

# CONGRATULATIONS!

You have invested in one of the best implements of its type in the market today.

The care you give your “FIELDKING” implement will greatly determine your satisfaction with its performance and its service life. A careful study of this manual will give you a thorough understanding of your new implement before operating.

If your manual is lost or destroyed, “FIELDKING” will be glad to provide you a new copy. Visit to nearest dealership & get a copy. Most of our manuals can also be downloaded from our website at [www.fieldking.com](http://www.fieldking.com).

As an authorized “FIELDKING” dealer, we stock genuine “FIELDKING” parts which are manufactured with the same precision and skill as our original equipment. Our trained service persons are well informed on methods required to service “FIELDKING” equipments and are ready to help you.

Should you require additional information or assistance, please contact us.

YOUR AUTHORIZED

FIELDKING DEALER

BECAUSE “FIELDKING” MAINTAINS AN ONGOING PROGRAMME OF PRODUCT IMPROVEMENT, WE RESERVE THE RIGHT TO MAKE IMPROVEMENTS IN DESIGN OR CHANGE IN SPECIFICATION WITHOUT INCURRING ANY OBLIGATION TO INSTALL THEM ON UNITS PREVIOUSLY SOLD. BECAUSE OF THE POSSIBILITY THAT SOME PHOTOGRAPHS IN THIS MANUAL WERE TAKEN OF PROTOTYPE MODELS, PRODUCTION MODELS MAY VARY IN SOME DETAIL. IN ADDITION, SOME PHOTOGRAPHS MAY SHOW SHIELDS REMOVED FOR THE PURPOSE OF CLARITY. NEVER OPERATE THIS IMPLEMENT WITHOUT ALL SHIELDS IN PLACE.

# TO THE PURCHASER

This manual contains valuable information about your new “FIELDKING” Hay Rake. It has been carefully prepared to give you helpful suggestions for operating, adjusting, servicing and ordering spare parts.

Keep this manual in a convenient place for quick and easy reference. Study it carefully. You have purchased a dependable and sturdy Hay Rake but only by proper care and operation you can expect to receive the service and long life designed and built into it.

Sometime in the future your Hay Rake may need new parts to replace which are worn out or broken. If so, go to your dealer and provide him equipment’s detail like model and part number.

## CUSTOMER INFORMATION

Name \_\_\_\_\_

Purchased From \_\_\_\_\_

Date of Purchase \_\_\_\_\_

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

## **PURCHASER / OPERATOR'S RESPONSIBILITY**

1. Read and understand the information contained in this manual.
2. Operate, lubricate, assemble and maintain the equipment in accordance with all instructions and safety procedures in this manual.
3. Inspect the equipment and replace or repair any parts that are damaged or worn out which under continued operation would cause damage, wear to other parts, or cause a safety hazard.
4. Return the equipment or parts to the authorized "FIELDKING" dealer, from where it was purchased, for service or replacement of defective parts that are covered by warranty. (The "FIELDKING" Factory may inspect equipment or parts before warranty claims are honored.)
5. All costs incurred by the dealer for traveling to or transporting the equipment for warranty inspection and claims will be borne by the customer.

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## 1. INTRODUCTION

The operating instructions should be considered as an essential part of the machine. This manual is the basic equipment of the machine. The new machinery suppliers should provide the machine and the documentation provided in this manual. Before commencing work, the purchaser is required to read this manual which will clearly address all issues related to proper use.

### The service is designed for the tedder/rake user to confess:

- \* Construction of the machine.
- \* Proper operation
- \* The rules of workplace safety.

If the manual contains information incomprehensible to the user, it may obtain exhaustive information from the machine manufacturer or the point of sale of the machine. The following warning symbol is used to indicate potential hazard information:

If you see this sign, you should be careful about any threat and read carefully Relevant information and inform other operators.

Adhering to the manufacturer's instructions contained in the instruction guarantees the user full satisfaction with the working tedder and rake machine tedder with a rake produced by FIELDKING.

### Product identification

The rating plate is attached to the frame in the front part on the left. The data plate (model/type, size and year of machine manufacture) should be in accordance with the specifications in the sales document, operating instructions and warranty.

## 2. PURPOSE OF TEDDER/RAKE MACHINES

The tedder Z-510 are designed for tedding mown lowland plants (grass, clover), hey-rake works in dry and equal field. and rake's finger collects the dry to dry grass and plant. The meadows with tilt of 12° and more than 12°, in condition where there are larger stones, local inequalities and other unmarked field, it does not worked properly.

The tedder/rake Z-510 can be used with 6kN tractors (with pulling force).

## 3. SAFETY WORK CONDITIONS

In order to prevent misfortunes and injuries during handling of tedders, the following recommendations must be strictly observed.

- \* Only use the experienced tractor driver who is familiar with the operating manual to operate the tedder and rake machine.
- \* All adjustments and repairs can only be carried out with the engine and tractor stoped.
- \* When driving on bad roads, the speed should be reduced accordingly.

- \* It is unacceptable to preserve any person while working on the tedder/ rake.
- \* Keep the tedder-rake in a place that excludes the possibility of injury to humans or animals.
- \* For a longer period of time, the tedder/rake should be lowered to the ground.

All removal and cleaning operations of the machine shall be carried out when it is lowered to the ground and the tractor motor is stopped.

## DESCRIPTION OF RISK

Risks of residuals result from erroneous or improper behavior

### Serving a tedder/rake machine. The greatest danger Occurs when performing the following prohibited activities:

- \* Tedder and rake service by incomplete persons Minors as well as not familiar with the manual or not having the power to drive agricultural tractor.
- \* Handling the tedder / rakes by the affected person alcohol or other intoxicants.
- \* No precautions during transport and handling the tractor (the machine goes well beyond the tractor on the right),
- \* The transport of the machine with the drawbar to the top Towing hitch of the tractor.
- \* The presence of persons and animals in the working range of tedder and rakes.
- \* Transporting people to a tedder/rake.
- \* Perform maintenance and adjustment tasks during machine operation with the engine on.

When presenting the residual risk of tedder/rake Z-510. It is treated as a machine that has been designed and produced by state of art technology.

## RISKASSESSMENT

### Follow recommendations :

- \* Read the instruction manual carefully.
- \* Prohibition of persons on tedder/rakes during Work and in transit.
- \* Prohibition of staying between the tractor and the engine while the engine is running.
- \* Prohibition of the transport of the drawbar hook to the upper Towing hitch of the tractor.
- \* Re-working tedder and rake work only in the case Off tractor engine drive.
- \* Maintenance and repair of the machine only by suitably Trained people.
- \* Servicing the machine by persons who are authorized to Steering agricultural tractors and who familiarized themselves with the manual operation.
- \* Tedder/rake protection against children. The residual risks of use may be eliminated Tedder/rake with Z-510 without risk to people and environment.

## ATTENTIONS!

Lack of residual risk in case of mismatch.  
Detailed recommendations and guidelines.



### RISKS:

- \* Attention to the sharp rolling outposts of squashed wheels - there is a possibility of injury.
- \* Be careful when doing activities around raking wheels.
- \* During the transport the machine goes well beyond the tractor on the right.
- \* Include the behavior of the machine during the maneuvering of the tractor.
- \* Proper operation.
- \* The rules of workplace safety.

## 4. SAFETY SIGNS

All safety signs on the machine are made in the form of self-adhesive stickers. For the sake of clarity, keep them clean.

In the case of loss of readability or destruction of the sticker, the obligation for the user of the machine to add to it is imposed. This also applies to the replacement of the assemblies to which the manufacturer has conveyed appropriate characters or inscriptions.

### 1. signs



- \* Read the user manual and operation manual.
- \* Keep safe distance from the machine.
- \* Before commencing repair remove the keys from the ignition.

**Signs and warning signs are located in the front of the carrier frame.**



Safety Mark B informs the user of the agricultural machine that the machine has been manufactured in accordance with the technical criteria and standards. The B sign indicates that the machine has been given a security sign, hereinafter referred to as a certificate. B is placed in the front of the carrier frame.

## 5. USED FOR USE

Tedder/Rake is a machine intended solely for use in agriculture or similar work. Used for non-intended use. The performance and strict dendiment of the operating conditions in this manual is also an integral part of the intended use. This

machine should only be serviced and repaired by persons familiar with the service manual.

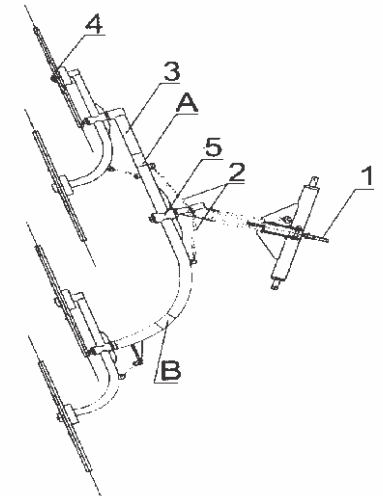
Accident prevention regulations and all basic safety regulations, as well as traffic regulations, must always be complied with. Among the changes made to the machine can release the manufacturer from liability for Caused damage to the orc.

## 6. MACHINERY - CHECKS

Check the condition of the tedder and rake before starting work. Tighten all nuts, check the condition of chains and loops. The prepared tedder and rake must be hung on the tractor and leveled.

**ATTENTION:** Check that the railing arms of the rake wheels are removed! reconsidering The correct setting for the tipping position is shown in Fig. 1.b  
Get the required open position.

- \* Put flap no. 1 in open position.
- \* unscrew fixing chains 2.
- \* place the tedder using a hydraulic ram  
To position to provide arm rotation  
Large raking wheels no. 3 together with rake wheels no. 4 by 180 °.
- \* Figure up front of the large raking wheel no. 3. Grasp the right hand arm 3 at point A And rotate the arm 3 by 90 °. Then grab your left arm by the arm with the left hand 3 in Point B and turn wound No. 3 to the required position.
- \* Gradient wheels Set to work position behind Use a hydraulic support so that the palace is resilient  
The raking wheels lightly touched the stubble.



**Fig. 1 Setting of Hey Rake & winder to override**

Do not grab the large raking wheels no. 3 in the distance Less than 0.3 m from articulation 5.

When tipping the working speed can not be more than 12 km / h.  
Tipping is done at a machine override.

## 7. WORKING MACHINES - RAKING ON GROUND

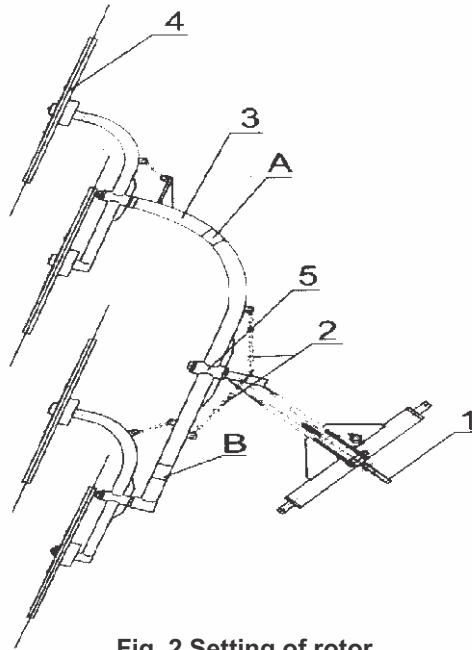
- \* Raking wheels Set in the position shown in Fig. 2.
- \* Set flap no. 1 in open position.

- \* Pick up the wheels to raise the working position.

## Raking

The correct setting for the rake position is shown in Figure 2.b Get the required position you need:

- \* Set the flap no. 1 in open position.
- \* Unscrew fixing chains no. 2.
- Place the tedder in such a position to provide the opportunity turn arm of large raking wheels No. 2 with wheels grafting No. 4 by 180°.
- \* Set to front to the large raking arm 3.
- Grasp the right hand arm 3 at point A And rotate the arm 3 by 90°.
- Then grasp left hand by arm No. 3 in Point B and turn arm 3 to the required position.
- \* Screw clamping of chains No. 2.
- \* Gradient wheels Set to work position behind
- Use a hydraulic support so that the palace is resilient
- The raking wheels lightly touched the stubble.



**Fig. 2 Setting of rotor & Rake to raking**

Do not grab the large raking wheels no. 3 in the distance Less than 0.3 m from joint no. 5.

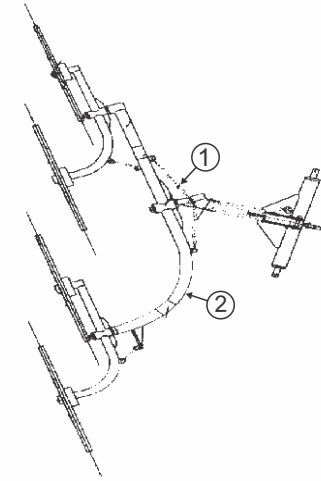
Tipping is completed when machine is override and tipping working speed should be more than 12 km/h.

## 8. SAFETY PRINCIPLE OF MACHINE SETTING

To safely move the machine from tilling to raking or vice versa:

- \* Unscrew the fastener of chains no. 1.
- \* Set to front of the large raking wheels 2.
- \* Screw the large arm 2 together with the wheel bolts by 180°.
- \* Screw the fastener of chains.

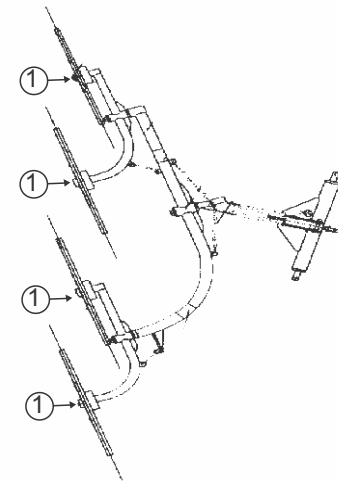
 You must not move the mast by holding your hands on the wheel



**Fig. 3 A Safe switching of the machine**

## 9. LUBRICATION POINT

The tedder/rake must be lubricated in the areas marked with the arrows.



**Fig. 4 Grease and sucker greasing**

**Table -1 List of Lubrication Points**

Pos. On Fig	Name of Place of Greasing	Frequency	Number of points	Kind of grease
1	Roller bearing rollers	300	Z-510-4	KT 43



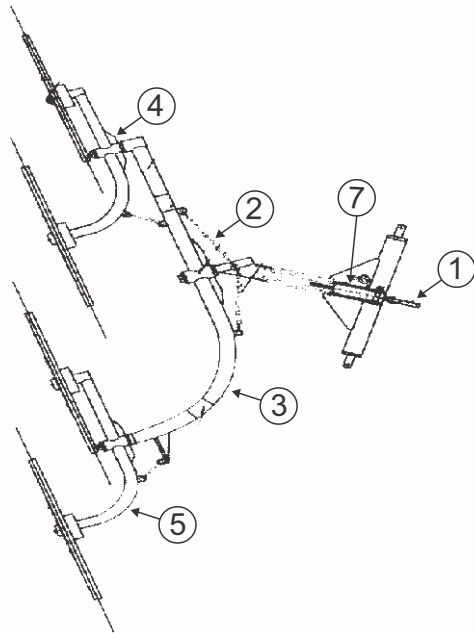
## 10 MAINTENANCE AND STORAGE

Once completed, the machine must be thoroughly cleaned and inspected for damage. Damaged fingers need to be replaced with new ones. If there are loosening in the raking wheels you need to Replace the bearings. after the completion harvesting season should be lubricated All surfaces. The machine should be kept under shelter.

## 11. PROCESSES ON PUBLIC ROADS

Preparation of a rotor and rake for transport:

- \* Adjust flap no. 1 to reinforce the shock absorber lever no.7 .
- \* Chain no. 2 maximal immobilize arm No. 3.
- \* With slat no. 4 immobilize the arms of raking wheels no.5.
- \* Install the L I P beam with warning signs .
- \* Raise wheels by lifting hydraulic lifting wheels Transport clearance minimum 0.35m.



**Fig.5. setting of a tedder/rake mounted for transport**

The speed should be adjusted to the existing conditions and anomaly traffic. Do not transport the machine at speeds of more than 15 km / h. it is the responsibility of user to equip the hey-rake when traveling on public rounds in the marking and lighting according to regulation of road(fig. 5). Attach bracket A to bracket L with brackets 2 and 3 in bracket A. Attach bracket P in bracket B with handle 1.

## THE MANUFACTURER PROVIDES THE TEDDER/RAKE ONLY IN:

\*Hands for fixing the above marking light and warning sign.

PARAMETER	Z-510
<b>Width of Wheel With Finger :</b>	
Tedding	2,3m
Raking	1,5m
<b>Working Speed :</b>	
Tedding	with 12 km/h
Raking	with 8,5 km/h
Transport Speed	with 15 km/h
Transport Clearance	min 350 mm
Number of Raking Wheels	4 art
The Diameter of The Ratchet Wheel	1,2 m
<b>Effective Performance :</b>	
Excitement (at 9 Km / H)	About 2 ha / h
Raking (at 7 Km / H)	About 1 ha / h
<b>Dimensions :</b>	
Length Without Drawbar	2,65 m
Width	2,4 m
Height	1,2 m
Mass Machine	122kg
Staff	tractor-driver
Tractor-class (according To String)	6 kN

## 12. REMOVAL, MACHINE CLEARANCE

General rules should be observed when disassembling the machine  
Safety for workshop work.

At the time of disassembly, protect your hands (bodies) against injury  
And the harmful effects of the oils.

\*use protective gloves.

\*use the tools in good condition and According to their purpose.

\*Be sure to keep the stability of the dismantled assemblies and parts.

In the case of total machine wear, dismantle it,  
Parts should be sorted in terms of the type of material and conveyed to  
Secondary raw material purchase points.

**KIND OF PART CATALOGUE**

When purchasing parts, give the name and part number according to the catalog,  
The spare parts are produced by the FIELDKING and distributed by the storage of  
agricultural machinery on Country and supplied by the manufacturer.

**12.1 Draw Bar Assembly**

**12.2 Frame Assembly**

**12.3 Wheel Detail**

**13. GUARANTEE CARD**

Buyer.....

.....

Tedder/Rake

Factory number ..... year of manufacture .....

This warranty is valid for 12 months from date of purchase.....ie.until

.....

.....

**Stamp and signature of the point of sale**

You must show a warranty card

Defects and damages resulting from the fault of the manufacturer, due to defect of  
the material & Poor machining or assembly.

<b>19. REVISION</b>	Signature and stamp	
	The validity of the guarantee is extended until	
	Brief description of the repair work done	
	Date of repair work	
	"Date of application repairs"	



Part Catalogue  
12.1 Draw Bar Assembly-10640018

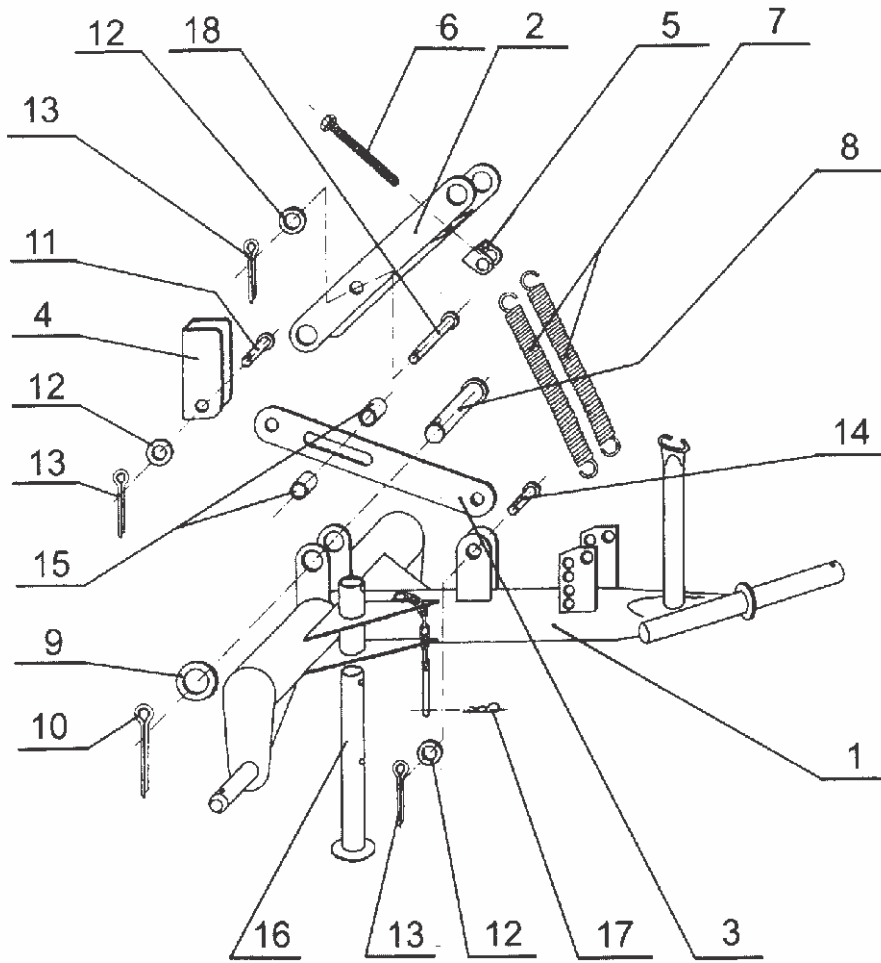


Figure .6. Draw Bar Assembly

Draw Bar Assembly-10640018			
Sr. No.	NAME OF PART	PART CODE	THE NUMBER OF ITEMS
1	Carrier Frame	10640001	1
2	Shock Absorber Lever	10640002	1
3	Adjustable Strip	10640003	1
4	Flap	10640004	1
5	Damper Fork	10640005	1
6	Adjustment Screw M16	10260780	1
7	Spring	10210082	2
8	Suspension Damper Ø 30	10300864	1
9	Pad Ø 30,5	10300865	1
10	Split Pin Ø 6,3x45	10300866	1
11	Pin Ø16	10300867	1
12	Pad Ø 16,5	10300868	3
13	Split Pin Ø 4x32	10300869	3
14	Pin Ø16	10300870	1
15	Spacer Sleeve	10300871	2
16	Stand Pipe	10300879	1
17	R Pin Ø 3,5	10020232	1
18	Pin	10020233	1

12.2 Frame Assembly-10640019

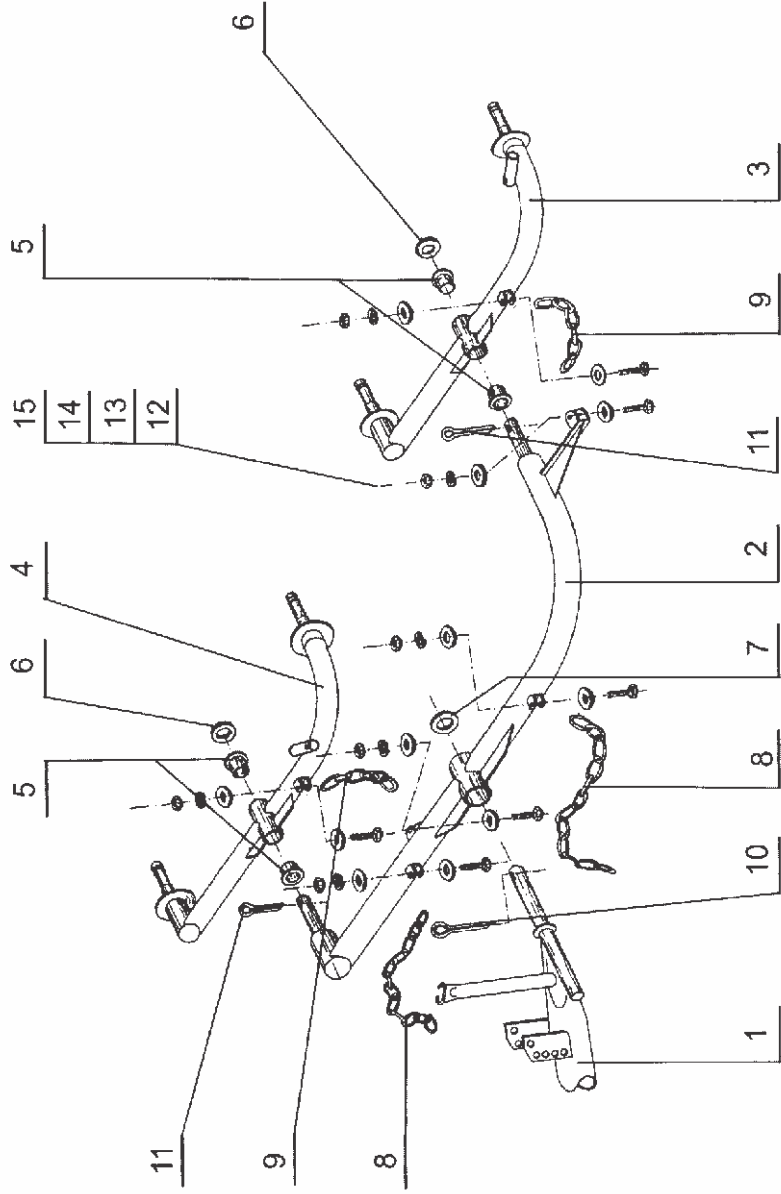


Figure .7. Wheel Raking

Frame Assembly-10640019			
Sr. No.	NAME OF PART	PART CODE	THE NUMBER OF ITEMS
1	Carrier Frame	10640001	1
2	Arm Raking Large	10640006	1
3	The Arm of The 3 No. & 4 No. Wheels Raking	10640007	1
4	1 No & 2 No. Arm Banding Small Right	10640008	1
5	Inner Sleeve	10300872	4
6	Pad Ø 30,5	10300865	2
7	Backing Plate Ø 40,5	10300873	1
8	Technical Chain Kn6 2506nn	10140029	2
9	Technical Chain Kn6 706nn	10140030	2
10	Cotter Ø8x56	10020234	1
11	Cotter Ø6,3x45	10020235	2
12	Hexagon Head Screw.m8x30	10260781	6
13	Circular Washer Ø 8,4	10270264	12
14	Sprinkle Spr.ø 8,2	10300874	6
15	Hex Nut M8	10280237	6

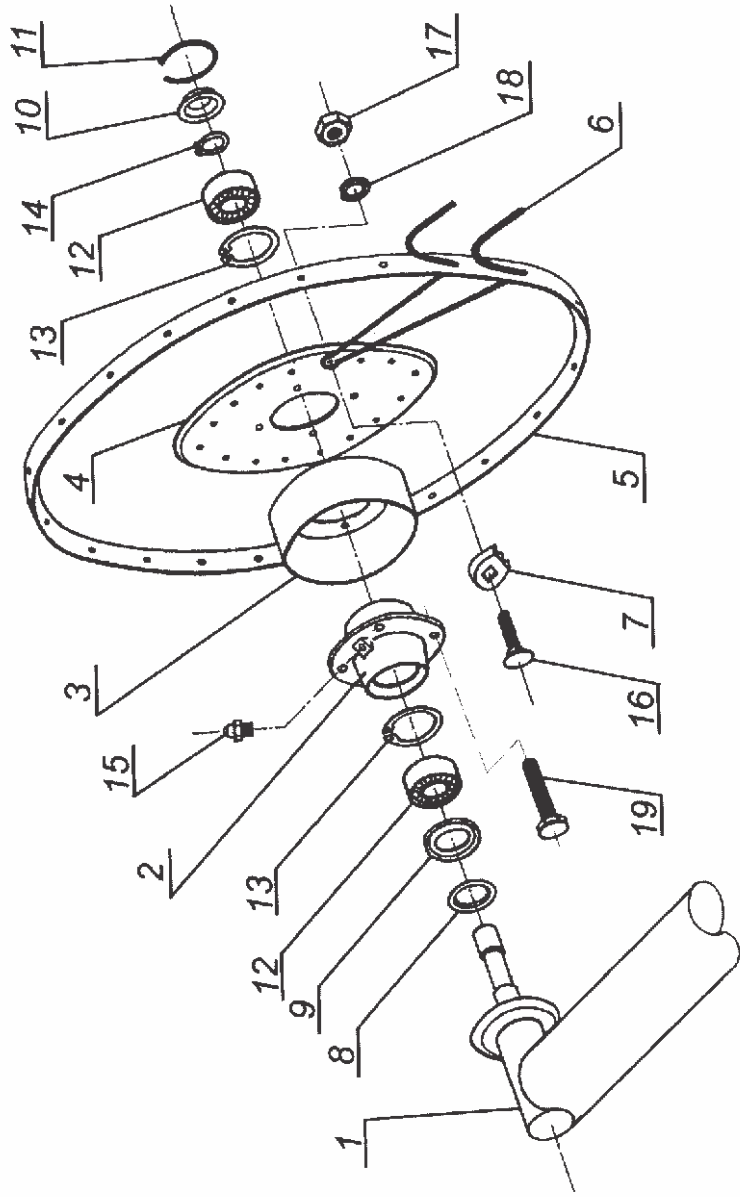


Fig. 8 Wheel Raking

Wheel Detail-10640020			
Sr. No.	NAME OF PART	PART CODE	THE NUMBER OF ITEMS
1	The Arm of Raking Wheel	10640009	1
2	Wheel Hub	10640010	1
3	Hub Cover	10150064	1
4	The Wheel of Raking Wheel	10640011	1
5	Rim	10640012	1
6	Finger Compressor	10640013	16
7	Finger Print	10640014	16
8	Gasket Gasket	10300875	1
9	Hub Seal	10010121	1
10	Hub Cover	10150065	1
11	Circlip	10300876	1
12	Ball Bearing 6205	10050255	2
13	Circlip 52	10390131	2
14	Circlip 25	10390132	1
15	M10x1 Lubricator	10300877	1
16	Screwed Bolt M10x30 - 4,8	10260782	16
17	Nut 10-4-iii M	10280238	20
18	Sprinkle Spr. 10.2 Fe / Zns	10300878	20
19	Screw M10x30 - 3,6-iii	10260783	4

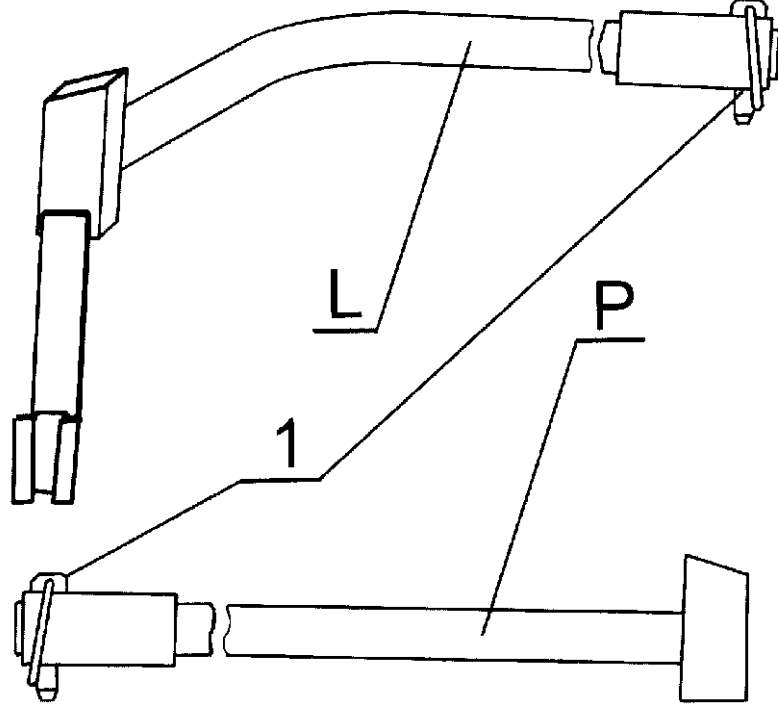


Fig. 9 L Beams for fixing arrays warning and lighting

L Beams for fixing arrays warning and lighting-10640021  
&

Table 5 Clipboard for fastening warning plates

Sr. No.	NAME OF PART	PART CODE	THE NUMBER OF ITEMS
1	Pin With Clasp Ring	10640015	2
2	"beam L For Fixing The Board T 1 With Warning Light "	10640016	1
3	P Beam To Fix The Lighting Warning	10640017	1

## DELIVERY CHECKLIST

Dealer Pre-Delivery (Please Tick)	Please Complete all Dealer information Below
<p><b>1. Dealer Pre-Delivery Checklist</b></p> <p>1. The customer or person responsible has been given the operator's manual.</p> <p>2. The customer undertakes to read the complete operator's manual and understands all aspects of the manual before operation of the machine.</p> <p>3. All safety, operational and maintenance information have been explained and demonstrated.</p> <p>4. All greasing and oil points, stickers, guarding and ID plate have been identified and physically pointed out.</p> <p>5. The customer agrees that it is his responsibility to read and carry out the safety, maintenance and operation as per this operator's manual.</p>	<p><b>Dealer Information</b></p> <p>Dealer's Name.....</p> <p>Address.....</p> <p>State..... Postcode.....</p> <p>Phone..... Fax.....</p> <p>Email.....</p> <p>Service Person.....</p> <p>I confirm that the pre-delivery service was performed on this machine.</p> <p>Signature.....</p> <p>Date.....</p> <p>Comments.....</p>
Customer Delivery (Please Tick)	Please Complete all Customer Information Below
<p><b>2. Customer Delivery Checklist</b></p> <p>1. The customer or person responsible has been given the operator's manual.</p> <p>2. The customer undertakes to read the complete operator's manual and understands all aspects of the manual before operation of the machine.</p> <p>3. All safety, operational and maintenance information have been explained and demonstrated.</p> <p>4. All greasing and oil points, stickers, guarding and ID plate have been identified and physically pointed out.</p> <p>5. The customer agrees that it is his responsibility to read and carry out the safety, maintenance and operation as per this operator's manual.</p>	<p><b>Customer Information</b></p> <p>Customer's Name.....</p> <p>Address.....</p> <p>State..... Postcode.....</p> <p>Phone..... Fax.....</p> <p>Email.....</p> <p>Delivery Person.....</p> <p>I confirm that all of the delivery checks were explained and performed.</p> <p>Signature.....</p> <p>Delivery Date.....</p> <p>Comments.....</p>

# FIELDKING

## WARRANTY CARD Customer Copy

CUSTOMER NAME Mr./ Mrs :	
ADDRESS :	
MOBILE NO. :	
Email :	
NAME OF IMPLEMENT :	
MODEL NO. :	
YEAR OF Mfg. :	
SERIAL NO. :	
REGISTRATION NO. :	
DATE OF PURCHASING :	
NAME OF DEALER :	
Customer's Signature	Dealer's Signature



**Corporate Office :** Plot No. 235-236 & 238-240, Sec-3, HSIIDC,  
 Karnal- 132001 (Haryana), India ☎ +91-184-2221571/ 72/ 73  
 ✉ marketing@fieldking.com, exports@fieldking.com, 🌐 www.fieldking.com

# FIELDKING

## WARRANTY CARD Company Copy

CUSTOMER NAME Mr./ Mrs :

ADDRESS :

MOBILE NO. :

Email :

NAME OF IMPLEMENT :

MODEL NO. :

YEAR OF Mfg. :

SERIAL NO. :

REGISTRATION NO. :

DATE OF PURCHASING :

NAME OF DEALER :

Customer's Signature

Dealer's Signature



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✉ marketing@fieldking.com, exports@fieldking.com, 🌐 www.fieldking.com

# FIELDKING

## WARRANTY CARD

Dealer Copy

CUSTOMER NAME Mr./ Mrs :

ADDRESS :

MOBILE NO. :

Email :

NAME OF IMPLEMENT :

MODEL NO. :

YEAR OF Mfg. :

SERIAL NO. :

REGISTRATION NO. :

DATE OF PURCHASING :

NAME OF DEALER :

Customer's Signature

Dealer's Signature



**Beri Udyog Pvt. Ltd.**

**Corporate Office** : Plot No. 235-236 & 238-240, Sec-3, HSIIDC,

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