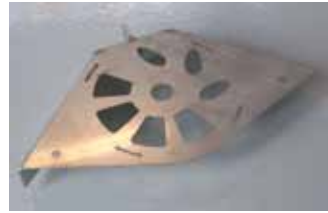
09827580 Spreader adjusting plate



41202440 Spreader housing



09828200 Stirrer outer casing



41202450 Base plate



09723170 Cover



90501961 Stirrer axle and chains



41108300 Stirrer arm



90501971 Stirrer arms and bushing



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