

Farm King

OPERATOR AND PARTS MANUAL

Box Scraper

Model 484, 604, 725, 846

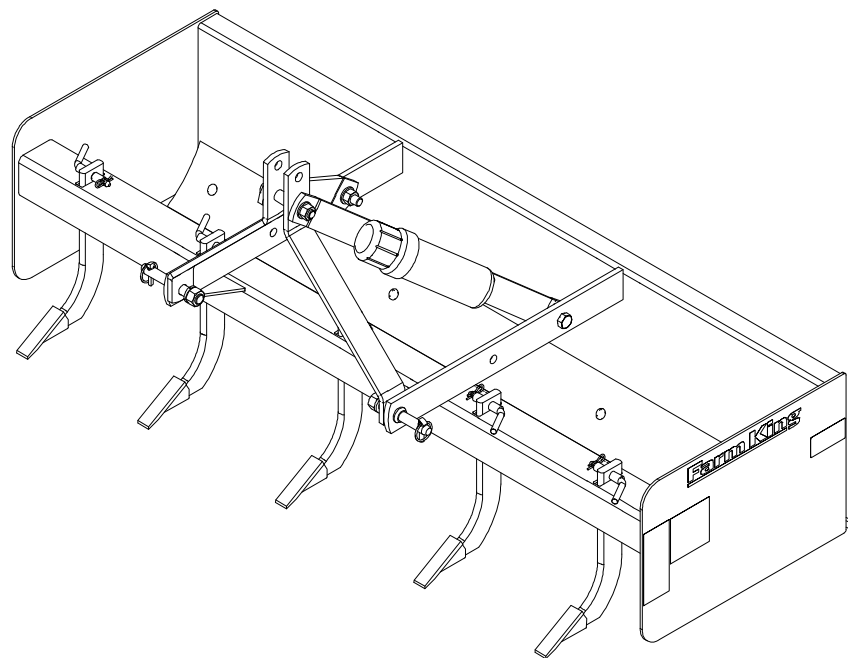


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Manufacturer’s Statement: For technical reasons, Farm King reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature. Performance quality may depend on soil fertility, applied agricultural techniques, weather conditions, and other factors.

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WARRANTY REGISTRATION FORM

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Customer Name:

Dealer Name:

Customer Address:

Dealer Address:

City:

Prov / State:

City:

Prov / State:

Postal / Zip Code:

Phone:

Postal / Zip Code:

Phone:

Equipment Model:

Serial Number:

Delivery Date:

I have thoroughly instructed the buyer on the above described equipment which review included the Operator and Parts Manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Dealer Inspection Report

- ☐ Inspect Hitch
- ☐ Scarifiers And Shanks Properly Oriented
- ☐ Cutting Edge Properly Oriented
- ☐ Fasteners Tight

Safety

- ☐ Safety Chain On Hitch
- ☐ All Decals Installed
- ☐ Guards And Shields Installed And Secure
- ☐ Review Operating And Safety Instructions

Date:

Dealer Rep. Signature:

The above equipment and Operator And Parts Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date:

Customer / Owner Signature:

Remove this Warranty Registration Form from the Operator And Parts Manual. Make two copies of the form. Send original Warranty Registration Form to Farm King. Give one copy to the customer and the dealer will keep one copy.

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INTRODUCTION

This Operator And Parts Manual was written to give the owner / operator instructions on the safe operation, maintenance and part identification of the Farm King equipment. READ AND UNDERSTAND THIS OPERATOR AND PARTS MANUAL BEFORE OPERATING YOUR FARM KING EQUIPMENT. If you have any questions, see your Farm King dealer. This manual may illustrate options and accessories not installed on your Farm King equipment.

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OWNER'S INFORMATION

Thank you for your decision to purchase a Farm King Box Scraper. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator And Parts Manual and follow all recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

All personnel shall read this manual and understand the proper operation, installation and maintenance procedures before being allowed to work with it.

Farm King is continually working to improve its products. Farm King reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

This publication has been professionally created ensuring its accuracy, Farm King makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Farm King assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual.

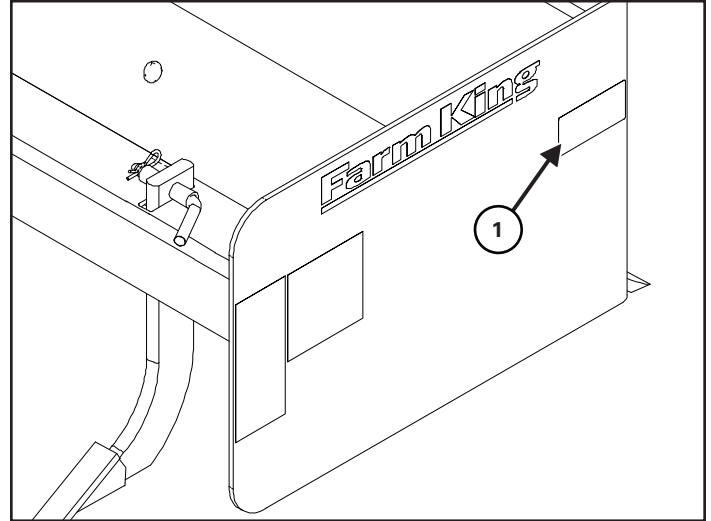
Visit our website at www.farm-king.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as seen facing in the direction of travel of the implement.

Serial Number Location

Please enter the model and serial number in the space provided for easy reference.

Figure 1



Model Number: _____

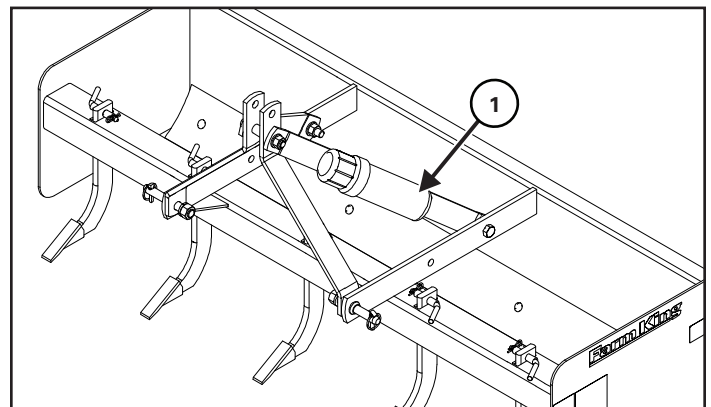
Serial Number: _____

The serial number plate (Item 1) [Figure 1] is located on the LH side of the main frame.

Always use your serial number when requesting information or when ordering parts.

Manual Storage

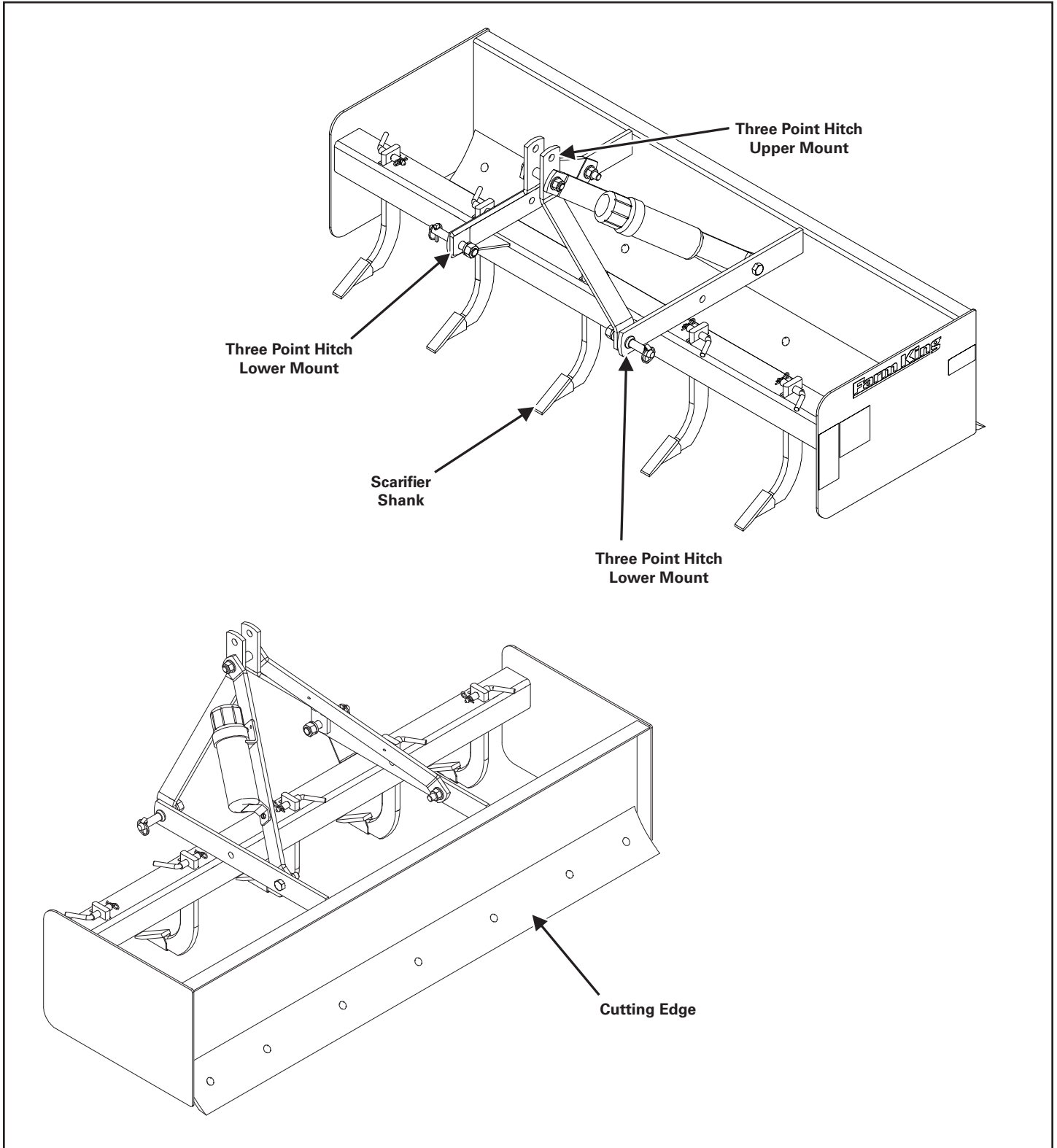
Figure 2



The Operator And Parts Manual and other documents can be stored in the canister (Item 1) [Figure 2] located on the hitch weldment.

EQUIPMENT IDENTIFICATION

Component Location



SAFETY

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SAFETY INSTRUCTIONS

Safe Operation is The Operator's Responsibility



Safety Alert Symbol

This symbol with a warning statement means:
"Warning, be alert! Your safety is involved!"
Carefully read the message that follows.



CAUTION

The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



DANGER

The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

Safe Operation Needs A Qualified Operator



WARNING

Operators must have instructions before operating the machine. Untrained operators can cause injury or death.

For an operator to be qualified, he or she must not use drugs or alcohol which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

A Qualified Operator Must Do The Following:

Understand the written instructions, rules and regulations:

- The written instructions from Farm King include the Warranty Registration, Dealer Inspection Report, Operator And Parts Manual and decals.
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

Have training with actual operation:

- Operator training must consist of a demonstration and verbal instruction. This training is given by the machine owner prior to operation.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area. Always fasten seat belt before operating.

Know the work conditions:

- Clear working area of all bystanders, especially small children and all obstacles that might be hooked or snagged, causing injury or damage.
- Know the location of any overhead or underground power lines. Call local utilities and have all underground power lines marked prior to operation.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service.

Safety Rules

- Read and follow instructions in this manual and the tractor's operators manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to children and persons unfamiliar with its operation.
- If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
- Check for overhead and / or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.
- Check that the equipment is securely fastened to the tractor.
- Make sure all the machine controls are in the NEUTRAL position before starting the machine.
- Operate the equipment only from the operator's position.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders, especially small children.
- DO NOT permit personnel to be in the work area when operating the equipment.
- The equipment must be used ONLY on approved tractors.
- DO NOT modify the equipment in any way. Unauthorized modification may impair the function and / or safety and could affect the life of the equipment.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- When operating on hillsides, use extreme care. The tractor may tip over if it strikes a hole, ditch or other irregularity.

Transport Safety

- Do not exceed 10 mph (16 kph). Reduce speed on rough roads and surfaces.
- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- Use the SMV emblem and warning light. Local laws should be checked for all highway lighting and marking requirements.
- Check all reflectors for visibility and cleanliness before transport.
- Always attach a safety chain to the tractor drawbar and the equipment hitch before transport.
- Always yield to oncoming traffic in all situations and move to the side of the road so any following traffic may pass.
- Always enter curves or drive up or down hills at a low speed and at a gradual steering angle.
- Never allow riders on either tractor or equipment.
- Keep tractor in a lower gear at all times when traveling down steep grades.
- Maintain proper brake settings at all times (if equipped).

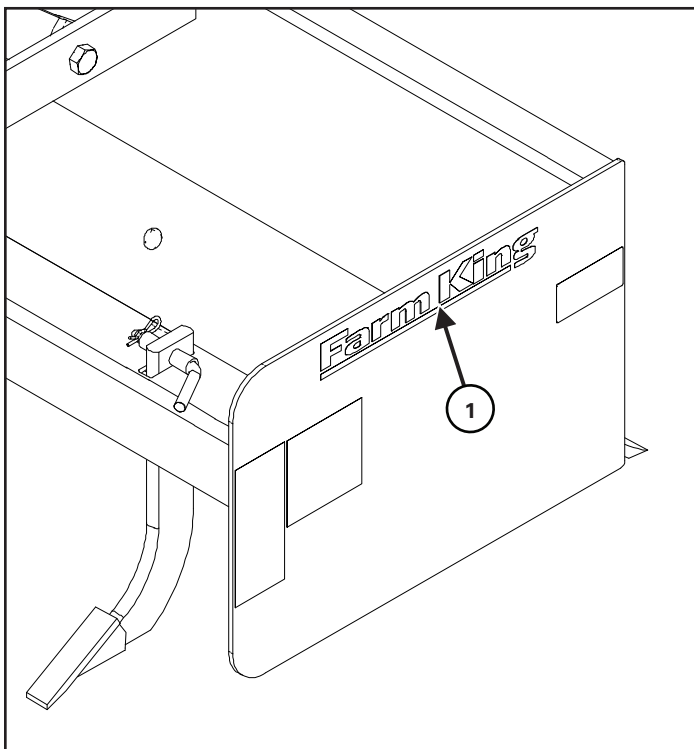
Machine Requirements And Capabilities

- Stop the machine and engage the parking brake. Install blocks in front of and behind the rear tires of the machine. Install blocks underneath and support the equipment securely before working under raised equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Use increased caution on slopes and near banks and ditches to prevent overturn.
- Make certain that the Slow Moving Vehicle (SMV) emblem is installed so that it is visible and legible. When transporting the equipment, use the flashing warning lights (if equipped) and follow all local regulations.
- Operate this equipment with a machine equipped with an approved Roll-Over Protective Structure (ROPS). Always wear seat belt when the ROPS is up. Serious injury or death could result from falling off the machine.
- Before leaving the operator's position:
 1. Always park on a flat level surface.
 2. Place all controls in neutral.
 3. Engage the parking brake.
 4. Stop engine.
 5. Wait for all moving parts to stop.
- Carry passengers only in designated seating areas. Never allow riders on the machine or equipment. Falling off can result in serious injury or death.
- Start the equipment only when properly seated in the operator's seat.
- Operate the machine and equipment from the operator's position only.
- The parking brake must be engaged before leaving the operator's seat. Roll away can occur because the transmission may not prevent machine movement.

SAFETY AND EQUIPMENT SIGNS (DECALS)

Follow the instructions on all the signs (decals) that are on the equipment. Replace any damaged signs (decals) and be sure they are in the correct locations. Equipment signs are available from your Farm King equipment dealer.

Figure 3

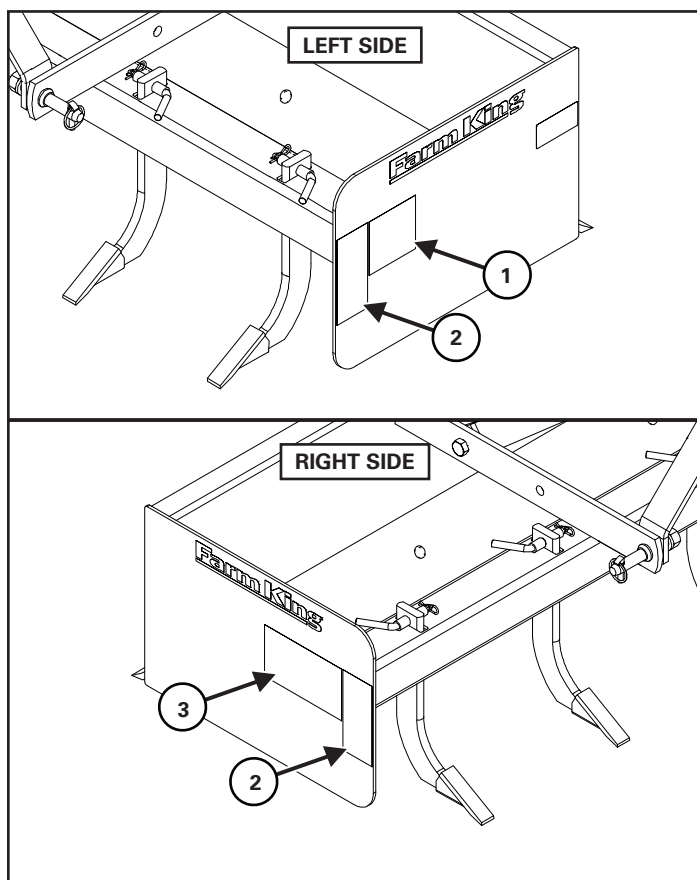


Decal Identification [Figure 3]

910625 - FARMKING 1.85 x 12 (ITEM 1)



Figure 4



Decal Identification [Figure 4]

819072 - Warning Injury (Item 1)



819074 - Warning Crushing (Item 2)



819075 - Warning Operating Practices (Item 3)



SAFETY SIGN-OFF FORM



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

Farm King follows the general Safety Standards specified by the American Society of Agricultural and Biological Engineers (ASABE) and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and / or maintaining the equipment must read and clearly understand ALL Safety, Operating and Maintenance information presented in this manual.

Annually review this information before the season start-up and make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. An untrained operator is unqualified to operate this machine.

The following sign-off sheet is provided for your record and to show that all personnel who will be working with the equipment have read and understand the information in this Operator And Parts Manual and have been instructed in the operation of the equipment.

SIGN-OFF SHEET		
Date	Employee's Signature	Employer's Signature

ASSEMBLY

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GENERAL ASSEMBLY INFORMATION

Component Unloading And Identification



WARNING



AVOID INJURY OR DEATH

Keep fingers and hands out of pinch points when assembling the equipment.



WARNING



DO NOT permit bystanders to be in the work area when unloading and assembling components.

DO NOT work under suspended parts.

Keep away from moving parts.

Always use lifting devices / vehicles, chains or straps of adequate size and strength when unloading and assembling components.

Unload the crate(s) and components on a flat level area of adequate size to assemble the equipment.



IMPORTANT

Unload crate(s) and other components carefully to prevent damage to any of the components.

NOTE: If any components are damaged, missing or replacement parts are required, contact your Farm King Dealer.

Assemble the equipment in the following order on a flat and level surface:

1. Scarifier assembly
2. Three point hitch assembly
3. Cutting edge assembly

Using the packing list, locate and place all components and hardware in one area. Count the individual components and verify that you have received the correct number of components to fully assemble the equipment.



IMPORTANT

The directions front, left, right, and rear are viewed as the operator sitting in the operator's seat with the equipment hitched to the tractor.

SCARIFIER ASSEMBLY

Assemble the components on a flat and level surface.

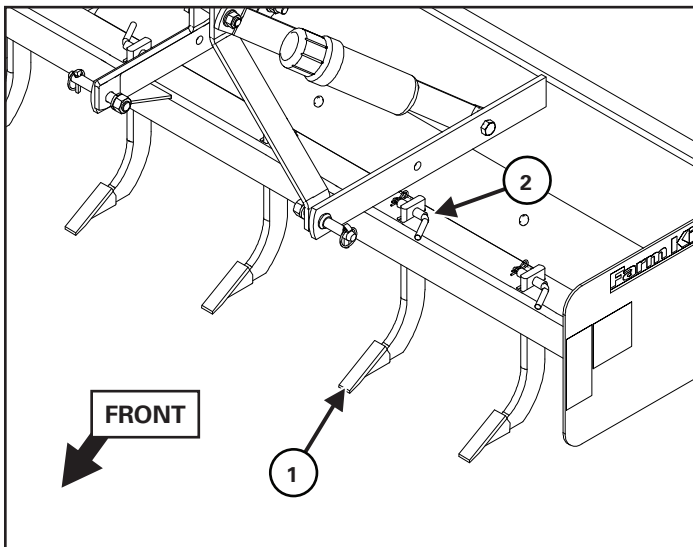
Raise the main frame off the ground and support with blocks.



IMPORTANT

Always use lifting devices, vehicles, chains, or straps of adequate size and strength when unloading and assembling components.

Figure 5



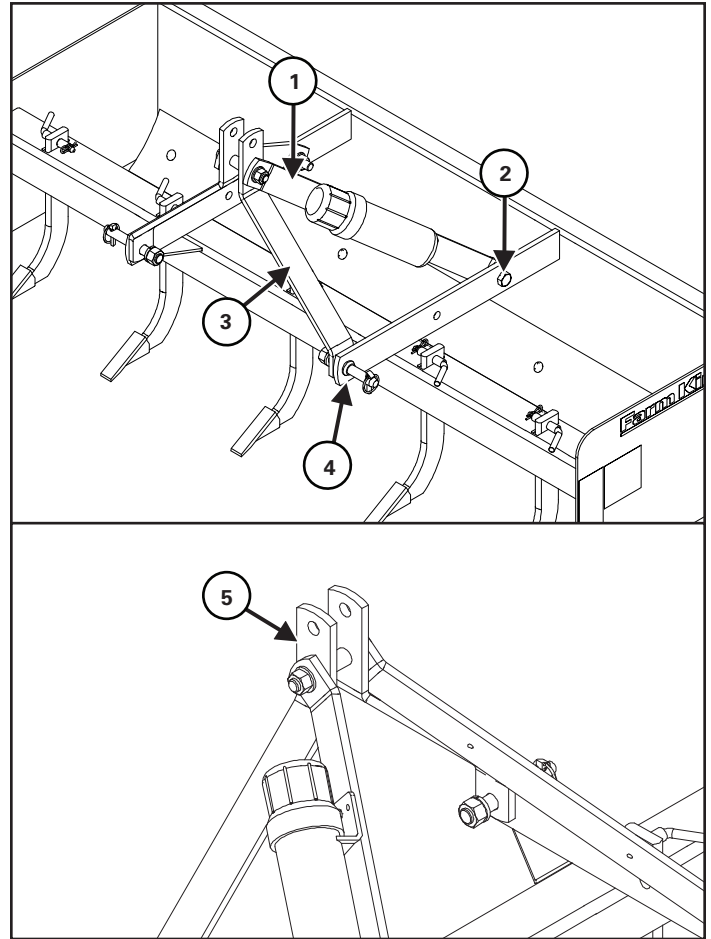
Slide the scarifier shank (Item 1) through the bottom of the main frame. Attach using one locking pin and retaining pin (Item 2) [Figure 5].

Continue attaching the rest of the shanks.

Position each shank at the same depth. Each shank blade must face forward.

THREE POINT HITCH ASSEMBLY

Figure 6



Position the LH and RH rear hitch support plates (Item 1) on the main frame. Attach using two 3/4" x 2-1/2" hex bolts, two 3/4" flat washers, and two 3/4" lock nuts (Item 2) [Figure 6].

Do not tighten hardware at this time.

Position the LH and RH front hitch support plates (Item 3) on the main frame. Attach using two Cat. 1 lift pins, washers, and nuts (Item 4) [Figure 6].

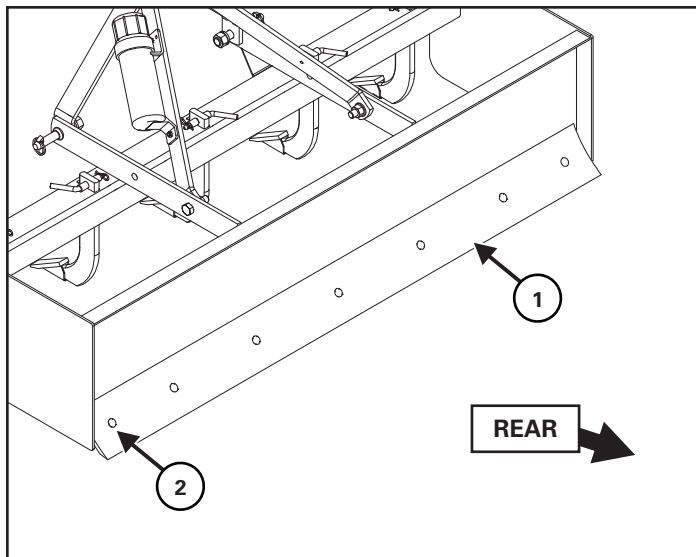
Do not tighten hardware at this time.

Attach the LH / RH rear and front support plates using one 3/4" x 5" hex bolt, 1" bushing (between the plates), one 3/4" flat washer, and one 3/4" lock nut (Item 5) [Figure 6].

Tighten all hardware.

CUTTING EDGE ASSEMBLY

Figure 7



Position the rear cutting edge (Item 1) on the back of the main frame. Attach using 1/2" x 1-1/2" flat head bolts, 1/2" flat washers, and 1/2" lock nuts (as required depending on cutting edge length) (Item 2) [Figure 7].

Repeat process to install the front cutting edge on the inside of the main frame.

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GENERAL INFORMATION

Pre - Operation Checklist

Before operating the equipment for the first time and each time thereafter, check the following items:



WARNING

AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

1. Lubricate the equipment per the schedule outlined in the Maintenance Section.
2. Check the hitch for damaged, loose or missing parts. Repair as needed before operation.
3. Fully clean the equipment.
4. Inspect all safety reflective decals, slow moving vehicle decals and lights where applicable.
5. Verify that the equipment is properly connected to the tractor.

Break - In Checklist

Check the following mechanical items after 1 hour of operation and again after 10 hours of operation:

1. Check the upper and lower three point hitch mounts for damaged, loose or missing parts. Repair as needed before operation.
2. Check for loose fasteners and hardware. Tighten as required.
3. Check the scarifiers for loose or missing blades or shanks. Repair as required.
4. Check the cutting edges for loose or missing hardware. Repair as required.

TRACTOR REQUIREMENTS

The following information will depend on tilling depth, soil type, field speed, etc.

The tractor must be equipped with a Cat. 1 three point hitch.

The tractor must operate at the following horsepower:

Box Scraper Model	Tractor HP
484	20 - 40 hp
604	20 - 45 hp
725	25 - 55 hp
846	30 - 65 hp



WARNING

AVOID SERIOUS INJURY OR DEATH

The tractor must be equipped with an approved Roll Over Protection Structure (ROPS) and safety belts to help prevent personal injury or death caused by tractor roll over.



WARNING

- Keep shields and all guards in place.
- Keep away from moving parts.
- Keep bystanders away.



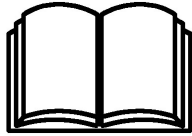
CAUTION

Using a tractor with greater HP than the recommended range may cause severe damage to frame and / or gang components of implement and thereby void warranty.

ENTERING AND LEAVING THE OPERATOR'S POSITION



IMPORTANT



Follow the instructions in your tractor's operation manual for the correct procedure.

Entering The Operator's Position

Move to the operator's position, start the engine and release the parking brake.

Leaving The Operator's Position



WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- Always park on a flat level surface.
- Place all controls in NEUTRAL.
- Engage the park brake.
- Stop the engine and remove the key.

Park the tractor / equipment on a flat level surface.

Place all controls in neutral, engage the park brake, stop the engine and wait for all moving parts to stop. Leave the operator's position.

CONNECTING TO TRACTOR

Always inspect the tractor's three point hitch and equipment three point mounts before connecting (see the tractor's owner's manual).

Move the tractor drawbar into the storage position or remove (if necessary) to prevent interference with operation (see the tractor's operator's manual for the correct procedure).

Remove the retaining pins from the equipment three point mounts.

Enter the operator's position.

Move the tractor into position in front of the equipment.



WARNING



AVOID INJURY OR DEATH

Before moving the tractor, look in all directions and make sure no bystanders, especially small children are in the work area. Do not allow anyone between the tractor and the equipment when backing up to the equipment for connecting.

Move the tractor backwards, aligning the tractor and equipment three point mounts.

Leave the operator's position.

Connect tractor and equipment three point mounts. Attach securely using retaining pins.



WARNING



AVOID INJURY OR DEATH

Keep fingers and hands out of pinch points when connecting and disconnecting equipment.

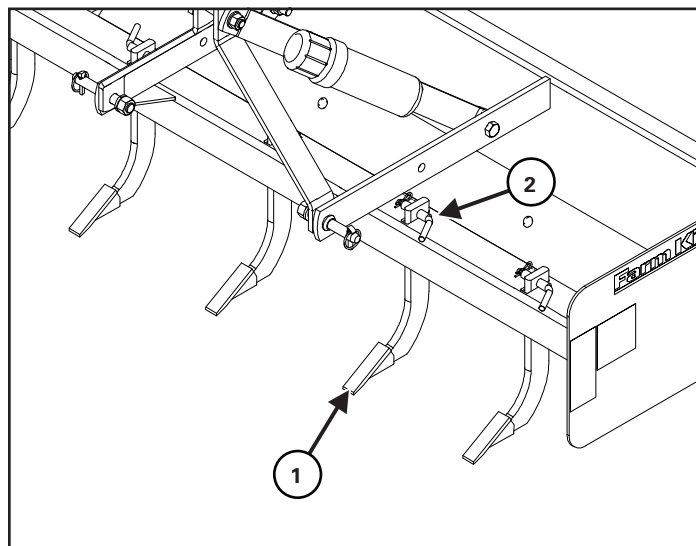


IMPORTANT

Always use implement mounting pins of adequate size and strength and a retaining pin with a locking device.

ADJUST SCARIFIER DEPTH

Figure 8



Adjust each scarifier shank to the desired depth.

Move the scarifier shank (Item 1) and attach using one locking pin and retaining pin (Item 2) [Figure 8].

Position each shank at the same depth. Each shank blade must face forward.

FIELD OPERATION

Move to the operator's position, start the engine and release the parking brake.

Move the tractor / equipment to the starting point of the work area.



IMPORTANT

AVOID EQUIPMENT DAMAGE

- Always keep implement level when operating.
- Do not make sharp turns with the implement in ground.
- Always lift the implement out of ground before making sharp turns.



WARNING

MACHINE TIPPING OR ROLL OVER CAN CAUSE SERIOUS INJURY OR DEATH

- Turn on level ground. Slow down when turning.
- Go up and down slopes, not across them.
- Check for adequate traction.



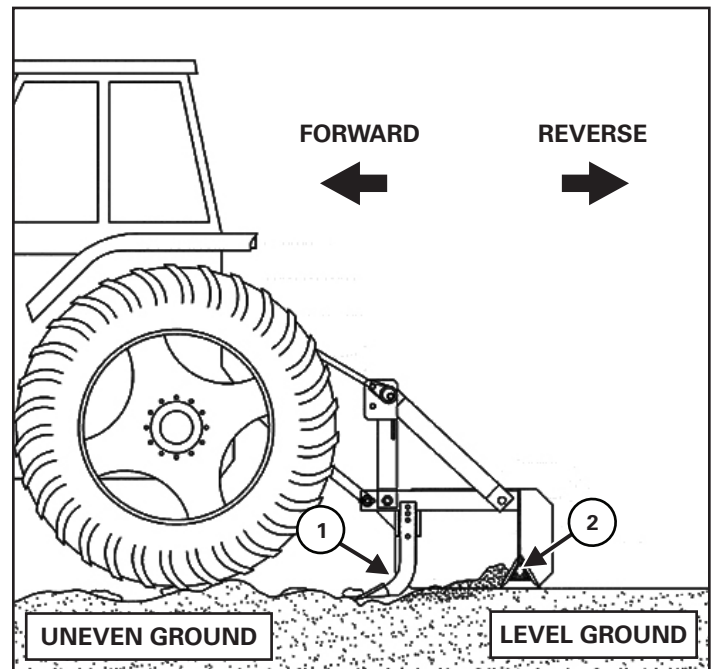
WARNING

AVOID INJURY OR DEATH

Check work area for underground lines such as electrical, gas, oil, water, etc.

Consult local information before tilling. Extreme caution must be used in areas where utility lines are present.

Figure 9



The box scraper may be operated forward or in reverse.

Use the scarifier shanks (Item 1) [Figure 9] to break up hard or packed surfaces.

If it is necessary to add weight, use a maximum of 200 lbs.

The two cutting edges (Item 2) [Figure 9] allow the operator to scrape or level both forward and in reverse.

TRANSPORTING

With the equipment connected to the tractor, enter the operator's position.

Fully raise the equipment using the tractor's three point hitch during transporting.

Comply with federal, state, local and provincial laws regarding the transport of farm equipment on public roadways.



WARNING

AVOID SERIOUS INJURY OR DEATH

Use of an unapproved hitch or tractor can result in loss of control, leading to serious injury or death.

Tractor and hitch must have the rated capacity to tow equipment.



WARNING

AVOID SERIOUS INJURY OR DEATH

Excess weight will greatly increase tractor stopping distance and may cause the operator to lose control of the tractor.

Verify that the tractor is approved for transporting the equipment and that the equipment is securely attached to the tractor.

Verify safety chain is installed and properly connected before transporting equipment.

Verify that the SMV (Slow Moving Vehicle) emblem, all lights and reflectors are clean and visible.

The ratio of the tractor / tow vehicle weight to the loaded equipment weight plays an important role in defining acceptable travel speed.

TRAVEL SPEED - Acceptable travel speed.

WEIGHT RATIO - Weight of fully equipped or loaded implement(s) relative to weight of tractor / tow vehicle.

Travel Speed	Weight Ratio
Up to 20 mph (32 kph)	1 to 1 (or less)
Up to 10 mph (16 kph)	2 to 1 (or less)
DO NOT TOW	More than 2 to 1

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MAINTENANCE

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TROUBLESHOOTING

Chart



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

NOTE: If a problem is encountered that is difficult to solve, even after having read through this troubleshooting section, please call your local Farm King dealer. Before you call, please have this Operator And Parts Manual and the serial number of your machine at hand.

PROBLEM	CAUSE	CORRECTION
Uneven tillage, machine leaves furrows or ridges.	Frame is not level.	Level the machine by adjusting the three point hitch.
	Exceeding recommended operating speed.	Slow down to recommended operating speed.
Machine buckles or drifts side to side.	Frame is are not level.	Level the machine by adjusting the three point hitch.
	Blades are cutting too deep.	Adjust depth.
Poor soil tilling.	Exceeding recommended operating speed.	Slow down to recommended operating speed.
	Hard / compacted soil.	Reduce travel speed and make additional passes.
	Loose or missing shanks.	Replace shanks, locking pins, or retaining pins as needed.

SCARIFIER REPLACEMENT



WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- Always park on a flat level surface.
- Place all controls in NEUTRAL.
- Engage the park brake.
- Stop the engine and remove the key.
- Wait for all moving parts to stop.



WARNING

AVOID INJURY OR DEATH

Securely block up the implement before working underneath.



WARNING

Always wear proper hand and eye protection when servicing the implement.

Lower the equipment onto supports.

Stop the engine and leave the operator's position.

Replace shanks, locking pins, or retaining pins as required.

Check other scarifiers for damage or wear.

SAFETY SIGN (DECAL) INSTALLATION

Procedure

Remove all portions of the damaged safety sign (decal).

Thoroughly clean the area with glass cleaner.

Removing all adhesive residue.

Allow the area to dry completely before installing the new safety sign (decal).

Position the safety sign (decal) in the correct location.

Remove a small portion of the backing paper on the safety sign (decal).

Press on the safety sign (decal) where the backing paper has been removed.

Slowly remove the remaining backing paper, pressing on the safety sign (decal) as the backing paper is removed.

Using the backing paper, pressing firmly, move the backing paper over the entire safety sign (decal) area.

NOTE: Small air pockets can be pierced with a pin and smoothed out using the piece of the backing paper.



IMPORTANT

When replacing safety signs (decals), the temperature must be above 10° C (50° F).

STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store the equipment for an extended period of time. Below is a list of items to perform before storage.

Thoroughly clean the equipment.

Lubricate the equipment.

Inspect the hitch and all welds on the equipment for wear and damage.

Check for loose hardware, missing guards, or damaged parts.

Check for damaged or missing safety signs (decals). Replace if necessary.

Replace worn or damaged parts.

Touch up all paint nicks and scratches to prevent rusting.

Place the equipment in a dry protected shelter.

NOTE: If a dry protected shelter is not available, cover with a waterproof tarp and tie down securely.

Place the equipment flat on the ground.

Place planks under support stand if required.

Return To Service

After the equipment has been in storage, it is necessary to follow a list of items to return the equipment to service.

Be sure all shields and guards are in place.

Lubricate the equipment.

Connect to a tractor and operate equipment, verify all functions operate correctly.

Check for leaks. Repair as needed.



IMPORTANT

DO NOT permit children to play on or around the stored machine.

CLEANING

Fully clean the equipment EVERY 50 HOURS of use.

Keep equipment free of any debris. Remove buildup from scarifiers.

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484 BOX SCRAPER.....	38
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846 BOX SCRAPER.....	44

The parts identification section list descriptions, part numbers and quantities for all North American Base Model Box Scrapers. Contact your Farm King dealer for additional parts information.

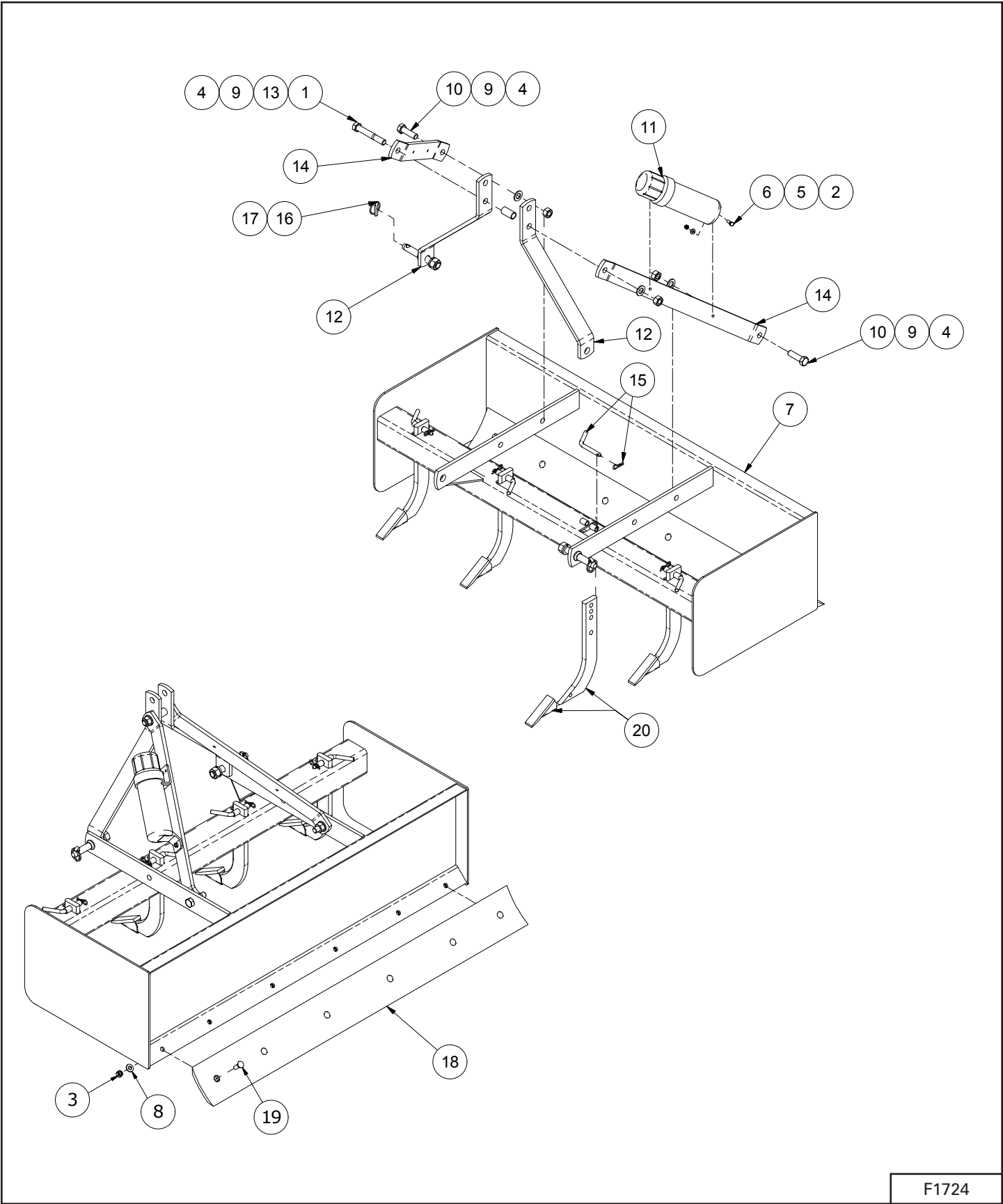
This diagram illustrates the assembly of a mechanical device, likely a small-scale engine or pump. The components are numbered as follows:

- 1, 4, 9, 10, 14, 15, 17, 18:** Various small fasteners, pins, and structural components.
- 2, 5, 6:** A cylindrical component, possibly a piston or a motor housing.
- 3, 8:** A small bracket or support piece.
- 7:** A large rectangular frame or housing.
- 11:** A cylindrical component, possibly a motor or a pump head.
- 12:** A long, thin rectangular plate or cover.
- 13, 16:** Structural beams or supports.
- 19:** A small component, possibly a pin or a fastener.
- 20:** A curved, hook-like component, possibly a lever or a support arm.

The diagram shows the assembly process from a side perspective, with dashed lines indicating the alignment and placement of the components. The main body (7) is shown with a front panel (12) and a base (20). The internal mechanism (1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 13, 14, 15, 16, 17, 18, 19) is shown in an exploded view, indicating its position relative to the main body.

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811751	3/4" X 5" HEX BOLT (PL)	1
2	812362	5/16" LOCK NUT (PL)	2
3	812364	1/2" LOCK NUT (PL)	10
4	812365	3/4" LOCK NUT (PL)	3
5	812623	WASHER - 5/16" SAE FLAT (PL)	2
6	81552	5/16" X 1 1/4" HEX BOLT (PL)	2
7	817512	WELDMENT - 48" BOX SCRAPER	1
8	84048	1/2" SAE FLAT WASHER (PL)	10
9	84050	3/4" S.A.E. FLAT WASHER (PL)	3
10	84346	3/4" X 2 1/2" HEX BOLT (PL)	2
11	909277	MANUAL HOLDER	1
12	909622	CUTTING EDGE - 48"	2
13	918556	PLATE - BOX SCRAPER UPPER HITCH	2
14	918572	BUSHING - 1.00" X 0.782" X 1.875"	1
15	918578	PLATE - BOX SCRAPER HITCH SUPPORT	2
16	918604	PIN - SCARIFIER LOCK	4
17	965911	7/16" LINCH PIN	2
18	966823	LIFT PIN C/W NUT & WASHER (XL) (CAT.1)	2
19	967524	BOLT FLHD 0.500 NC X 1.50 GR5 PL	10
20	967576	SCARIFIER SHANK	4

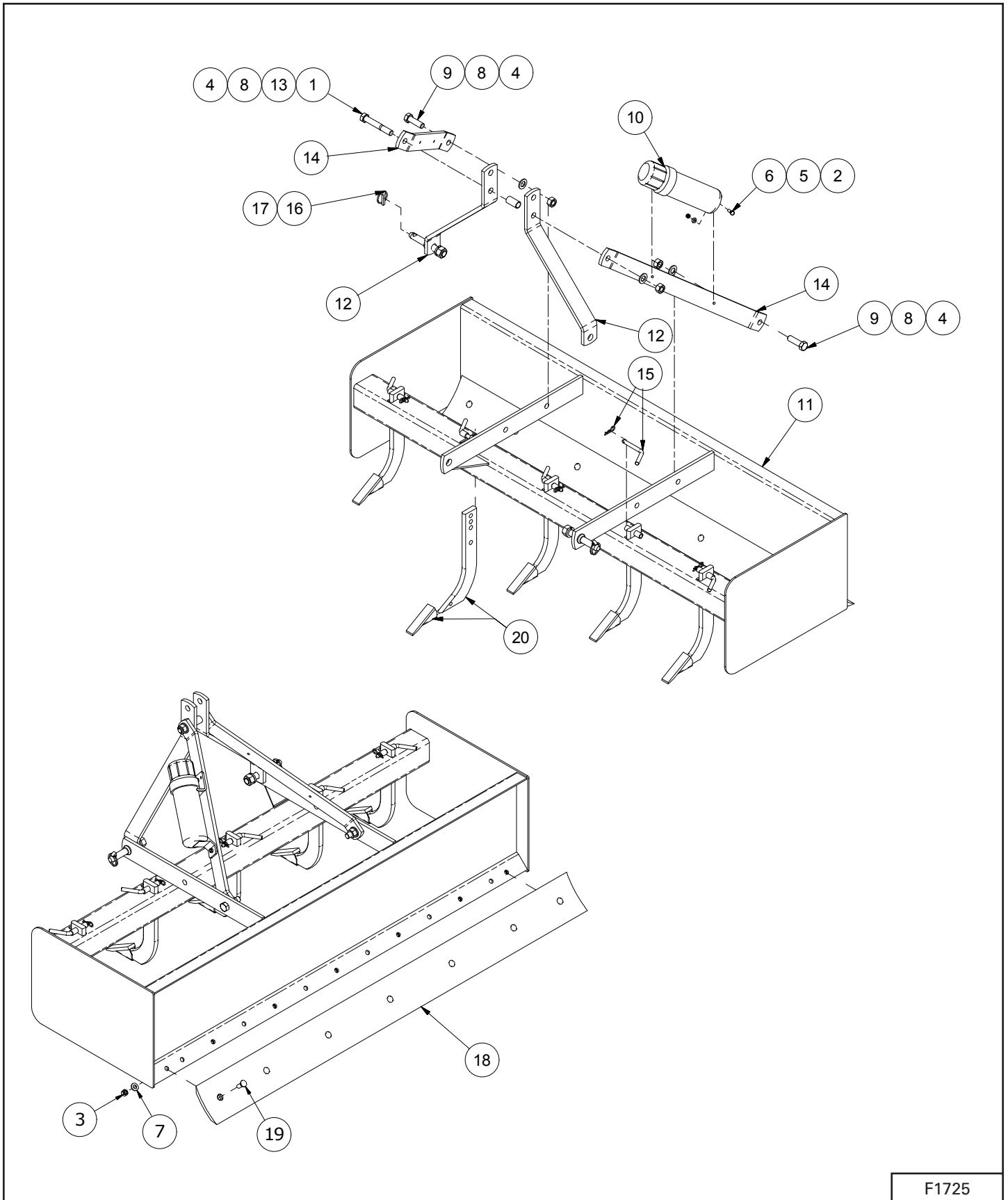
604 BOX SCRAPER



F1724

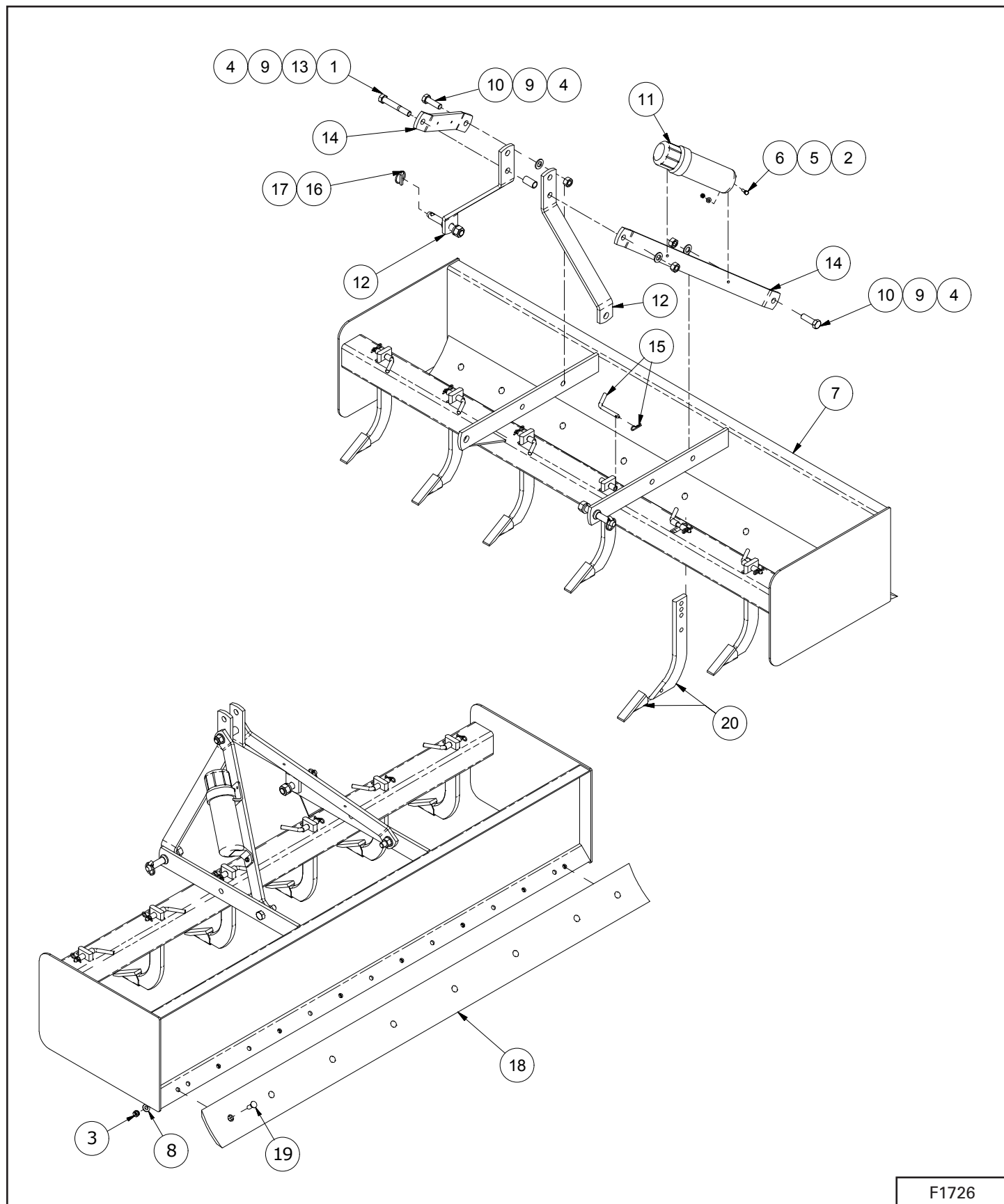
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811751	3/4" X 5" HEX BOLT (PL)	1
2	812362	5/16" LOCK NUT (PL)	2
3	812364	1/2" LOCK NUT (PL)	12
4	812365	3/4" LOCK NUT (PL)	3
5	812623	WASHER - 5/16" SAE FLAT (PL)	2
6	81552	5/16" X 1 1/4" HEX BOLT (PL)	2
7	817506	WELDMENT - 60" BOX SCRAPER	1
8	84048	1/2" SAE FLAT WASHER (PL)	12
9	84050	3/4" S.A.E. FLAT WASHER (PL)	3
10	84346	3/4" X 2 1/2" HEX BOLT (PL)	2
11	909277	MANUAL HOLDER	1
12	918556	PLATE - BOX SCRAPER UPPER HITCH	2
13	918572	BUSHING - 1.00" X 0.782" X 1.875"	1
14	918578	PLATE - BOX SCRAPER HITCH SUPPORT	2
15	918604	PIN - SCARIFIER LOCK	4
16	965911	7/16" LINCH PIN	2
17	966823	LIFT PIN C/W NUT & WASHER (XL) (CAT.1)	2
18	967520	CUTTING EDGE - 60"	2
19	967524	BOLT FLHD 0.500 NC X 1.50 GR5 PL	12
20	967576	SCARIFIER SHANK	4

725 BOX SCRAPER



F1725

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811751	3/4" X 5" HEX BOLT (PL)	1
2	812362	5/16" LOCK NUT (PL)	2
3	812364	1/2" LOCK NUT (PL)	14
4	812365	3/4" LOCK NUT (PL)	3
5	812623	WASHER - 5/16" SAE FLAT (PL)	2
6	81552	5/16" X 1 1/4" HEX BOLT (PL)	2
7	84048	1/2" SAE FLAT WASHER (PL)	14
8	84050	3/4" S.A.E. FLAT WASHER (PL)	3
9	84346	3/4" X 2 1/2" HEX BOLT (PL)	2
10	909277	MANUAL HOLDER	1
11	918542	WELDMENT - 72" BOX SCRAPER	1
12	918556	PLATE - BOX SCRAPER UPPER HITCH	2
13	918572	BUSHING - 1.00" X 0.782" X 1.875"	1
14	918578	PLATE - BOX SCRAPER HITCH SUPPORT	2
15	918604	PIN - SCARIFIER LOCK	5
16	965911	7/16" LINCH PIN	2
17	966823	LIFT PIN C/W NUT & WASHER (XL) (CAT.1)	2
18	967521	CUTTING EDGE - 72"	2
19	967524	BOLT FLHD 0.500 NC X 1.50 GR5 PL	14
20	967576	SCARIFIER SHANK	5

846 BOX SCRAPER

F1726

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811751	3/4" X 5" HEX BOLT (PL)	1
2	812362	5/16" LOCK NUT (PL)	2
3	812364	1/2" LOCK NUT (PL)	16
4	812365	3/4" LOCK NUT (PL)	3
5	812623	WASHER - 5/16" SAE FLAT (PL)	2
6	81552	5/16" X 1 1/4" HEX BOLT (PL)	2
7	817518	WELDMENT - 84" BOX SCRAPER	1
8	84048	1/2" SAE FLAT WASHER (PL)	16
9	84050	3/4" S.A.E. FLAT WASHER (PL)	3
10	84346	3/4" X 2 1/2" HEX BOLT (PL)	2
11	909277	MANUAL HOLDER	1
12	918556	PLATE - BOX SCRAPER UPPER HITCH	2
13	918572	BUSHING - 1.00" X 0.782" X 1.875"	1
14	918578	PLATE - BOX SCRAPER HITCH SUPPORT	2
15	918604	PIN - SCARIFIER LOCK	6
16	965911	7/16" LINCH PIN	2
17	966823	LIFT PIN C/W NUT & WASHER (XL) (CAT.1)	2
18	967522	CUTTING EDGE - 84"	2
19	967524	BOLT FLHD 0.500 NC X 1.50 GR5 PL	16
20	967576	SCARIFIER SHANK	6

Farm King



SPECIFICATIONS AND SHIPPING KIT NUMBERS

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Farm King



SPECIFICATIONS

Model	484	604	725	846
Capacity (Approximate)	6 Cu. Ft.	8 Cu. Ft.	10 Cu. Ft.	12 Cu. Ft.
Max. Working Depth	4"	4"	4"	4"
Reversible Cutting Edge	1/2" x 6" Replaceable			
No. of Cutting Edges	2	2	2	2
Reversible Shanks	3/4" x 2-3/8" Replaceable			
No. of Shanks	4	4	5	6
Shank Tip Width	1"	1"	1"	1"
Three Point Hitch	Category I	Category I	Category I	Category I
Tractor Requirements	20 - 40 hp	20 - 45 hp	25 - 55 hp	30 - 65 hp
Weight	271 lb	301 lb	339 lb	377 lb
Width	48"	60"	72"	84"

SHIPPING KIT NUMBERS

The following is a list of Kit Numbers for this product and the Bundle Numbers, Descriptions, and Quantities for each Kit.

Qty.	Bundle	Description
Y484BS 48" Box Scraper c/w 4 Scarifiers		
1	F1723	Complete Assembly
Y604BS 60" Box Scraper c/w 4 Scarifiers		
1	F1724	Complete Assembly
Y725BS 72" Box Scraper c/w 5 Scarifiers		
1	F1725	Complete Assembly
Y846BS 84" Box Scraper c/w 6 Scarifiers		
1	F1726	Complete Assembly

HARDWARE TORQUE VALUES

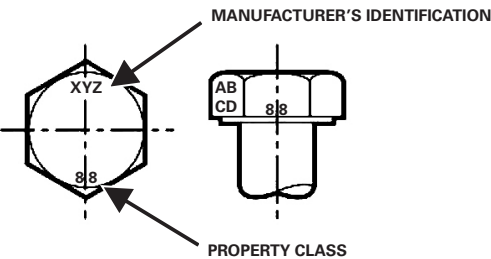
Metric Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

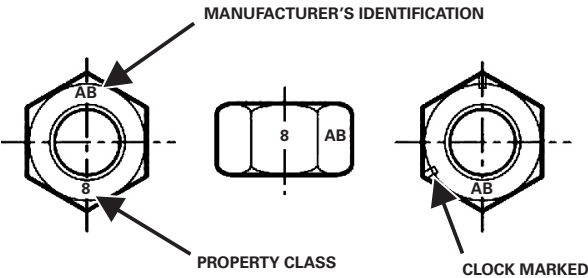
Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

Nominal Size	Class 5.8		Class 8.8		Class 10.9		Lock nuts
	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 W/ CL. 8.8 Bolt
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)
NOTE: Torque values shown with * are inch pounds.							

Identification of Hex Cap Screws and Carriage Bolts - Classes 5 and up



Identification of Hex Nuts and Lock Nuts - Classes 5 and up



HARDWARE TORQUE VALUES (CONT'D)

Imperial Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

Nominal Size	SAE Grade 5		SAE Grade 8		LOCK NUTS			
	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Unplated or Plated Silver	Plated W / ZnCr Gold"	Grade W / Gr. 5 Bolt	Grade W / Gr. 8 Bolt
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	12.6 (112*)	13.6 (121*)	17.7 (157*)	6.9 (61*)	9.8 (86*)
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)
NOTE: Torque values shown with * are inch pounds.								

Identification of Hex Cap Screws and Carriage Bolts



GRADE 2 SAE BOLT



GRADE 5 SAE BOLTS



GRADE 8 SAE BOLTS



GRADE 2 SAE NUTS

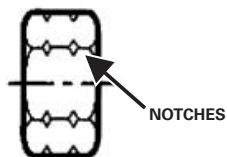


GRADE 5 SAE HEX NUTS

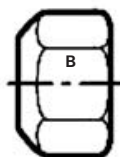


GRADE 8 SAE HEX NUTS

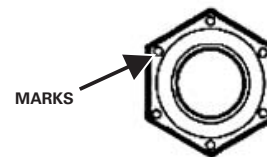
Identification of Hex Nuts and Lock Nuts



GRADE IDENTIFICATION
GRADE A: NO NOTCHES
GRADE B: ONE CIRCUMFERENTIAL NOTCH
GRADE C: TWO CIRCUMFERENTIAL NOTCHES



GRADE IDENTIFICATION
GRADE A: NO MARK
GRADE B: LETTER B
GRADE C: LETTER C



GRADE IDENTIFICATION
GRADE A: NO MARKS
GRADE B: THREE MARKS
GRADE C: SIX MARKS
MARKS NEED NOT BE LOCATED AT CORNERS

Farm King



WARRANTY

WARRANTY.....55

Farm King



WARRANTY

Farm King

Base Limited Warranty

Farm King provides this warranty only to original retail purchasers of its products. Farm King warrants to such purchasers that all Farm King manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of one (1) year. This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Farm King. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance.

Repair Parts Limited Warranty

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to the Farm King factory at the purchaser's expense.

What Is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Farm King; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Farm King.

Authorized Dealer And Labor Costs

Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Farm King determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty.

Warranty Requirements

To be covered by warranty, each new product must be registered with Farm King within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Farm King will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not to be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

Exclusive Effect Of Warranty And Limitation Of Liability

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ON ITS PRODUCTS COVERED HEREIN, AND DISCLAIMS ANY RELIANCE BY THE PURCHASER ON FARM KING'S SKILL OR JUDGMENT TO SELECT OR FURNISH GOODS FOR ANY PARTICULAR PURPOSE. THE PURCHASER'S ONLY AND EXCLUSIVE REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON FARM KING'S PRODUCTS ARE THOSE SET FORTH HEREIN. IN NO EVENT SHALL FARM KING BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BY WAY OF EXAMPLE ONLY AND NOT LIMITATION, LOSS OF CROPS, LOSS OF PROFITS OR REVENUE, OTHER COMMERCIAL LOSSES, INCONVENIENCE, OR COST OF REPLACEMENT OF RENTAL EQUIPMENT). IN NO EVENT SHALL FARM KING'S CONTRACT OR WARRANTY LIABILITY EXCEED THE PURCHASE PRICE OF THE PRODUCT. (Note that some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusion may not apply to you.) This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Farm King neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Farm King to the purchaser, and Farm King shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Farm King's ability to obtain materials or manufacturer replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

www.farm-king.com

Farm King

1330 43rd Street North
Fargo, ND, 58102
Toll Free: 877.447.6008
E-mail: info@buhler.com
www.farm-king.com

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