

Manual

For

Liquid spreader model 7.1 - 7.2 - 7.3 -7.4 -7.5

from Serial no. 101



Saltnex

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Introduction:

This manual contains important information concerning safety, operation and maintenance. With proper use and regular maintenance, the machine will be operational and functioning for many years.

Please read this manual before you start using the machine. The manual should be kept near the machine, so it is always at hand. The machine must be operated only by persons who have the necessary insight into the use of this type of machine.

Information in this manual is based on the information that was available at the time of publication.

Product description:

The frame is constructed of bent flat steel, which on special load points included high-strength steel. The surface treatment is C4 quality.

The tanks contain 350 litres and are made of strong and solid polyethylene. They are designed with compartmentalization/ breakwater so that fluid can move the least possible while driving.

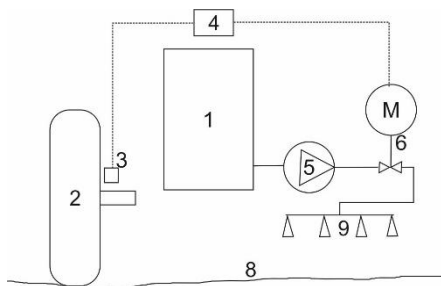
The pump is of the diaphragm type, thereby ensuring that the liquid does not reach the vital parts of the pump. It is also equipped with suction membrane and pressure exchanger as well as safety valve against overloading.

The valve system with flow meter regulation and section valves are made of chemical resistant plastic. All fittings and hoses are of the same type.

Boom and fittings are made of stainless steel. The boom is constructed in such a way that it provides protection of pipes and nozzles.

Nozzles and pipes are made of plastic material.

Trailer is available with or without brakes and approved lighting equipment.



Principle:

Saltnex liquid spreader is a machine for spreading salt solution on roads and paths and for cleaning these. It is driven or pulled by a tractor and comprising a tank (1) to the solution, from which a pump (5) feed the solution to a spray boom (9) through a motor valve (6). By means of a microcomputer (4) and a sensing element (3) which measures the speed of the wheels of the vehicle (2), the driving speed is calculated, and as a function of this, the valve (6) is adjusted to a desired value for spread quantity per. square meters of surface (8).

Product description:

The microcomputer is mounted on the spreader in dedicated machine house in close plastic housing. The software controls the motor and the section valves and ensures that the entered quantity per. square meters is given subordinate driving speed.

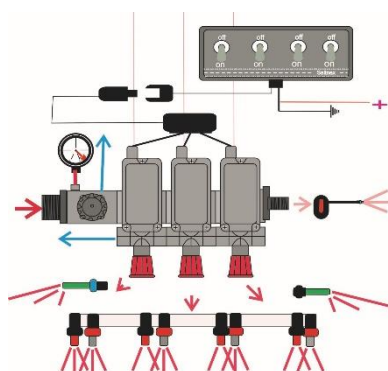
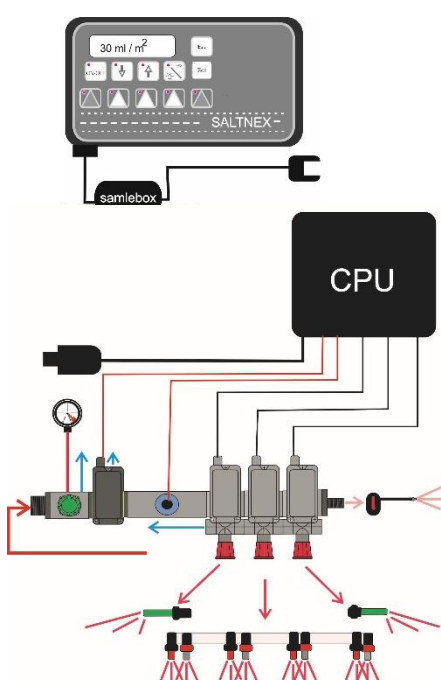
Operating / information panel is mounted in the tractor cab, from which the desired quantity and spreading width is set.

The system is turned on by pressing the on / off button. The desired quantity is entered with the arrow keys in steps of 5 ml per pressure up or down. The section valves are activated/deactivated with the operation keys.

Choose between displaying the spreading volume or driving speed.

The spreader is also available with manual operation where the desired volume is adjusted on the control valve. The remote control in the cab is solely an on/off operation.

The machine does not regulate according to speed.





Operation:

The filter mounted between the tank and the pump for capturing of any impurities **MUST BE CLEANED DAILY**. Turn the yellow ball valve to the left before dismantling thus closing for liquid flow from the tank. Then unscrew the cover to remove the filter for cleaning.



Mount the filling kit with tap and hose from the external tank / pump. Then open the tap to fill the tank. **REMEMBER TO CLOSE TAP BEFORE REMOVING THE HOSE.**



Coupling for flower watering system / external fluid pumping. **PLEASE NOTE THAT THE MACHINE MUST BE STOPPED WHEN REMOVING THE END COVER. PRESSURE IS AT 3 BAR WHEN THE MACHINE IS RUNNING.**



Pressure gauge is used in adjusting the amount of liquid on machines with manual control.

On machines with CPU / computer control, the gauge is only used as a briefing on the pressure in the machine's system.



Operation:

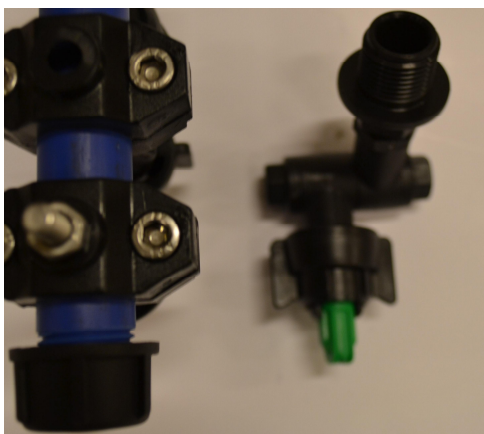
The pump is equipped with suction membrane and wind boiler for smooth fluid pressure. As security against overload, the pump is equipped with a safety valve at 20 bar.

An oil-glass is mounted at the rear of the pump. THE OIL LEVEL MUST ALWAYS STAND IN THE MIDDLE OF THE GLASS.

(See separate manual for the pump).



The machine is equipped with a boom at 1 m, on which 8 nozzles are mounted. The first four nozzles start the dispersion as soon as the machine is turned on. The last four nozzles follow when the working pressure passes $\frac{1}{2}$ bar. The nozzles can be removed without tools simply by turning the nozzle holders. The nozzles are calibrated together with the valve system.



Side nozzles are by default calibrated to one meter. It is possible to select nozzles with a different working width. However, this will take a new calibration of the valve system by a service technician.



Safety precautions:

When mounting the trailer model, please note that the support wheel is raised, parking brake is released, split ring in the ball nagel is mounted and that oil hose and lighting plug is fitted correctly.

When disassembling, start activating the handbrake.

By mounted models, be aware that nail and splitter is installed correctly. Make sure that the tractor is stopped.

Be careful and prudent when installing. The tractor must be stopped, as the hydraulics works with approx. 200 bar when activated.

On machines fitted with PTO shaft, the tractor must be stopped when mounting. Chain of the protection tube is to be mounted.

NO ONE MUST BE BETWEEN THE TRACTOR AND MACHINE WHEN THE PTO SHAFT IS ACTIVATED.

User manual for remote control:



Description of control keys

An LED in the individual operating button lights when the function assigned to the button is activated.



Starts and stops the spreading.



DOWN and



UP keys used to scroll through the different displays and to change the values.



Switch off the work lights / flashing

Description of display

The display has backlighting that automatically switches off if no keystrokes on the monitor or electrical signal to the job computer is recorded for 10 minutes.

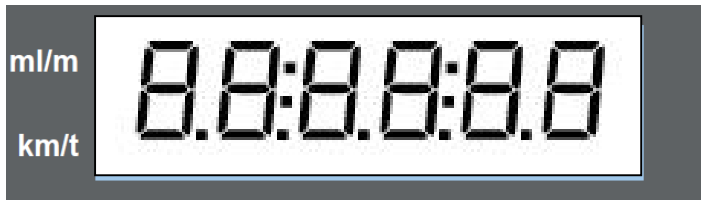


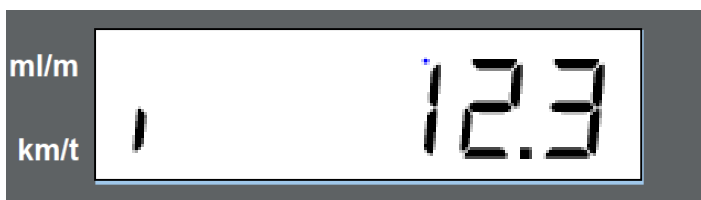
Figure 1 : Display with all segments "on". There is only light in the display when the machine is connected.

Symbols placed on the left side of the display indicate the type of information displayed:

Displaying dosage (ml/m²)



Displaying current speed (km/h)



User guide


When power is connected, the controller starts up and the display shows product ID and then software version. When the display turns to displaying dosage, the controller is ready.

Dosage





Displaying dosage



Spreading starts by pressing , and the display shows current (measured) dosage value.



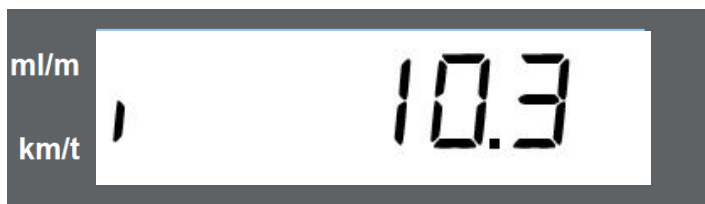
The wanted dosage is changed by pressing  or  respectively. For each press the dosing is changed $\pm 5 \text{ ml/m}^2$. The wanted dosage is shown for 3 seconds each time you press one of the arrow keys before the display automatically returns to the displaying of the current dosage or current speed.



Activation of section valves.

RED DIODE IS LIGHTNING WHEN A SEKTION IS ACTIVATED


Displaying current speed



Displaying current speed

When the display shows the current dosage value, you change to display of current speed



by pressing .


Repeated pressing of  switches the display back to displaying dosage.

Spreading test

Spreading test (or manual dosing) can be performed when stationary (no wheel pulses)



and is activated by pressing the keys  and  simultaneously for 2 seconds.

When spreading test is activated the LCD in the keys  and  light up.

The spreading test is terminated by pressing .

Setup







Access the setup of the machine by pressing the keys  and  simultaneously for 2 seconds until below display for entering a code appears:



You must enter a code depending on what needs to be adjusted:

Code 1: Entering the wheel constant.

Use  and  to select the code number and press  to activate the menu.

Use  to undo an entry and to leave a setup menu.

Code 1: Entering the wheel constant

Entering the wheel constant can be done manually



Example: wheel constant = 50.00

By assembling with magnet and wheel sensor

Example of wheel circumference:

250 cm and with 6 pcs. magnets on $250 : 6 = 41,66$

By assembling with optocouplers: 8000 pulses from the vehicle speedometer per km/h

1 km = 100.000 cm. $100,000 \text{ cm} : 8000 = 12,50 \text{ cm}$ - The value is 12,50

Model- Modell:	Serienummer-Serial-Seriell:
Vægt-Weight-Gewicht :	Totalvægt-Totalvægt-Gesamtgewicht :
PTO: 540 l/min	El-Power-energie: 12V
	Hydraulik-Hydrauliss 20-30 l/min. 200bar

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Model and type designation:

Model: model and type designation

Serial number: sequential numbers followed by production year.

Weight: Net weight of the machine.

Total weight: weight calculated with brine water.

PTO: If the machine is fitted with PTO shaft, the revolutions are 540 / min.

The electrical system of the machine is based on 12V.

The hydraulics of the machines requires between 20 and 30 L / min at 200 bar.

The machine bears the CE label.

The serial number is also carved in the machine frame, located next to the plate.

Copyright:

Saltnex ApS, DK-8930 Randers holds the copyright to this technical documentation.

The technical documentation consists of:

Manual

Spare Parts.

Warranty and liability:

The general sales conditions apply. Warranty and liability are not applicable in damage to person and property, if the damage is resulting from: improper installation or operation, use of spreader with defective safety devices, lack of maintenance, failure to comply with instructions or improper repairs.

EU declaration of conformity

Manufacturer: Saltnex ApS.

Address: Nyholmsvej 7

8930 Randers NØ

Denmark.

Hereby declares that:

Manufacturer name: Saltnex ApS

Model: Liquid spreader for winter road maintenance

Type: model 7.1 - 7.2 - 7.3 - 7.4- 7.5

Manufacturing year: from 2016

Conforms to Machinery Directive 2006/42 / EC and 99/37 / EC and the national legislation transposing the directives.

Conforms to the Low Voltage Directive 2006/95 EC.

Any amendments made to the machine which are not approved by us will void this declaration.

Randers, 1 September 2016

Hans Curt Nexgaard

Project Manager