

Farm King

OPERATOR AND PARTS MANUAL

Snowblower

Model 500, 600, 660

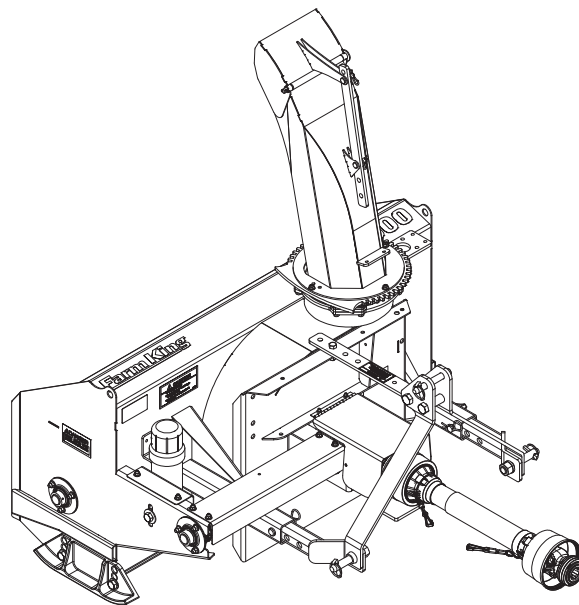


Table Of Contents

Manufacturer's Statement: For technical reasons, Buhler Industries Inc. 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.

Warranty Registration Form.....	3
Introduction.....	5
Owner's Information.....	7
Equipment Identification.....	8
Safety.....	11
Safety Instructions.....	13
Fire Prevention.....	16
Safety Signs (Decals).....	18
Equipment Decals And Signs.....	19
Safety Sign-Off Form.....	20
Assembly.....	21
Preparing For Assembly.....	23
PTO Shield.....	24
Hitch Assembly.....	24
Discharge Spout.....	25
Mechanical Spout Rotator.....	27
Operation.....	29
Pre - Operation Checklist.....	31
Entering The Operator's Position.....	31
Leaving The Operator's Position.....	31
Tractor Requirements.....	31
Connecting The Snowblower To Tractor.....	32
Connecting The PTO Driveline.....	34
Connecting Hydraulic Hoses.....	38
Adjusting Skid Shoe Height.....	39
Theory Of Operation.....	40
Transporting.....	41

Maintenance	43
Service Schedule Chart.....	45
Lubrication.....	46
Chains And Fasteners.....	48
Safety Sign (Decal) Installation.....	48
Storage And Return To Service.....	49
Parts Identification	51
Main Components.....	53
ADDITIONAL COMPONENTS.....	57
Three-Point Hitch.....	58
Mechanical Spout Rotator (Option) - F1658.....	59
Hydraulic Spout Rotator (Option) - F1545.....	60
Hydraulic Spout Deflector Cylinder & Hose Kit (Option).....	61
PTO Shaft 500.....	62
PTO Shaft 600, 660.....	63
Specifications And Shipping Kit Numbers	65
Specifications.....	67
Shipping Kit And Bundle Numbers.....	67
Hardware Torque Values.....	68
Warranty	71
Farm King Base Limited Warranty.....	73

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:

Snowblower Model:	Serial Number:	Delivery Date:
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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

☐	Bearings Turn Freely
☐	Chain Tension Checked
☐	Skid Shoes Properly Adjusted
☐	All Fasteners Are Tight
☐	Lubricate Machine
☐	Hydraulic Hoses And Fittings Tight (If Applicable)

Safety

☐	Safety Chain On Hitch
☐	All Decals Installed
☐	Guards And Shields Installed And Secure
☐	Review Operating And Safety Instructions
☐	Check For Hydraulic Leaks (If Applicable)

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:
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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.

Owner’s Information.....	7
Serial Number Location.....	7
Manual Storage.....	7
Equipment Identification.....	8
Component Location - Front View.....	8
Component Location - Rear View.....	9

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Owner's Information

Thank you for your decision to purchase a Farm King Snowblower. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator And Parts Manual and follow the 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.

Make sure that all personnel have read this Operator And Parts Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

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.

Although great care has been taken to ensure the accuracy of this publication, 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.

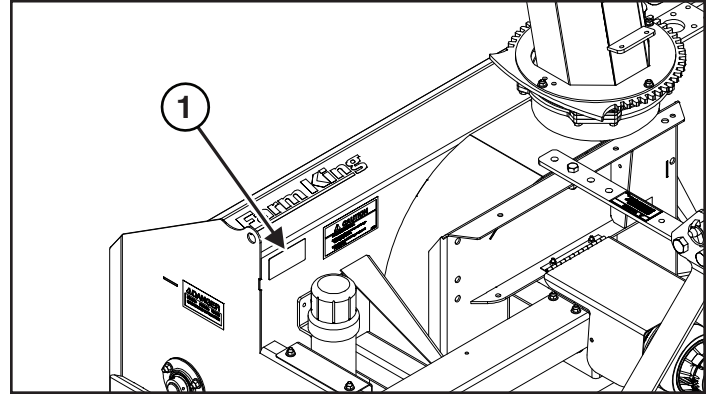
Visit our website at www.farm-king.com for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as viewed by the operator sitting in the tractor seat while towing the implement.

Serial Number Location

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

Figure 1



Model Number: _____

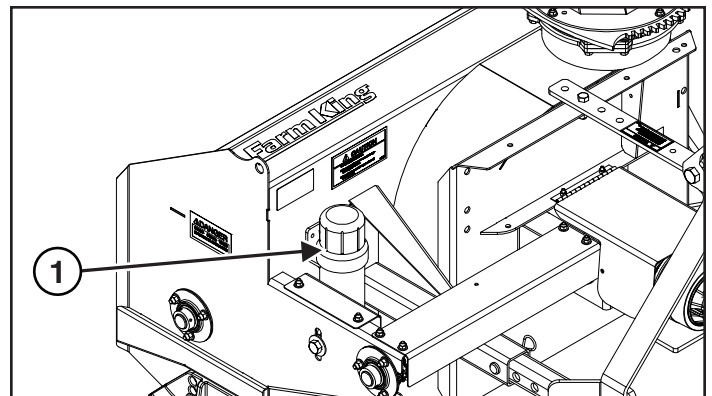
Serial Number: _____

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

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

Manual Storage

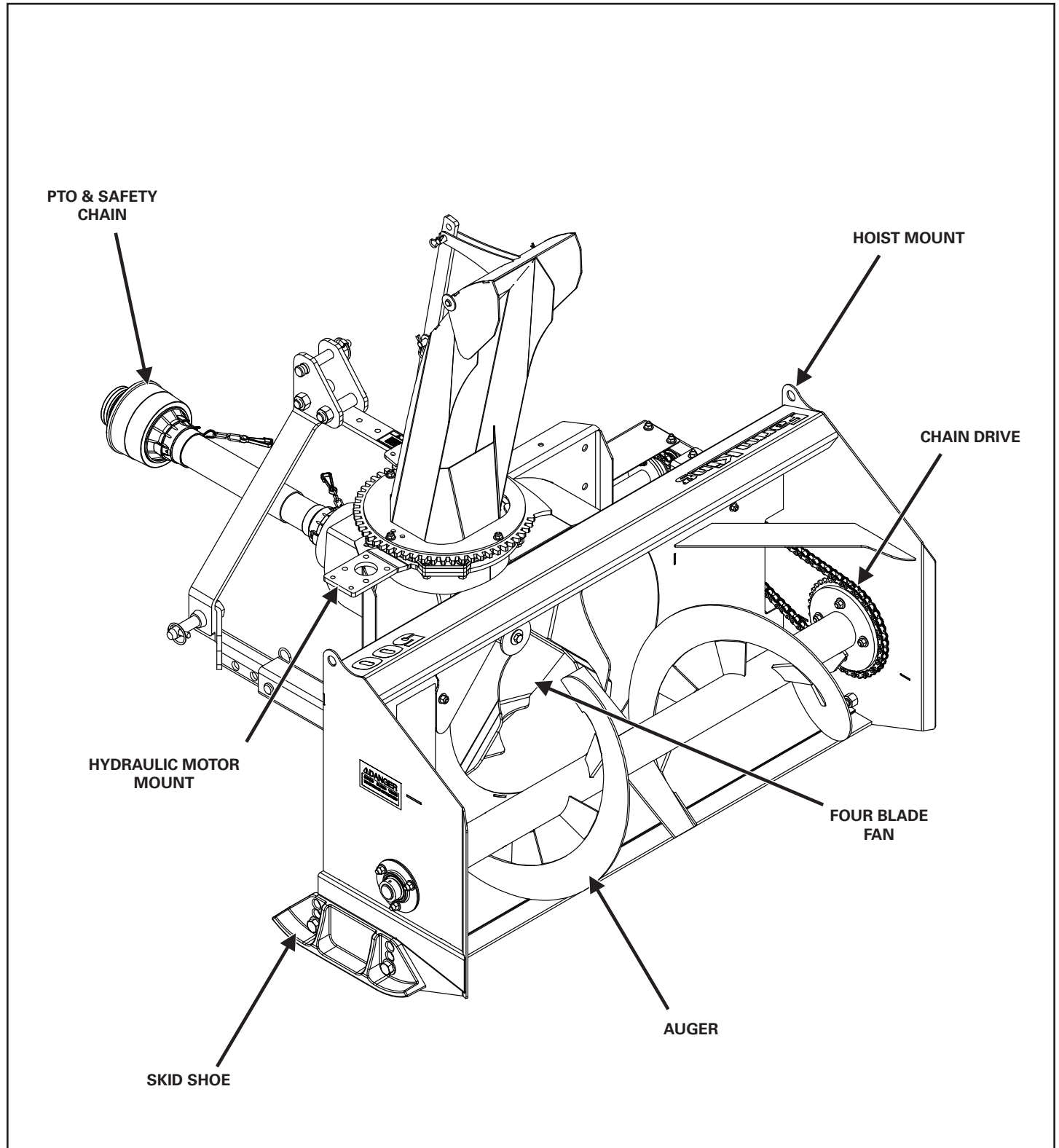
Figure 2



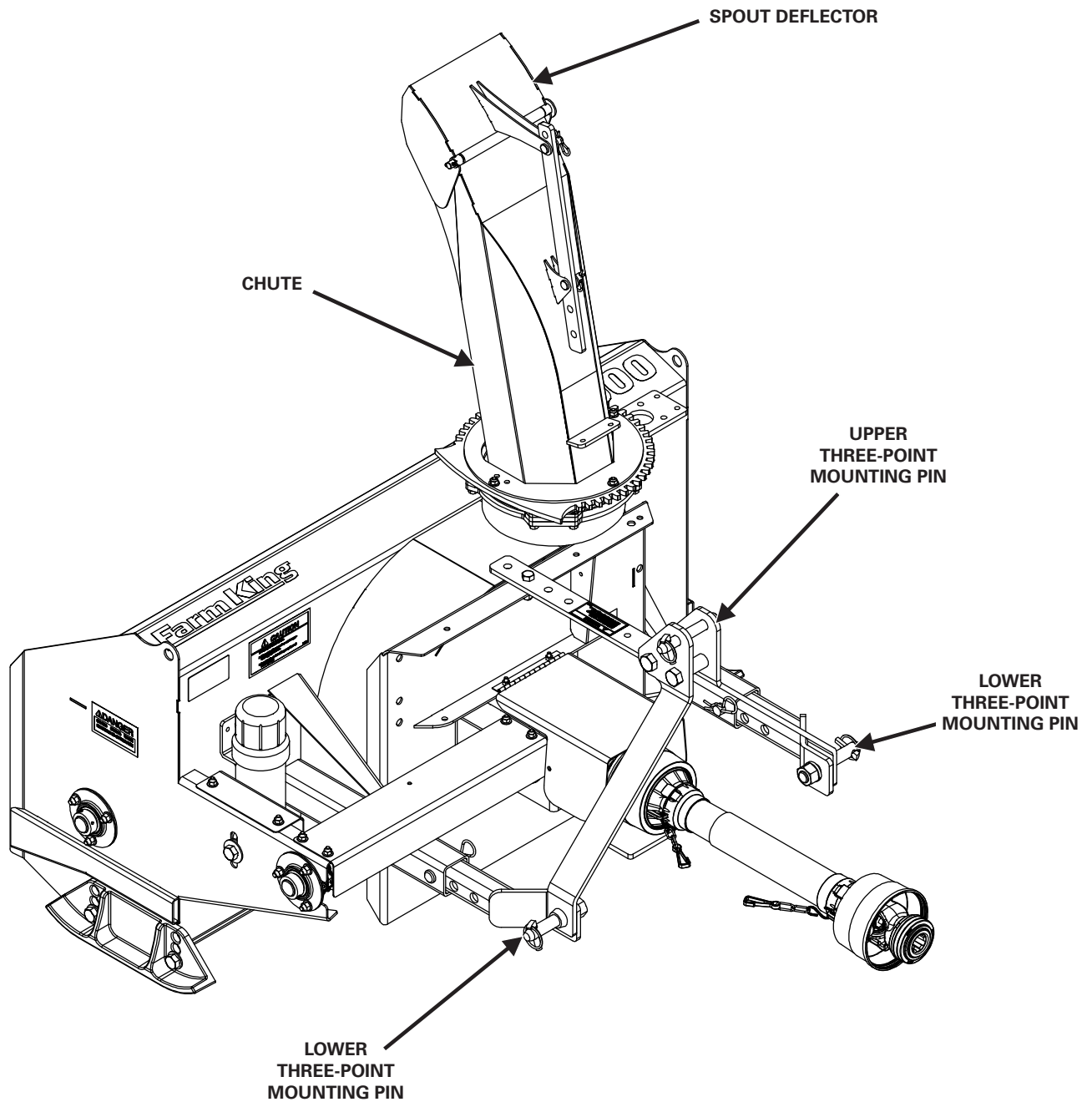
The operator and parts manual and other documents can be stored in the canister (Item 1) [Figure 2].

Equipment Identification

Component Location - Front View



Component Location - Rear View



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Safety

Safety Instructions.....	13
Safe Operation is The Operator's Responsibility.....	13
Safe Operation Needs A Qualified Operator.....	13
Use Safety Rules.....	14
Safety Rules For Power Take-Off (PTO) Driven Equipment.....	14
Machine Requirements And Capabilities.....	15
Transport Safety.....	15
Fire Prevention.....	16
Maintenance.....	16
Operation.....	16
Starting.....	16
Electrical.....	16
Hydraulic System.....	16
Fueling.....	16
Welding And Grinding.....	17
Fire Extinguishers.....	17
Safety Signs (Decals).....	18
Equipment Decals And Signs.....	19
Safety Sign-Off Form.....	20

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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.

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 machine signs (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.

Use 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.
- 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 / towing vehicle.
- Make sure all the machine controls are in the NEUTRAL position before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator And Parts Manual.
- 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 / transport vehicles.
- 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.
- Stop tractor engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, unplugging or filling.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- Keep hands, feet, hair and clothing away from all moving parts.

Safety Rules For Power Take-Off (PTO) Driven Equipment

- Keep PTO shields and all guards in place. Replace damaged or missing shields and guards before operating.
- Follow warnings and instructions on machine signs (decals). Replace damaged or missing decals.
- Do not wear loose or bulky clothing around the PTO or other moving parts.
- Keep bystanders away from PTO driven equipment, and never allow children near machines.
- Read and understand the manuals for the PTO driven equipment and be aware of safe operating procedures and hazards that may not be readily apparent.
- Never operate over 540 rpm.
- Always walk around equipment to avoid coming near a turning PTO driveline. Stepping over, leaning across or crawling under a turning PTO driveline can cause entanglement.
- Position the machine and equipment hitch correctly to prevent driveline stress and separation.
- Use caution when turning. Turning too sharp can cause driveline damage.
- Use caution when raising PTO driven equipment.
- Excessive driveline angle can cause driveline damage. Use stops if needed.
- Maximum working PTO angle is 25°.

Machine Requirements And Capabilities

- Fasten seat belt securely. If equipped with a foldable Roll-Over Protective Structure (ROPS), only fasten seat belt when ROPS is up and locked. DO NOT wear seat belt if ROPS is down.
- 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. Starting a machine in gear can result in serious injury or death.
- Operate the machine and equipment from the operator's position only.
- The parking brake must be engaged before leaving the operator's seat. Rollaway can occur because the transmission may not prevent machine movement.

Transport Safety

- Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.
- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.
- Local laws should be checked for all highway lighting and marking requirements.
- 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 / towing vehicle in a lower gear at all times when traveling down steep grades.
- Maintain proper brake settings at all times (if equipped).

Fire Prevention



Maintenance

- The machine and some equipment have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.
- Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard. The operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.
- All fuels, most lubricants and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

- The Farm King machine must be in good operating condition before use.
- Check all of the items listed on the service schedule under the 8 hour column before operation. (See Maintenance section)
- Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Starting

- Do not use ether or starting fluids on any engine that has glow plugs. These starting aids can cause explosion and injure you or bystanders.
- Use the procedure in the tractor's operator's manual for connecting the battery and for jump starting.

Electrical



- Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.
- Battery gas can explode and cause serious injury. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

Hydraulic System

- Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.
- Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Fueling



- Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Welding And Grinding

- Always clean the machine and equipment, disconnect the battery, and disconnect the wiring from the machine controls before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.
- Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.
- Dust generated from repairing nonmetallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

Fire Extinguishers

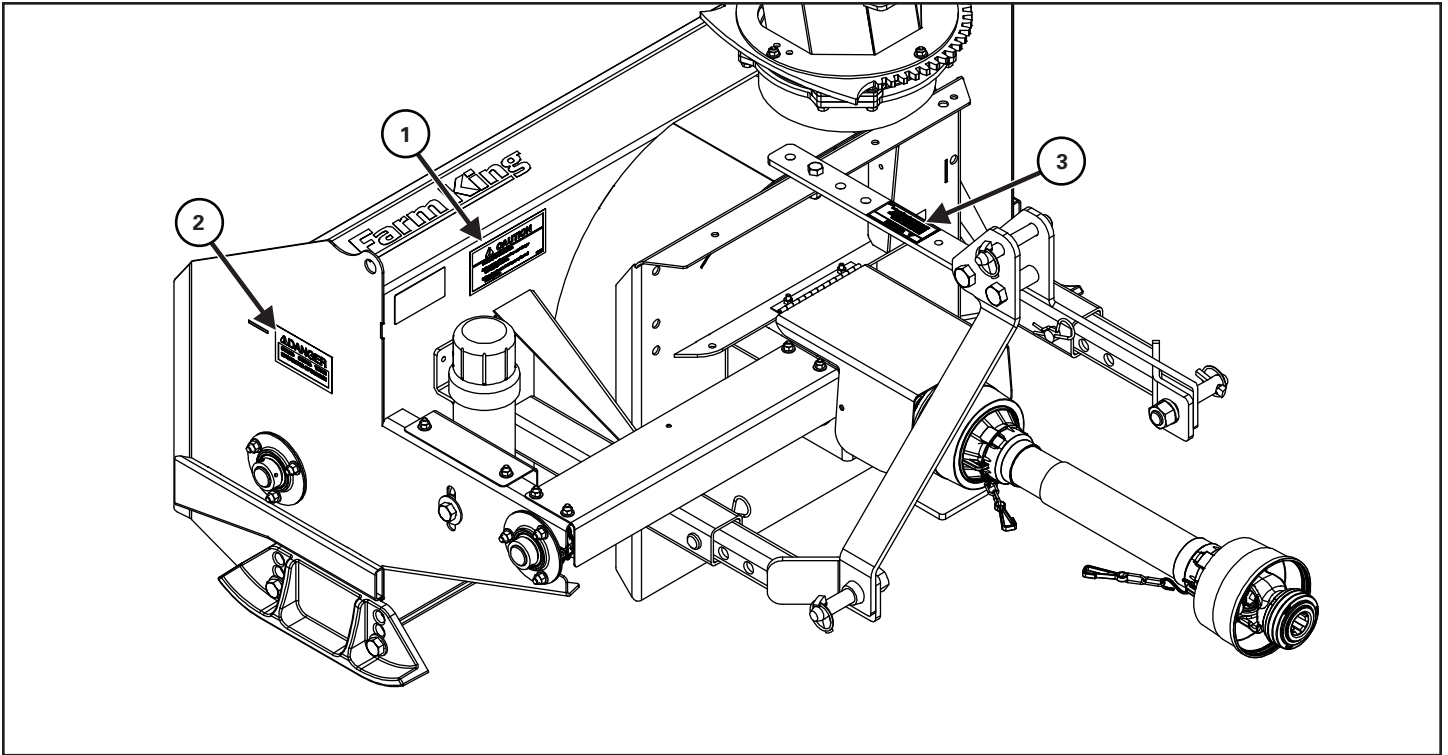


- Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

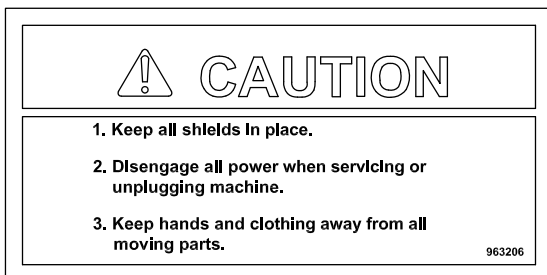
Safety Signs (Decals)

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



963206 (Item 1) [Figure 3]



102893 (Item 2) [Figure 3]



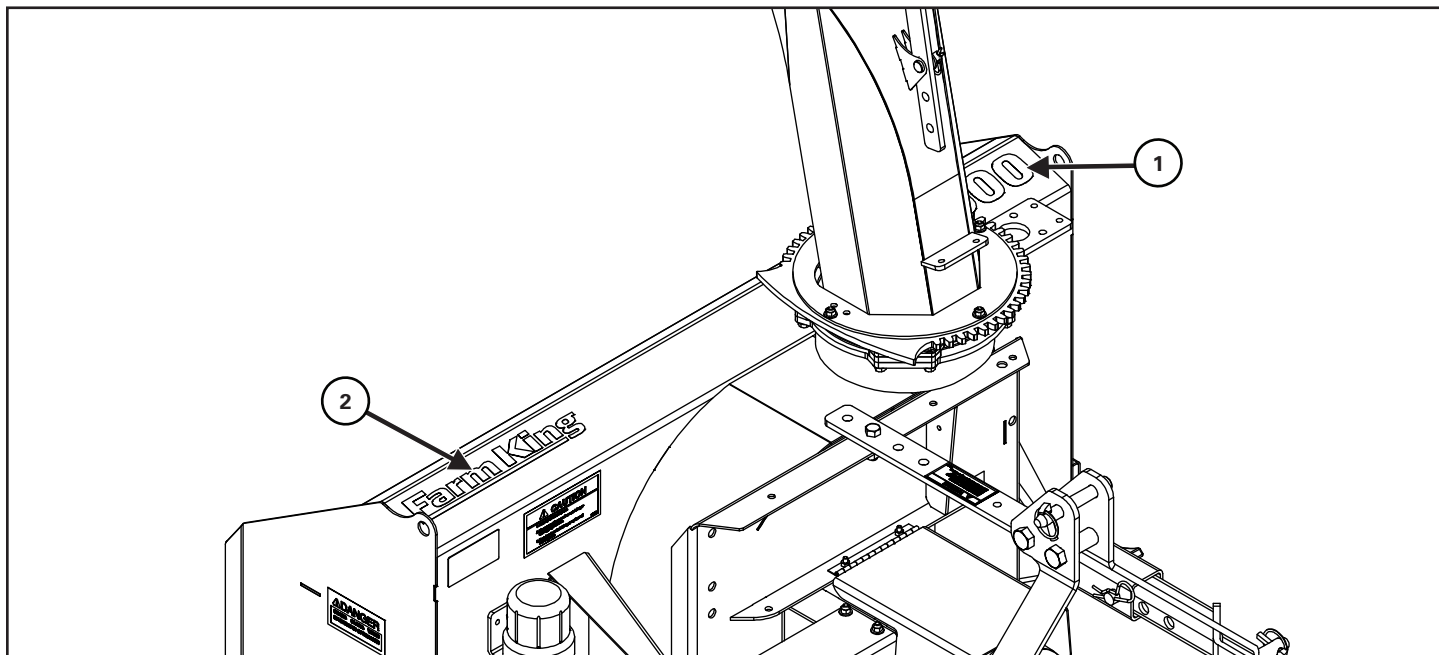
108431 (Item 3) [Figure 3]



Equipment Decals And Signs

Check and replace any worn, torn, missing, or hard to read decals on your equipment.

Figure 4



910619 (Item 1) [Figure 4]

500

910625 - 500 Models (Item 2) [Figure 4]

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910620 (Item 1) [Figure 4]

600

910626 - 600 Models (Item 2) [Figure 4]

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816563 (Item 1) [Figure 4]

660

910626 - 660 Models (Item 2) [Figure 4]

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817585 - Propeller Model Not Shown



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 snowblower 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

Preparing For Assembly.....	23
PTO Shield.....	24
Hitch Assembly.....	24
Discharge Spout.....	25
Mechanical Spout Rotator.....	27

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Preparing For Assembly

	IMPORTANT
Snowblowers are shipped without some components installed due to transport restrictions. • Using the packing list, locate and count the individual components and verify that you have received the correct number of each component. • Check all the components for damage. If any components are damaged or missing, contact your Farm King dealer.	

	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, snowblower and components to an area large enough for assembly.

	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.	

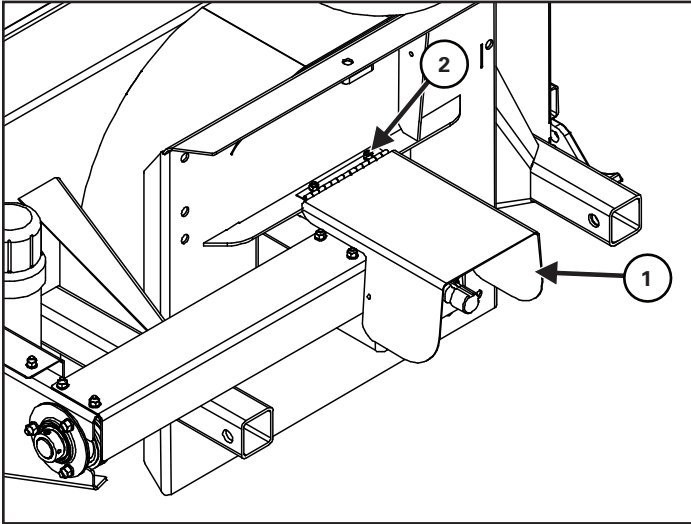
Park the tractor / equipment on a flat level surface.

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.

	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.	

PTO Shield

Figure 5

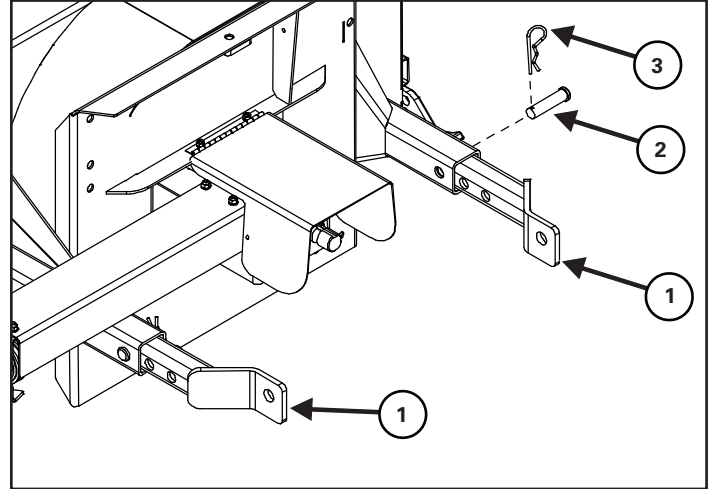


Bolt the PTO shield (Item 1) **[Figure 5]** to the top of the gearbox assembly using two 1/4" x 3/4" hex bolts (Item 2) **[Figure 5]** and two 1/4" lock nuts.

Hook one end of the spring in the hole in the back edge of the PTO shield and the other end of the spring in the hole punched in the edge of the gearbox assembly.

Hitch Assembly

Figure 6

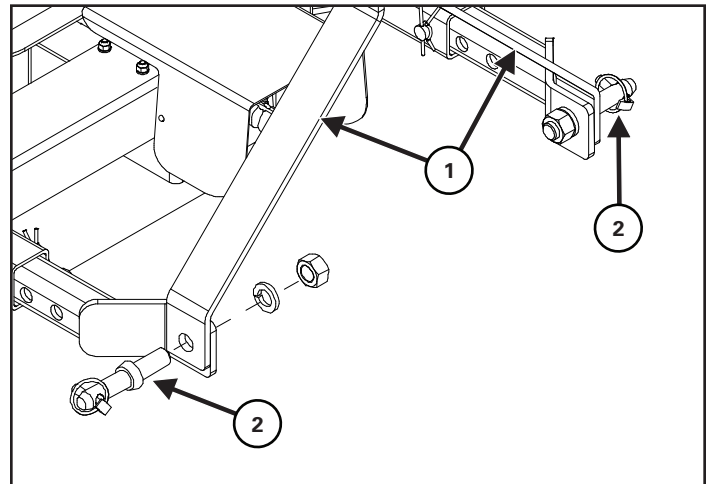


Align the right and left hitch tubes (Item 1) **[Figure 6]** with the welded sleeves on the main body.

Slide the tubes into the sleeves as shown, with the end brackets facing in. Each tube has four mounting holes, to be used depending on the tractor.

Attach each tube using one 3/4" x 3-1/4" pin (Item 2) **[Figure 6]** and hair pin clip (Item 3) **[Figure 6]**.

Figure 7

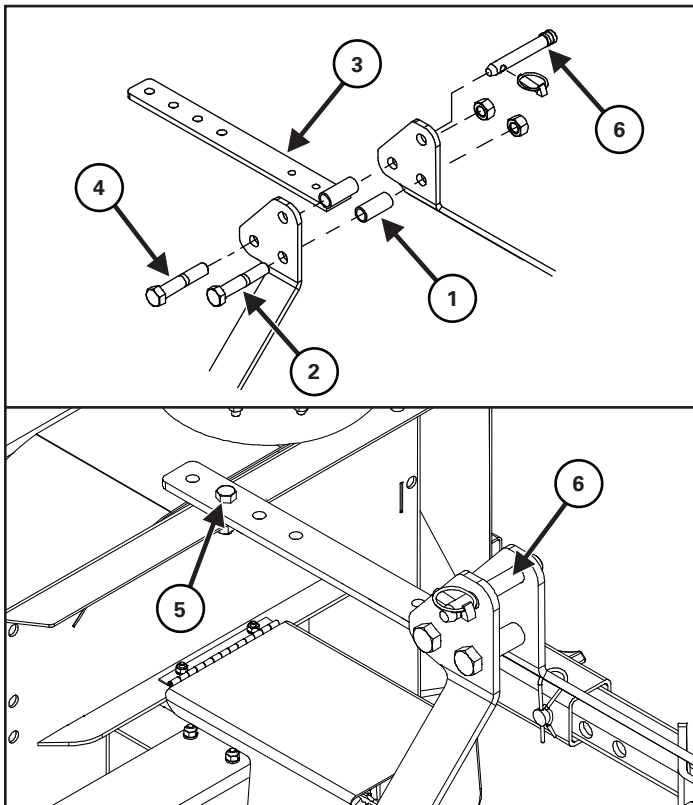


Align the left and right hitch arms (Item 1) **[Figure 7]** with the outside of the end brackets on the hitch tubes.

Attach each hitch arm with a Category 1 lift arm pin (Item 2) **[Figure 7]**, washer, and nut

The linch pin / lift arm pin should face out. Do not tighten any hardware until assembly is complete.

Figure 8



Attach the top brackets of the hitch arms by bolting a 1" x 2-1/4" spacer (Item 1) [Figure 8] between the top brackets with a 3/4" x 4" bolt (Item 2) [Figure 8] and lock nut. Use the bottom front holes on the brackets.

Attach the hitch top bar (Item 3) [Figure 8] between the top brackets by bolting the welded tube on the top bar between the top brackets with a 3/4" x 4" bolt (Item 4) [Figure 8] and lock nut. Use the bottom rear holes on the brackets.

Bolt the opposite end of the hitch top bar to the top of the main frame with a 1/2" x 1-3/4" hex bolt (Item 5) [Figure 8] and 1/2" lock nut. Use the same hole position as the hitch tubes.

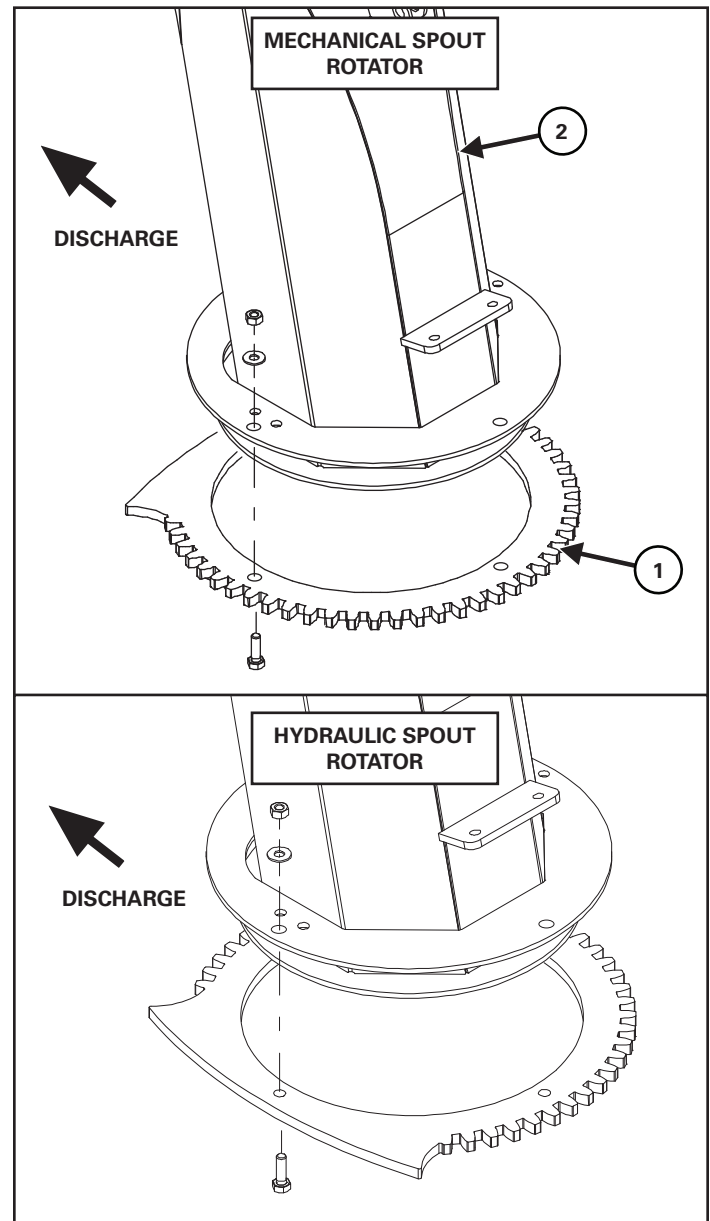
Tighten all hardware.

Attach a Category 1 top link pin (Item 6) [Figure 8] to the top holes of the top brackets.

The Category 1 pin is used for a standard three-point hitch only. The bushing in the lower hole is used for the Quick Hitch.

Discharge Spout

Figure 9



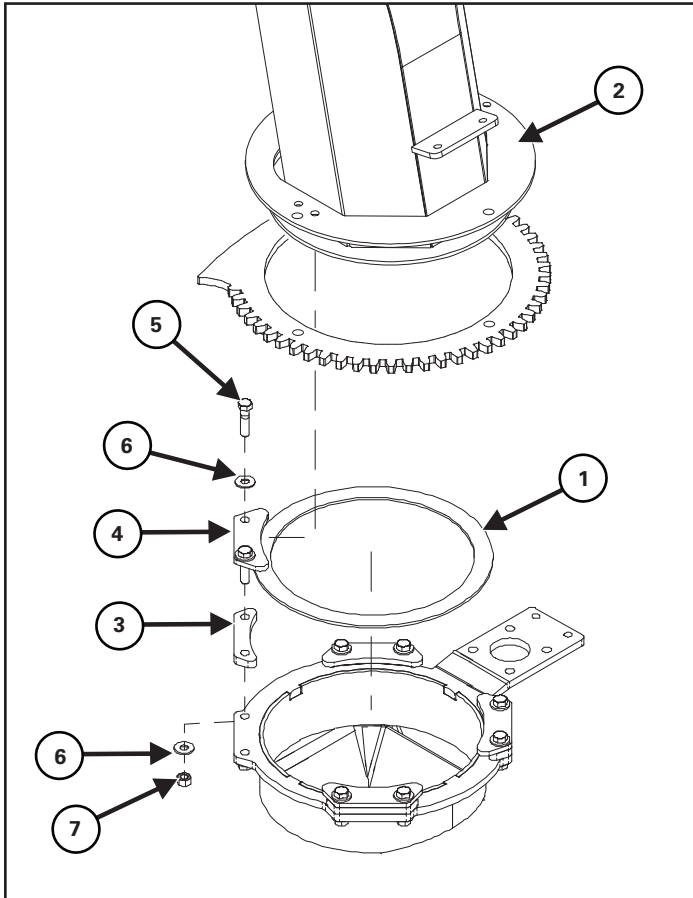
Align the geared spout ring (Item 1) to the bottom of the discharge spout (Item 2) [Figure 9].

Mechanical Spout Rotator: The smooth portion of the spout ring must face in the same direction as the discharge spout.

Hydraulic Spout Rotator: The smooth portion of the spout ring must face left of the discharge spout.

Attach the geared spout ring to the bottom of the discharge spout using four 5/16" x 1" hex bolts, four 5/16" flat washers, and four 5/16" lock nuts.

Figure 10



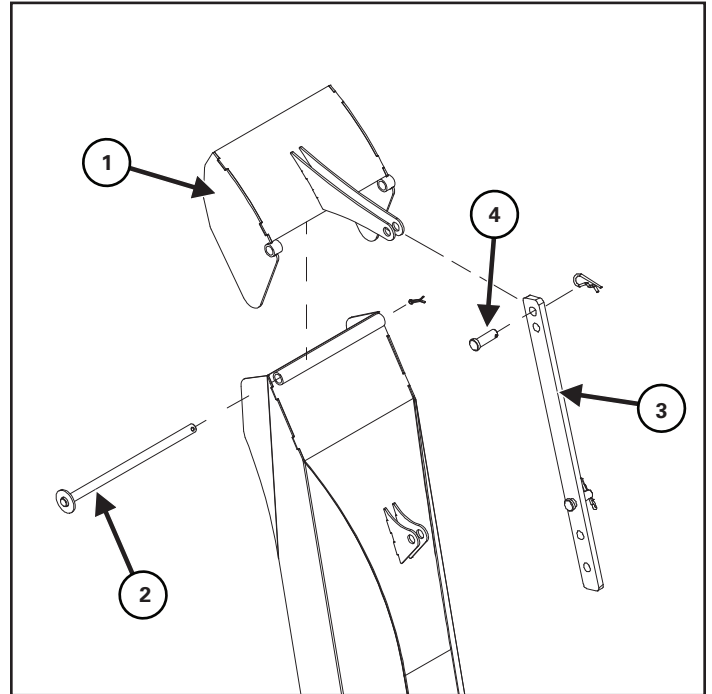
Align the plastic wear ring (Item 1) on the main frame mount. Align the discharge spout (Item 2) [Figure 10] on top of the wear ring on the main frame mount.

Place the four spacers (Item 3) and spout clamps (Item 4) [Figure 10] around the spout ring on the mounts.

Lubricate the spout ring and spout clamps using multipurpose lithium based grease.

Attach the spacers and clamps to the mounts using eight 3/8" x 1-1/2" bolts (Item 5), sixteen washers (Item 6), and eight lock nuts (Item 7) [Figure 10].

Figure 11

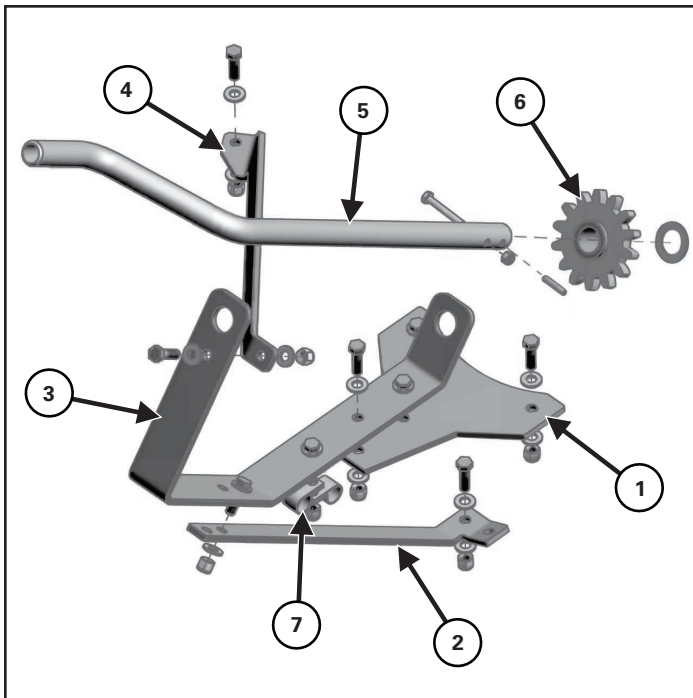


Install the spout deflector (Item 1) on the discharge spout. Attach using one hinge pin (Item 2) [Figure 11] and retaining pins.

Align the spout deflector adjustment rod (Item 3) on the mounts. Attach using two 1/2" x 1-1/2" clevis pins (Item 4) [Figure 11] and retaining pins.

Mechanical Spout Rotator

Figure 12



Assemble the mount brackets. Align two holes of the horizontal brace (Item 1) **[Figure 12]** to the main frame. Attach using one 3/8" x 1-1/4" bolt, two 3/8" washers, and one 3/8" lock nut for each hole.

Attach the crank bracket (Item 3) **[Figure 12]** to the horizontal brace through the two holes using one 3/8" x 1-1/4" bolt, two 3/8" washers, and one 3/8" lock nut for each hole.

Attach the P-clamp (Item 7) **[Figure 12]** to the underside of the crank bracket using one 3/8" x 1-1/4" bolt, one 3/8" washers, and one 3/8" lock nut.

Attach the side brace (Item 4) **[Figure 12]** to the main frame and to the crank bracket using one 3/8" x 1-1/4" bolt, two 3/8" washers, and one 3/8" lock nut for each hole.

Attach the vertical brace (Item 2) **[Figure 12]** to the main frame and to the underside of the crank bracket using one 3/8" x 1-1/4" bolts, two 3/8" washers, and one 3/8" lock nut for each hole.

Slide the crank handle (Item 5) **[Figure 12]** into the taller hole of crank bracket.

Install the gear (Item 6) **[Figure 12]** onto the end of the crank handle with hub facing the lower hole. Attach using one 1/4" x 2" bolt and one 1/4" lock nut.

Slide the end of crank handle into the lower hole of the crank bracket and align the gear with toothed spout ring. Attach with one 1" washer and roll pin onto the end of the crank handle.

The spout opening should face forward. The non-toothed smooth portion of the geared spout ring should face forward, on the side opposite of the hand crank.

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Operation

Pre - Operation Checklist.....	31
Entering The Operator's Position.....	31
Leaving The Operator's Position.....	31
Tractor Requirements.....	31
Connecting The Snowblower To Tractor.....	32
Connecting The Snowblower Using A Quick Hitch.....	33
Connecting The PTO Driveline.....	34
PTO Driveline Length Check.....	35
PTO Driveline Bottoming Out Check.....	35
Reducing The PTO Driveline Length.....	36
PTO Driveline Engagement Check.....	37
Connecting Hydraulic Hoses.....	38
Disconnecting Hydraulic Hoses.....	38
Adjusting Skid Shoe Height.....	39
Theory Of Operation.....	40
Transporting.....	41

Farm King



Pre - Operation Checklist

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

1. Lubricate the equipment per the schedule outline in the Maintenance Section.
2. Check the snowblower hitch for damaged, loose or missing parts. Repair as needed before operation.

Note: Do not operate with leaks.

3. Make sure that all guards and shields are in place, secured and functioning as designed.
4. Check condition of all hydraulic components for leaks. Repair as required.
5. Check that all electrical connections are tight.
6. Check the augers. Remove any twine, wire or other material that has become entangled.

	WARNING
	
HIGH PRESSURE FLUID HAZARD Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.	

Note: Do not operate with hydraulic leaks.

Entering The Operator's Position

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

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

Leaving The Operator's Position

Always perform the following steps when 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. • Wait for all moving parts to stop.	

Tractor Requirements

The tractor must satisfy the following requirements, depending on model:

- 500: 15 - 30 HP
- 600: 20 - 40 HP
- 660: 22 - 40 HP

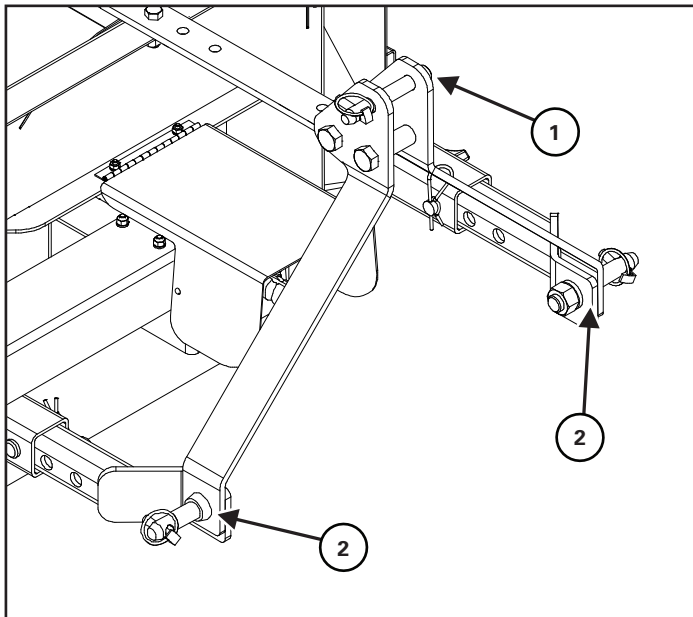
All tractors must be equipped with a Category 1 three-point hitch.

Connecting The Snowblower To Tractor

Always inspect the tractor's three-point hitch and snowblower's 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 snowblower operation. (See the tractor's operator's manual for the correct procedure.)

Figure 13



Remove the top implement mounting pin (Item 1) [Figure 13] and linch pin.

Remove the linch pins from the left and right lower mounts (Item 2) [Figure 13].

Enter the operator's position (See "Entering The Operator's Position" in Operation section).

Move the tractor into position in front of the snowblower.

Move the tractor backwards, aligning the tractor's three-point hitch and snowblower three-point mounts.

Leave the operator's position (See "Leaving The Operator's Position" in Operation section).



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.

Install the left and right lower three-point mounts of the tractor to the snowblower left and right lower mounting pins.

Reinstall the linch pins.

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

Lower the top link of the three-point hitch until it aligns with the implement upper mount.

Reinstall the mounting pin and linch pin.

Note: It may be necessary to lengthen or shorten the top link to align it with the implement mounting hole. (See the tractor's operator's manual for the correct procedure.)

The implement can be leveled front to back by adjusting the top link. (See the tractor's operator's manual for the correct procedure.)

Adjust the lower link sway chains or blocks on the tractor to restrict side movement of the snowblower when operating.



IMPORTANT

Excessive backward tilt may cause the "U" joints to flutter resulting in PTO shear bolt failure.



WARNING



AVOID INJURY OR DEATH

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

Connecting The Snowblower Using A Quick Hitch

Align the lower left link arm with the mounting pin.

Slide the ball over the pin and install the linch pin.

Use the screw jack on the right lift arm to align the ball with the pin.

Slide the ball over the mounting pin and install the linch pin.

Level the frame using the screw jack.

Remove the retainer and pin from the mast.

Align top link using the turnbuckle.

Insert pin and install linch pin.

Level frame using the turnbuckle.

Connecting The PTO Driveline

Stop the engine and leave the operator's position (See "Leaving The Operator's Position" in Operation section).



WARNING

AVOID INJURY OR DEATH

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause serious injury or death.

Note: Clean and grease tractor's PTO shaft and PTO driveline coupling each time driveline is connected.



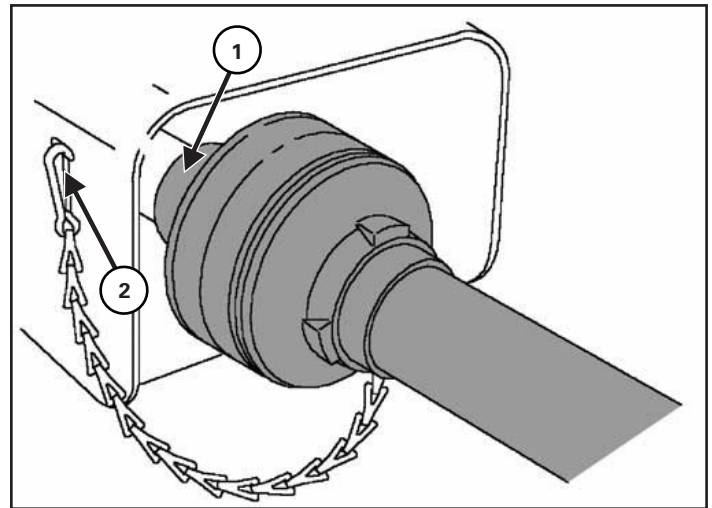
IMPORTANT

Improper hitch installation can cause PTO driveline damage.

- Do not modify the three point hitch.
- Make sure the PTO driveline is of adequate length and that u-joints are in the correct phase.

Remove the PTO driveline from the storage position (if applicable).

Figure 14



Retract the collar (Item 1) [Figure 14] and slide the PTO driveline onto the tractor PTO shaft. Release the collar and the driveline will lock onto the shaft. Push and pull the PTO driveline back and forth several times and make sure it is securely attached to the PTO shaft.

Install PTO driveline safety chain (Item 2) [Figure 14].

Note: The PTO driveline must have a means to retain it to the PTO shaft on the tractor.



WARNING



- Do NOT exceed 540 RPM PTO.
- Keep PTO shields and all guards in place.
- Keep away from moving parts.
- Keep bystanders away.

PTO Driveline Length Check

Due to variations in distances between tractor PTO shafts and implement input shafts, drivelines may need to be shortened or a longer shaft may be required.

When fitting the implement to the tractor, the PTO driveline, with telescoping sections, must be inspected. When the sections are at the most compressed operating position, the sections must not "bottom out".

At its shortest length, there must be at least 2 in. (50.8 mm) of clearance between each section end and opposite section end at the most compressed operating position.

When the sections are at the most extended position, there must be sufficient engagement between the sections.

At its farthest operating extension, a minimum section engagement of 33% of shaft length must be maintained.



WARNING

AVOID INJURY OR DEATH

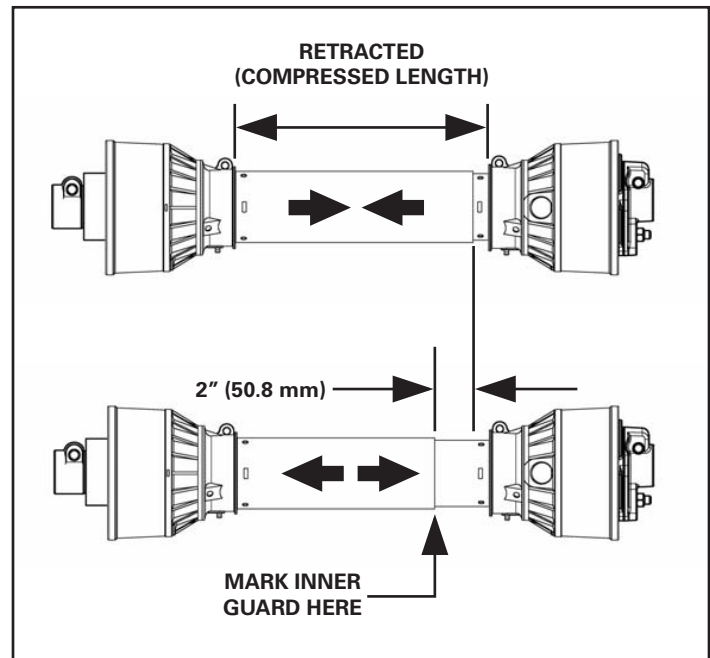
- Do NOT exceed the rated implement PTO speed.
- Stay clear of rotating driveline.
- Keep bystanders away.
- Keep hands, feet, clothing and long hair away.
- Keep PTO shields and all guards in place.
- Disengage PTO, move the tractor controls to the Neutral position, stop the engine and make sure all rotating components are stopped before leaving the operator's position.
- Do NOT service the tractor or implement with the PTO engaged.
- Do NOT service the implement in a raised position unless properly blocked and with all rotating components stopped.
- Disengage PTO for road travel.

PTO Driveline Bottoming Out Check

Stop the engine and leave the operator's position (See "Leaving The Operator's Position" in Operation section).

Make sure the PTO driveline and all rotating components have come to a complete stop before leaving the operator's position (if applicable).

Figure 15



1. Disconnect the PTO driveline from the tractor and slide the PTO driveline together until fully retracted (compressed).
2. Measure the retracted (compressed) length of PTO driveline [Figure 15].
3. Extend the PTO driveline 2 in. (50.8 mm) from the retracted length and place a mark on the inner guard at the end of the outer guard [Figure 15].
4. Reattach the PTO driveline to the tractor PTO shaft.
5. Enter the operator's position. Start the engine.
6. With the rear PTO DISENGAGED, raise and lower the implement and watch the PTO driveline extend and retract.
7. If the outer PTO driveline guard slides in (retracts) over the mark at any point of travel, the PTO driveline needs to be shortened.

Reducing The PTO Driveline Length

Stop the engine and leave the operator's position (See "Leaving The Operator's Position" in the Operation section). Make sure the PTO driveline and all rotating components have come to a complete stop before leaving the operator's position.



WARNING

AVOID INJURY OR DEATH

- Do NOT exceed the rated implement PTO speed.
- Stay clear of rotating driveline.
- Keep bystanders away.
- Keep hands, feet, clothing and long hair away.
- Keep PTO shields and all guards in place.
- Disengage PTO, move the tractor controls to the Neutral position, stop the engine and make sure all rotating components are stopped before leaving the operator's position.
- Do NOT service the tractor or implement with the PTO engaged.
- Do NOT service the implement in a raised position unless properly blocked and with all rotating components stopped.
- Disengage PTO for road travel.

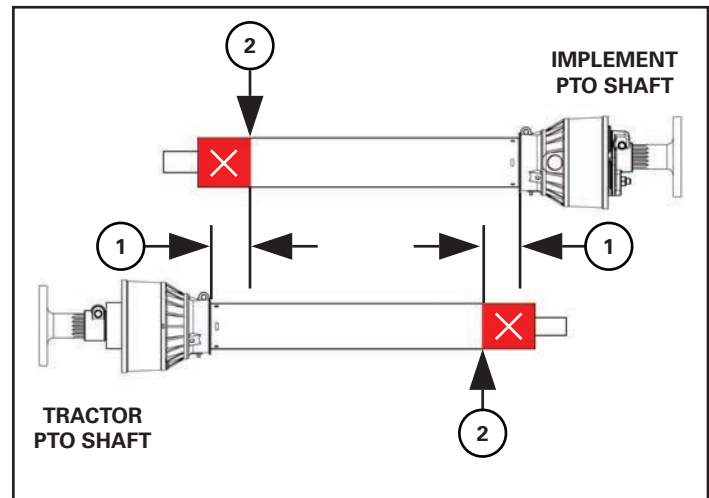
Remove the PTO driveline from the tractor and place in storage position (if equipped).

Enter the operator's position (See "Entering The Operator's Position" in the Operation section). Start the engine.

Raise or lower the three-point implement to get the shortest distance between the tractor PTO shaft and three-point implement gearbox PTO shaft. Stop the engine and leave the operator's position.

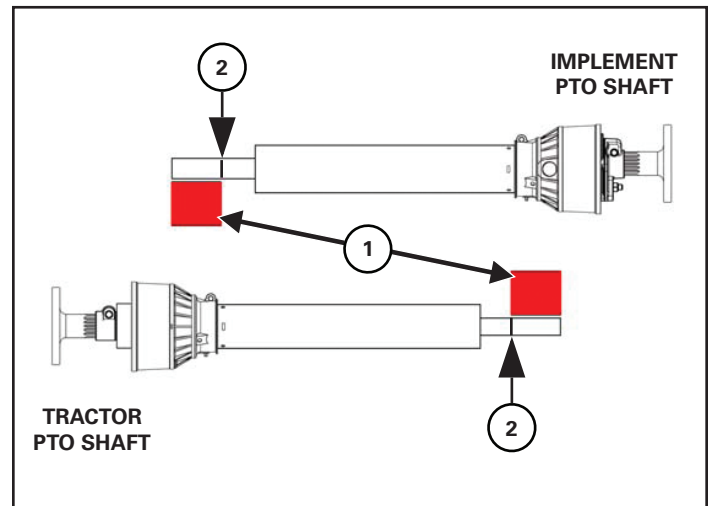
Pull the PTO driveline apart and reinstall each individual section; one half to the tractor PTO shaft and one half to the implement gearbox PTO shaft.

Figure 16



1. Hold PTO driveline sections parallel to one another and measure back 2 in. (50.8 mm) (Item 1) [Figure 16] from the yoke of each section and place mark on opposite section. Cut the plastic shield at this length (Item 2) [Figure 16].

Figure 17



2. Using the plastic guard lengths that were cut off in [Figure 16], align the cut off lengths (Item 1) [Figure 17] with the end of the inner & outer shafts. Place a mark (Item 2) [Figure 17] on the inner & outer shafts and cut the inner & outer shafts off at this length.
3. Round off all sharp edges and deburr.
4. Thoroughly grease and install the PTO driveline halves together.
5. Recheck for proper operation.

PTO Driveline Engagement Check

Stop the engine and leave the operator's position (See "Leaving The Operator's Position" in the Operation section).

Make sure the PTO driveline and all rotating components have come to a complete stop before exiting the tractor.

	WARNING
AVOID INJURY OR DEATH	
• Do NOT exceed the rated implement PTO speed. • Stay clear of rotating driveline. • Keep bystanders away. • Keep hands, feet, clothing and long hair away. • Keep PTO shields and all guards in place. • Disengage PTO, move the tractor controls to the Neutral position, stop the engine and make sure all rotating components are stopped before leaving the operator's position. • Do NOT service the tractor or implement with the PTO engaged. • Do NOT service the implement in a raised position unless properly blocked and with all rotating components stopped. • Disengage PTO for road travel.	

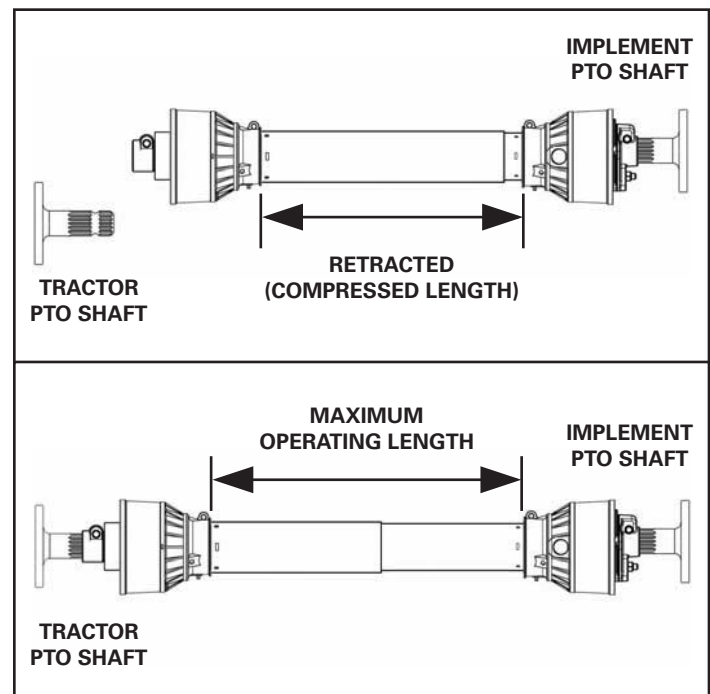
1. Disconnect the PTO driveline from the tractor and fully slide the driveline sections together (retracted).
2. Measure the retracted (compressed) length of the PTO driveline between the bases of the plastic guards [Figure 18].
3. Multiply the retracted driveline length by 1.667 to determine the PTO driveline Maximum Operating Length. (i.e.: 25.5 in. (647.7 mm) x 1.667= 42.5 in. (1079.7 mm) Maximum Operating Length).
4. Attach the PTO driveline to the tractor PTO output shaft.
5. Enter the operator's position. (See "Entering The Operator's Position" in the Operation section)

6. With the PTO driveline attached, position the three-point implement to where the telescoping PTO driveline is at its maximum operating extension.
7. Stop the engine and leave the operator's position. Make sure the PTO driveline and all rotating components have come to a complete stop before leaving the operator's position.
8. Measure the length of the PTO driveline between the bases of the plastic shields [Figure 18] to determine the maximum operating length.

If the measured maximum operating length is less than the Maximum Operating Length calculation (from Step 3), the PTO driveline has adequate engagement

If the measured maximum operating length is equal to or more than the Maximum Operating Length calculation (from Step 3), the PTO driveline does not have adequate engagement and should be replaced with a longer driveline. See your Farm King dealer for available PTO drivelines.

Figure 18



Connecting Hydraulic Hoses

The snowblower may be equipped with the following hydraulic options, if applicable.

1. Hydraulic spout deflector
2. Hydraulic discharge chute

Push couplers into female couplers on the tractor until they are fully engaged and locked.

	WARNING
	
HIGH PRESSURE FLUID HAZARD To prevent serious injury or death from high pressure fluid: - Relieve pressure on system before repairing or adjusting. - Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands. - Keep all components in good repair.	

Disconnecting Hydraulic Hoses

Release pressure and pull the male couplers out to disconnect.

	WARNING
AVOID BURNS Hydraulic fluid, tubes, fittings and quick couplers can get hot when running equipment. Be careful when connecting and disconnecting quick couplers.	

	IMPORTANT
Contain and dispose of any oil leakage in an environmentally safe manner. Thoroughly clean the quick couplers before making connections. Dirt can quickly damage the system.	

Note: Make sure the quick couplers are fully engaged. If the quick couplers do not fully engage, check to see that the couplers are the same size and type.

Adjusting Skid Shoe Height

	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.	

Park the tractor and implement on a flat level surface.

Fully raise the snowblower.

Stop the engine and leave the operator's position. (See "Leaving The Operator's Position" in the Operation section). Make sure the PTO driveline and all rotating components have come to a complete stop before leaving the operator's position.

Place blocking under the snowblower. Position blocking away from skid shoes, allowing access to skid shoe mounting bolts and nuts.

Enter the operator's position. (See "Entering The Operator's Position" in the Operation section). Start the engine.

Lower the snowblower onto the blocking.

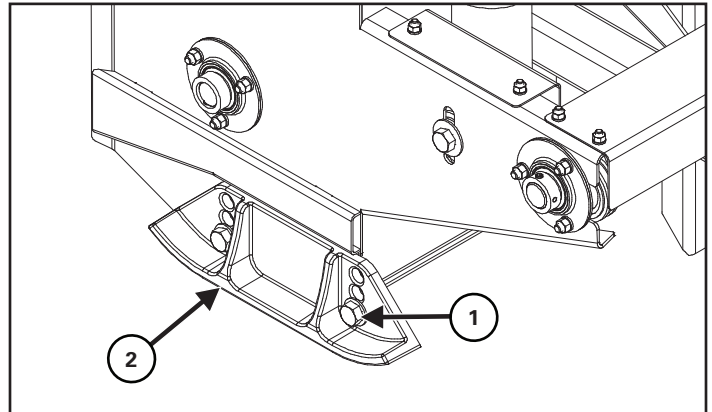
Stop the engine and leave the operator's position.

Skid Shoe Settings:

Decrease Working Depth - Lower skid shoes.

Increase Working Depth - Raise skid shoes.

Figure 19



Loosen bolt(s) and nut(s) (Item 1) [Figure 19] on the skid shoe (Item 2) [Figure 19]. Raise or lower the skid shoe to the desired depth setting. Reinstall bolts and nuts to secure the skid shoe in position.

Note: Skid shoes must be level from front to back.

Left and right skid shoes must be set at the same working depth.

Repeat procedure on opposite skid shoe.

Verify both skid shoes are set at the same depth setting.

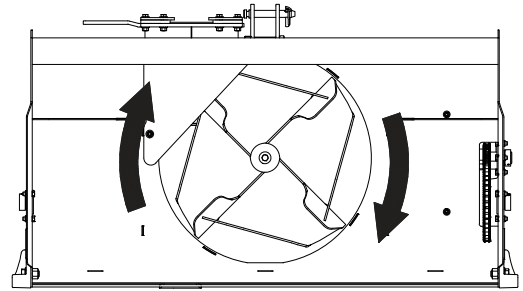
Theory Of Operation



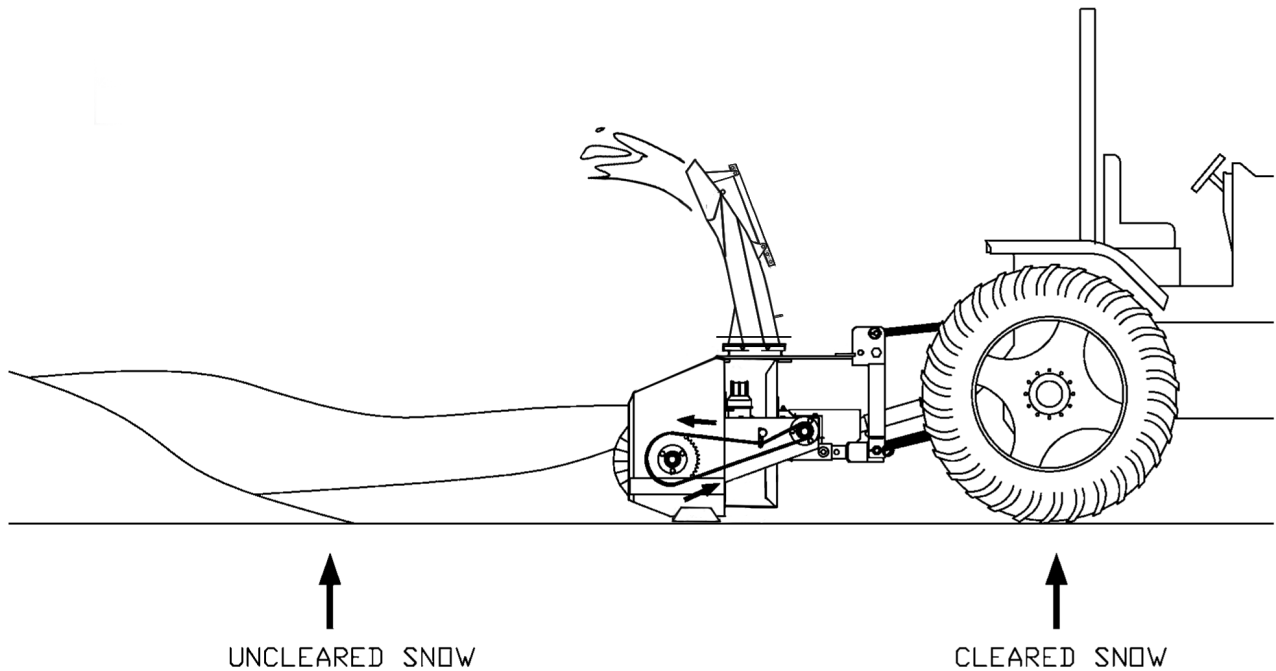
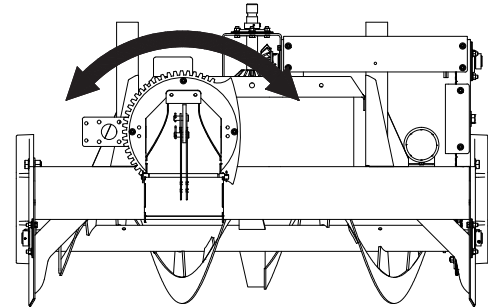
CAUTION

- Read operator and parts manual before operating the implement.
- Do not permit riders.
- Keep all guards and shields in place.
- Keep hands, feet, clothing and hair away from moving parts.
- Stop engine, set brake, remove key and wait for all moving parts to stop before servicing, adjusting, repairing and unplugging.
- Remove bystanders, especially children, before starting or while operating.
- Block up before working beneath unit.
- Review safety instructions annually.
- Operate only at 540 RPM.

FAN BLADE
ROTATION



SPOUT
ROTATION



Transporting

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

	WARNING
AVOID INJURY OR DEATH	
• Disengage PTO for road travel. • Keep PTO shields and all guards in place • Keep bystanders away. • Do not allow riders. • Always use hazard flashers on the tractor when transporting unless prohibited by law. • Always follow local regulations when transporting on public roadways. Check with your local authorities.	

	IMPORTANT
Never exceed 20 mph (32 kph).	

	WARNING
Use of an unapproved hitch or tractor / tow vehicle can result in loss of control, leading to serious injury or death. Tractor / tow vehicle and hitch must have the rated capacity to tow equipment.	

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

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
20 mph (32 kph)	Less than 1 to 1
10 mph (16 kph)	Less than 2 to 1
DO NOT TOW	More than 2 to 1

Farm King



Maintenance

Service Schedule Chart.....	45
Lubrication.....	46
Recommendations.....	46
Locations.....	46
Chains And Fasteners.....	48
Safety Sign (Decal) Installation.....	48
Storage And Return To Service.....	49
Storage.....	49
Return To Service.....	49

Farm King



Service Schedule 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 distributor, dealer or factory. Before you call, please have this Operator And Parts Manual and the serial number of your machine at hand.

Maintenance work must be done at regular intervals. Failure to do so will result in excessive wear and early failures. The service schedule is a guide for correct maintenance of the snowblower.

#	DESCRIPTION	SERVICE PROCEDURES					
		CHECK	CLEAN	LUBE	CHANGE	COVER	DRAIN
Daily Maintenance (or every 8 hours of use)							
1	PTO Cross and Bearings	✓		✓			
Weekly (or every 50 hours of use)							
2	PTO Telescoping Tubes			✓			
3	Slip Clutch Connector			✓			
4	PTO Quick Disconnect			✓			
5	Spout Ring & Clamps			✓			
6	Chain Drive			✓			
Annually (or every 500 hours of use)							
5	Driveline & Gears	✓		✓			
7	Machine	✓	✓				

Lubrication

Recommendations

Always use a good quality multi-purpose / lithium base grease when lubricating the equipment.

- Always use a hand-held grease gun.
- Clean fitting before greasing, to avoid injecting dirt and grit.
- Replace and repair broken fittings immediately.
- If fittings will not take grease, remove and clean thoroughly. Replace fitting if necessary.

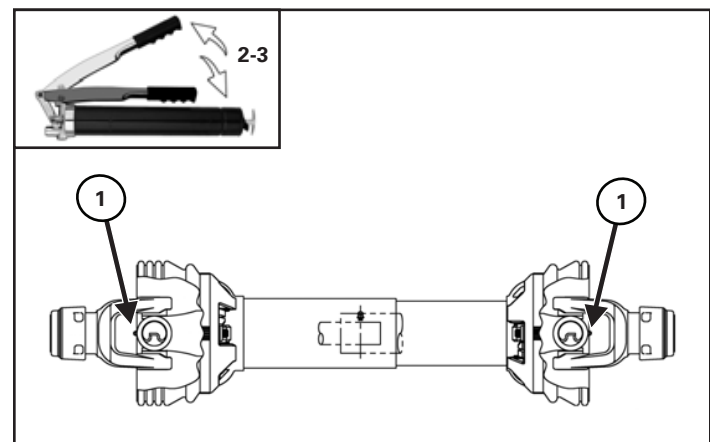
	WARNING
AVOID INJURY OR DEATH	
Stop engine, set brake, remove ignition key, and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.	
Support the equipment with blocks or safety stands before working beneath it.	
Follow good shop practices: • Keep service area clean and dry • Be sure electrical outlets and tools are properly grounded • Use adequate light for the job.	
Use only tools, jacks, and hoists of sufficient capacity for the job.	
Replace and secure all shields removed during servicing before operating.	
Use heavy leather gloves to handle sharp objects.	
Check hydraulics regularly for leaks. Use cardboard to look for leaks, and use hand and eye protection.	
Relieve pressure on hydraulic system before repairing or adjusting.	

Locations

	IMPORTANT
Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.	

	IMPORTANT
Gearbox is open type and need not be greased or lubricated.	

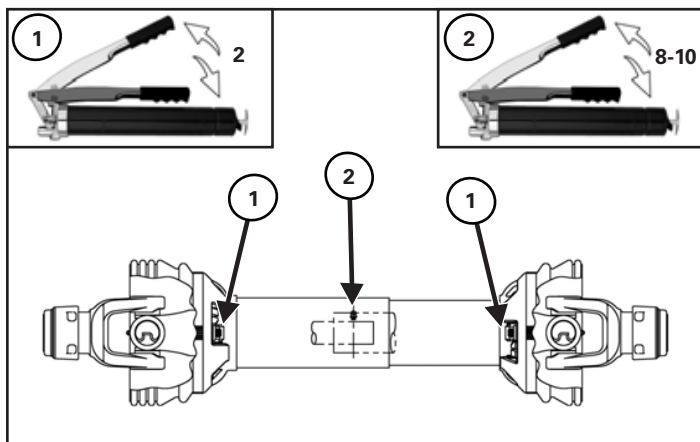
Figure 20



Apply two to three pumps of grease to the cross and bearings (Item 1) [Figure 20] on the PTO driveline. Grease every **8 hours** of use.

Note: Images may not show your exact PTO driveline but the procedure is correct.

Figure 21

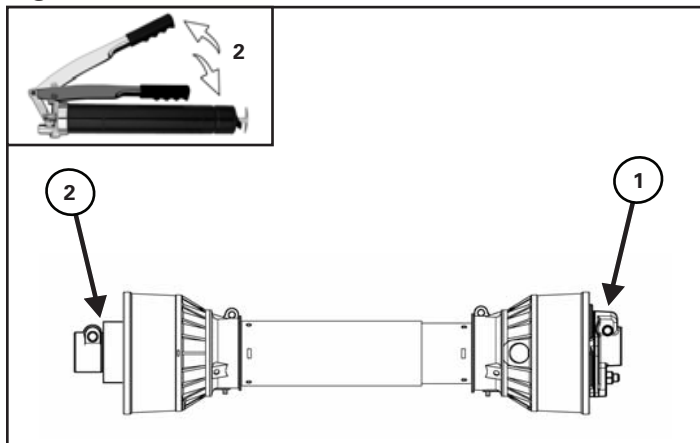


Apply two pumps of grease to the guard bushings (Item 1) [Figure 21].

Apply eight to ten pumps of grease to the telescoping member (Item 2) [Figure 21].

Grease every **10 - 20 hours** of use.

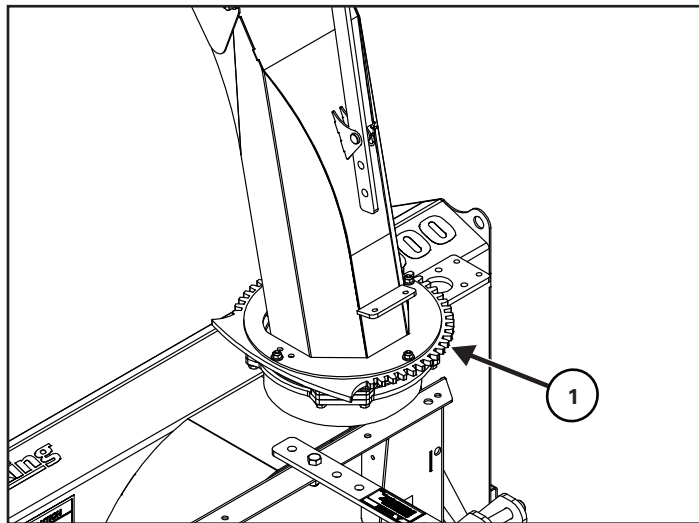
Figure 22



Apply two pumps of grease to the slip clutch (Item 1) [Figure 22] and PTO quick disconnect (Item 2) [Figure 22].

Grease every **10 - 20 hours** of use.

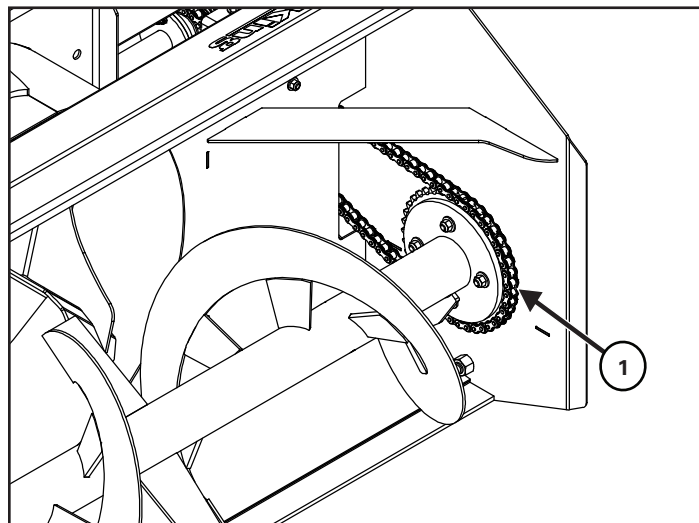
Figure 23



Apply grease to spout clamps and rings (Item 1) [Figure 23].

Grease every **50 hours** of use.

Figure 24



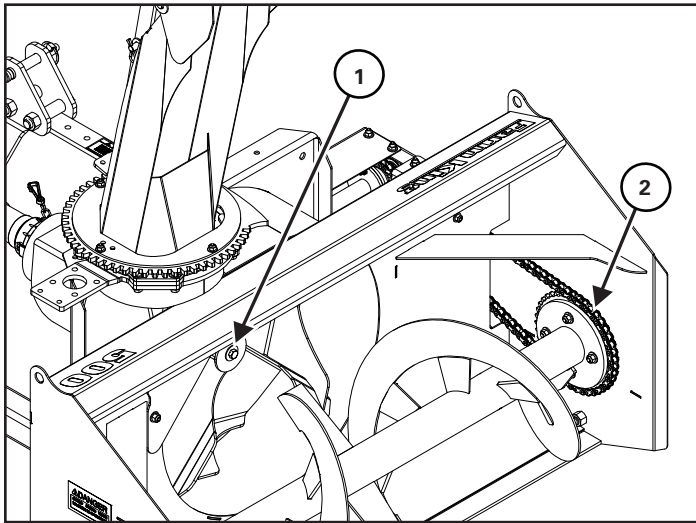
Apply chain lube to chain drive (Item 1) [Figure 24].

Lubricate every **50 hours** of use.

Chains And Fasteners

Periodically check all bolts and fasteners for tightness.

Figure 25



Check the main fan bolt (Item 1) [Figure 25] for tightness.

Check the tension in the drive chain (Item 2) [Figure 25]. Slack on the lower side of the chain should be 3/8" to 1/2".

Check the shear bolts on the PTO driveline.

All models use 1/4" x 1" GR2 shear bolts.

Shear bolts should be fastened with a lock nut or two jam nuts. These bolts must be kept tight to prevent wear of the bolt and bolt holes.

Safety Sign (Decal) Installation



IMPORTANT

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

- Remove all portions of the damaged safety sign (decal).
- Thoroughly clean the area with adhesive remover and glass cleaner. Remove 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.

Storage And Return To Service

Storage

Sometimes it may be necessary to store your Farm King snowblower for an extended period of time. Below is a list of items to perform before storage.

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

- Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud, debris or residue.
- Lubricate all bushings to remove any water residue from washing.
- Remove any material that has become entangled around any moving part.
- Place hydraulic hoses or electrical connector (if applicable) in the storage brackets.
- 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.
- Support the jack / frame with planks 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.
- Repair as needed.

Farm King



Parts Identification

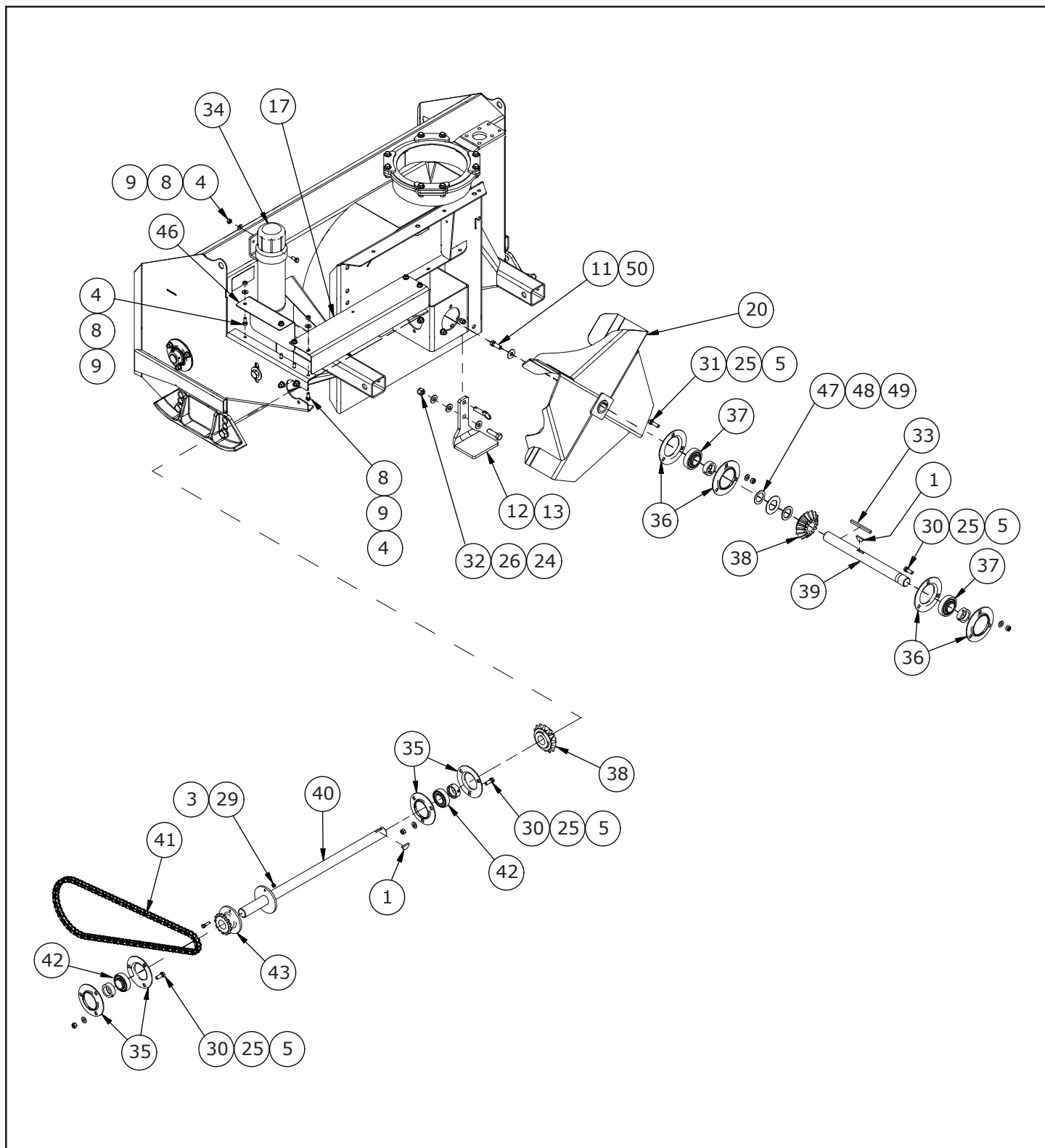
Main Components.....	53
Additional Components.....	57
Three-Point Hitch.....	58
Mechanical Spout Rotator (Option) - F1658.....	59
Hydraulic Spout Rotator (Option) - F1545.....	60
Hydraulic Spout Deflector Cylinder & Hose Kit (Option).....	61
PTO Shaft 500.....	62
PTO Shaft 600, 660.....	63

Farm King

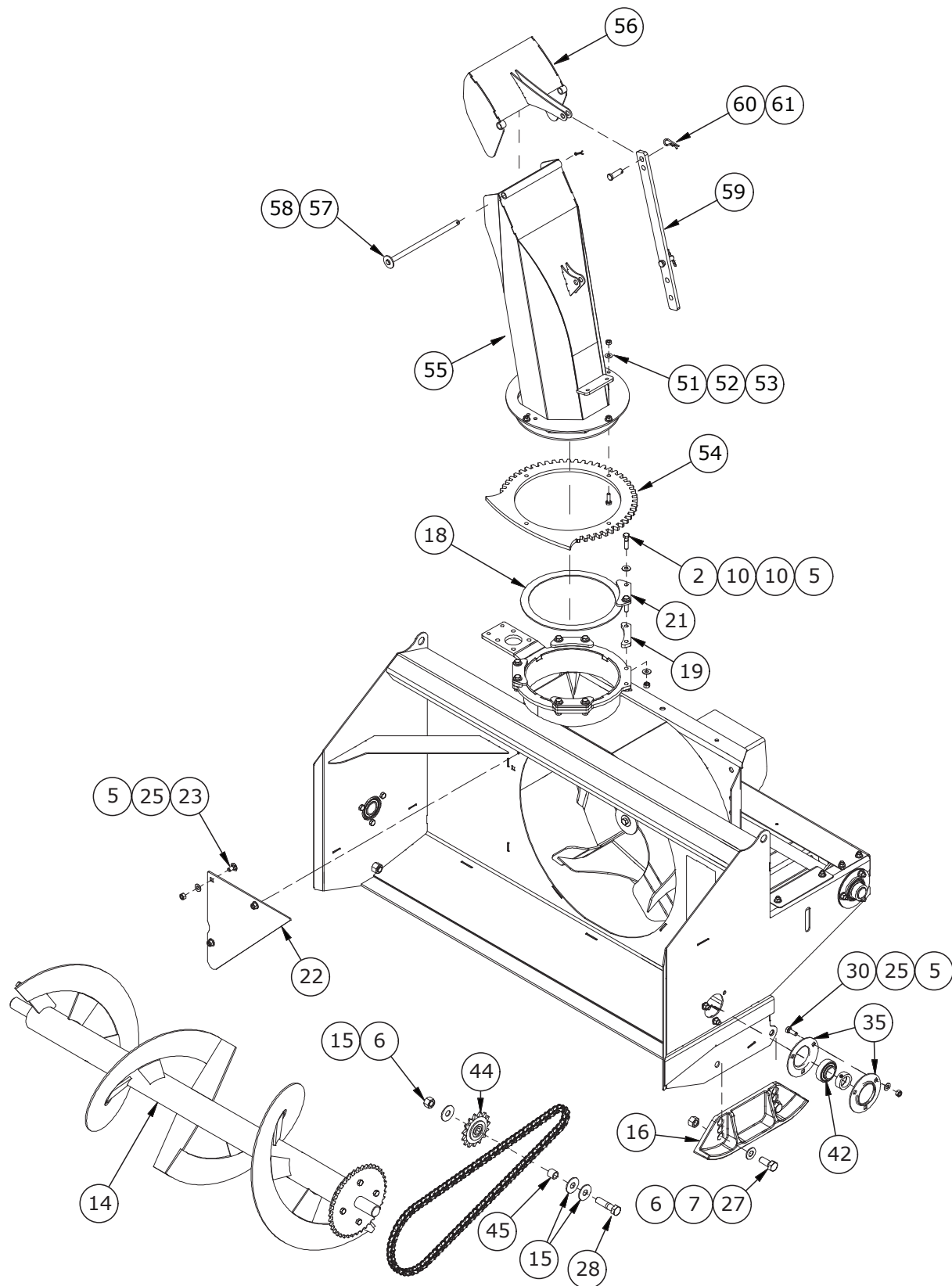


Main Components

Always give your dealer the Model, Color and Serial Number of your machine to assist them in ordering and obtaining the correct parts. Use the exploded view and tabular listing of the area of interest to exactly identify the required part.



Main Components Cont.



Main Components

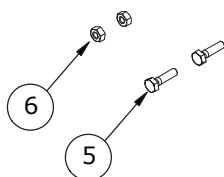
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	109343	WOODRUFF KEY #609 3/16" X 1 1/8"	2
2	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	8
3	812216	1/4" X 1" HEX BOLT GR2 (PL)	1
4	812362	5/16" LOCK NUT (PL)	8
5	812363	3/8" LOCK NUT (PL)	29
6	812482	5/8" LOCK NUT (PL)	5
7	812639	WASHER 0.625 SAE FLAT BS PL	4
8	81546	5/16" FLAT WASHER (PL)	8
9	81549	5/16" X 3/4" HEX BOLT (PL)	8
10	81570	WASHER - 5/16" STD FLAT (PL)	16
11	81598	7/16" X 1 1/4" HEX BOLT (PL)	1
12	816255	74 & 84 PARKING STAND	1
13	816268	1/2" X 1" (USABLE LENGTH) DETENT PIN	1
14	816568	50" AUGER ASSEMBLY, SPIRAL-AUGER	1
	817270	50" AUGER ASSEMBLY, PADDLE-AUGER	1
	901323	60" AUGER ASSEMBLY, SPIRAL-AUGER	1
	817269	60" AUGER ASSEMBLY, PADDLE-AUGER	1
	816545	66" AUGER ASSEMBLY, SPIRAL-AUGER	1
	817268	66" AUGER ASSEMBLY, PADDLE-AUGER	1
15	81678	5/8" FLAT WASHER STD (PL)	3
16	817162	SB CAST SKID SHOE	2
17	817468	DRIVE SHAFT GUARD - 50"	1
	817467	DRIVE SHAFT GUARD - 60"	1
	817466	DRIVE SHAFT GUARD - 66"	1
18	818313	SPACER - 50"/60"/66" SPOUT ROTATION	1
19	818779	PLATE - 50"/60"/66" SPOUT SPACER	4
20	818785	WELDMENT - 50"/60"/66" FAN 7GA	1
21	818799	PLATE - 50"/60"/66" SPOUT CLAMP	4
22	818985	PLATE - 50"/60"/66" FAN SHIELD	1
23	81914	3/8" X 1" CARRIAGE BOLT (PL)	3
24	81966	NUT LOCK (NYLON) 0.500NC PL	1
25	84039	WASHER - 3/8" SAE FLAT (PL)	21
26	84048	1/2" SAE FLAT WASHER (PL)	3
27	84268	5/8" X 1 1/2" HEX BOLT (PL)	4
28	84335	5/8 X 2 1/2" HEX BOLT (PL)	1
29	84498	1/4" LOCK NUT (PL)	1
30	86170	3/8" X 1" HEX BOLT GR.5 (PL)	15
31	86171	3/8" X 1 1/4" HEX BOLT (PL)	3
32	87553	1/2" X 1.75" HEX BOLT UNC GR5 (PL)	1
33	901331	FAN KEY 1/4" X 1/4" X 3 1/2"	1

Main Components Cont.

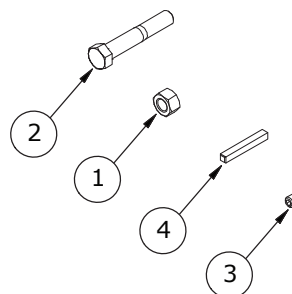
ITEM	PART NUMBER	DESCRIPTION	QTY.
34	909277	MANUAL HOLDER	1
35	961637	BEARING FLANGE 62MS	8
36	961675	BEARING FLANGE 72MS	4
37	961676	1 1/4" BEARING AEL207-104 (RHP #1230)	2
38	961882	1 1/4" BEVELED GEAR C 148	2
39	965069	BAR - 50"/60"/66" SB FAN SHAFT	1
40	965507	DRIVE SHAFT WELDMENT - 50"	1
	965613	DRIVE SHAFT WELDMENT - 60"	1
	816551	DRIVE SHAFT WELDMENT - 66"	1
41	965631	RCHAIN #50 X 94 LINK W/ CONN	1
42	965818	1 1/4" BEARING AEL206-104 (RHP #1230)	4
43	965826	SHEAR SPROCKET 13T #50 1 1/4" BORE	1
44	965844	IDLER SPRKT 15T #50	1
45	965928	BUSHING - 0.84"OD X 0.109"W X 0.75"	1
46	965968	14GA X 7 1/2" X 8" IDLER SHLD	1
47	9812440	1 1/4" X 18GA NR WASHER (BR)	1
48	9812441	1 1/4" X 14GA NR WASHER (BR)	1
49	9812442	1 1/4" X 10GA FLAT WASHER (BR)	1
50	981616	WASHER-1/2" STD FLAT PL	1
51	812026	5/16" X 1" HEX BOLT (PL)	4
52	812362	5/16" LOCK NUT (PL)	4
53	81546	5/16" FLAT WASHER (PL)	4
54	816672	50/60/66 SPOUT GEAR RING	1
55	818421	WELDMENT - 50"/60"/66"	1
56	818456	WELDMENT - 50"/60"/66" DEFLECTOR	1
57	818459	WELDMENT - 50"/60"/66" DEFELCTOR HINGE ROD	1
58	9812430	1/8" X 1" COTTER PIN (PL)	1
59	965646	1/2" X 1 1/4" X 18" ADJ BAR	1
60	961876	1/2" X 1 1/2" CLEV PIN (PL)	2
61	961012	#16 HAIR PIN CLIP	2

Additional Components

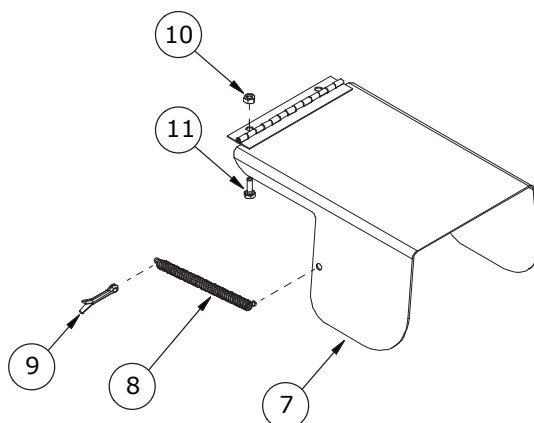
DRIVELINE SPARE SHEAR BOLTS



PTO ADDITIONAL HARDWARE

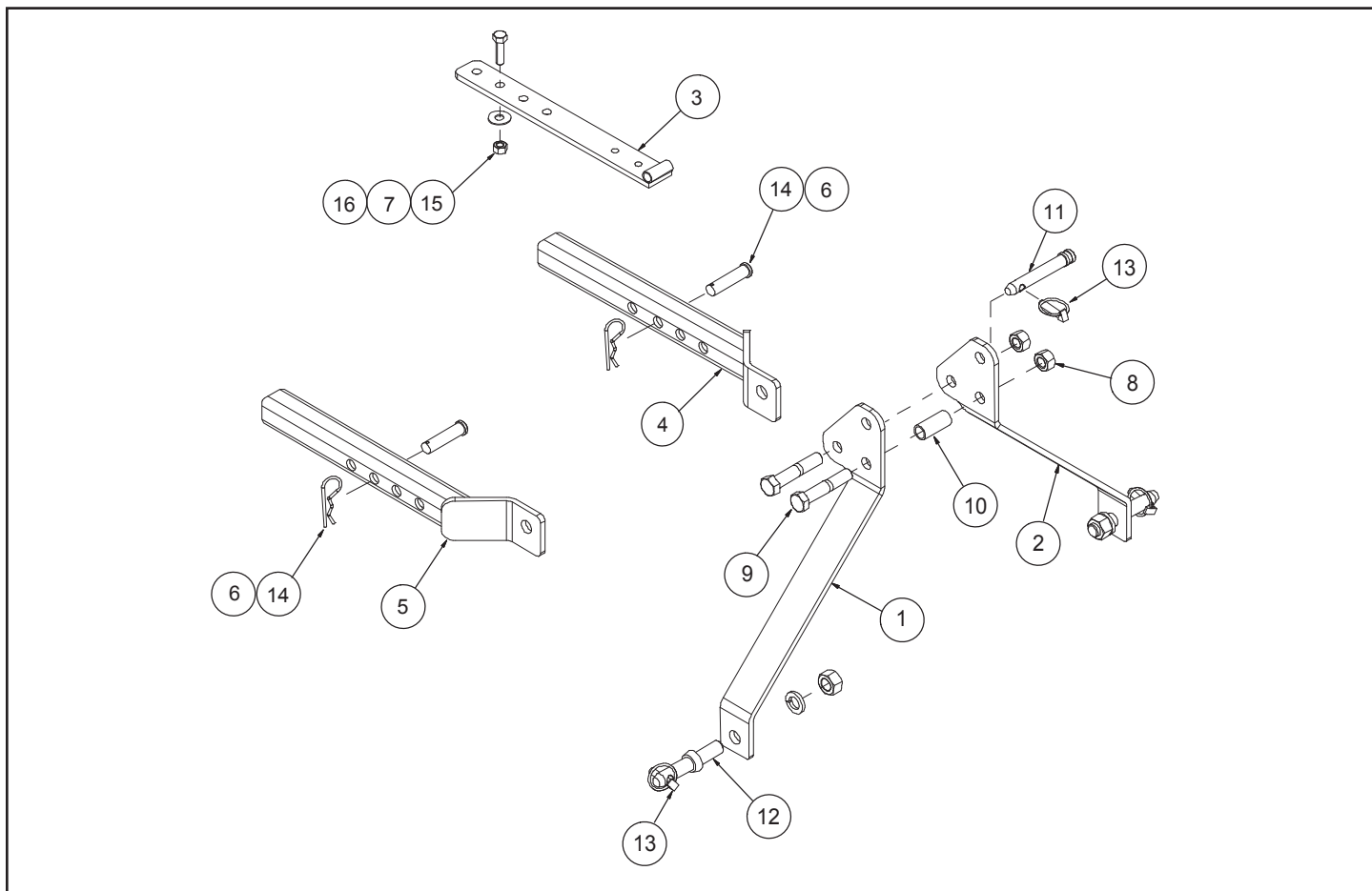


PTO SHIELD



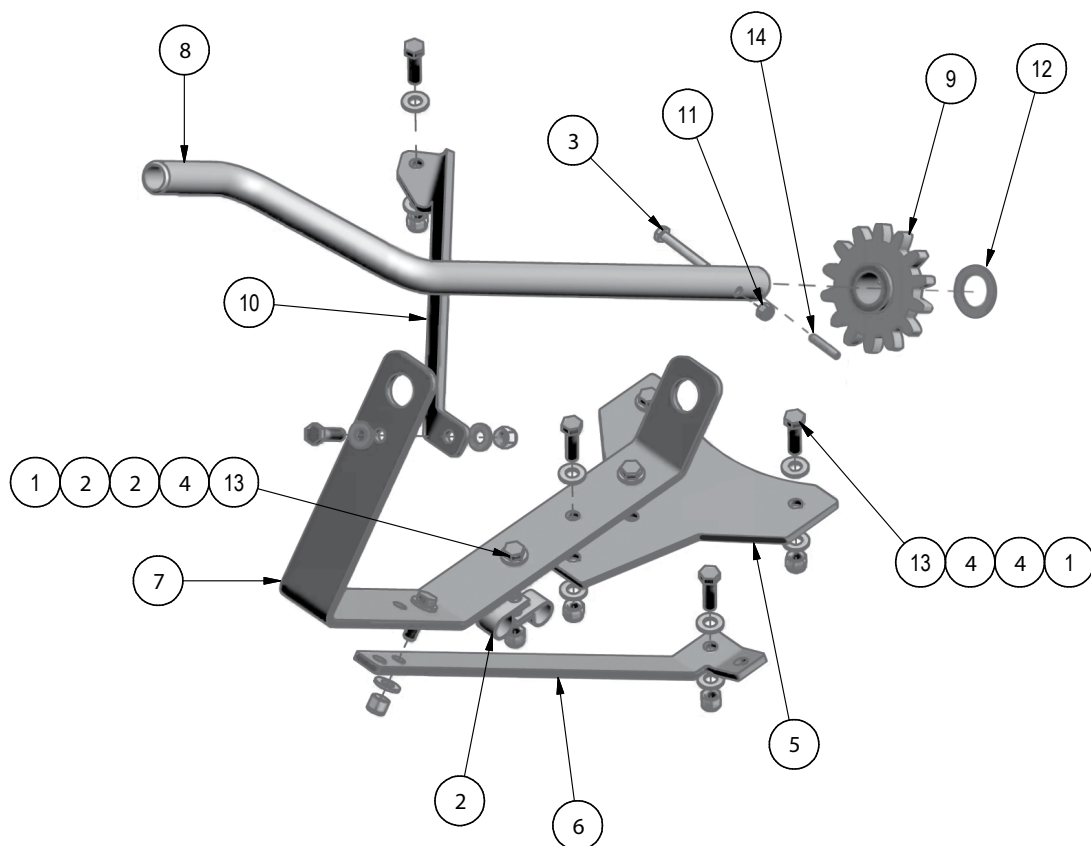
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812364	1/2" LOCK NUT (PL)	1
2	81627	1/2" X 3" HEX BOLT (PL)	1
3	988999	3/8"0 X 3/8" SOCKET SET SCREW (BR)	1
4	968811	1/4" SQ X 2" KEY	1
5	812216	1/4" X 1" HEX BOLT GR2 (PL)	2
6	84498	1/4" LOCK NUT (PL)	2
7	965643	GBOX LID WELDT- FARM KING	1
8	960135	PTO SHLD SPRG (#661)	1
9	9812434	1/4" X 1 1/2" COTTER PIN (PL)	1
10	84498	1/4" LOCK NUT (PL)	2
11	81525	1/4" X 3/4" HEX BOLT (PL)	2

Three-Point Hitch

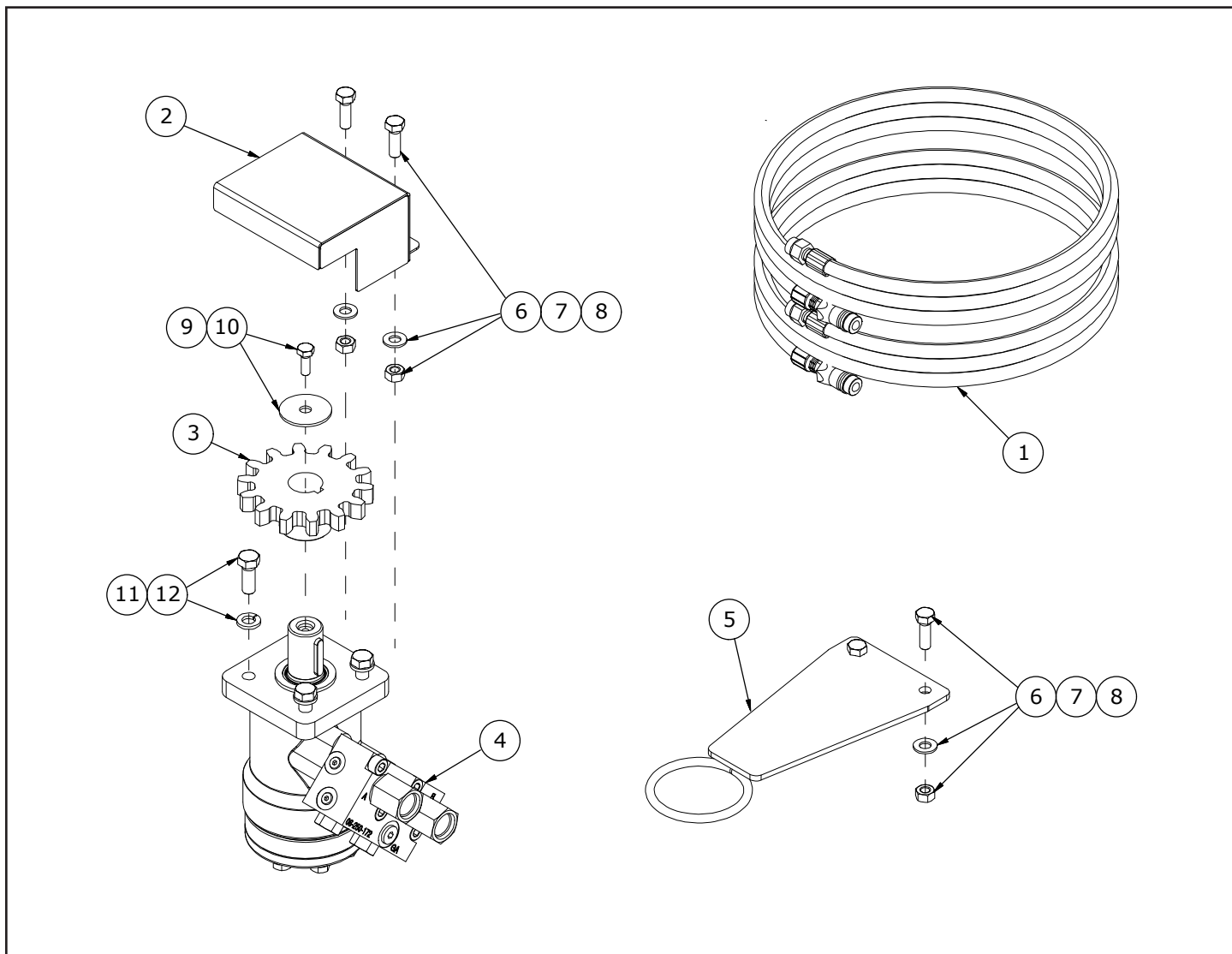


ITEM	PART NUMBER	DESCRIPTION	QTY.
1	815219	HITCH A-FRAME RHS	1
2	815218	HITCH A-FRAME LHS	1
3	907139	HTCHTOP BAR WELDT	1
4	907128	HTCHTUBE WELDT - L	1
5	907127	HTCHTUBE WELDT - R	1
6	12779	#9 HAIR PIN CLIP (PL)	2
7	812364	1/2" LOCK NUT (PL)	1
8	812365	3/4" LOCK NUT (PL)	2
9	84336	3/4" X 4" HEX BOLT (PL)	2
10	906770	HITCH SPACER 1"OD X 2 1/4"	1
11	965807	CAT. 1 TOP LINK PIN	1
12	965809	LIFT ARM PIN CAT 1 W/ NUT & WASHER	2
13	965911	7/16" LINCH PIN	3
14	965624	HITCH PIN	2
15	87553	1/2" X 1.75" HEX BOLT UNC GR5 (PL)	1
16	84048	1/2" SAE FLAT WASHER (PL)	1

Mechanical Spout Rotator (Option) - F1658

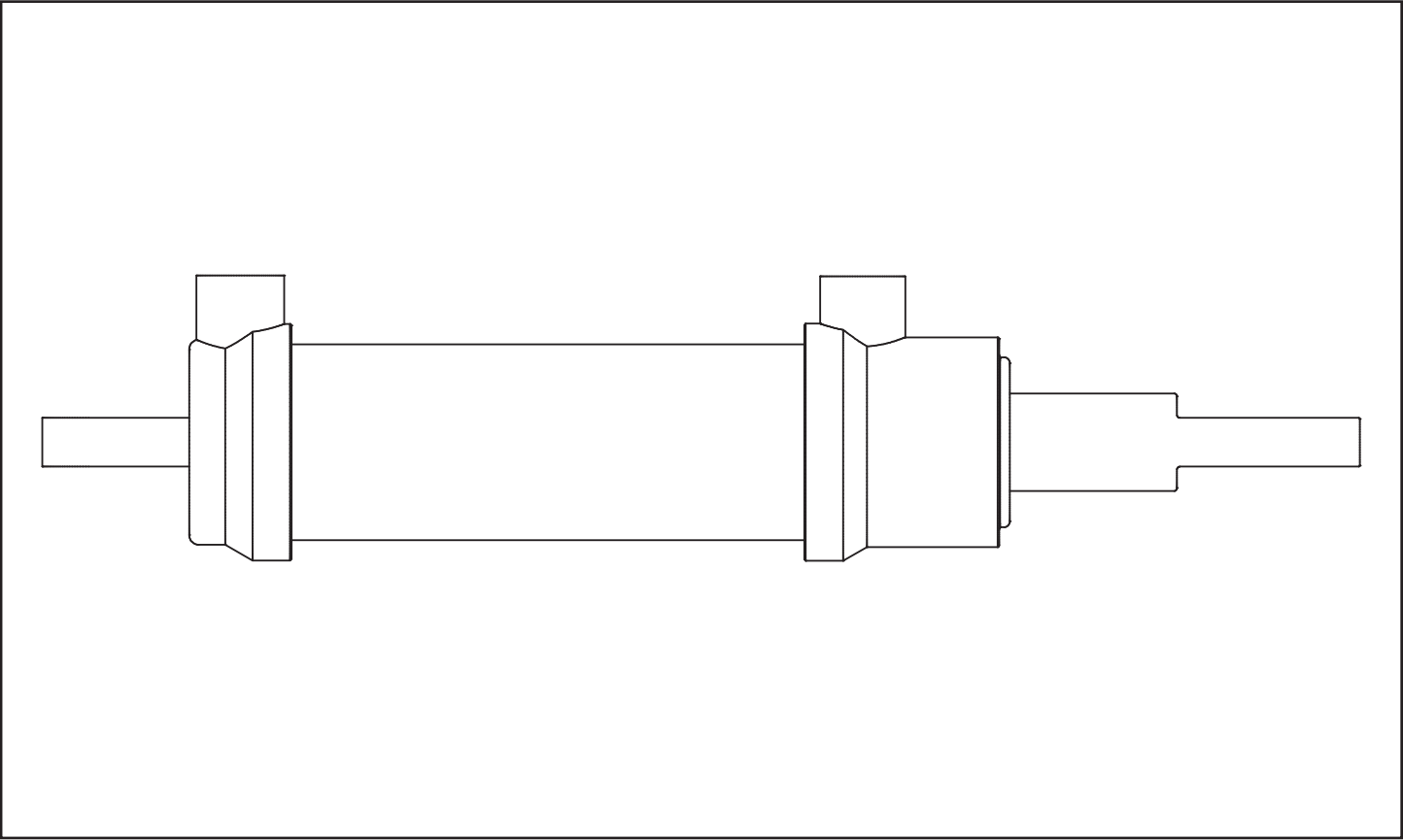


ITEM	PART NUMBER	DESCRIPTION	QTY.
1	81344	LOCK NUT (NYLON) 0.375 NC	9
2	815250	P-CLAMP FOR 3/4 OD, .406 HOLE	2
3	81531	BOLT HEX 0.25 NC X 2.00 GR5 PL	1
4	81570	WASHER 0.375 FLAT ST HS PL	17
5	816893	HORIZONTAL BRACE	1
6	816894	VERTICAL BRACE	1
7	816895	CRANK BRACKET	1
8	816896	CRANK HANDLE	1
9	816897	GEAR WELDMENT	1
10	816993	HAND CRANK - SIDE BRACE	1
11	81922	LOCK NUT (NYLON) 0.25 NC	1
12	84522	WASHER FLAT 1.00	1
13	86171	BOLT HEX 0.375 NC X 1.25	9
14	9812425	1/4" X 1-1/4" SPRING PIN	1

Hydraulic Spout Rotator (Option) - F1545

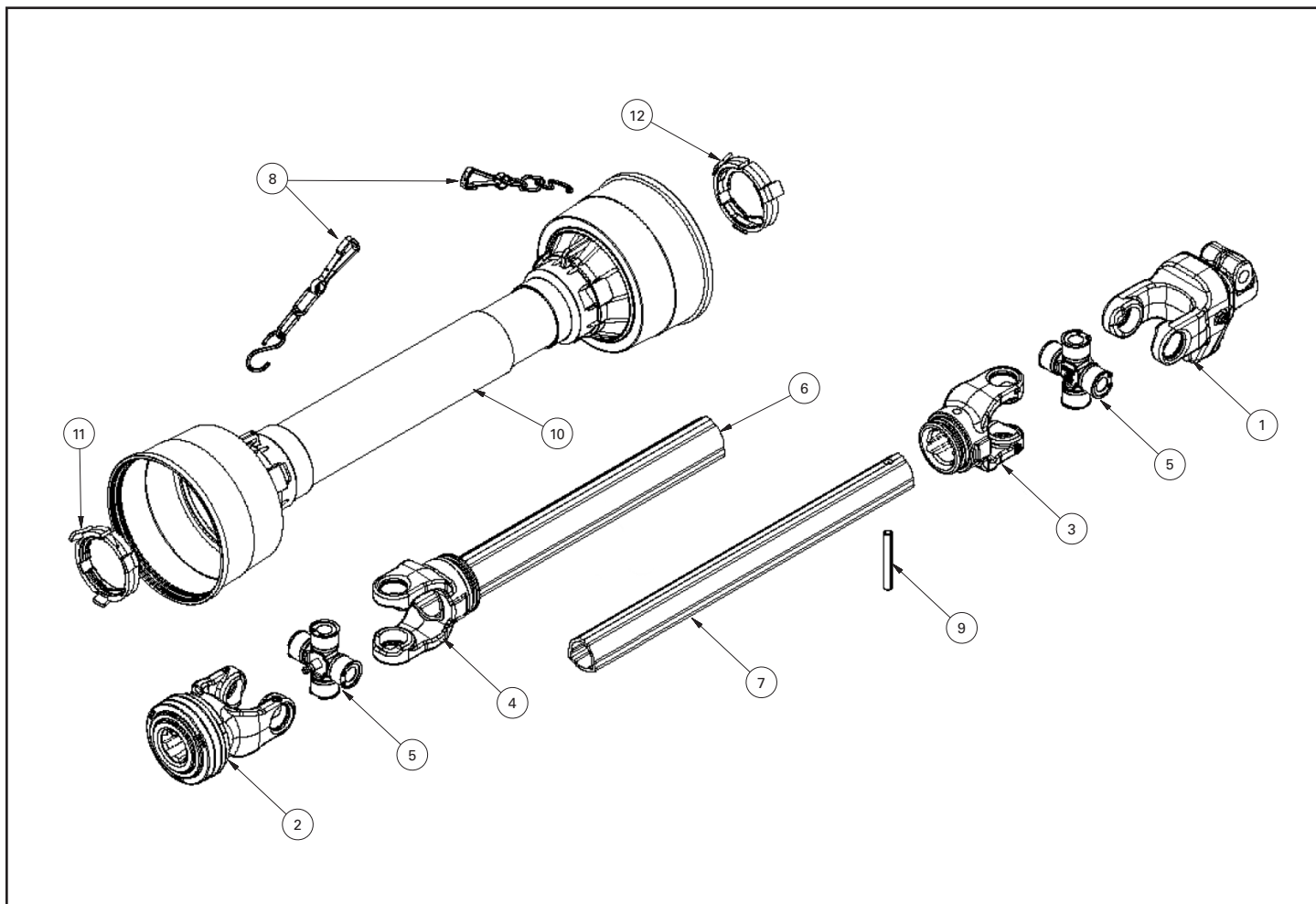
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	816682	PTO MODELS HYD SPOUT ROTATION HOSE	2
2	816840	GEAR GUARD WELDT	1
3	817014	PINION GEAR 14 TEETH	1
4	818903	ASSEMBLY - MOTOR & MANIFOLD	1
5	907590	SPT HOSE HLDR WELDT	1
6	812026	5/16" X 1" HEX BOLT (PL)	4
7	812362	5/16" LOCK NUT (PL)	4
8	812623	WASHER - 5/16" SAE FLAT (PL)	4
9	813748	WASHER, FENDER, 1 1/2" OD X 5/16" ID (PL)	1
10	81525	1/4" X 3/4" HEX BOLT (PL)	1
11	81593	3/8" LOCK WASHER (PL)	4
12	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4

Hydraulic Spout Deflector Cylinder & Hose Kit (Option)



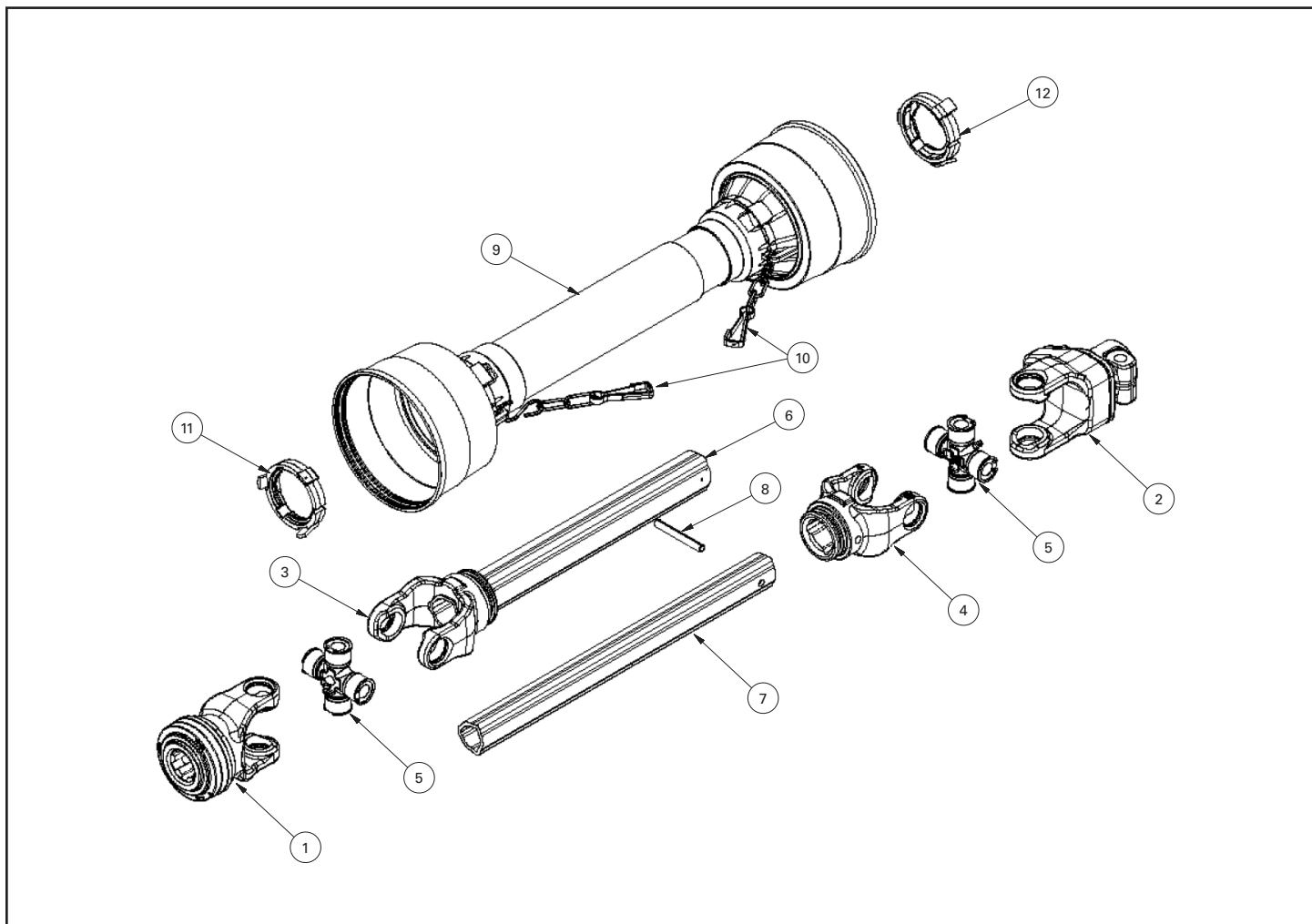
PART NUMBER	DESCRIPTION
24930M	1-3/4" ID X 5" STROKE CYLINDER
116983	HOSE 3/8 X 120 C/W FITTINGS
960913	CLEVIS PIN 1/2 X 1.8125 (PL)
9812430	COTTER PIN 1/8 X 1.00 (PL)
811918	ELBOW 90 9/16 SWMORB X 9/16 MJIC

24930M	CYLINDER COMPLETE
X3913	SEAL KIT
F9117	SPOUT DEFLECTOR CYLINDER & HOSE KIT

PTO Shaft 500

ITEM	PART NUMBER	DESCRIPTION
1	817767	SHEAR BOLT CLUTCH 58 M6
2	817768	YOKE W/QL BALL TYPE
3	817769	INBOARD YOKE FOR INNER TUBE
4	817770	INBOARD YOKE FOR OUTER TUBE
5	817771	CROSS KIT
6	817772	TRIANGULAR TUBE L=380
7	817773	TRIANGULAR TUBE L=430 W/PIN HOLE
8	817774	CHAIN
9	817775	ELASTIC PIN
10	817776	SHAFT SHIELD
11	817777	RETAINER
12	817778	RETAINER
-	817779	SHEAR BOLT KIT (F1693)
-	F1693	PTO COMPLETE

PTO Shaft 600, 660



ITEM	PART NUMBER	DESCRIPTION
1	817780	YOKE W/QL BALL TYPE
2	817781	SHEAR BOLT CLUTCH 56 M8
3	817782	INBOARD YOKE FOR OUTER TUBE
4	817783	INBOARD YOKE FOR INNER TUBE
5	817784	CROSS KIT
6	817785	TRIANGULAR TUBE L=360
7	817786	TRIANGULAR TUBE L=420 W/PIN HOLE
8	817775	ELASTIC PIN
9	817787	SHAFT SHIELD
10	817774	CHAIN
11	817777	RETAINER
12	817778	RETAINER
-	818056	SHEAR BOLT KIT (F1694)
-	F1694	PTO COMPLETE

Farm King



Specifications And Shipping Kit Numbers

Specifications.....	67
Shipping Kit And Bundle Numbers.....	67
Hardware Torque Values.....	68
Metric Chart.....	68
Imperial Chart.....	69

Farm King



Specifications

MODEL	500	600	660
Cutting Width	50"	60"	66"
Cutting Height	24"	24"	24"
Fan	4-blade	4-blade	4-blade
Fan Diameter	22'	22"	22"
Drive Fan	540 rpm	540 rpm	540 rpm
Gearbox	Open Style	Open Style	Open Style
Auger Diameter	15"	15"	15"
Auger Paddles (If Equipped)	10	12	14
Auger Drive	#50 Chain	#50 Chain	#50 Chain
Mechanical Spout Rotator	STD.	STD.	STD.
Hydraulic Spout Rotator	OPT.	OPT.	OPT.
Electric Spout Rotator	OPT.	OPT.	OPT.
Hydraulic Spout Deflector	OPT.	OPT.	OPT.
Skid Shoes	STD. Adjust.	STD. Adjust.	STD. Adjust.
Hitch Category	CAT. 1	CAT. 1	CAT. 1
Hitch Adjustment	4 Position	4 Position	4 Position
Tractor Engine Requirements	15 - 30 HP	20 - 40 HP	22 - 40 HP
Weight	422 lb.	470 lb.	515 lb.

Shipping Kit And Bundle Numbers

Qty.	Bundle	Description
Y500-4 50" Farm King Snowblower, 4-Blade Fan, Spiral Auger		
1	F1543	Body Assembly
Y600-4 60" Farm King Snowblower, 4-Blade Fan, Spiral Auger		
1	F0435	Body Assembly
Y660-4 66" Farm King Snowblower, 4-Blade Fan, Spiral Auger		
1	F1542	Body Assembly
PR500-4 50" Farm King Snowblower, 4-Blade Fan, Paddle Auger		
1	F1702	Body Assembly
PR600-4 60" Farm King Snowblower, 4-Blade Fan, Paddle Auger		
1	F1703	Body Assembly
PR660-4 66" Farm King Snowblower, 4-Blade Fan, Paddle Auger		
1	F1704	Body Assembly
Optional Equipment		
1	F1545	Hydraulic Spout Rotator
1	F1658	Mechanical Spout Rotator
1	F1693	500 Snowblower PTO
1	F1694	600 & 660 Snowblower PTO
1	F9117	Deflector Cylinder & Hose Kit
1	F621	Long PTO
1	F1181	Electric Spout Rotator

Note: Dimensions are approximate measurements.

Hardware Torque Values

Metric Chart

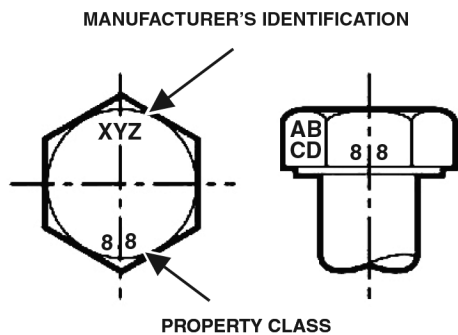
NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

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.**

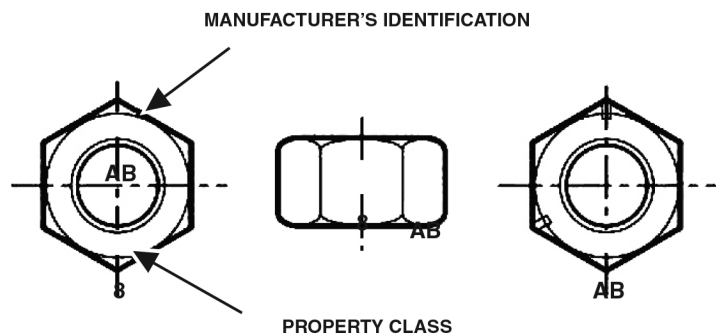
Nominal Size	Class 5.8		Class 8.8		Class 10.9		Lock nuts
	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 w/ CL. 8.8 Bolt
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8	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



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



SAE GRADE
2 BOLTS



SAE GRADE
5 BOLTS



SAE GRADE
8 BOLTS



SAE GRADE
2 NUTS

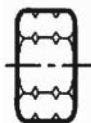


SAE GRADE
2 NUTS



SAE GRADE
2 NUTS

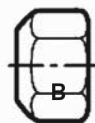
Identification of Hex Nuts and Lock Nuts



Grade A - No Notches

Grade B - One Circumferential Notch

Grade C - One Circumferential Notches



Grade A - No Mark

Grade B - Letter B

Grade C - Letter C



Grade A - No Marks

Grade B - Three Marks

Grade C - Six Marks

(Marks not always located at corners)

Farm King



Warranty

Farm King Base Limited Warranty.....	73
Repair Parts Limited Warranty.....	73
What Is Not Covered.....	73
Authorized Dealer And Labor Costs.....	73
Warranty Requirements.....	74
EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY.....	74

Farm King



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

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