

OPERATOR'S MANUAL

SNOW V-BLADE City Ranger 2200



**Nilfisk
Egholm**
Rangers at heart

Dear Customer

Congratulations with your 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 City Ranger 2200 Snow V-Blade

To ensure the optimal performance of your City Ranger 2200 Snow V-Blade, please read this operator's manual carefully before using the machine. Failure to do so can result in personal injury and damage to the machine.

Safety:

The Snow V-Blade 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 Snow V-Blade is designed only for use by professionals. On delivery, the user will receive thorough training to become a competent operator.

Do not lend to anyone who has not been thoroughly trained and who 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 must 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 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 new Nilfisk-Egholm product, do not hesitate to contact Nilfisk-Egholm A/S.

Best regards

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

T. +45 97 81 12 05 · F. +45 97 81 12 10

E-mail: info@egholm.dk · www.nilfisk-egholm.com

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The Snow V-Blade uses the tip of the 'V' to cut through heavy and encrusted snow, separating and pushing it to both sides. Even large amounts of snow are removed with ease.

The V-Blade can also be configured as a 'Y' to allow snow to be transported away – very useful in car parks, markets, enclosed courtyards and other locations where snow needs to be gathered in one place.

The Snow V-Blade is equipped as standard with a safety tilt system to protect paths and the machine.

The V-Blade support has sideways suspension, so that the Snow V-Blade always adjusts to ground conditions.

Useful tips

Adjust the skids to suit ground conditions. If there are a lot of raised edges, set the skids high so they do not cut into the edges.

Use the Snow V-Blade for big drifts. The Snow V-Blade removes most of the snow and then the Snow Sweeper finishes off the job.

Ensure the snap couplings are clean before fitting, as this protects the hydraulic system.

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 while it is in use.

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



Attention:

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)



The Snow V-Blade left blade swings to the side when the joystick is moved left or right. The right blade swings to the side when the black joystick button is pressed and the joystick is moved left or right. Make sure that no one is standing near the machine while it is in use. (Picture 2)



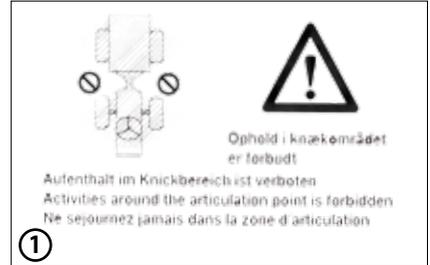
Avoid crushing fingers:

Keep your hands and fingers away from areas where there is a danger of crushing.



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 3)



①

Prevent people from standing in the working area.



②

Black button

Joystick



③

Max. 10°

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

1.2 EU Declaration of Conformity

Manufacturer: **GMR maskiner a/s**
Address: **Saturnvej 17 · DK-8700 Horsens**
Telephone: **+45 75 64 36 11**

herby declares that

Machine: **Snow V-Blade 2200**

· has been manufactured in conformity with:
European Parliament and Council directive 2006/42/EC of 17 June 2006 on
approximation of the laws of the Member States on machinery.

Place: Lemvig

Date: _____

Signature:



Poul Møller Rasmussen

1.3 Technical data

Dimensions:	Fitted	Storage dimensions:
Length (L):	3,000 mm	500 mm
Width (W):	1,400 mm	1,400 mm
Height with cab (H):	1,960 mm	600 mm

Technical data:

Type description	22VP
Weight on Snow V-Blade	118 kg
Clearing width:	1,200 -1,400 mm
Ground clearance below scraping edge, lifted	240 mm
Ground clearance below skids, lifted	215 mm

Attention:

Specifications may be changed without prior notice

2.1 Assembly / Disassembly

1. The locking handle on the A-frame of the basic machine must be in the unlocked position. (Picture 1)
2. Drive the base machine right up to the A-frame of the Snow V-Blade, so the A-frames fit into each other. (Picture 2)
3. Raise the A-frame by pulling the joystick back until the Snow V-Blade is suspended and free of the ground.
4. Stop the machine.
5. Lock the Snow V-Blade in place with the locking handle on the A-frame. (Picture 3) The locking handle can only be engaged when the machine has been stopped.

Disassembly:

Follow the procedure for fitting in reverse order.

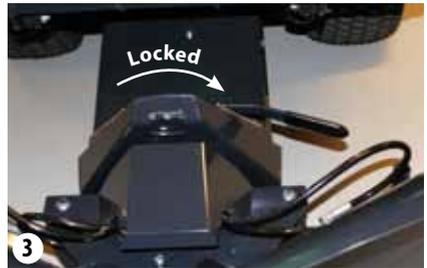
To make attachment and removal easier, set the left and right blades evenly.



Locking handle



Attaching



Locking

2.2 Important before start-up

During transport:

Lock the Snow V-Blade in the raised position using the transport lock. This prevents the attachment from lowering during transport.

How to use the transport lock:

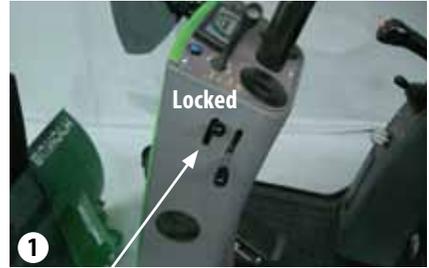
Move the handle to the uppermost position. Lift the A-frame by moving the joystick up. As the A-frame lifts the transport lock is automatically activated. (Picture 1)

How to use the transport lock:

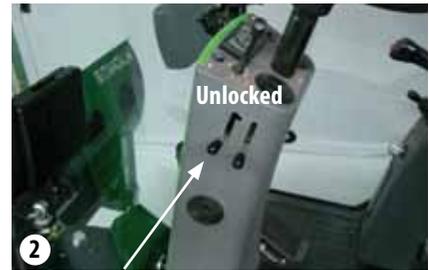
Unhitch the handle and lift the A-frame to the uppermost position. The attachment can now be lowered again. (Picture 2)

2.3 Start-up

1. Start the machine.
2. Lower the Snow V-Blade by moving the joystick down. (Picture 3)
3. Activate the weight distribution with the red button on the joystick (Picture 4). The Snow V-Blade will now adjust to ground conditions. To adjust the weight distribution read the operator's manual for the basic City Ranger 2200 machine.
4. Turn the left blade of the Snow V-Blade by moving the joystick to the left or to the right. When the joystick is moved to the right, the blade swings forwards.
5. Turn the right blade Snow V-Blade by pressing the black joystick button and moving the joystick left or right. (Picture 4) When the joystick is moved to the right, the blade swings forwards.



Transport lock in locked position



Transport lock



Joystick



Black button Weight distribution



Attention!

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



N.B!

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



Warning!

Collision with solid obstacles – such as kerbstones – may damage the Snow V-Blade. This damage may cause bolts to snap or parts of the Snow V-Blade to bend. Damage of this type is not covered by the warranty.

2.4 Adjustment

Adjust the skids to the ground conditions.
If there are a lot of raised edges set the skids high so they do not cut into the edges.

Adjusting the scraping height:

1. Raise the Snow V-Blade by pulling the joystick up.
(Picture 1)
2. Lock the Snow V-Blade in the raised position using the transport lock. (Picture 2)
3. Stop the machine.
4. Remove the locking ring on the skid. (Picture 3)

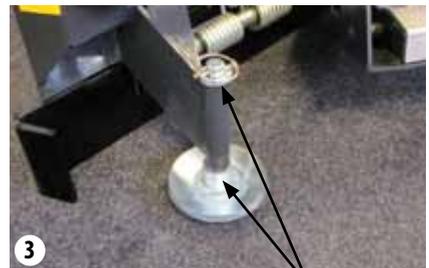
Adjust the skid height by moving washers up or down.



The Snow V-Blade is raised using the joystick



Transport lock



Skid

Service and maintenance

3.1 Cleaning

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

After use clean the Snow V-Blade with clean water. Avoid high pressure cleaning of the snap couplings.

Open the flap over the snap couplings. Use pressurised air to clean around the snap couplings. The couplings can be dried with a cloth (Picture 1). It is important the couplings are intact before the attachment is fitted.



1 Snap couplings

3.2 Maintenance

Lubricating the bearings:

The bearings in the pivot joint of the Snow V-Blade should be greased regularly with good quality grease.

1. Stop the machine.

2. Clean the lubricating nipples and lubricate the bearings until the grease starts to come out of the bearing. (Picture 2)

There are five lubrication nipples in the centre swivel.

There are four lubrication nipples on the cylinder. (Picture 3)



2 Location of lubrication nipples



3 Location of lubrication nipples

Replacing the scraping edges:

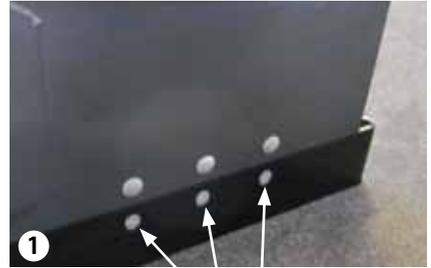
The scrapers at most can be worn down to the scraper guard.

1. Lift the Snow V-Blade to the uppermost position and lock with the transport lock. (See Section 2.2)
2. Stop the machine.
3. Remove the nuts and bolts holding the scraper edges and remove the scraper edges. (Picture 1)
4. Fit the new scraper edges by reversing the procedure. New scraper edges and skids can be ordered from an authorised Nilfisk-Egholm distributor.

Storage outside the season:

When the Snow V-Blade is to be stored outside the season, it is recommended to remove any loose paint and to repaint any damaged areas.

It is recommended the attachment is greased / sprayed with protective lubricant.



Nuts that hold the scraper

4.1 Warranty

The warranty period for the materials and manufacture of this Snow V-Blade is 12 months from the date of purchase. In case of errors or defects on the machine within the warranty period, Nilfisk-Egholm A/S will carry out the necessary repairs at no charge to the customer, including 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, improper utilization of the machine, 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 to the distributor from whom the machine was purchased. This applies to inquiries concerning normal use, service, maintenance and spare parts as well as complaints (if any).

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.

Best regards

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

T. +45 97 81 12 05 · F. +45 97 81 12 10

4.3 Disposal

When — many years from now — your Snow V-Blade 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 the plastic and rubber parts and dispose of them in accordance with the applicable environmental legislation.
3. After the parts mentioned have been removed, the machine is ready to be handed over to an approved scrap merchant.

5.1 Spare parts – City Ranger 2200 Snow V-Blade



09722135 Rubber scraping edge for V-Blade



01108120 Spacer profiles for steel scraper



01108090 Rubber scraping edge for V-Blade



01108130 Front plate for rubber scraping edge, V-Blade



01905020 Safety split pin for skids



01108100 Rubber scraping edge kit, for switch from steel scraper



01108080 Skid for Snow V-Blade



01108110 Back plate for rubber scraping edge





Nilfisk-Egholm A/S
Transportvej 27
DK-7620 Lemvig
T. +45 97 81 12 05
F. +45 97 81 12 10
www.nilfisk-egholm.com
info@egholm.dk