



OPTIMAL

Instructions for use and maintenance

Disc spreader DS1200-1400-1700-2500



Note!
Read instructions before use



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■ Table of contents

1	General Information	7
1.1	Description.....	7
1.2	Detailed description	8
1.3	Technical data	10
1.4	Right and left hand	10
2	Safety instructions	11
2.1	Safety precautions.....	11
2.2	Explanation of the symbols.....	14
3	Using the equipment.....	16
3.1	Assembly	16
3.2	Attaching the machine.....	16
3.3	Before starting up	17
3.4	Adjustments.....	17
3.5	Operating.....	18
3.6	Detaching machine.....	19
3.7	Storage of machine	19
4	Service and maintenance	20
4.1	General.....	20
4.2	Maintenance schedule.....	21
4.3	Before the season starts	21
4.4	After the season ends	21
4.5	Electricity list (OPTIMAL Control Plus)	22
4.6	Hydraulic diagram.....	23
5	Troubleshooting	24
6	Options.....	24
6.1	Self-loading equipment (optional).....	25

7 Spare parts.....	27
EC-Certificate of Conformity	28

SAFETY SYMBOLS

Note! This warning symbol is used throughout this instruction manual to call attention to safety precautions that you, your employees or any other people that may come near the implement must read and understand. Failure to follow these instructions may result in serious injury or even death.

This symbol means:



WARNING!
CAUTION!
YOUR SAFETY IS
ENDANGERED!

A word of advice

Pay special attention to the words **WARNING!**, **CAUTION!** and **NOTE!** in the safety instructions. The words have been chosen from of the following:



WARNING! This safety sign is used to identify potential hazards that can lead to serious injury or even death. These hazards include situations that may occur when the safety equipment and/or the safety shields are removed. Signal words can also be used to alert about dangerous use.



CAUTION! Failure to observe this warning sign could result in light personal injuries. The sign is also used to indicate that the disregarding of these instructions may cause damage to the implement.

Dear Customer,

You have made a good choice. We congratulate you to your selection of OPTIMAL-product that offers quality and performance with reliable service.

By reading the manual and following its recommendations you will ensure the long and effective use of the equipment.

We have produced this manual for you to get a good understanding of the functioning of the equipment and what safety and maintenance instructions to follow when working with it. If any question should arise when using the equipment or when reading this manual, you are welcome to contact us for further information.

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Honoured retailer,

In order for the guarantee to be valid and to fulfil all legal requirements, we ask you to fill out the guarantee form together with the customer and register at trejon.se

The guarantee is valid from the day the equipment is handed over to the customer.



Delivery checklist:

Check for damages caused in transporting. Inform the transporting company.	
Check that all packing material has been taken away. Dispose packing material in an environmentally friendly way	
Check if delivery is complete with help from machine order/packing list.	
Check that the machine is lubricated, see section "Service and maintenance".	
Check that chain has right tension, see section "Service and maintenance".	
Check that all screws are properly tightened, see section "Service and maintenance".	
Make a function test	
Having gone through and explained to the customer, with the help of the manual, the startup, use and maintenance of the equipment and it's accessories.	
Fill out the guarantee form with the customer and register at trejon.se It can be found as an attachment to this manual and as a copy on the last page.	
Instruction manual given to the customer.	

Enter the serialnumber of the equipment to the right.	S/N:
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1 General Information

Thank you for choosing our Optimal sand-spreader. We have worked hard to manufacture a strong and reliable sand-spreader that will last for many years. As the machine's service life does not depend solely on us but also on you we have prepared these guidelines that describe the proper use and maintenance of the machine. Please read the whole manual carefully before operating the machine. If you want to order spare parts or need service, please contact the company where you bought the machine. When submitting the order for the spare parts, specify the model, type and serial number from the name plate on the chassis of the machine.

1.1 Description

The OPTIMAL sand-spreader is a simple and easy-to-operate machine for spreading sand (0-4 mm), chip stone (2-8 mm) and salt. It is recommended that the spreading material is sifted into correct fractions. An excessively fine-grained material that binds water should be avoided as it can cause blockages in the container. Salt has the ability to absorb water from the environment. If the salt is too damp it can cause problems with salt that does not flow down to the feed screw.

The sand-spreader is installed on a front loader or to a tractor's hitch linkage.

The spreader is driven by the tractor's hydraulics and the sand-spreading operation is regulated with a hydraulic flow valve.

It is easy to fill the spreader; the filling principle is the same as a loader's bucket. To facilitate the filling when the spreader is mounted on the 3-p hitch linkage a special "self-loading" kit can be supplied as an option (at DS1200/DS1400/DS1700).

Control

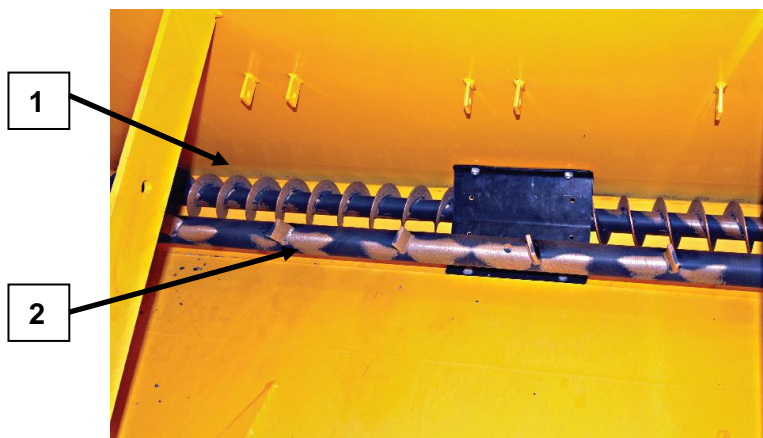
In the basic version of the DS1200/DS1400/DS1700 the spread amount (auger speed) and spreading width (speed of spreader disc) are adjusted with knobs on the spreader valve.

For DS2500 is the electrical control OPTIMAL Control Plus standard equipment (option for DS1200/DS1400/DS1700). With OPTIMAL Control Plus gives the opportunity to path-dependent control of the output, with help of speed signal from the tractor or OPTIMAL GPS Receiver 90-02371. This equipment is only design for **12V DC**.

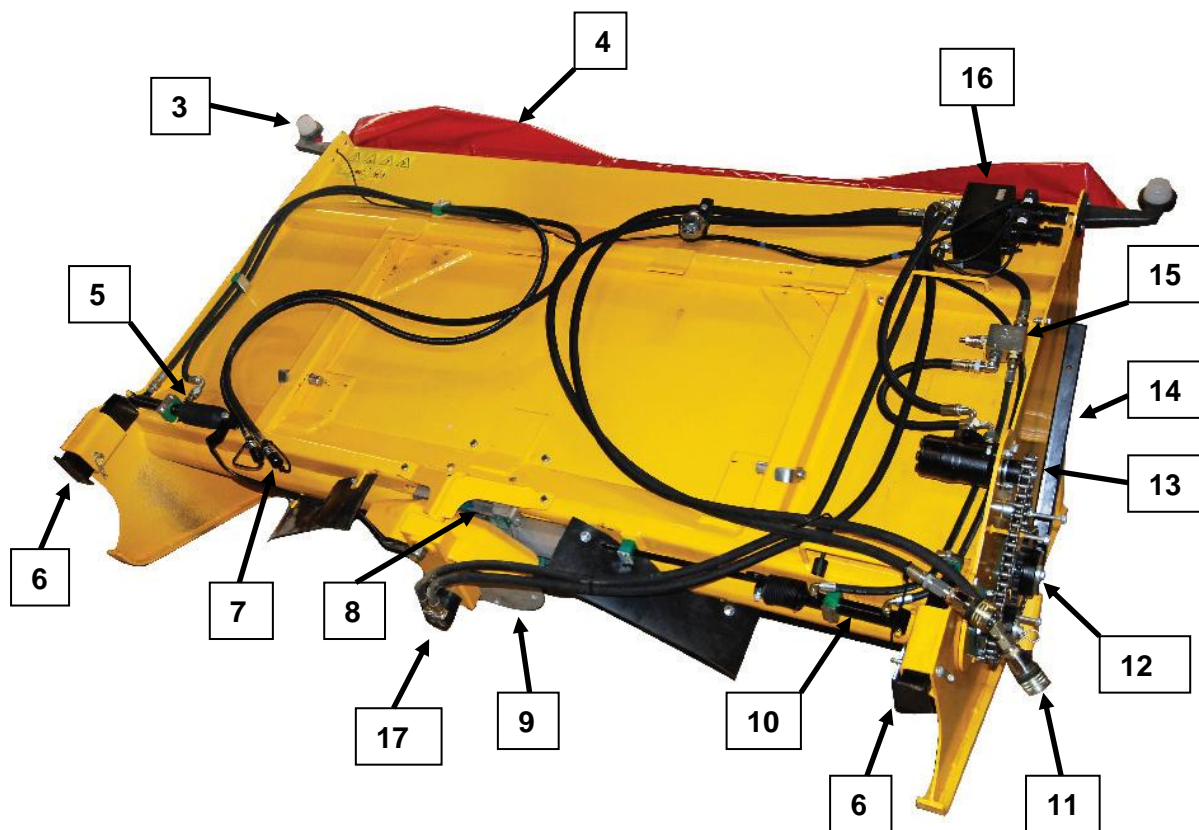
The steering OPTIMAL Control Plus has a separate operating manual, and can be retrofitted at spreaders with serial number after 14XXXXX. Item number: 15-4-0100

1.2 Detailed description

Top view (fig.1)



Front view (fig.2)



(Figures show the machine with the former type of attachment system)

The machine's hood over hydraulic and electrical connection (fig.3)



Junction box for control OPTIMAL Control Plus (fig.4)



Flow divider for tractors with >70 l/min, STD on the DS2500 (fig.5)



1	Feeding auger	13	Hydraulic motor for drive of feeding auger and mixer.
2	Mixer	14	Support leg long (2pcs)
3	Position light (2pcs)	15	Sequence valve
4	Curtain cover	16	Hydraulic valve
5	Cylinder for adjusting spreading position (Option /Std. at DS2500)	17	Hydraulic motor for spreading disc
6	Support leg short (2pcs)		
7	Hoses for maneuvering of Pos.5		
8	Manual adjusting damper		
9	Spreading disc		
10	Cylinder for maneuvering closing damper		
11	Hose to hydraulic valve		
12	Chain for mixer and feeding auger operation		

1.3 Technical data

Model	DS1200	DS1400	DS1700	DS2500
Steering, Standard	Manual	Manual	Manual	Control Plus 12V
Steering, Option	Control Plus 12V	Control Plus 12V	Control Plus 12V	-
Spreading width (m)	2-10	2-10	2-10	2-10
Adjustm. of spread pattern	Mech / (Hyd. Option)	Mech / (Hyd. Option)	Mech / (Hyd. Option)	Hyd.
Connection system	3-point	3-point	3-point	Stora BM
Volume (l)	1200	1400	1700	2500
Total width (cm)	184	210	240	240
Height (cm)	147	147	147	145
Weight (kg)	570	825	860	1100
Oil need (l/min)	35-50	35-50	35-50	35-90
Hydraulic pressure (bar)	180	180	180	180

With continuing product development the technical specifications are not binding and are subject to change without prior notice. The figures in the table above can show non-standard equipment. The standard of equipment may differ from country to country

1.4 Right and left hand

In this manual, the terms right and left hand refer to right and left as seen from the rear side of the tractor or from behind the tractor toward the direction of travel.

2 Safety instructions

2.1 Safety precautions

Read operator's manual. All drivers of the machine must read and understand the complete content in this operator's manual to guarantee there is no doubt concerning operation before using the machine for the first time. If you have any doubts, contact your Trejon dealer for advice.

It is forbidden to use the machine if the user do not know the risk factors during operation and do not know how to act in an emergency situation.

Read, comply and understand the meaning of all safety, use, warning and position signs on the machine and in the operator's manual.

Situations can occur using this equipment, which can not be prevented by its construction or mechanical protection devices.

Unfortunately, our efforts to provide a safe machine can be ineffective due to human carelessness. Accident prevention are therefore dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of the equipment.

Only allow properly trained personnel to operate the machine.

The machine is intended only for outdoor use.

Operation Learn how the machine operates and how to use the controls properly before operating the machine.

Connecting the machine Connect the machine correctly; do not stand behind the tractor during coupling.

Make sure that the machine is properly mounted, adjusted and in good operating condition.

Secure the working area Unauthorized persons, particularly children, are not allowed near the machine while it is running or is being repaired.

Protective equipment Do not operate the machine if not all safety guards and shields for moving parts are in place and in good condition.

Make sure that all safety and operating signs are in good condition. If not, replace them immediately. Please specify model and serial number on the order.

Moving parts Keep arms, legs and other parts of the body and clothing away from the machine's moving parts. Wear tight clothes when operating the machine.

Let the machine work by it self, do not try to help with hands and fingers.

Lifting and lowering machine.

Be careful when lifting or lowering the machine.

Stability The machine must not be mounted on a tractor with insufficient front shaft/back shaft weight, causing the tractor to be unstable and difficult to operate. In order to guarantee the steering and brake ability of the traction vehicle, a minimum of 20% of tractor and equipment weight must be on the front axle of the tractor. Without this weight, the tractor could tip over causing personal injury or death.

Use ballast weights if needed. Read the tractor's instructions manual for more information. During work with grapples, load smaller logs located close to the machine at first to make sure the machine is stabile before working with heavier logs.

Driving the machine Be careful and reduce the speed when working on uneven surfaces close to ditches and fences, watch out for holes, roots, rocks or other hidden objects. When moving over uneven terrain, observe the type of terrain and develop a safe moving pattern.

Be extra careful when driving in slopes:

Operate the machine up and down steep slopes, not across slopes, to prevent the tractor from tipping.

Avoid sudden stops and starts; slow down before changing directions on a slope.

If you have to drive across steep slopes, reduce speed, watch out for uneven surfaces, avoid sharp turns and be aware of the change in centre of gravity when the mounted equipment is lifted.

If tractor overturns, hold tight to the steering wheel.

Operating in darkness When working during the dark hours, make sure there is sufficient lighting in the working area.

Driver Tired or intoxicated persons or persons influenced in other ways (e.g. by medication) making them unable to control their movements are not allowed to operate the machine.

Do not allow passengers on the machine or on the tractor at any time. There is no safe place for passengers.

Only properly trained people with a valid driver's license is allowed to operate this machine.

Personal protective equipment Personal protection equipment including hard hat, safety glasses, safety shoes and gloves are recommended during assembly, installation, adjustment, maintaining and/or repairing the machine. Keep doors and windows of the tractor cabin closed at dusty conditions.

Safety cabin Operate the machine only with a tractor equipped with an approved Roll-Over-Protective-System (ROPS). Keep the doors on the tractor cabin closed during operating, serious injury or even death could result from falling off the tractor.

All moving parts, including the engine, must stand still and the parking brake must be tightened before the driver leave the tractor cabin. Keep the roof hatch open when driving on ice-covered water (to be able to get out of the tractor if the ice brakes).

Daily maintenance Check, adjust and maintain the machine according to the manual.

Regular servicing Inspect the entire machine periodically. Look for loose, worn or broken parts, as well as leaks or loose fittings.

Safety during maintenance and repairing Apply hand brake and place the machine on a hard and level surface when maintaining or adjusting it.

Always stop the tractor, set brake, shut off the tractor engine, remove the ignition key, and allow all moving parts on the machine to come to a complete stop before dismounting the tractor.

Clean the machine thoroughly before repairs or storage.

Be sure to thoroughly wash the machine without using high-pressure cleaning, especially on the moving parts, bearings and electric components.

The paint can be damaged if general cleaning is performed with too high pressure.

After cleaning, carefully dry the machine, lubricate it and perform a short test drive.

Vibrations The machine must be stopped immediately if vibrations occur in the machine. Determine the cause of the vibrations. Change any damaged parts.

Emergency stop. After hitting an obstacle shut down the machine. Shut the engine off, remove the ignition key, check and repair any damages before resuming the work. Make sure you know how to stop the tractor and machine quickly in case of an emergency.

Hydraulic hoses The machine's hydraulic hoses contain oil under high pressure. Never touch the hoses or other hydraulic components while there is still pressure in the system. In case of leakage, oil under high pressure can penetrate the skin and cause serious injuries. In case of an accident, contact a doctor.

Check the condition of the hydraulic hoses every day. Worn or leaking hoses must immediately be replaced with new hoses that comply with the technical requirements of the manufacturer.

When changing tractor, always check the length of the hydraulic hoses, too long or too short hoses can be damaged. It is forbidden to use hydraulic hoses that do not comply with the specifications of the manufacturer.

Hydraulic engines and hoses can become hot during operation, risk of burn injury. Do not disconnect hoses when the oil is hot, wait for it to cool down.

Welding Protect bearings, electronic and hydraulic components before you start any welding work.

Before conducting any welding work, all electronic components must be disconnected and the ground connection of the weld must be placed close to the welding place.

Risk of fire If any component gets over heated, stop machine and check the cause.

It is recommended to keep a fire extinguisher near to the working area.

Smoking is forbidden near the machine.

Electric cables Pay extra attention when working close to electric cables. Keep a safety distance with good margin.

In case of an accident where the crane comes too close to a live wire:

- Stay calm, act rationally in order to keep the situation from becoming aggravated, and do not touch metal parts.
- Warn people close to the machine and make sure they stay outside the dangerous area.

Spare parts Only use original spare parts

If you have any questions about the machine or its function, please contact your retailer or Trejon AB.

2.2 Explanation of the symbols

The warning symbol must always be recognizable. If the warning symbols are missing from your equipment or if they are damaged, replace them at once.

The symbol to the right shows:



Warning!

Read and follow the manual and the safety instructions before using the equipment. Pass on all safety instructions to other users of the equipment.



Warning!

Do not touch moving parts. Do not move about near the rotating parts when the equipment is operating.



Warning!

Crushing hazard! When connecting, never stand between the tractor and the equipment as long as the tractor is moving. The tractor must be immobilized with the parking brake whenever the operator leaves the cabin.





Warning!

Crushing hazard



The CE symbol mounted by the manufacturer confirms that the equipment altogether meets all requirements concerning machinery directives and other corresponding EG directives.

The serial number and model is stamped on the identifying plate (see the picture).



3 Using the equipment

3.1 Assembly

When assembling the machine, following is done:

- Unpack all parts of the machine and place them on a suitable surface. (handle the disposal of packing material in environmentally friendly way)
- Before operating the machine check section 3,3, "Before starting up".

3.2 Attaching the machine



Warning!

Crushing hazard! When connecting, never stand between the tractor and the equipment as long as the tractor is moving. The tractor must be immobilized with the parking brake whenever the operator leaves the cabin.

The machine should only be attached to tractors with enough front and rear axle weight so that steering and brakes function correctly after the implement is attached. Use additional ballast if necessary, see the tractor's operation manual.

- The attachment should only be done on a hard level surface.
- Attach tractor to connection frame (either to three link connection or to loader). If machine is connected to a three link connection, the lower lifting arms must be secured from moving sideways with its stabilization rods.
- Switch motor off and immobilized tractor with the parking brake.
- Connect hydraulic hoses to two pairs of double-acting outlets. (one extra double acting outlet is needed if machine is equipped with self loading device). Clean connection well before attaching in outlet.
- Mount control box in a suitable place in tractor cabin (if the machine is equipped with control box). Connect power supply plug from control box to 12V outlet in tractor (at machines equipped with steering OPTIMAL Control Plus).
- Check if machine goes free from tractor in all thinkable situations.

3.3 Before starting up

Check the following before you operate the machine:

- All screws and nuts should be tightened (inspect all screws and nuts and tighten them if necessary after 4 hours of operation and after that after every fortieth hour of operation. Table at section 4.1 lists the torques for the screws and bolts.
- Check that all protective devices are undamaged and correctly attached to the equipment.
- Lubricate the machine before you start it (see section 4.2).
- Check roller chain tension, tension if necessary.

3.4 Adjustments

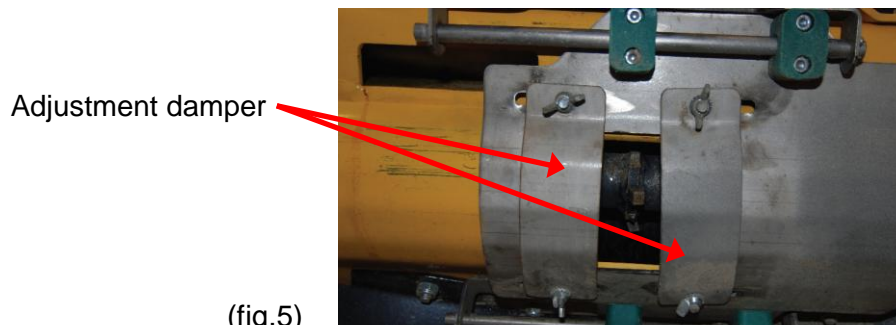


Warning!

If the equipment has been raised for adjustments, cleaning, maintenance, inspection or repairs, it is imperative that you prevent it from sinking or falling down. Place supports under the equipment to prevent it from sinking or falling down.

When starting up the machine there are some points that have to be checked and adjusted.

Manuel adjusting dampers



Above the spreading disc there are two adjustment dampers, that will be a help when optimizing the spreading result. There are no definitely measures for the opening of the dampers. The opening will be adapted after experience and circumstances.

Guideline for opening:

Large opening together with large output, material e.g. sand and chip stone
Smaller opening together with small output, material e.g. salt (start value e.g. 50mm opening)

Procedure for adjustment:

Loosen the two nuts per damper. Adjust. Tighten the nuts.

NOTE! Adjust both dampers equilateral

3.5 Operating



Warning!

The operator must have a good view over the working area and the area where the sand lands.

Ensure that nobody is close to the equipment when it is working.

Stones in material can be thrown longer than sand and salt.

Fill the sand-spreader as you do with an ordinary bucket loader, alternative as a self-loading 3-point hitch mounted bucket. The used material must not contain stones or frozen pieces.

Adjust the machine according to the work to be done. During work, the sand-spreader must be in a risen, "vertically" position. This gives a horizontal spreader disc.



(fig.7)

Hanging pointer on the spreaders side shows the correct working position. If the pointer points to 0 then spreader disc is horizontal.

When spreading "wet" sand or salt on working widths up to 8 m, it is wise to tilt up the bucket about 10°. This material is also saved in the material list in Optimal Control Plus.

Keep the rpm of the tractor engine steady as you drive the tractor, this gives a constant hydraulic pressure and flow values during spreading.

Before operating machine, connect it as earlier described in this manual.

Activate the double acting valve (that also operate spreading disc and feeding auger) so that the closing damper is opened by the cylinder (Pos10 in section 1,2).

Adjusting the spread rate and spreading width with the respective adjusting knob on the valve (see Figure 9, terms of basic models without handset). For models with steering OPTIMAL Control Plus refer to the separate instruction manual.

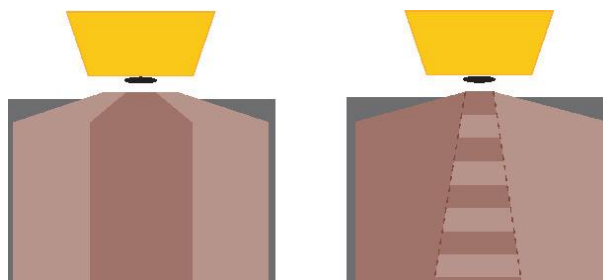
When stopping during spreading work we recommend that the operation is handled with the earlier activated hydraulic valve by moving it to opposite position a short while where after valve is moved to neutral position. By this handling both feeding auger and spreading disc are turned off in the same time as the cylinder (Pos 10 in section 1.3) is shutting the closing damper. When restarting the operation the hydraulic valve just have to be moved to "ON position", at which the earlier settings are saved.

Adjusting of spreading position

With the machines other double acting cylinder (Pos 5 in section 1.2) (standard at DS2500 and option at other models) the spreading position can be controlled i.e. if spreading area will be centered behind spreader or moved to left or right side (see picture).

Left imagine showing different spreading width depending on speed of spreading disc.

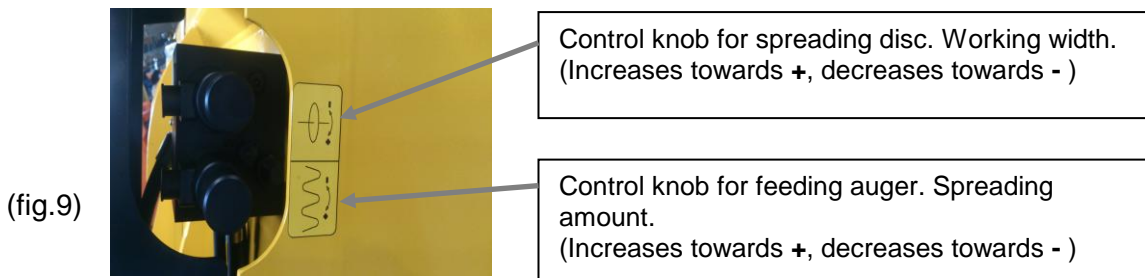
Right imagine shows variations in spreading position with help from the control cylinder. Due to rotation of disc spreading will not be symmetric.



(fig.8)

Adjustment of valve

When not spreader is equipped with control box, then adjust the spread with the knobs at the valve (see Figure 9) until the auger and spreader disc achieves the desired speed. See table and fig.9 for advice with handling.



(fig.9)

Control	Adjustment of respective control knob
Without handset	Stepless adjustment (see fig.9)
With handset	Turn full counter clockwise (towards minus -)

The machine must be cleaned and oiled each time after you have finished working.

3.6 Detaching machine

Park the machine at a level and even area. Move down the four support legs and lock them.

Lower the machine until it support stable on ground.

Detach connection, hydraulic and electric connections from machine.

3.7 Storage of machine

The machine will rather be stored under roof.

Detach control box and store it separately indoors.

4 Service and maintenance



Warning!

Always turn off the engine and wait until the machine has completely stopped before performing any kind of service or maintenance on the machine. Remove the key from the ignition switch.

No work is allowed unless the equipment is safely secured. Always use protective equipment such as goggles and gloves when carrying out maintenance.

Do not use your fingers when examining little openings. This is to avoid accidents.

To avoid injury to other persons, make sure that nobody is in the proximity.

It is important to replace worn and damaged protection items in good time (e.g. protective shields).

Ensure that no other people are nearby and may be injured.

4.1 General

Carefully maintain the equipment in order to achieve cost effectiveness and a long working life, prevent early repairs and keeping the value of the equipment. Use only quality lubricants and suitable tools. Do not use high pressure cleaning for the bearings, electricity and the hydraulic components. After cleaning the equipment, lubricate it according to the lubrication chart, and give it a brief test run.

Use the table below for the correct torque settings of bolts and nuts of the equipment.

Table 1 - Table with recommended torque settings of bolts and nuts.

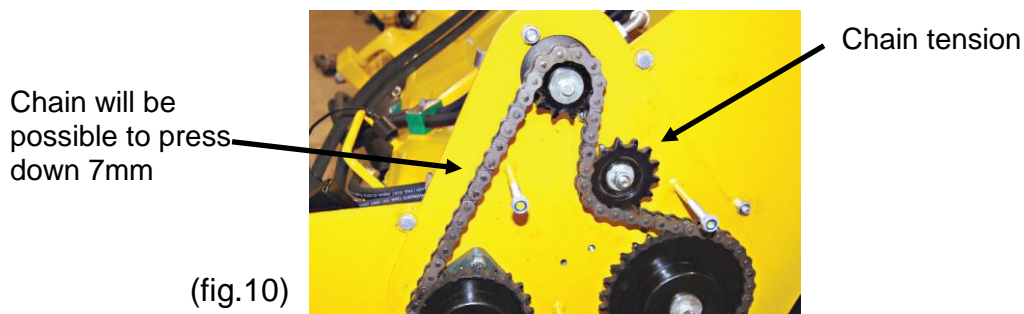
Dimension	Classification 8.8		Classification 10.9	
	Nm	lb.ft.	Nm	lb.ft.
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	215	155	305	225
M18	295	217	420	309
M20	420	302	590	438
M22	520	380	730	535
M24	670	490	940	690
M30	1350	990	1850	1350

When locking nuts are used, increase torque with 5%

4.2 Maintenance schedule

Position	Interval	Type	Points	Notes
Feeding auger	40h	Grease	2pcs	
Mixer	40h	Grease	2pcs	
Chain transfer	40h	Rub the grease or oil in, using a brush	1pcs	
Chain tension sprocket	40h	Control / Adjust	1pcs	Check the tension of the chain. You must be able to press the chain down 7 mm. The transfer system must work smoothly, without creaking.
Torque settings for bolts and nuts	40h	Control		See table above for settings

Use grease NLGI 2 with EP-qualities for lubricating.
 Do NOT use "graphite-grease" for the ball bearing. Don't use a pneumatic grease gun to lubricate sealed bearings; the seal can loosen or be damaged. Clean lubrication nipples before lubrication.
 Always lubricate after cleaning with water.



Picture shows chain transfer with chain tensioner

4.3 Before the season starts

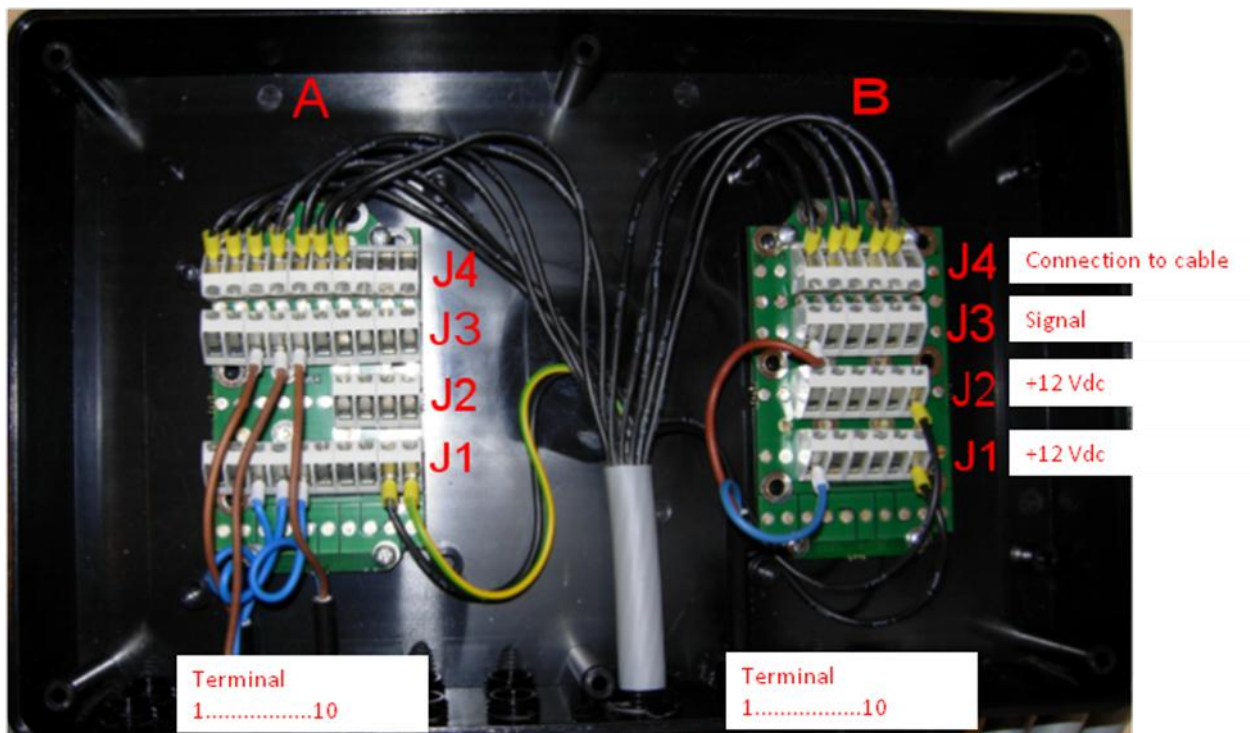
Go through all the above instructions. The care you give to your implement will greatly determine your satisfaction with its performance and its service life.

4.4 After the season ends

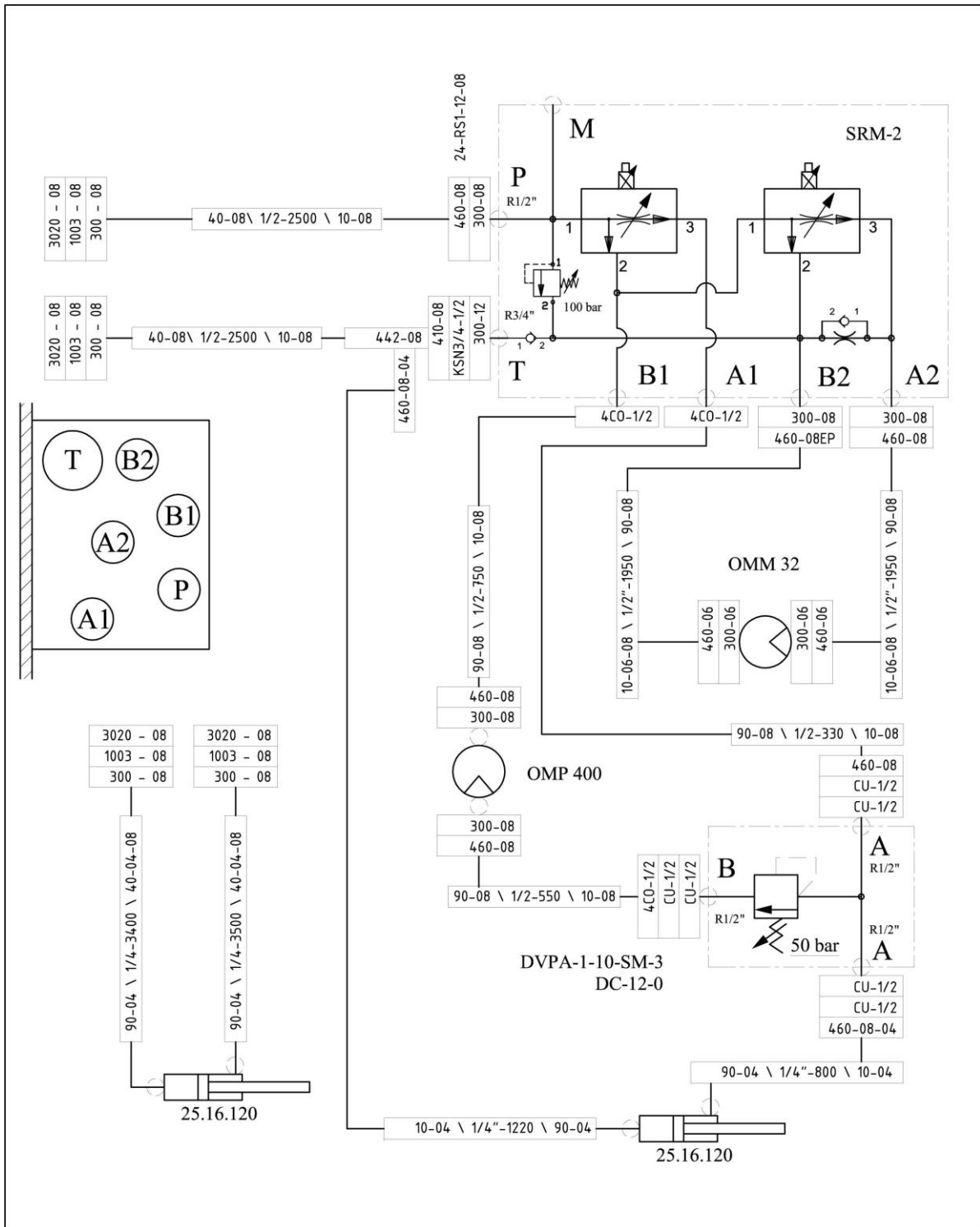
Clean the machine thoroughly, then lubricate and have it serviced. When the machine dries up, we recommend applying a thin layer of oil on the places where the color has worn off. Detach control box and store it indoors.

4.5 Electricity list (OPTIMAL Control Plus)

Function	Multi-cable wire n°	Souriau connection	Connection print PCB n° IN	Signal type				Wire in Connection box
				In-Dig	In-Ana	Out -D	Out -A	Signal terminal wire color and place
-0 Volt	1	A	A.J1.10					
+12Volt	2	B	A.J2.7					
Master	3	C	A.J4.1			1		A.J3.1
(Auger Dir forward)	4	D	A.J4.2			1		A.J3.2
Working lights	5	E	A.J4.3			1		A.J3.3
Beacon	6	F	A.J4.4			1		A.J3.4
(Spread symmetri In)	7	G	A.J4.5			1		A.J3.5
(Spread symmetri out)	8	H	A.J4.6			1		A.J3.6
Not used	9	J	A.J4.7			1		A.J3.7
PWM disc proportional	10	K	A.J4.8				1	A.J3.8
PWM auger proportional	11	L	A.J4.9				1	A.J3.9
(Auger dir reverse)	12	M	A.J4.10				1	A.J3.10
Wheel	13	N	B.J4.1	1				B.J3.1
RPM auger	14	P	B.J4.2	1				B.J3.2
RPM disc	15	Q	B.J4.3	1				B.J3.3
(Tank sensor)	16	R	B.J4.4	1				B.J3.4
	17	T	B.J4.5		1			B.J3.5
+12Volt	18	U	B.J2.6					
-0 Volt	19	V	B.J1.6					



4.6 Hydraulic diagram



Hydraulic diagram DS1200-2500 (fig.12)

5 Troubleshooting

Problem	Possible fault	Measure applicable
Feeding auger and mixer doesn't rotate	The hydraulic pressure is not Sufficient.	Check the tractor's hydraulic system
	Wrong hydraulic flow	Check the tractor's hydraulic system
	Control box doesn't work	Check connections to control box
	The material includes stones or large lumps	Remove stones and lumps, use the spreading material with common consistency
	Chain transfer is broken	Check the machine's chain transfer
Spreading disc doesn't rotate	The hydraulic pressure is not sufficient	Check the tractor's hydraulic system
	Control box doesn't work	Check connections to control box
	Wrong hydraulic flow	Check the tractor's hydraulic system
Bad spreading result	The spreader is not adjusted correctly	Adjust (see section 3,4)
	Wrong spreading material	Use sand, salt and other material which do not include large lumps

6 Options

Item number	Description
15-4-0100	Control OPTIMAL Control Plus
320114	Transmitter rod DS1200-1700 (for self loading)
320132	Hydraulic top link with lock valve DS1200-1700 (for self-loading)
90-02371	GPS Speed sensor
320106	Lighting kit
320339	Safety lattice (complete kit) DS1200
111581	Curtain cover DS1200
320009	Safety lattice (complete kit) DS1400
320172	Curtain cover DS1400
SP-1000-24-1	Safety lattice (complete kit) DS1700
320131	Curtain cover DS1700
320186	Safety lattice (complete kit) DS2500
320176	Curtain cover DS2500

6.1 Self-loading equipment (optional)

Following parts are necessary for self-loading to model DS1200-1700:

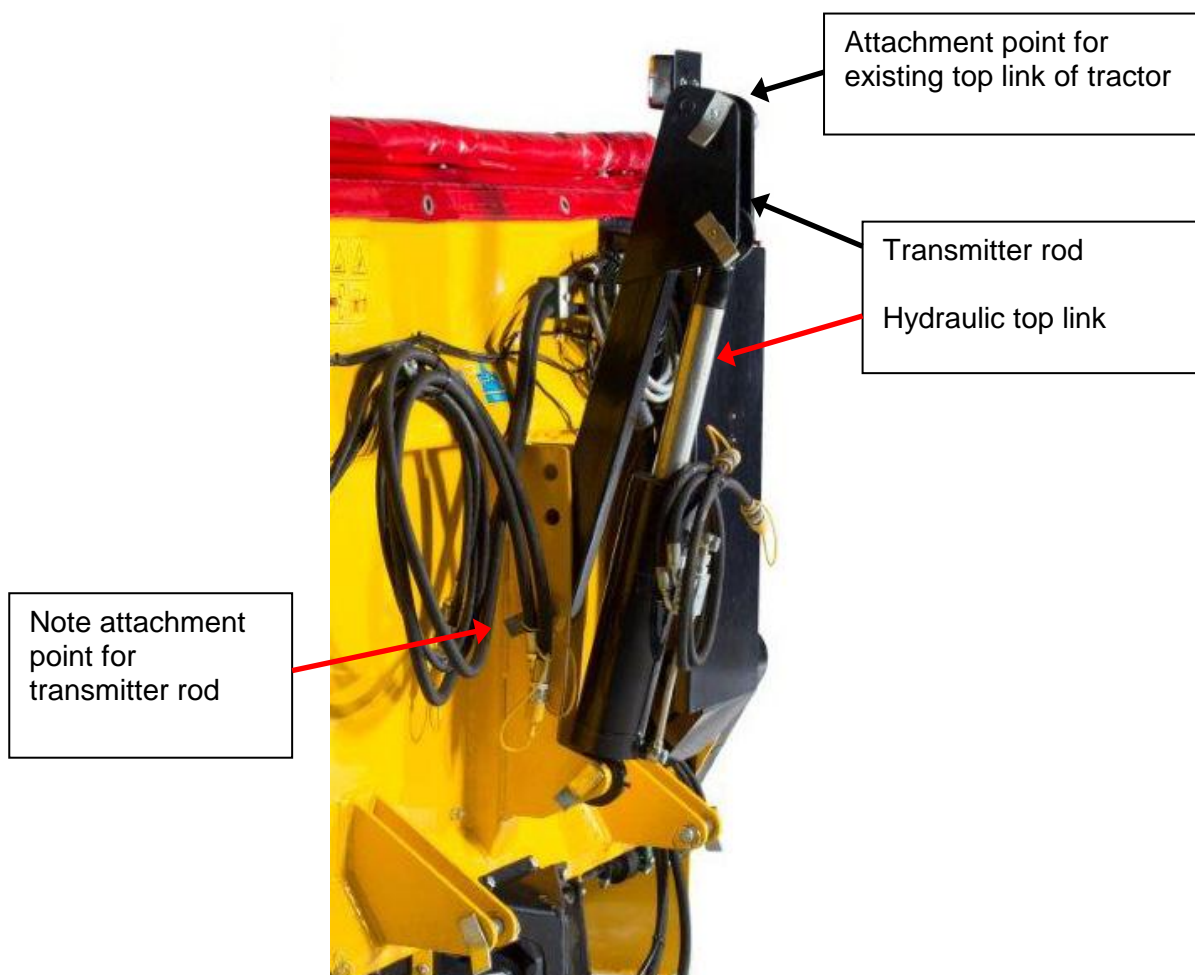
Item number	Description	Pcs
320114	Transmitter rod	1 st
320132	Hydraulic top link (with lock valve)	1 st

-Fit transmitter rod to machine frame.

-Mount the hydraulic cylinder between the transmitter rod and the lower middle attachment on the machine frame.

-Connect the lifting arms and top link of the tractor to the spreader as shown on the picture.

-Adjust the loading angle of the bucket



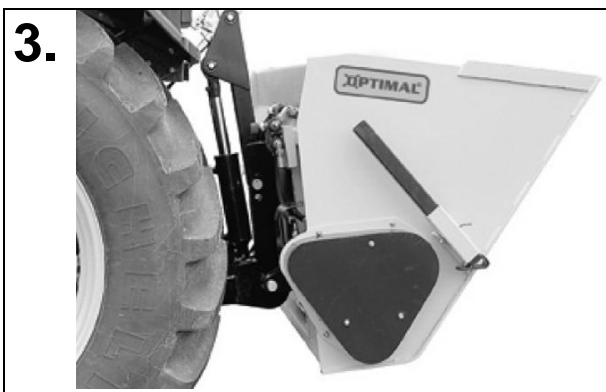
ATTENTION! Transmitter rod with TREJON Hydraulic top link (PN 320132) is normally connected to the lower hole at machines frame. Connect transmitter rod to machine and top link so it fits tractor in best way. Observe the collision risk in connection!!

Filling the self-loading bucket (pictures shows SP-spreader)

Follow the instructions below to fill the bucket with material stored on ground level

1. Lower the edge of the bucket with the hydraulic cylinder and the hitch of the tractor until the bucket are parallel to the ground. (Picture 1)
2. Reverse the tractor so the bucket cut into the material that is to be filled. (Picture 2)
3. Move slowly forward with the tractor, at the same time raise the edge of the bucket.
4. Continue to raise the bucket with the hydraulic cylinder (Picture 3)
5. Lift up the bucket to a suitable level with the tractor hitch
6. Drive to the place where the material is to be distributed, please also see section 3,3.

To avoid unnecessary stress on the buckets connection frame and link, we advise you NOT to lift the bucket using the tractor hitch during loading/filling. Use the hydraulic cylinder to raise the bucket, at the same time, move forward from the material.



7 Spare parts

Your choice is between “original” or “copies”!
Price is often the deciding factor. A “cheap” choice may well be an expensive one in the end.

Some reasons to choose TREJON spare parts:

- Quality and fit.
- Reliability
- Longer service life and therefore better economics
- Guaranteed availability through the TREJON sales partners

The TREJON original spare parts are specifically made for this equipment. The fitting and/or use of non-original parts and accessories may change the technical qualities of your equipment in a negative way. The manufacturer does not give any guarantee for damages caused by using non-original parts or accessories.

The guarantee does not cover arbitrary changes made on the equipment.



If you want to order spare parts or need service, please contact the company where you bought the machine. When submitting the order for the spare parts, specify the model, type and serial number from the name plate on the chassis of the machine.

EC-Certificate of Conformity

conforming to EEC Directions 2006/42/EG

We **TREJON FÖRSÄLJNING AB**
 (name of supplier).....

SE – 911 35 Vännäsby, Företagsvägen 9

.....
 (full address of company – where this concerns authorized agents within the Common Market, also state the company name and manufacturer)

declare in sole responsibility, that the product

Sand spreader DS1200	Sand spreader DS1400
Sand spreader DS1700	Sand spreader DS2500

.....
 (make, model)

to which this certificate applies, conforms to the basic safety and health requirements of EEC Directions 2006/42/EG, (if applicable) and to the other relevant EEC Directions.

— — —

 (title and/or number and date of issue of the other EEC Directions)

(if applicable)
 To effect correct application of the safety and health requirements stated in the EEC Directions, the following standards and/or technical specifications were consulted:

EN ISO 12100-1 : 2003 EN ISO 12100-2 : 2003

.....
 (title and/or number and date of issue of standards and/or specifications)



Håkan Johansson
Managing Director

Vännäsby, 01.01.2016

(Place and date of issue)

.....
 (Name and job function of authorized person)

Guarantee- /assignment certificate

- Guarantee terms** - Valid between retailer (Trejon AB dealer) and machine purchaser.
- General about guarantee** - In order to obtain valid guarantee terms set forth below, and the specific guarantee terms set by each provider. These are attached to the user manual for each machine, as appropriate.
- Validity of guarantee** - The guarantee is 12 months from date of purchase.
In some cases, the guarantee can be limited by running time.
- The guarantee covers** - **Damaged parts, which have broken down because of defective production operations of materials in course of normal use of the machine.**
- Only the labor cost for replacement of defective warranted part.
- The guarantee does not cover** - Transport costs applicable to the machine or the parts.
- Travel costs.
- Any resulting costs incurred as a result of damage to the machine.
- If the machine has been modified by the owner.
- Damage due to normal wear and tear of the machine – Not related to manufacturing defects, poor service, user inexperience or use of spare parts that are not original.
- Excessive or inappropriate use of the machine.
- The guarantee is not applicable to parts which are subject to wear, for example hoses, sealing, oil, belts, batteries, chains, knives etc.
- The guarantee period for replaced parts during the guarantee period expires with the machine's guarantee.
- Normal adjustments, maintenance or supervision
- Guarantee procedures** - Contact place of purchase as soon as any damage or malfunction is detected.
Do not use the machine if the damage can be worse.
- Guarantee repairs must be performed by Trejon AB approved workshop.

ATTENTION! The guarantee shall enter into force provided that the machine **GUARANTEE/ ASSIGNMENT CERTIFICATE** has been fully completed and signed by both parties (archived by the seller), and recorded on the Trejon web portal no later than 14 days from date of sale (the seller is responsible for this happening).

Assignment certificate:

Machine Buyer shall confirm with his signature that he had received manual containing operating instructions, and received information about the operating, security and maintenance requirements described in this and made the final inspection of the machine.

PLEASE FILL IN!



Product: _____	Serialno. _____
Salesman: _____	Company: _____
Signature of salesman: _____	Date of purchase: _____
Name of buyer: _____	Telephone: _____
E-mail: _____	
Address: _____	Zipcode: _____
City: _____	Country: _____
Date: _____	Signature of buyer: _____

TREJON AB reserves the right to change or to improve shown models using technical or commercial reasons, without demands to carry out the same improvements on equipment already delivered. Pictures in the manual do not necessarily show the equipment as delivered.

Technical data, weights and measures are without obligation. Reservation for faults.

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