FIELDKING



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.

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 CHANGES 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" ripper. 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 ripper 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 ripper 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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1.1 INTRODUCTION

This manual contains the use and maintenance instructions with a list of the spare parts of the Fieldking Ripper.

Fieldking Ripper is used to break-up Hardpan & compacted soil layers and open the ground up, so that roots and moisture can penetrate more deeply into the soil. Yields suffer when compaction keeps roots from growing freely throughout the soil in search of moisture and nutrients. Ripper usage lets plants to stretch their roots by opening passageways through the hardpan. It can be used as a primary tillage tool i.e. one used for the first pass over a field but not normally a part of usual tillage operation.

This implement is useful when a plow pan or hard pan (compacted layer) has developed because of regular plowing and disking or heavy animal and equipment traffic. When operated properly in dry soil this implement fractures and shatters the hard soil.

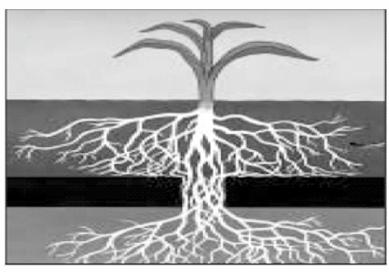


Fig-1 root growth after use of Ripper

2. TECHNICAL INFORMATION

2.1 GENERAL DESCRIPTION

The primary soil tillage machine is mounted from tractor's hydraulic lifting unit and universal three point linkage system. Therefore transportation to the field can be easily done.

Hard ground is composed under 25-40 cm depth below the field that plowed with standard ploughs. Ripper breaks the hard bottom of soil under 25-40 cm with long and angled tines. So that rain and irrigation water can reach easily to broken area and provided the water storage. Above the soil is less open because of the slim structure of the tines. So that the moisture can be kept for a long time and also wind and erosion are decreased.

Benefits

- Ripper loosens and aerates soil while leaving organic matter at the top of the soil.
- · Reduces the effects of compaction.
- Can help break up hardpan.
- Unlike moldboard plowing, Ripper will not invert or turn the soil, so it is often used with no-till and low-till farming practices that seek to reduce erosion.
- When farmers and gardeners use a plow today, they often choose Ripper because they leave 15% to 30% residue coverage on the soil. This helps to prevent the formation of surface crusts, which helps water to infiltrate the soil. On soils that have a tendency to crust this effect can often lead to increased productivity.
- Ripper severs weed roots below the surface.
- Optional wide range of roller/ crumbler available, which helps in breaking bigger lumps to smaller clods.
- It can be safely used for heavy duty applications, as the shear bolt arrangement protects the implement from getting damaged due to hidden obstacles like underground stones & roots.
- Specially designed tyne is capable of penetrating up to 40cm deep.

2.2 Warranty

When the machine is delivered, check that it has not been subjected to damage during transport and that the accessories are in a perfect condition and complete.

Any claims following the receipt of damaged goods shall be presented in writing within 8 days from the receipt of the goods.

The purchaser may only make the claims under guarantee when he has complied with the warranty conditions in the supply contract.

When The Warranty Becomes Void

Besides the cases specified in the supply agreement, the guarantee shall in any case become void:

- 1. When the implement has been used beyond the specified power limit like (Tractor HP)
- 2. When repairs made by the customer without authorization from the manufacturer or owing to installation of spurious spare parts, the machine is subjected to variations and the damage can be ascribed to these variations.
- 3. When the user has failed to comply with the instructions in this handbook.
- 4. No warranty will be given if the service and greasing is not done on time.

2.3 SAFETY

DANGER

Understanding the Machine Safety Labels



Safety-Alert Symbol

The machine safety labels shown in this section are placed in important areas on your machine to draw attention to potential safety hazards

On your machine the words DANGER, WARNING, and CAUTION are used with this safety-alert symbol. DANGER identifies the most serious hazards.

The operator's manual also explains any potential safety hazards whenever necessary.



In order to protect yourself always wear adequate clothes and shoes during the operations.



Never allow riders on the tractor or implement unless an additional seat is available.



Be careful when moving around steep gradient to avoid sharp turn.



Never transport the implement on rough roads during the night. When operating, avoid sharp turns that may cause tractor colliding with the implement.

3. USAGE INSTRUCTIONS

3.1. Overall Check-up

Before mounting of Ripper to tractor make sure that all nuts and bolts are properly secured.

${\bf 3.2.\,Attaching\,The\,Ripper\,To\,The\,Tractor}$

- 1. Place the Ripper duly levelled on the flat piece of land.
- 2. Reverse the tractor to the Ripper (Do not drag the Ripper)
- 3. Attach the left arm of the tractor to the Ripper first.
- 4. Attach the lower right arm, turn the screw until the mounting pin is at the same level as the hole on the tractor arm. If the gap between hole and mounting pin is too close or too distant, turn the control arm in or pull it away to an appropriate distance. You may have to adjust both height and distance at the same time. When the hole at tractor arm and mounting pin are even, insert the pin in the hole and lock it with the linch pin.



- 5. Attach the central arm to the Ripper. To attach, turn the screws on both sides to an equal length. If the arm is too short or too long, turn the screw to adjust both at the same time until aligned with the hole on the central arm.
- After attaching the Ripper lift it and adjust the control arm parallel to the ground.
 When you look from both rear or sideways, the shanks should all be touching the ground uniformly.

4. TRACTOR PREPARATION AND WORKING

4.1 Instruction For Tractor Preparation

The following are typical instructions for preparing a tractor for operation:

- The horsepower of tractor selected should match the implement.
- All Ripper adjustment should be carried out.
- Select draft and position control setting according to tractor operators manual.

4.2 Width/depth Adjustment

The width adjustment is available in three arms Ripper. Width of shanks could be adjusted easily with the flexibility provided in the frame. The depth adjustment can be done by changing the hole position in the shank for both two and three arm Ripper. The single arm Ripper has no adjustment.

4.3 Leveling The Ripper

The level of the Ripper is controlled by the tractor top link. Lateral levelling is controlled by adjusting the length of the tractor right lower link. These adjustments must be made with the Ripper prior to operation.

4.4 Adjustment For Deeper Penetration

The depth of the penetration can be obtained by the position and draft control levers of the tractor hydraulic system. Higher the tractor power more is the depth of operation. However more depth can be obtained by lowering the shanks.





Fig 2- Soil Fracturing Pattern

CRUMBLER ADJUSTMENT

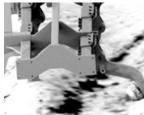
After adjustment of the tyne depth, adjust the roller pressure.

1. Allow the tynes to penetrate the soil at the predetermined depth. Then adjust the crumbler with help of pin.



OPERATION

- 1. Subsoiling should be done when the soil is relatively dry, to allow it to crack.
- 2. The operation depth should be set to dis compact the layers created by frequent operations such as ploughing, harrowing and traffic.
- 3. The tynes provide a release system when an obstacle is hitted. Lift the implement and the tyne will return to the normal position to continue.



Tyne Released (Shear Bolt Broken)

4. We suggest an average speed of 4 -5 Km/h. Choose a gear that allows the tractor engine to supply spare power when required.

4.5 Warning For Driver

- Operate the tractor in low first gear.
- Lift the Ripper completely on every turn.
- Never reverse the tractor when the Ripper is engaged in the soil.
- Properly mount the three point linkage as mentioned above & lock with lynch pin.
- If Ripper stuck with tree roots and stones, stop tractor and lift the Ripper.
- · Keep proper distance from Ripper when it is in working.
- Lift the Ripper completely during transport.

4.6 Troubling Shooting

The Fieldking Ripper Uses a vertical Shank to break- up Hardpan, trench or aerate the soil. it is a simple and reliable system that requires minimal maintenance.

In the following section, we have listed many of the problems, causes & solutions to the problems that you may encounter.

if you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, Please call your local Fieldking Dealer. Before you call, please have this operator's manual & the serial number from your Rippr ready.

| PROBLEM | CAUSE | SOLVE |
|-------------------------------------|---------------------------------------|---|
| Blade won't penetrate soil | Hard ground condition | Replace shovel if badly worn. Be sure 3 point hitch is set in "float" or "draft" Mode. Set Shank angle Add weight to frame |
| High power required. | Wrong Shank Angle Shovel worn | 1. Reset Shank Angle. 2. Replace shovel. |
| Shank not taking depth /not working | Shear bolt broken | Change shear bolt |

5. MAINTENANCE

5.1 Maintenance Instructions

If Ripper is working on stony land then maintenance goes up. Please follow these rules to get the best results:

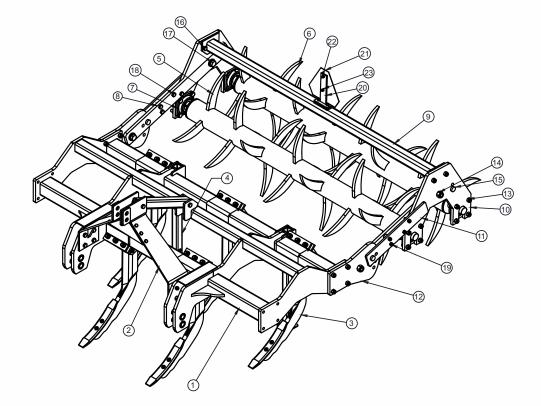
- If Ripper is new then tightened all nuts and bolts after few trials runs.
- · Constantly check for tightness of nuts and bolts.
- When the length of the points is reduced by 1 inch, reverse it and use the other side of the points, when both side of the strip are worn out replace it with the new one.

5.3 Storage Of Machine After Work

- Wash the Ripper completely after work.
- Replace the worn out nuts and bolts.
- If Ripper has to remain unused for long time then clean it & apply a layer of unused oil/grease for rust prevention.

These steps will enhance the life of your Ripper.

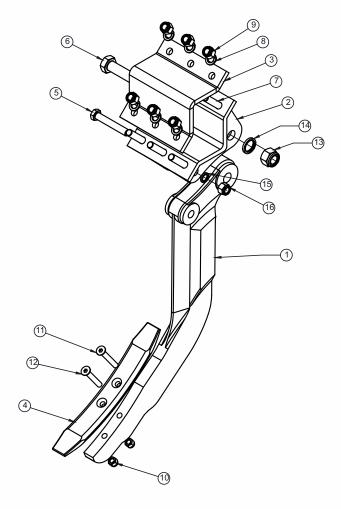
6. PART CATALOG OF 5 ARM RIPPER (With Side Wings)



5ARM RIPPER WITH CRUMBLER PARTS LIST

| SL. NO. | PART NO. | PART NAME | QTY. |
|---------|----------|--------------------------------|------|
| 1 | FKR-500 | FRAME ASSEMBLY | 1 |
| 2 | FKR-501 | 3POINT LINKAGE ASSEMBLY | 1 |
| 3 | FKR-502 | TYNE ASSEMBLY | 5 |
| 4 | FKR-511 | STAND PIPE ASSEMBLY | 2 |
| 5 | FKR-504 | FRONT CRUMBLER | 1 |
| 6 | FKR-505 | REAR CRUMBLER | 1 |
| 7 | 10050031 | UC BEARING F210 | 4 |
| 8 | FKR-025 | CRUMBLER ATTACH PLATE INNER | 2 |
| 9 | FKR-506 | BACK SUPPORT PIPE ASSY. | 1 |
| 10 | FKR-027 | CRUMBLER MOUNTING PLATE | 2 |
| 11 | FKR-024 | CRUMBLER ATTACH PLATE OUTER | 2 |
| 12 | FKR-023 | CRUMBLER ADJUSTING PLATE | 2 |
| 13 | 10280005 | NYLOCK NUT M16X2MM | 28 |
| 14 | 10280075 | NYLOCK NUT M24X3MM | 4 |
| 15 | 10020076 | PIN 19X90 | 4 |
| 16 | 10260097 | HEX HEAD BOLT M16X30X2MM | 4 |
| 17 | 10260469 | HEX HEAD BOLT M24X90X3MM | 4 |
| 18 | 10260364 | HEX HEAD BOLT M12X90X1.75MM | 8 |
| 19 | 10280025 | NYLOCK NUT M12X1.75 (P) | 8 |
| 20 | FKR-507 | REFLECTOR MOUNTING PLATE ASSY. | 1 |
| 21 | 20051185 | TRANGULAR REFLECTOR | 1 |
| 22 | 10260360 | HEX HEAD BOLT M8X25X1.25MM | 2 |
| 23 | 10280027 | NYLOCK NUT M8X1.25MM | 2 |

RIPPER TYNE ASSEMBLY PARTS DETAILS



RIPPER TYNE ASSEMBLY PARTS DETAILS

| SR. NO. | PART NO. | PART NAME | QTY. |
|---------|----------|------------------------------|------|
| 1 | FKR-018 | RIPPER TYNE | 1 |
| 2 | FKR-509 | LOWER CLAMP ASSEMBLY | 1 |
| 3 | FKR-019 | UPPER CLAMP | 1 |
| 4 | FKR-017 | RIPPER SHOVEL | 1 |
| 5 | 10260500 | HEX HEAD BOLT M18X120X2.5 MM | 1 |
| 6 | 10260416 | HEX HEAD BOLT M24X130X3MM | 1 |
| 7 | 10260378 | HEX HEAD BOLT M16X65X2MM | 6 |
| 8 | 10270005 | SPRING WASHER 16MM | 6 |
| 9 | 10280005 | NYLOCK NUT M16X2MM | 6 |
| 10 | 10280025 | NYLOCK NUT M12X1.75 (P) | 2 |
| 11 | 10260474 | CSK BOLT M12X90X1.75P | 1 |
| 12 | 10260473 | CSK BOLT M12X80X1.75P | 1 |
| 13 | 10280075 | NYLOCK NUT M24X3MM | 1 |
| 14 | 10270027 | SPRING WASHER 24MM | 1 |
| 15 | 10270006 | SPRING WASHER 18MM | 1 |
| 16 | 10280020 | NYLOCK NUT M18X2.5MM | 1 |
| | | | |

DELIVERY CHECKLIST

Dealer Pre-Delivery (Please Tick)

1. Dealer Pre-Delivery Checklist

- 1. The customer or person responsible has been given the operator's manual.
- The customer undertakes to read the complete operator's manual and understands all aspects of the manual before operation of the machine.
- All safety, operational and maintenance information have been explained and demonstrated.
- All greasing and oil points, stickers, guarding and ID plate have been identified and physically pointed out.
- The customer agrees that it is his responsibility to read and carry out the safety, maintenance and operation as per this operator's manual.

Customer Delivery (Please Tick)

2. Customer Delivery Checklist

- 1. The customer or person responsible has been given the operator's manual.
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Please Complete all Dealer information Below

Please Complete all Customer Information Below

Customer Information

| Customer's Name |
|---|
| Address |
| |
| StatePostcode |
| PhoneFax |
| Email |
| Delivery Person |
| I confirm that all of the delivery checks were explained and performed. |
| Signature |
| Delivery Date |

FIELDKING

Customer's Signature

WARRANTY CARD Customer Copy

| CUSTOMER NAME Mr./ M | rs : | |
|----------------------|------|--|
| | | |
| ADDRESS | : | |
| | | |
| | | |
| MOBILE NO. | : | |
| English 1 | | |
| Email | : | |
| NAME OF IMPLEMENT | | |
| NAME OF IMPLEMENT | • | |
| MODEL NO. | : | |
| MODEL NO. | • | |
| YEAR OF Mfg. | : | |
| 3 | | |
| SERIAL NO. | : | |
| | | |
| REGISTRATION NO. | : | |
| | | |
| DATE OF PURCHASING | : | |
| | | |
| NAME OF DEALER | : | |
| | • | |
| | | |



Dealer's Signature

Comments

FIELDKING

WARRANTY CARD Company Copy

| CUSTOMER NAME Mr./ Mrs | s : | |
|------------------------|-----|--|
| | | |
| ADDRESS | : | |
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| MOBILE NO. | : | |
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| Email | : | |
| NAME OF IMPLEMENT | : | |
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| MODEL NO. | : | |
| YEAR OF Mfg. | : | |
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| SERIAL NO. | : | |
| REGISTRATION NO. | : | |
| | | |
| DATE OF PURCHASING | : | |
| | | |
| NAME OF DEALER | : | |
| | | |

Customer's Signature Dealer's Signature



FIELDKING

WARRANTY CARD Dealer Copy

| CUSTOMER NAME Mr./ Mrs | 3 : | |
|------------------------|-----|--|
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Customer's Signature Dealer's Signature

