

FERTILIZER SPREADER MOD. FS/PFS



OWNERS' MANUAL

 Read the Operator's manual entirely before using the machine 

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FERTILIZER SPREADER

MOD. FS/PFS

OWNERS' MANUAL

 Read the Operator's manual entirely before using the machine 

TYPE	FERTILIZER SPREADER
MODEL	FS/PFS
SERIAL NUMBER	
MANUFACTURING YEAR	

.....
Place and Date of issue (Day/Month/Year)

SIGNATURE

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1. INTRODUCTION

Fertilizer spreaders are used for the distribution of media in the field. They can be used with tractors of small/medium power.

It is recommended to carefully read this operator's manual for use and maintenance and follow the recommendations to help ensure safe and efficient operation.

This manual has been written , in order to give the customer the information and safety rules on the machine, as well as usage and maintenance instructions that allow you to use the machine to its full potential.

The manual must always be handy, so as to consult it,in order to check the operational cycle.If it gets lost or damaged, it will be necessary to request a new copy.

In case of any difficulties interpreting text or tables, or if the drawings /sketches are not clear enough, please get in touch with the manufacturer or dealer of the machine for clarification.

2. GENERAL INFORMATION

2.1. USING THIS MANUAL

This manual gives all the information for the use and maintenance of the spreader . The optimal performance depends on proper maintenance and usage . Some pictures in this manual show details or accessories that could be different from those of your spreader . Some components could be removed in order to assure the clearness of the pictures . Some warning labels are put on the spreader and the operator should keep them in a perfect visual condition,replacing them when they are no longer readable.



This safety alert symbol indicates a hazard and means.

ATTENTION! STAY ALERT! YOUR SAFETY IS INVOLVED.

For replacement parts, the customer must use original parts offered from the manufacturer.
(See pages26-27 for available OEM parts)

2.2. INFORMATION ON THE SPREADER

The models introduced in this manual have been designed for distribution of media in the field. The spreader is only to be used for agricultural applications.

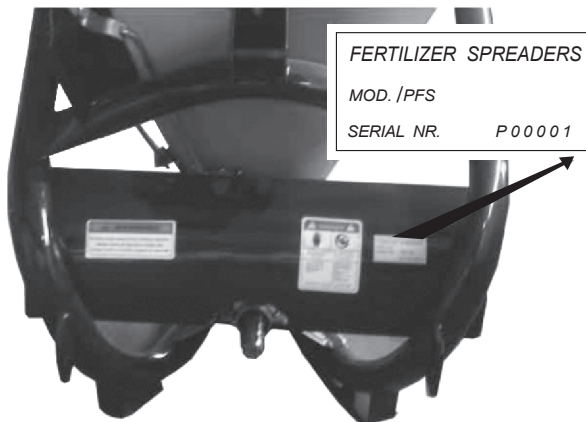
Only recommended for use during daylight hours . If it is required for nocturnal use or with poor visibility , it must use the lighting system of the tractor or of the equipment's to which the spreader is connected.

Any arbitrary modification made to this spreader relieves the manufacturer from any responsibility for damages or lesions that may be caused to the operators, to third parties or to things.

2.2.1. NAME PLATE

On the hopper of every spreader, a name plate is fixed showing the model number and serial number.

When spare parts are needed , it is important to refer to the model of the spreader and the serial number on the name plate.



Location of the name plate on the spreader

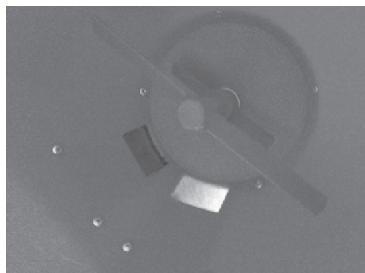
2.2.2. CHARACTERISTICS OF THE SPREADER

The FS has a metal hopper and the PFS has a plastic hopper. Both of these models feature a steel frame.

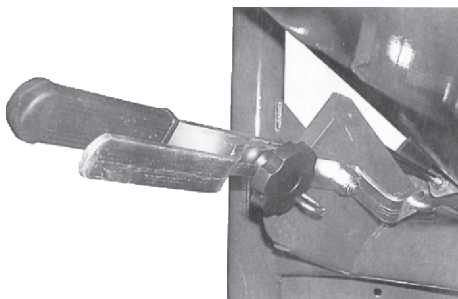
Both the FS and the PFS models are equipped with a spreader disc with four adjustable vanes. The different positions of the vanes allows for maximum spreading precision, depending on the media being used.



Spreader disc



Agitator

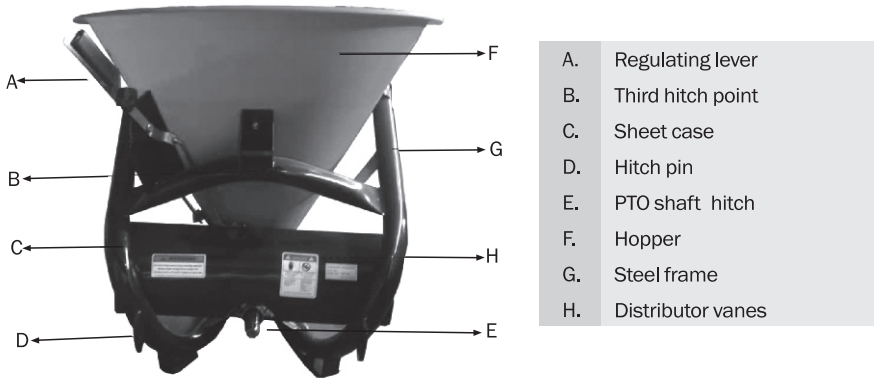


Lever system

The spreader is connected through a gear box ratio (1:1) with gears in order to provide power to turn the spreader disc.

The PFS version has a plastic hopper instead of steel which is interchangeable.

2.2.3. TERMINOLOGY



2.2.4. TECHNICAL DATA

TECHNICAL CHARACTERISTICS	
	<i>FS / PFS</i>
Hopper capacity (litres / gallons) (Kg/lbs)	220/58 285/628
Weight of the machine (Kg/bs)	54/119
Loading height (meters/inches)	1.01/40
Hopper width (meters/inches)	1.00/39.37
Spreading width (meters/ft) Granular Crystalline	12-14/39-46 6-7/20-23
Power required at 540 rpm (Kw/Hp)	8/6

3. IMPORTANT SAFETY INFORMATION

THE FOLLOWING SAFETY RECOMMENDATIONS ARE TO INSURE YOUR SAFETY: THEREFORE IT IS NECESSARY TO READ THEM CAREFULLY, MEMORIZING AND ALWAYS APPLYING THEM.

The present warnings in this manual must be followed to use the spreader safely. All below instructions must be integrated by common sense and by the experience of the operator's indispensable measures to prevent accidents.

The machine must be used by a single operator, 18 years or older.

All the listed instructions must be carefully respected.

Any modifications or changes to the machine without written authorization from the manufacturer, excludes the manufacturers of any and all liabilities.

Check for correct functioning of the spreader before every use.

General advice

- Read this manual carefully before proceeding to start, operate, or maintain the spreader.
- The manual must always be handy, so as to consult it, in order to check working cycle and safety information. In case of loss or damage, it will be necessary to ask for another copy.



ATTENTION!

Any maintenance, adjustments and cleaning must be done with the spreader on the ground (in stable conditions), turning off the tractor engine and removing the key.

- Read carefully the warning labels applied on the spreader and follow the instructions. In case of wear and tear or insufficient readability of the warning labels, clean them up or replace them. Place the warning labels in the right position, as shown in paragraph 3.1 (page 13)



ATTENTION!

The operator, during the period of use, maintenance, repair, handling or storing of the spreader, must wear proper safety attire and follow safety instructions as listed in the manual.

- During loading phase, there is the danger of powder inhalation produced by media. It is suggested to use tractors with filters on the ventilation system of the cabin, or use suitable safety masks.

- The spreader is designed for use by a single operator who, during the use, must always stay in the seat of the tractor.
- Never operate this spreader if you are tired , sick or while under the influence of alcohol , drugs or medication.



DANGER!

**It is forbidden to climb or to transport somebody when the spreader is in motion.
Do not place any limbs inside the hopper for any reason.**

- Keep the spreader clear of foreign bodies (debris, tools, miscellaneous), as they could damage the operations or the operator. Unit should be cleaned after each use due to possible corrosiveness of material spread.
- Check tractor to ensure that it is in good working conditions prior to connecting to spreader.
- Before connecting or disconnecting spreader to a tractor ensure that the spreader is stable on compact level ground and hopper is empty.



WARNING!

During transport, operation, stocking, and servicing operators must follow all safety warnings and labels for all equipment involved at all times.



ATTENTION!

The manufacturer and Distributor is not liable for damages or injury caused by improper use of spreader.

The manufacturer is not responsible in case of:

- Improper use of the spreader
- Improper mainfenane
- Using parts not specific to the product
- Not following all the instructions
- Not following all safety rules during use

Connection of the spreader to the tractor

- The third hitch point of the tractor and the fertilizer spreader must coincide or must be adapted.
- Make sure that the PTO shaft is engaged in correct way after every linkage operation of the spreader and that it does not come uncoupled when the spreader is lowered in order to fill the hopper.



ATTENTION! DANGER!

Check that shielding of the PTO shaft are complete and in good conditions.

- In case of breaking or deterioration of the PTO shaft shielding, please replace PTO immediately.
- The presence of the spreader can influence the manoeuvrability of the tractor, in particular during transport.

Operation of the spreader

- Check the spreader before engaging begin work only if the spreader is in perfect working condition.
- Before using the spreader , please be sure that all the safety devices are correctly installed and in good condition.



ATTENTION!

During work, please be sure that for a radius of 50 meters (164 feet)there are no obstacles including people or animals . When you work in proximity of roads or public places, it is **ABSOLUTELY** mandatory to keep away from people and to increase the precautions.



ATTENTION!

The operator must prevent anybody from entering danger area and work with the maximum caution. If somebody enters, please stop the tractor engine immediately.

- Before every use, please check the wear of the vanes and the spreader disc. Check that all the components (Screws, bolts, etc.) are in and tight.
- The spreader must never be unattended when it is moving.
- Always keep the spreader in good operating conditions and perform regular maintenance.



ATTENTION!

Not for Highway use or Transport.

3.1. SAFETY SIGNAL



ATTENTION !

Be sure that the warning labels are readable. Clean them up using a cloth, water and soap . Replace the damaged labels placing them in the right position, as subsequently described.



1.ATTENTION ! Before making any operation on the machine, stop the engine of the tractor or of the self-moving means , remove the key , put on the parking brake and read carefully the operator' manual.



3.ATTENTION ! Check the sense of rotation and the number of revolutions (540 rpm) of the tractor power before placing the pto shaft.



5.ATTENTION ! DANGER! Possible throwing of material and/or objects, please do not stop or come up to the machine. Keep a safe distance of 50 meters, at least , from the machine.



2. ATTENTION ! DANGER of entangling and dragging. Do not put hands near the running gear box.



4. ATTENTION ! DANGER of crushing . Do not stop between the machine and tractor when the tractor engine is running.

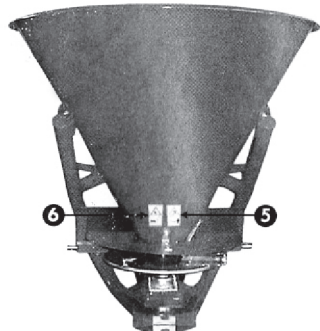


6.ATTENTION ! DANGER of shearing . Do not approach limbs to the spreader disc when the machine is running.



7.ATTENTION ! Use the individual Protection Devices, as required.

Where placing the safety signals on the machine



4. CONNECTIONS

Before coupling the spreader to the 3-point hitch, position the safety devices on tractor , so that it is not possible to involuntary and/or accidentally raise or lower the arms.

The 3-point hitch of the tractor and spreader must coincide or must be adapted.

Serious injury may occur if you become in close proximity of the lift arms of the 3-point hitch of the tractor due to the cutting points.

Do not use the external controls to lift the spreader.

4.1. CHECK THE RAISING ABILITY OF THE TRACTOR



DANGER!

It is necessary to check the raising ability and the stability of the tractor (before carrying out the connection with the spreader) in order to avoid overturning and/or the loss of traction.

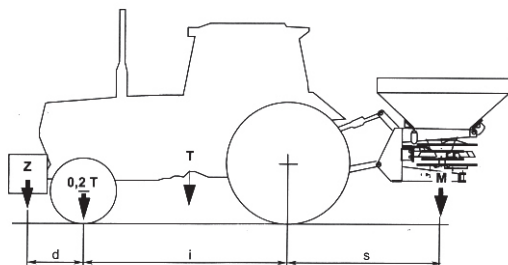
4.2. CONNECTION TO THE 3-POINT HITCH OF THE TRACTOR



ATTENTION!

Before exiting the tractor disengage the PTO shaft, stop the engine, & apply the parking break.

For the connection of the spreader to the tractor, please complete the following steps.



- Back tractor into position by lining up lift arms and category 1 pins. Attach lift arms to category 1 pins and secure with lynch pins.
- Attach top link using appropriate pin.
- The spreader disc should be positioned at approximately 70cm(27inches).
- Attach the PTO shaft to the splined shaft of the gearbox of the spreader and after to the tractor PTO.



ATTENTION!

The PTO shaft should always be connected last to the tractor power take off and disconnected at first, when work is stopped.

4.3. DRIVE LINE INSTALLATION

Before using the PTO shaft , please consult the use and maintenance manual attached to the PTO shaft.

Please use PTO shafts with integral shields.

The PTO shaft should be greased periodically.

- Observe the assembly of the PTO shaft, as indicated by the manufacturer and shown on the outer cover of the shield tractor drawing on the external tube of the PTO shaft towards the power take-off of the same tractor.
- Fasten the anti-rotation chains and make sure that the safety spring/push pin is correctly placed and locked in the right location.

**ATTENTION!**

Check the rotation and the speed regulation of the power take-off of the tractor to be at 540 rpm, as the spreader is recommended for this kind of speed.

The length of the PTO shaft must be adapted to the type of tractor used. The manufacturer or distributor is not responsible for any damages caused by incorrect assembly or modification and use of the PTO shaft.

5. SPREADER USE

**ATTENTION!**

Before use, please check that gears are adequately greased.

**ATTENTION!**

During the use of the spreader, please ensure that for a radius of 50 meters /164 feet there are no obstacles including people or animals. If someone or something enters, stop the tractor engine immediately.

ATTENTION!

**ATTENTION!**

- Engage & disengage power take off only when tractor is at idle speed.
- After engaging gradually increase speed to achieve 540 RPM.

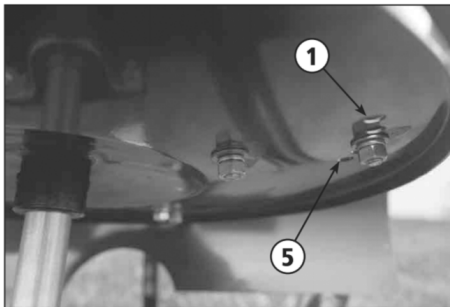
- Please test the lb./acre that you wish to spread before starting to work.
- When spreading in humid conditions, a humid media could not be spread uniformly or correctly clogging and inaccurate distribution will occur.
- Avoid spreading during windy days in order to improve the uniformity of the distribution.

5.1. ADJUSTMENTS

It is not possible to have an exact spreading chart for the centrifugal equipment , as the distributed quantity depends on the speed, on the radius of distribution, on the quality and humidity of the media and on the roughness of the land . The media must always be stored properly to keep its physical characteristics unchanged . It is necessary to set the regulation lever of the spreader , before starting the operation of distribution , adding in the possible limits , to keep it constant for all its duration. The spreading charts contain the information, in order to determine the quantity to spread in the field; these must be completed by competent operators.

5.1.1 HOW TO ADJUST THE SPREADER VANES

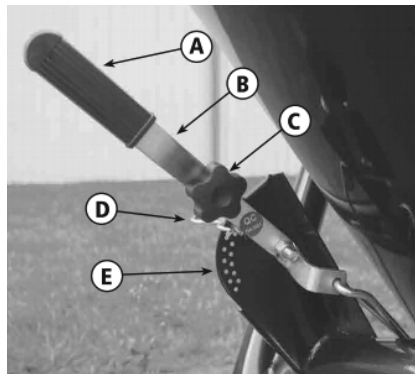
In order to assure an even distribution on both sides of the spreader , depending on the different specific weight of the media used , the distributor vanes on the disc can have a different position. When all the vanes are put in hole 1 (as shown in the picture) , the distribution of the media is increased towards the left, compared to the way the tractor is moving , If the vanes are put in hole 5, the distribution will be more towards the right . When moving the vanes from 1 to 5 on the same speed , there will be an increase of the distributing width . This adjustment must be made according to the type of media used.



Spreading disc's distributor vanes regulation

The media spreading is controlled through the regulation lever that moves the opening section on the bottom of the hopper.

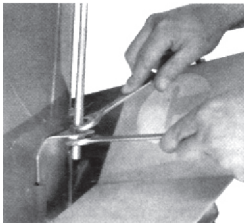
In order to carry out the regulation, after consulting the spreading chart, according to the type of product to spread and to the spreader speed, it is necessary to move the lever “A” along the graduated scale “E” and blocking it in the chosen position with the pin “D”.



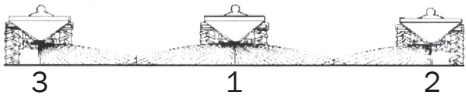
SPREADING CHART									
SPREADING CHART FOR FERTILIZER									
TRACTOR WORKING SPEED (MPH) (FEET)		QUANTITY SPREAD IN LBS. ACRE AT VARIOUS RATE SETTINGS							
MPH	FEET	2	3	4	5	6	7	8	8.5
LARGE									
GRANULAR	2.5	132	245	402	635	920	1014	1540	1260
FERTILIZER	5.0	60	80	123	201	310	460	507	570
MEDIUM									
GRANULAR	2.5	—	311	448	709	925	1025	1118	1182
FERTILIZER	5.0	63	—	156	224	355	460	513	559
FINE									
GRANULAR	2.5	112	189	322	520	747	842	965	1091
FERTILIZER	5.0	40	56	95	166	265	374	421	482
CRYSTAL									
AMMONIUM SULPHATE	2.5	226	369	600	880	1236	1354	1522	1632
AMMONIUM SULPHATE	5.0	23	113	184	280	440	510	577	761
THOMAS MEAL									
40-30-0	2.5	—	—	571	—	1270	—	1665	—
BRAND SLUGS	5.0	—	—	260	—	635	—	843	—
SPREADING CHART FOR SEED									
TRACTOR WORKING SPEED (MPH) (FEET)		QUANTITY SPREAD IN LBS. ACRE AT VARIOUS RATE SETTINGS							
MPH	FEET	2	3	4	5	6	7	8	8.5
WHEAT									
3	52	0	46	129	280	460	610	770	880
5	0	25	56	115	200	300	400	500	570
ALFALFA & CLOVER									
3	31	20	103	240	460	660	840	1010	1150
5	10	50	104	204	357	507	657	807	927
PESQUE & RYEGRASS									
3	19	0	0	81	191	321	451	581	671
5	0	0	56	127	222	342	462	582	672
RED CLOVER									
3	31	44	187	322	462	602	742	882	1002
5	10	72	143	275	405	535	665	795	905
KENTUCKY BLUE GRASS									
3	38	131	311	511	680	850	1020	1190	1360
5	18	78	188	328	458	588	718	848	978
SUDAN GRASS									
3	13	36	133	283	433	583	733	883	1013
5	0	68	171	271	371	471	571	671	771
BUDAN GRASS									
3	52	0	29	121	251	381	511	641	771
5	0	17	58	128	208	288	368	448	528
BARLEY									
3	49	0	25	81	186	291	396	501	606
5	0	12	68	111	155	199	243	287	331
RYE									
3	40	0	15	49	111	176	241	306	371
5	0	11	25	49	73	97	121	145	169

Before using the spreader make sure that the shutters could close the holes completely with lever in “closed” position. Otherwise adjust it through the nuts.

In order to spread from both sides (ref.1), “A” and “B” levers must be in the same position, connected through the knob “C”. In order to carry out the spreading only through the left side(ref.2), it is necessary to disconnect the two levers removing the “C” knob, set lever “B” in the chosen position, given by the spreading chart, and bring lever “A” towards the higher part in order to close the shutter of the right side. In order to spread only one on to the right side (ref.3), you have to move lever “B” up, in and regulate the quantity to spread with lever “A”.



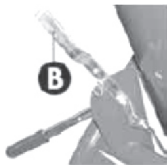
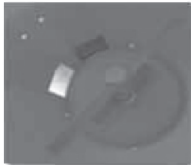
(ref. 1)



Position Diagram



Distribution on right side (ref. 3)



Distribution on left side (ref. 2)

5.2. HOPPER LOAD

It is advised, not to carry out the hopper loading manually, but to use a lift or suitable mechanical means.

Do not travel for long distances with a full load. Do not put full bags of media in the hopper during transport to the field. Do not overload the capacity of the spreader and compress the media.



WARNING!

The hopper must be loaded only after having connected the spreader to the tractor.

5.3. SPREADING MEDIA IN THE FIELD



WARNING!

The operator must wear proper safety attire during periods of use, maintenance, repair, transport, or storing of the spreader.

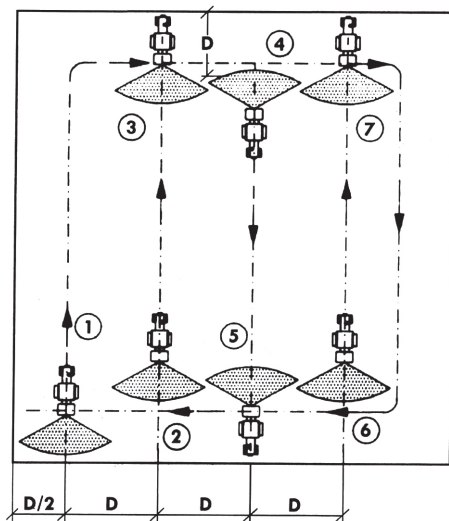
After connecting the spreader to the tractor and having carried out the necessary adjustments, it is possible to begin work.



ATTENTION!

Before disconnecting the spreader and before every operation of maintenance and regulation, set in action the parking brake, turn off the engine, remove the ignition key from the dashboard and wait for all moving parts to stop.

- Positioning the tractor at the beginning of the field you intend to work, to a distance ($D/2$) that is the half of the working width that is used (point 1).
- Driving in the field distributing the media on all the perimeter
- Stopping the tractor at one distance (D) from point 1, equivalent to the set working width (point 2).
- Beginning the spreading proceeding in line, straight to point 3.
- Turn the tractor and drive a (D) distance, equal to the working width (point 4)
- Repeat procedure until all the plot is covered



5.3.1. COMMON SPREADING PROBLEMS

- Drive speed
- Incorrect spreading width
- The spreading disc is not in a horizontal position compared to the land
- Drive speed is different to those suggested by the spreading tables, or not suitable for that particular type of media
- Lack of cleaning on vanes and disc

COMMON PROBLEMS

- Poor quality media
- Wet or very humid media
- Incorrect media composition or it does not correspond to what is suited for spreader
- Presence of excessive media clumps may cause negative yield on spreading
- Debris in the media

COMMON PROBLEMS DUE TO THE SPREADER

- Spreading exits clogged
- Parts of the spreading discs assembly worn away or damaged

6. GENERAL MAINTENANCE

The general maintenance criteria we suggest are based on company experience and on advice and suggestions from customers. A good maintenance routine keeps operating costs low and allows for a long spreader life.



WARNING!

When working on spreader, whether for maintenance, repair or cleaning, spreader must be on the ground in stable conditions, tractor's engine should be turned off, brakes set, keys turned off and removed from ignition.

If damage occurs, the operator must stop the spreader immediately, assess the problem, and proceed with proper actions to fix the spreader. Do not use flammable fluids.



WARNING!

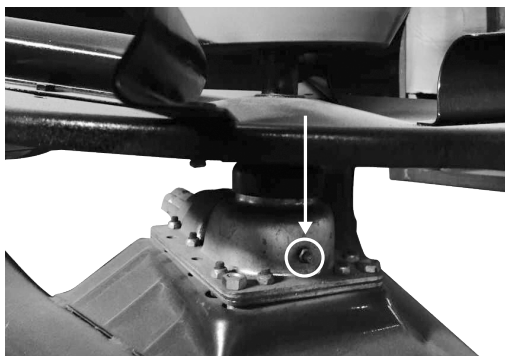
When doing maintenance, always wear proper safety attire and follow safety steps in the manual.

In case of unusual vibrations, verify the conditions of the distributor on the spreading disc, the tightness of all the nuts and bolts and the lubrication of the gear box. For every 8 hours of spreading time, tighten all nuts and bolts. Any excessive vibration of the machine is dangerous and damaging for the entire spreader.

6.1. LUBRICATION

Before every use and after every 8 hours of spreading.

It is important that the grease zerks are well cleaned from mud or other debris before injecting with grease. Lubricate with lithium grease at the points shown in the picture.



Point to grease

6.2. REPLACEMENT OF THE DISTRIBUTOR VANES

If the distributor vanes of the disc brake or get damaged, it is necessary to replace them with new ones. Unscrew the nuts and replace the damaged vane.



6.3. STORAGE

It is good practice to keep up maintenance and fix repairs . Store the spreader in a dry sheltered place, away from any chemicals. Fertilizers are generally corrosive , for this reason, it is important that no particles remain in the spreader for long periods of time . Before storing the spreader, it is important to:

- Thoroughly wash the spreader and inside the hopper
- Look over the spreader in order to check for any structural damages
- Verify that the safety labels are present, clean and readable, if not replace them.
- Grease all mechanical parts.

6.4. SPARE PARTS

For replacement parts for the spreader , the customer must use original parts offered (see page 26-27 for serviceable parts list) from the manufacturer by ordering them directly from manufacturer or authorized dealer. When ordering , it is necessary to have the serial number and model number from the nameplate.

7. WARRANTY

The manufacturer warrants to the original purchaser that the implement is free from defects in both material and workmanship under normal use and service for a period of one (1) year for noncommercial use. Any use by commercial, state, and municipalities will void warranty.

This Warranty shall not be interpreted to render the Manufacturer liable for damages of any kind, direct, consequential, or contingent to property. Furthermore, Manufacturer shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, any expense or loss for labor, supplies, rental machinery, or for any other reason.

This Warranty does not apply to any part or product which in the Manufacturer's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been used for purpose for which the product is not designed. Manufacturer reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty is extended solely to the original purchaser of the product. Should the original purchaser sell or otherwise transfer this product to a third party, this Warranty does not transfer to the third party purchaser in any way. There are no third party beneficiaries of this Warranty.

Warranty specifications:

- Must show proof of purchase within 1 year of purchase date.
- Photos must be provided to ensure proper warranty claim.
- Claims under this Warranty must be made to an authorized dealer, and must be submitted within 30 days of failure.

The above information must be provided in order for us to process your claim and for you to receive a Return Manufacturers Authorization # (RMA) from manufacturer. Any product determined to be defective and has been issued an RMA # by the manufacturer will be picked up and returned to our facility for complete inspection and disposition of liability. Once a warranty claim is accepted, the manufacturer will issue full credit or exchange the product at no cost to the store or customer.

KEEP FOR YOUR RECORDS

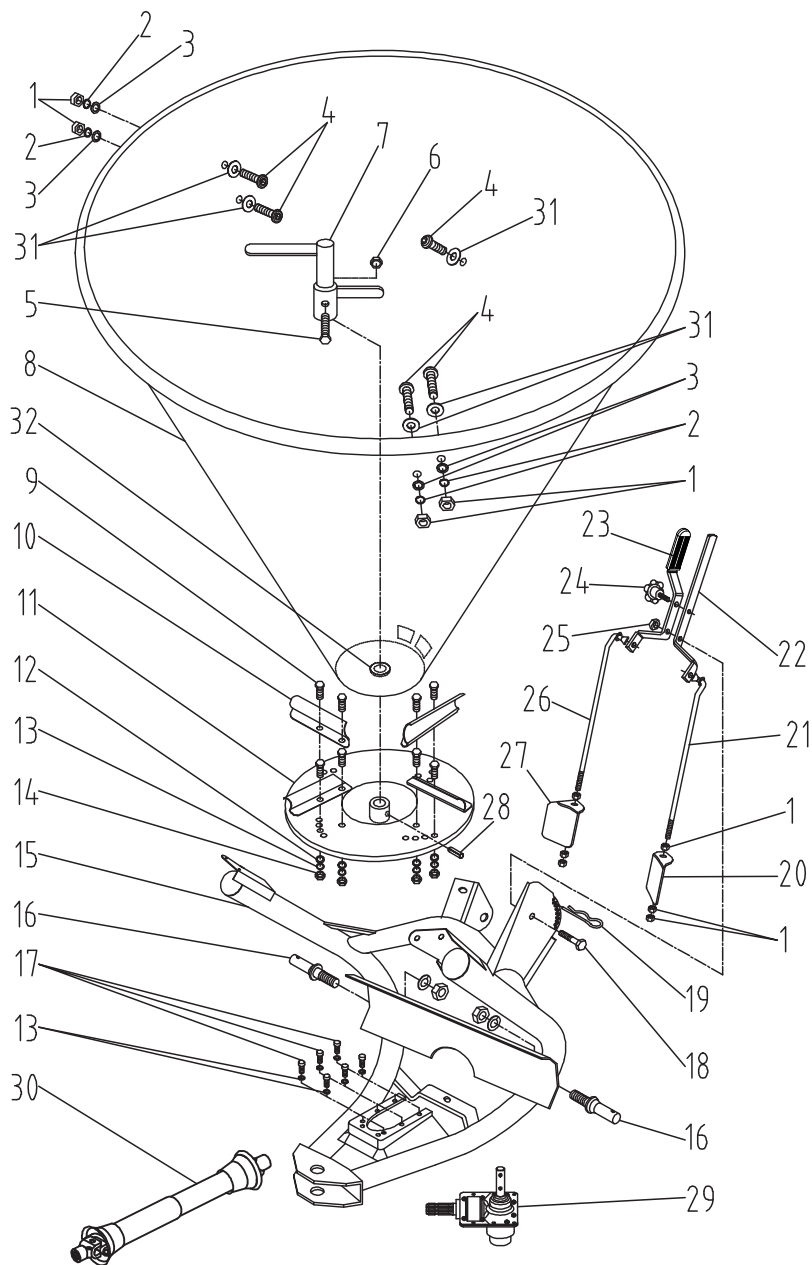
Record the model number, serial number, and the date of purchase with original sales receipt. This information will be helpful to your dealer if parts or service are required.

MODEL NUMBER _____

SERIAL NUMBER _____

DATE OF PURCHASE _____

DEALER _____



PFS-480/PFS-770/FS-480/FS770 FERTILIZER SPREADER BREAKDOWN

Ref. #	Model				Description	No. Req.	Part #	Service
	PFS-480	PFS-770	FS-480	FS770				
1	●	●	●	●	M10 Zinc Hex Nut	11	HJ204N	NO
2	●	●	●	●	10mm Zinc Lock Washer	7	HJ198N	NO
3	●	●	●	●	10mm Zinc Flat Washer	5	HJ194N	NO
4	●	●	●	●	M10x25 Zinc Snap Head Bolt	5	HJ133B	NO
5	●	●	●	●	M8x45 Zinc Hex Head Bolt	1	HJ134B	NO
6	●	●	●	●	M8 Zinc Self-Locking Nut	1	HJ201N	NO
7	●	●	●	●	Agitator	1	HJ996M	YES
8	●				Poly Hopper 480Lbs	1	HJ480PH	YES
		●			Poly Hopper 770Lbs	1	HJ770PH	YES
			●		Metal Hopper 480Lbs	1	HJ480MH	YES
				●	Metal Hopper 770Lbs	1	HJ770MH	YES
9	●	●	●	●	M8x16 Zinc Hex Head Bolt	8	HJ132B	NO
10	●	●	●	●	Fan Vane	4	HJ671M	YES
11	●	●	●	●	Spreading Disc(Spinner)	1	HJ681M	YES
12	●	●	●	●	8mm Zinc Flat Washer	8	HJ193N	NO
13	●	●	●	●	8mm Zinc Lock Washer	14	HJ205N	NO
14	●	●	●	●	M8 Zinc Hex Nut	8	HJ199N	NO
15	●	●	●	●	3PT Frame	1	HJ663M	NO
16	●	●	●	●	Cat #1 Pin(Link Pin & Nut)	2	HJ762M	NO
17	●	●	●	●	M8x20 Zinc Hex Socket Head Bolt	6	HJ129B	NO
18	●	●	●	●	M12x35 Zinc Hex Head Bolt	1	HJ764M	NO
19	●	●	●	●	4.5mm Zinc Split Pin	1	HJ765M	NO
20	●	●	●	●	Left Shutter	1	HJ766M	YES
21	●	●	●	●	Left Tie Rod	1	HJ769M	YES
22	●	●	●	●	Left Lever	1	HJ770M	YES
23	●	●	●	●	Right Lever	1	HJ772M	YES
24	●	●	●	●	Lever Lock Knob	1	HJ773M	YES
25	●	●	●	●	M12 Zinc Self-Locking Nut	1	HJ771M	YES
26	●	●	●	●	Right Tie Rod	1	HJ768M	YES
27	●	●	●	●	Right Shutter	1	HJ767M	YES
28	●	●	●	●	8x40 Spring Pin	1	HJ774M	NO
29	●	●	●	●	Gearbox(Steel Housing)	1	HJ686M	YES
30	●	●	●	●	Complete PTO Assembly	1	HJ687M	YES
31	●	●	●	●	Hopper Washer	5	HJ200M	NO
32			●	●	Rubber Sleeve	1	HJ991M	YES
	●	●			Steel Sleeve	1	HJ992M	NO

