

Farm King

OPERATOR AND PARTS MANUAL

Backsaver Auger

Model 1050, 1060, 1070, 1080



102018

FK306

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Farm King



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:
_____	_____	_____	_____
Backsaver Auger Model:	Serial Number:	Delivery Date:	
_____	_____	_____	

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

Dealer Inspection Report

<input type="checkbox"/>	Bearings Turn Freely
<input type="checkbox"/>	Belt Tension Checked
<input type="checkbox"/>	Check Oil Level In Auger Drive Gear Box
<input type="checkbox"/>	Pulleys Aligned
<input type="checkbox"/>	Fasteners Tight
<input type="checkbox"/>	Lubricate Machine
<input type="checkbox"/>	Check Tire Pressure
<input type="checkbox"/>	Unloading Auger Folds / Extends Freely

Safety

<input type="checkbox"/>	Safety Chain On Hitch
<input type="checkbox"/>	All Decals Installed
<input type="checkbox"/>	Guards And Shields Installed And Secure
<input type="checkbox"/>	Review Operating And Safety Instructions
<input type="checkbox"/>	Check For Hydraulic Leaks

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's 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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Farm King



OWNER'S INFORMATION

Thank you for your decision to purchase a Farm King Backsaver Auger. 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.

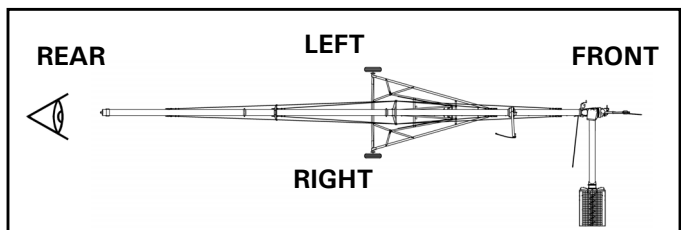
Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

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.

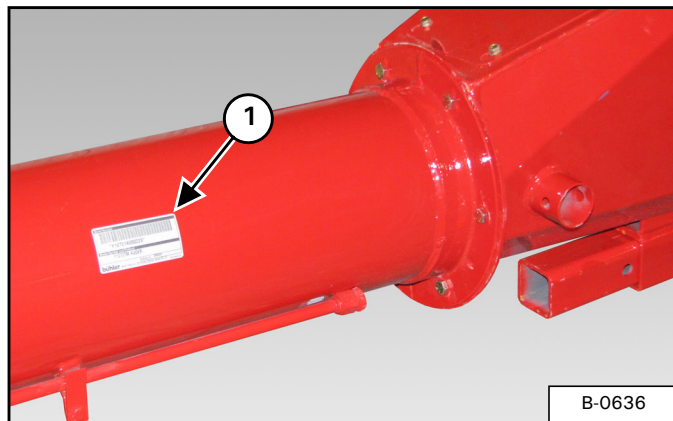


The directions left, right, front and rear, as mentioned throughout this manual, are as viewed from the rear of the equipment.

Serial Number Location

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

Figure 1



Model Number: _____

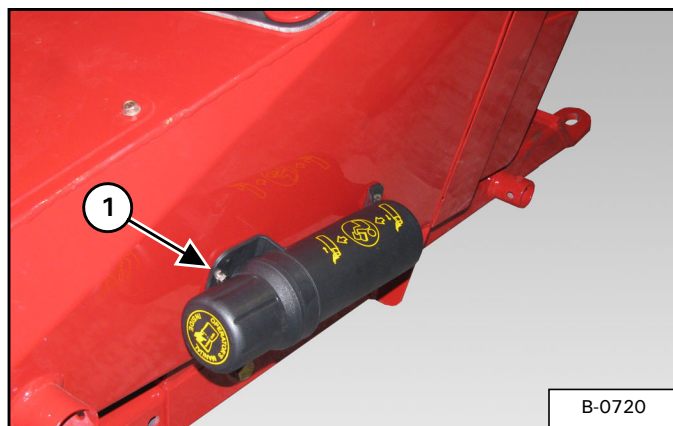
Serial Number: _____

The serial number plate (Item 1) [Figure 1] is located on the input box end of the bottom tube assembly.

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

Manual Storage

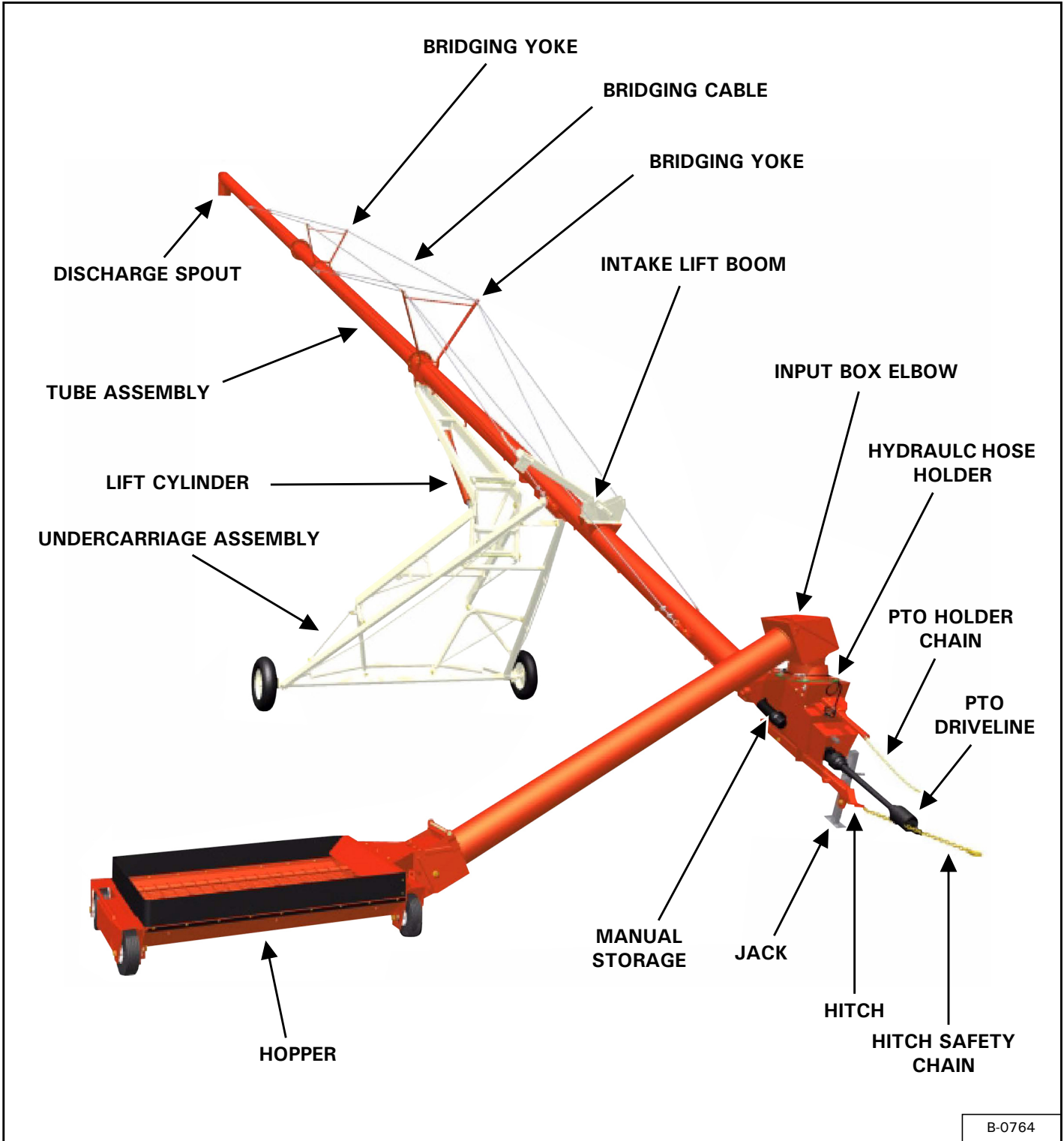
Figure 2



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

EQUIPMENT IDENTIFICATION

Component Location



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SAFETY INSTRUCTIONS

Safe Operation Is The Operator’s Responsibility

	<p>Safety Alert Symbol</p>
<p>This symbol with a warning statement means: “Warning, be alert! Your safety is involved!” Carefully read the message that follows.</p>	



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 alcoholic drinks 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 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.

SAFETY INSTRUCTIONS (CONT'D)**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.
- If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
- Stay clear of overhead power lines when unloading auger is extended. Electrocutation can occur without direct contact.
- 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.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.

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 install transport locks, pins or brackets before transporting.
- 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).
- Stay away from overhead power lines when unloading auger is extended. Electrocutation can occur without direct contact.

SAFETY INSTRUCTIONS (CONT'D)**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.
- 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 attachment. Excessive driveline angle can cause driveline damage. Use stops if needed.
- 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.

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.
- Machine's three-point hitch must be equipped with sway bars or chains.
- 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.

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. (See “SERVICE SCHEDULE” on page 88.)

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.

Spark Arrester Exhaust System

The spark arrester exhaust system is designed to control the emission of hot particles from the engine and exhaust system, but the muffler and the exhaust gases are still hot.

Check the spark arrester exhaust system regularly to make sure it is maintained and working properly. Use the procedure in the machine’s Operator’s Manual for cleaning the spark arrester muffler (if equipped).

FIRE PREVENTION (CONT'D)**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.

OPERATING SAFETY ZONE

Safety Zone Identification

⚠ WARNING

AVOID INJURY OR DEATH

- Do not allow small children, bystanders or unauthorized persons in the work area during operation.
- Never stand or work under the auger and undercarriage when in the raised position or during operation.
- Always keep PTO shields and all guards in place during operation.
- Keep away from moving parts.
- Keep everyone clear when operating the hopper mover.

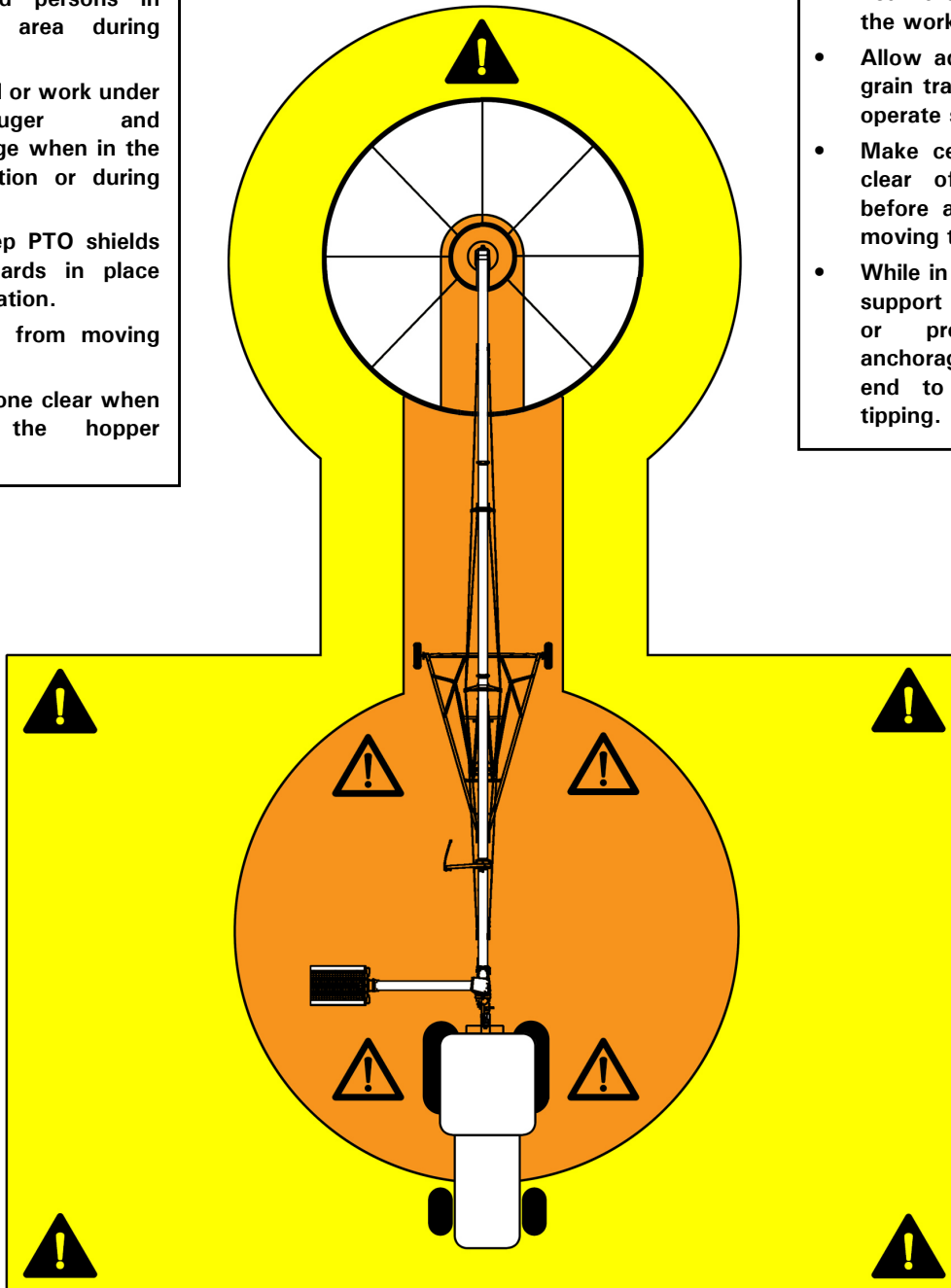
⚠ DANGER

ELECTROCUTION HAZARD

Keep away from power lines, electrocution can occur without direct contact.

⚠ CAUTION

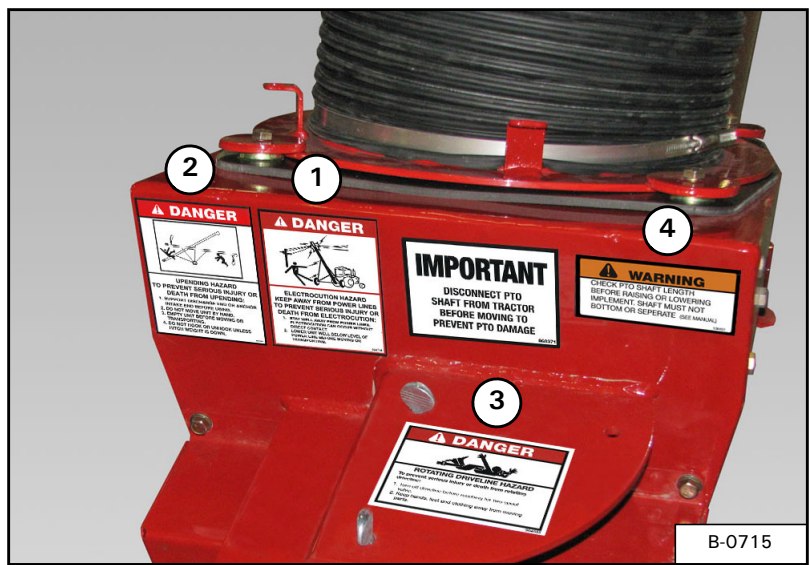
- Owners and operators should allow only authorized personnel and grain transport vehicles near the auger or inside the work area.
- Allow adequate space for grain transport vehicles to operate safely.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- While in operation, always support the discharge end or provide adequate anchorage of the intake end to prevent sudden tipping.



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.

Input Box

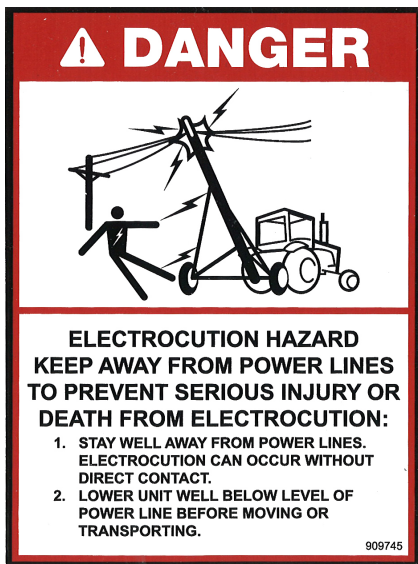


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1

2

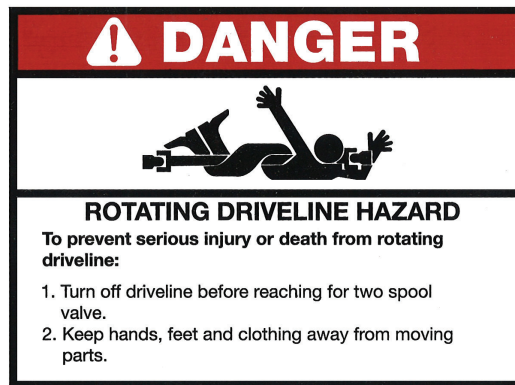
3



p/n 909745

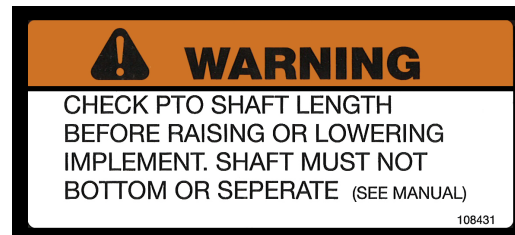


p/n 960569



p/n 904585

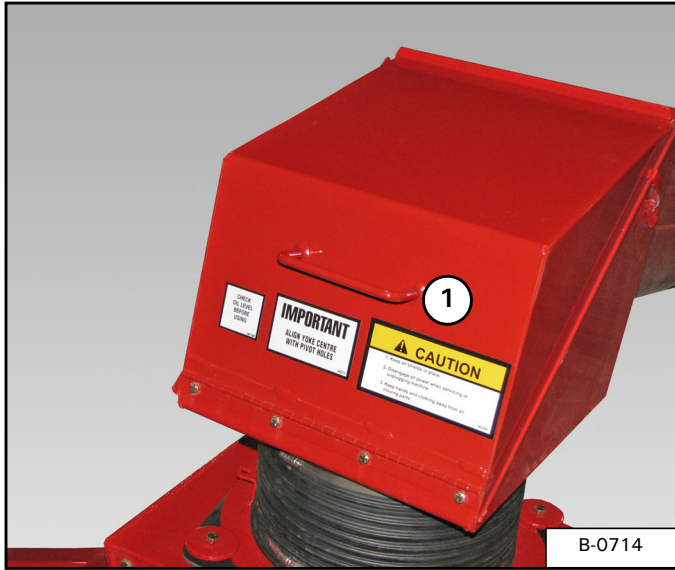
4



p/n 108431

SAFETY SIGNS (DECALS) (CONT'D)

Input Box Elbow / Cover



①



p/n 963206

Intake Auger



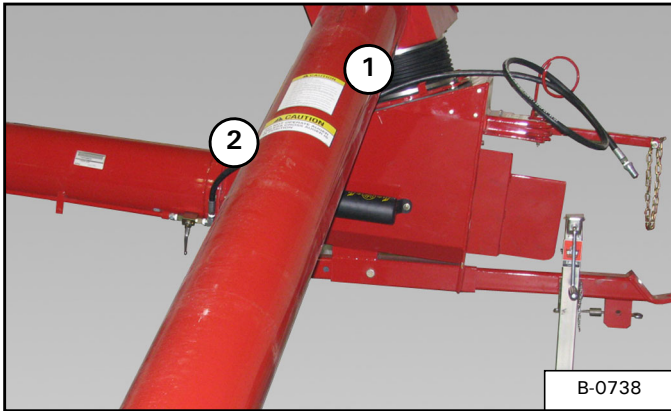
①



p/n 961016

SAFETY SIGNS (DECALS) (CONT'D)

Intake Auger



2



p/n 917765

1

1. Do not operate the unit before reading and understanding the Operator's Manual.
2. Keep all safety devices in place.
3. Keep off of the equipment at all times.
4. Keep hands, feet, and clothing away from moving parts while in operation.
5. Make certain everyone is clear of the equipment before applying power or moving the machine.
6. Do not adjust, service, lubricate, clean, unclog or move the mechanism until all power is shut off.
7. While in operation, always support the discharge end or provide adequate anchorage of the intake end to prevent sudden tipping.
8. Disconnect power of electrical driven units before resetting motor over loads.
9. To avoid tipping, make sure unit is empty before attempting to move.
10. Keep wheels of undercarriage level and on firm ground.
11. Lower unit to the recommended transport position before transporting.
12. Do not operate electric motor equipped units until they are properly grounded.
13. Keep children, visitors, and all untrained personnel away from machine while in operation.
14. Lower unit when moving close to overhead power lines.

p/n 961017

EQUIPMENT DECALS AND SIGNS

NOTE: All safety related decals are shown in the Safety Signs Section. (See "SAFETY SIGNS (DECALS)" on page 17.)

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

Part Number 910570

1050

Part Number 910571

1060

Part Number 910572

1070

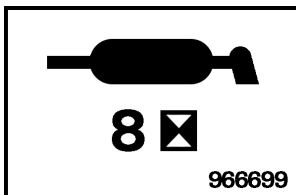
Part Number 910574

1080

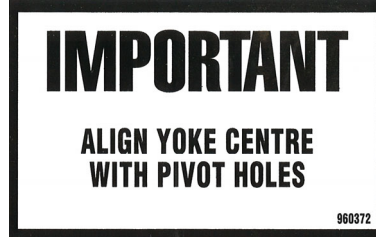
Part Number 910582

Farm King

Part Number 966699



Part Number 960372



Part Number 961015



Part Number 967388



Part Number 960371



Farm King



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GENERAL ASSEMBLY INFORMATION

Component Unloading And Identification



ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Keep away from power lines when unloading and assembling the auger.
- Electrocution can occur without direct contact.



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

Unload the crate(s) and components in flat level area of adequate size to assemble the 10" Backsaver Auger.



Unload crate(s) and auger components carefully to avoid 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 10" Backsaver Auger in the following order:

1. Undercarriage (See "Undercarriage Assembly" on page 26.)

Using the packing list, locate and place all undercarriage 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 undercarriage.

2. Tube (See "Tube Assembly" on page 34.)

Using the packing list, locate and place all tube 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 tube.

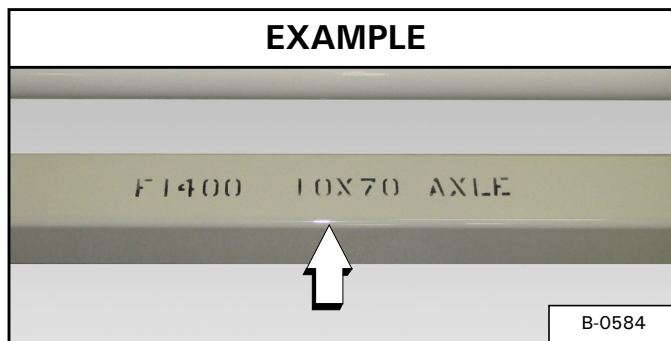
3. Intake Auger (See "Installing The Intake Auger" on page 48.)

Using the packing list, locate and place all intake auger 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 intake auger.

4. Hydraulic (See "HYDRAULIC ASSEMBLY" on page 58.)

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

Figure 3



Larger components are marked for identification [Figure 3].

BASE GROUP

Undercarriage Assembly

Assemble the undercarriage on a flat level surface.



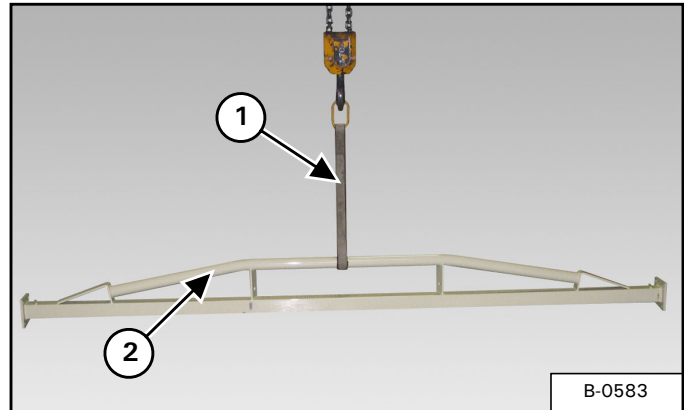
- DO NOT permit bystanders to be in the work area when unloading and assembling the auger components.
- DO NOT work under suspended parts.
- Keep away from moving parts.
- Always use lifting devices / vehicles, chains or straps of adequate size and strength when unloading and assembling the auger components.



AVOID INJURY OR DEATH

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

Figure 4



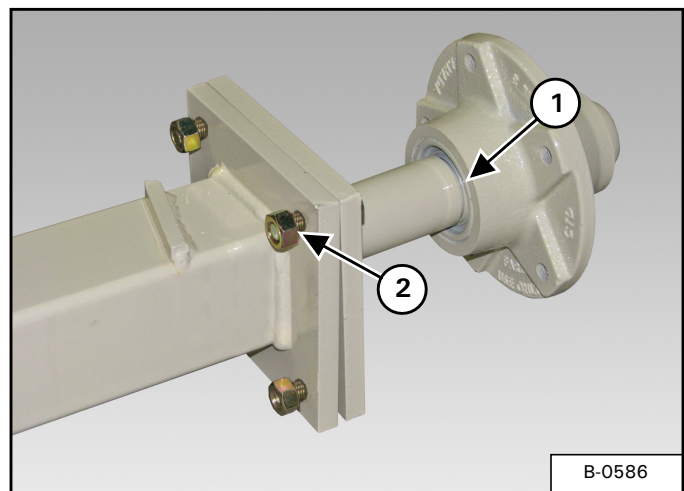
Install a strap (Item 1) around the center of the axle (Item 2) [Figure 4].

Connect the strap to an approved lifting device.

Raise and move the axle to the assembly area.

Lower the axle to the ground and remove strap.

Figure 5



Align the hub (Item 1) [Figure 5] with the axle.

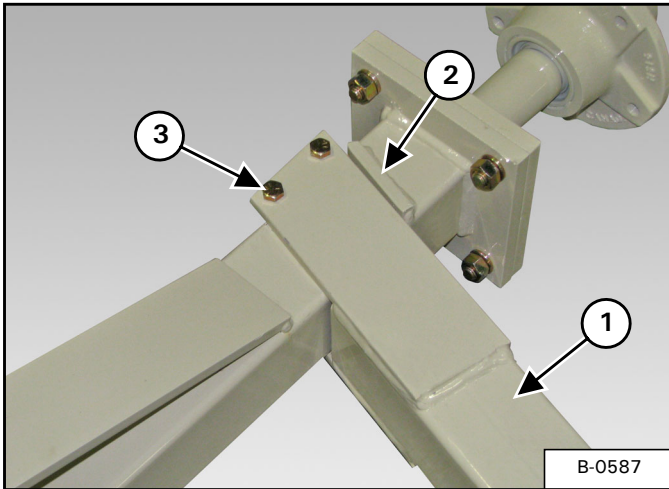
Install the four 1/2" x 1-3/4" bolts (Item 2) [Figure 5] and 1/2" lock nuts. Tighten bolts and nuts.

Install a strap around the center of the right undercarriage arm.

Connect the strap to an approved lifting device.

Raise and move the left undercarriage arm towards the axle.

Figure 6

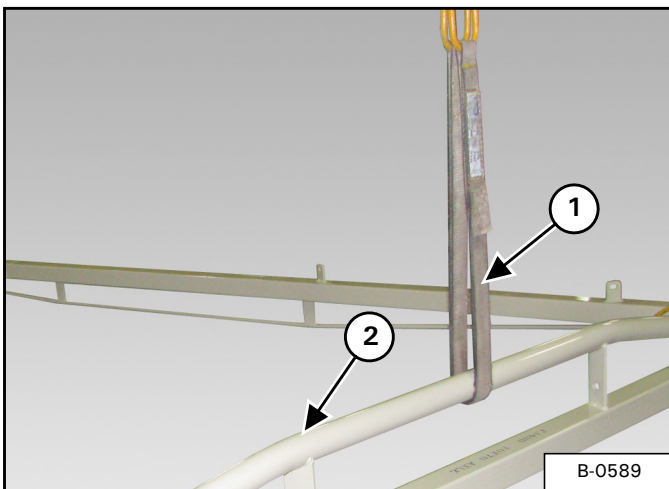


Align the left undercarriage arm (Item 1) with the tab (Item 2) [Figure 6] on the axle.

Install two 3/8" x 4-1/2" bolts (Item 3) [Figure 6] and 3/8" lock nuts. Do not tighten bolts and nuts at this time.

Align and install the right undercarriage arm (opposite side of axle).

Figure 7

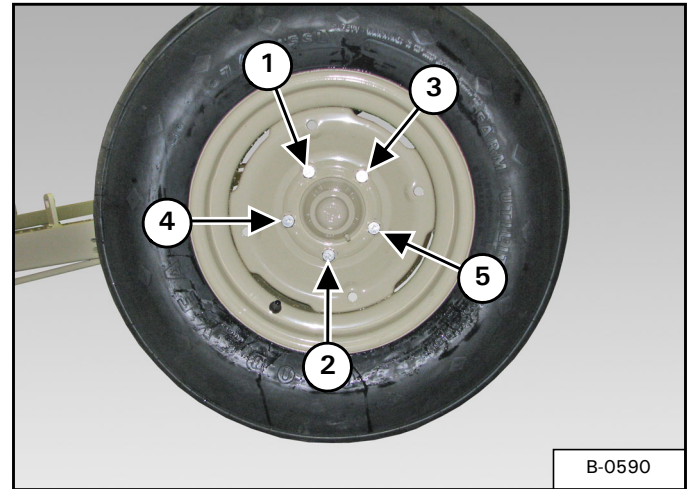


Install a strap (Item 1) around the center of the axle (Item 2) [Figure 7].

Connect the strap to an approved lifting device.

Raise the axle high enough to install tires.

Figure 8



Install the tire with the valve stem facing out (both sides). Install the five wheel nuts (both sides) [Figure 8].

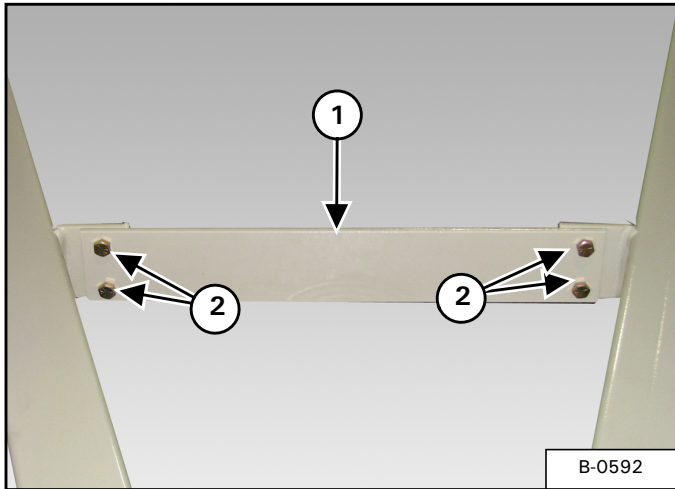
Tighten wheel nuts in a criss-cross pattern [Figure 8]. Tighten wheel nuts to 80 - 100 lb. / ft. (108 - 135 N•m) of torque.

Lower the axle and tires to the ground. Remove the strap and lifting device.

Check tire pressure.

NOTE: Recommended tire pressure is 35 PSI 241 kpa) maximum.

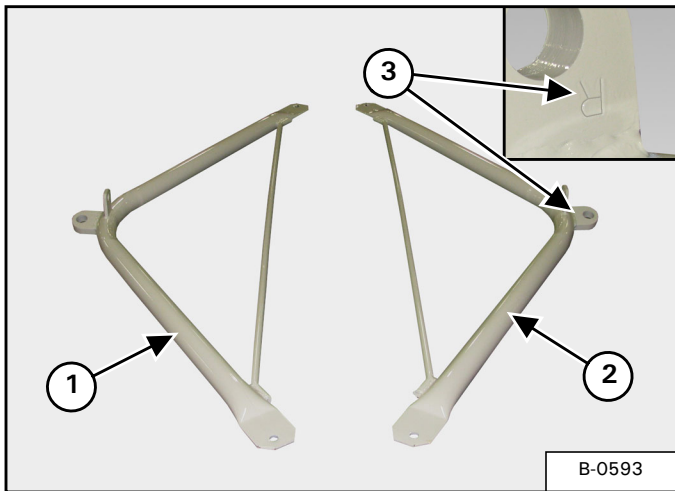
Figure 9



Align the undercarriage tie plate (Item 1) [Figure 9] with the mounting plates on the LH & RH undercarriage arms.

Install four 3/8" flat washers onto four 3/8" x 1-1/4" bolts (Item 2) [Figure 9]. Install the bolts, then install 3/8" lock nuts on each bolt. Do not tighten at this time.

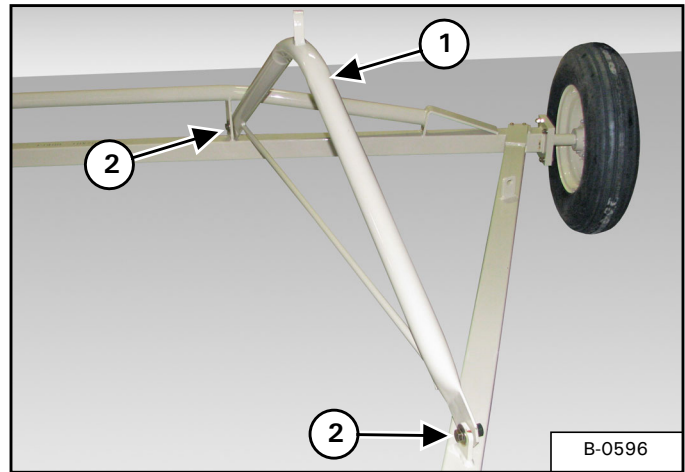
Figure 10



Locate the LH (Item 1) & RH (Item 2) [Figure 10] undercarriage arches.

NOTE: The undercarriage arches are stamped (Item 3) [Figure 10] with an L & R for identification.

Figure 11

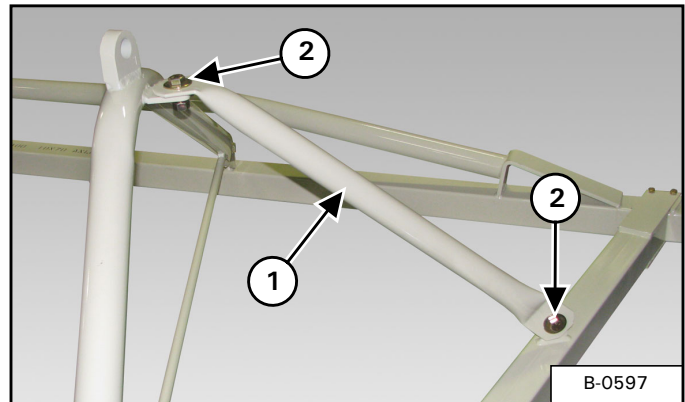


Align the LH undercarriage arch (Item 1) [Figure 11], on the outside of the mounts on the undercarriage arm and axle.

Install one 5/8" flat washer on two 5/8" x 1-3/4" bolts (Item 2) [Figure 11]. Install the two bolts with flat washers from the outside (through the undercarriage arch first). Install a 5/8" flat washer and lock nut onto each bolt. Do not tighten at this time.

Align and install the RH undercarriage arch.

Figure 12

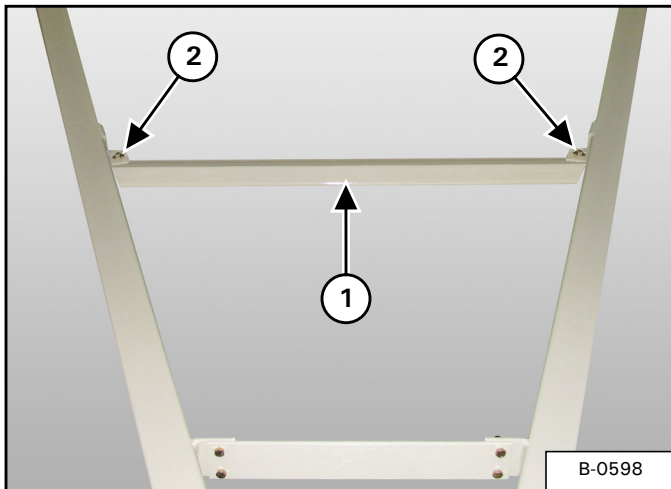


Locate and install one undercarriage arch brace (Item 1) [Figure 12] onto the undercarriage arm and LH undercarriage arch.

Install one 5/8" flat washer on two 5/8" x 1-3/4" bolts (Item 2) [Figure 12]. Install the bottom bolt with flat washer from the outside (through the undercarriage arch brace first). Install the top bolt with flat washer from the top (through the undercarriage arch brace first). Install a 5/8" flat washer and 5/8" lock nut onto each bolt. Do not tighten at this time.

Install the second undercarriage arch brace (LH side).

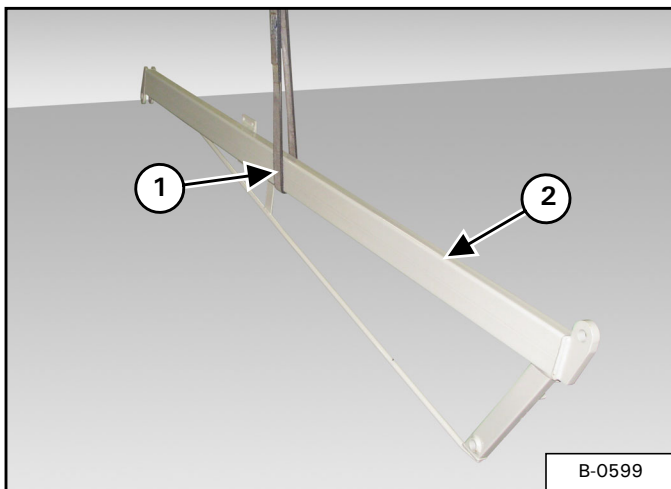
Figure 13



Locate and install the lift arm cradle (Item 1) [Figure 13] onto the bottom of LH & RH undercarriage arm mounting brackets.

Install one 1/2" flat washer on two 1/2" x 1-1/4" bolts. Install the two bolts (Item 2) [Figure 13] with flat washers down from the top, then install one 1/2" lock nut onto each bolt. Do not tighten at this time.

Figure 14

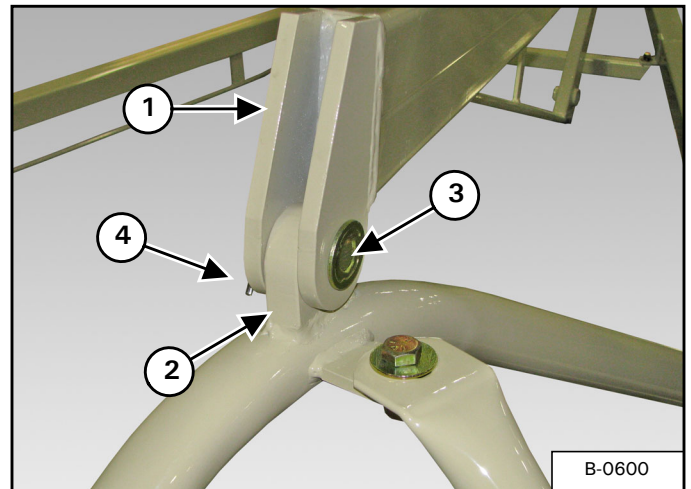


Install a strap (Item 1) around the RH lower lift arm (Item 2) [Figure 14].

Connect the strap to an approved lifting device.

Raise and move the lower lift arm to the assembly area.

Figure 15



Align and lower the lower lift arm (Item 1) down onto the top mounting bracket (Item 2) [Figure 15] on the RH undercarriage arch.

Clevis Pin Sizes

1" x 2-13/16" - 1050 & 1060 Models

1-1/4" x 2-13/16" - 1070 Models

Install one clevis pin (Item 3) [Figure 15] through the lower lift arm and undercarriage arch. Install one 1" I.D. flat washer onto the lift arm clevis pin.

Cotter Pin Sizes

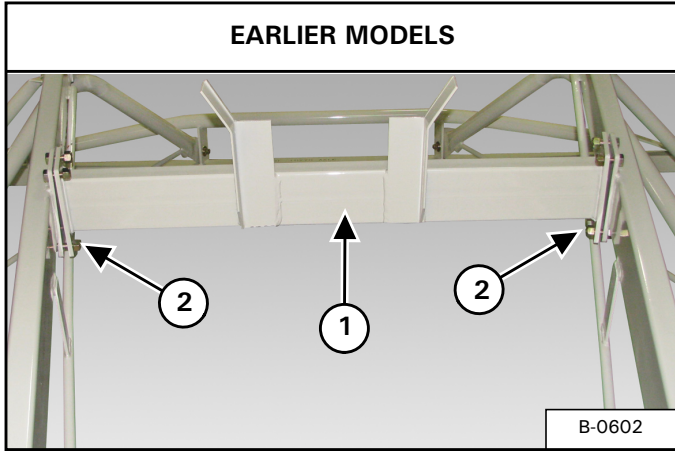
3/16" x 1-1/2" - 1050 & 1060 Models

1/4" x 2" - 1050 & 1060 Models

Install one cotter pin (Item 4) [Figure 15] into the lift arm clevis pin.

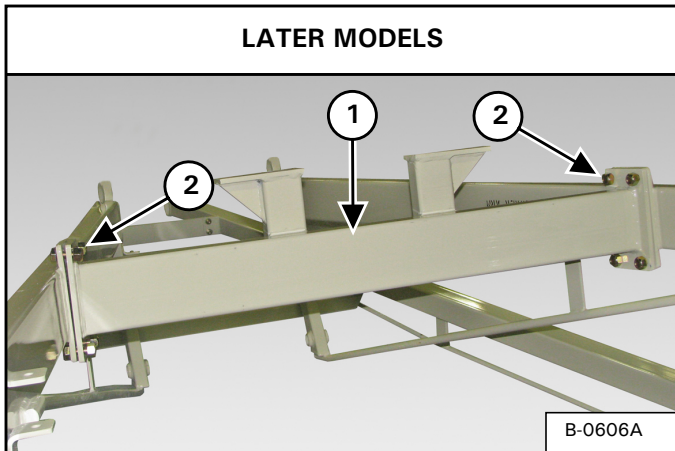
Install the LH lower lift arm.

Figure 16



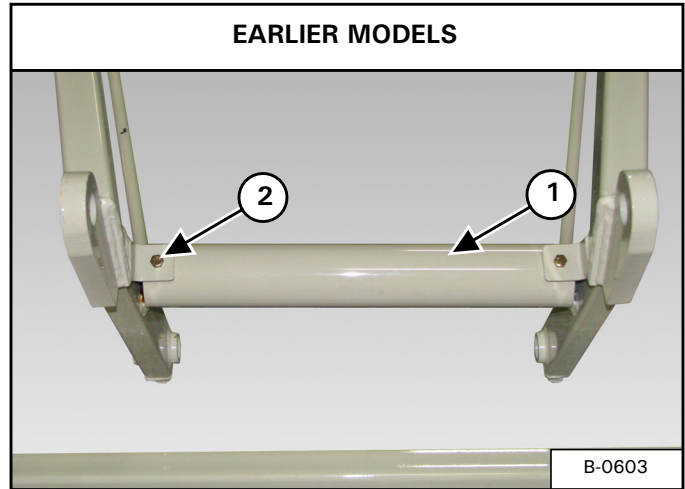
Align and install the lower lift arm (Item 1) between the LH & RH lower lift arms using eight 5/8" x 1-3/4" bolts (Item 2) [Figure 16] and eight 5/8" lock nuts. Do not tighten at this time.

Figure 17



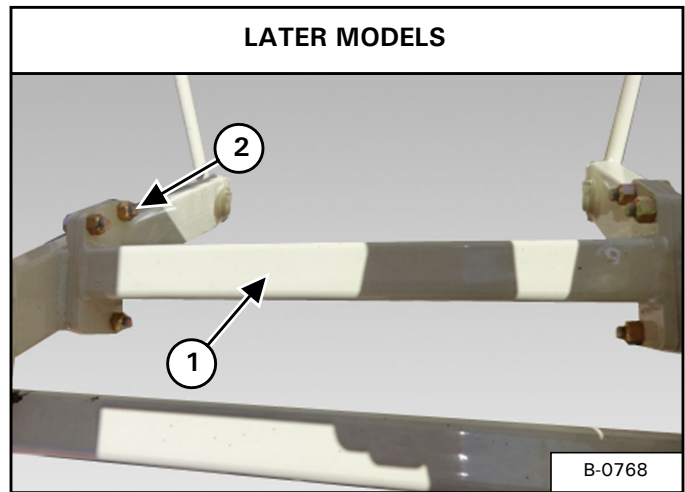
Align and install the lower lift arm (Item 1) between the LH & RH lower lift arms using eight 5/8" x 1-3/4" bolts (Item 2) [Figure 17] and eight 5/8" lock nuts. Do not tighten at this time.

Figure 18



Install the lift cross member (Item 1) between the LH & RH lower lift arms, using two 3/8" x 4" bolts (Item 2) [Figure 18].

Figure 19



Install the lift cross member (Item 1) between the LH & RH lower lift arms, using six 1/2" x 1-1/2" bolts (Item 2) [Figure 19] and six 1/2" lock nuts.

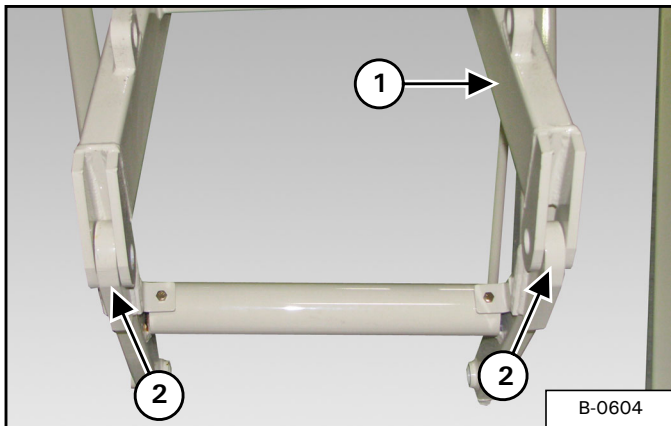
Install a strap around the upper lift arm.

Connect the strap to an approved lifting device.

Raise and move the upper lift arm over the LH & RH lower lift arms.

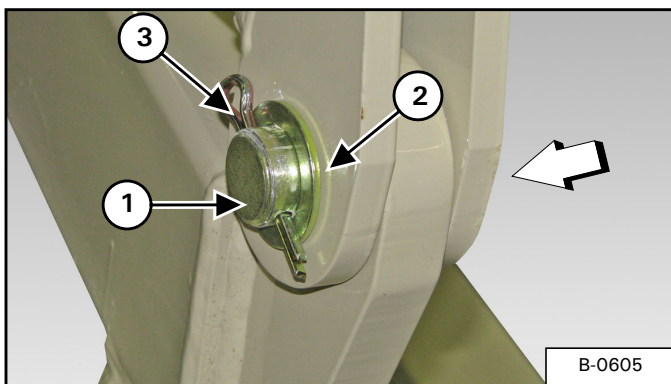
NOTE: The following images may not show your exact lift cross member as it appears but the procedure is correct.

Figure 20



Align and lower the upper lift arm (Item 1) down over the LH & RH lower lift arm mounting brackets (Item 2) [Figure 20].

Figure 21



Align the mounting holes of the upper lift arm with mountings hole in the LH & RH lower lift arm mounting brackets [Figure 21].

Lift Arm Clevis Pin Sizes

- 1" x 2-13/16" - Model 1050 & 1060
- 1-1/4" x 2-13/16" - Model 1070

Cotter Pin Sizes

- 3/16" x 1-1/2" - Model 1050 & 1060
- 1/4" x 2" - Model 1070

Install one lift arm clevis pin (Item 1) from the outside, through the upper lift arm(s) and lower lift arm(s). Install one 1-1/4" x 10 ga. narrow rim washer (Item 2) onto the two lift arm clevis pins. Install one cotter pin (Item 3) [Figure 21] through the two lift arm clevis pins.

Lower the upper lift arm onto the cradle.

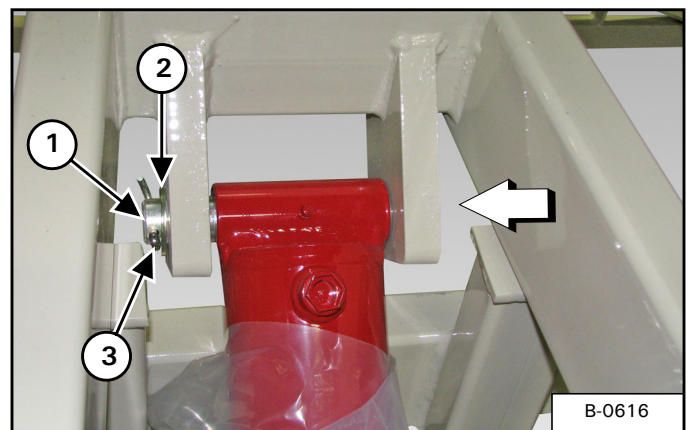
Remove strap.

! IMPORTANT

Installing the hydraulic cylinder will require two people. One person to hold the hydraulic cylinder in position and the second person to install the cylinder pin.

NOTE: It is recommended to leave the plastic on the hydraulic cylinders during assembly. This will help to prevent damage to the paint and minimize touch-up painting.

Figure 22



Place the base end of the hydraulic cylinder between the upper lift arm mounting brackets [Figure 22].

Top Cylinder Pin Sizes

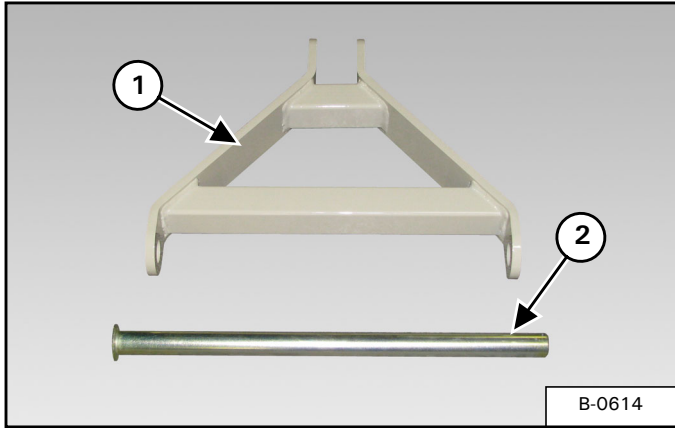
- 1" x 6-1/2" - Model 1050
- 1" x 6-7/8" - Model 1060
- 1-1/4" x 7-3/4" - Model 1070

Cotter Pin Sizes

- 3/16" x 1-1/2" - Model 1050 & 1060
- 1/4" x 2" - Model 1070

Install the top cylinder pin (Item 1) through the upper lift arm and hydraulic cylinder. Install one 1-1/4" x 10 ga. narrow rim washer (Item 2) onto the cylinder pin. Install one cotter pin (Item 3) [Figure 22] through the cylinder pin.

Figure 23



Locate the connecting link (Item 1) and link base pin (Item 2) [Figure 23].

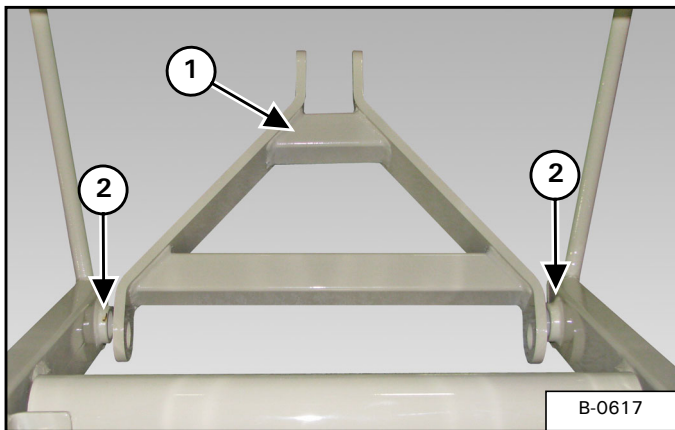
Link Base Pin Sizes

- 1" x 20" - Model 1050
- 1" x 22" - Model 1060
- 1-1/4" x 26" - Model 1070

Cotter Pin Sizes

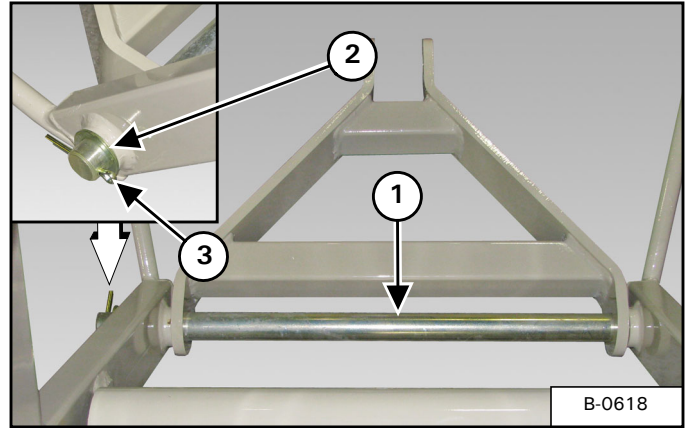
- 3/16" x 1-1/2" - Model 1050 & 1060
- 1/4" x 2" - Model 1070

Figure 24



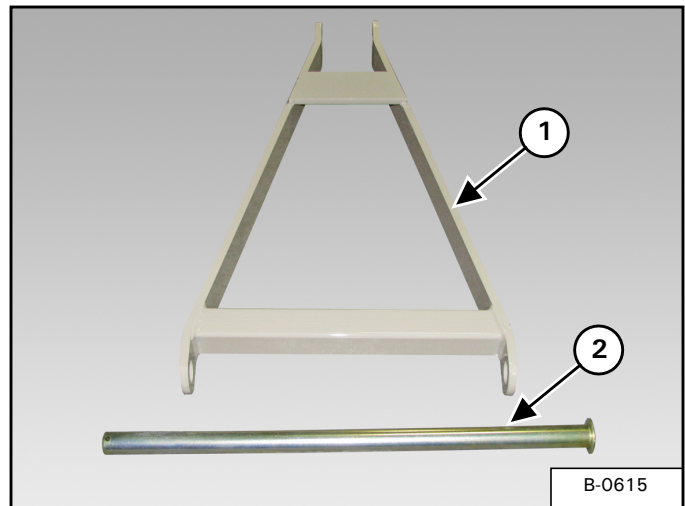
Place the connecting link (Item 1) between the LH & RH lower lift arm mounting holes (Item 2) [Figure 24].

Figure 25



Install the connecting link base pin (Item 1) through the LH & RH lower lift arm(s) and connecting link. Install one 1-1/4" x 10 ga. narrow rim washer (Item 2) onto the connecting link base pin. Install one cotter pin (Item 3) [Figure 25] through the connecting link base pin.

Figure 26



Locate the pivot yoke weldment (Item 1) and yoke pin (Item 2) [Figure 26].

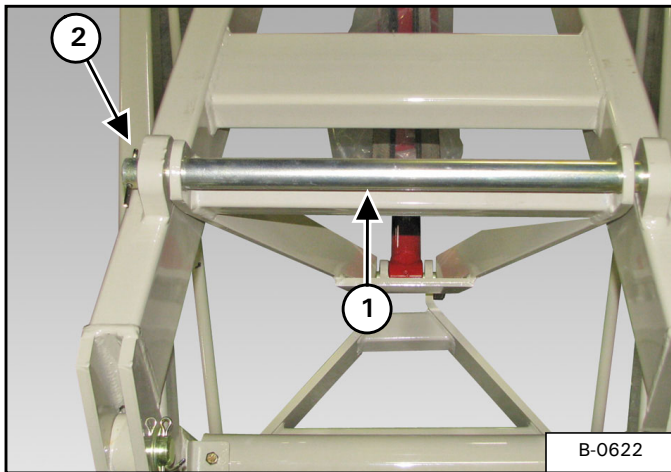
Yoke Pin Sizes

- 1" x 16-1/8" - Model 1050
- 1" x 17-7/8" - Model 1060
- 1-1/4" x 22-1/8" - Model 1070

Cotter Pin Sizes

- 3/16" x 1-1/2" - Model 1050 & 1060
- 1/4" x 2" - Model 1070

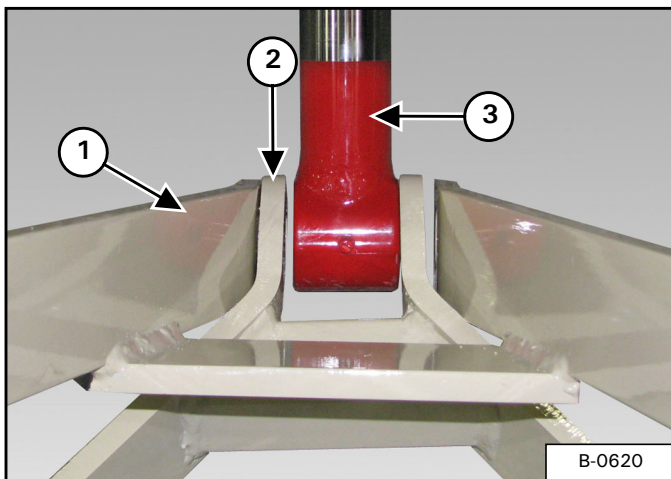
Figure 27



Raise the wide end of the pivot yoke weldment and align with the mounting brackets on the upper lift arm [Figure 27].

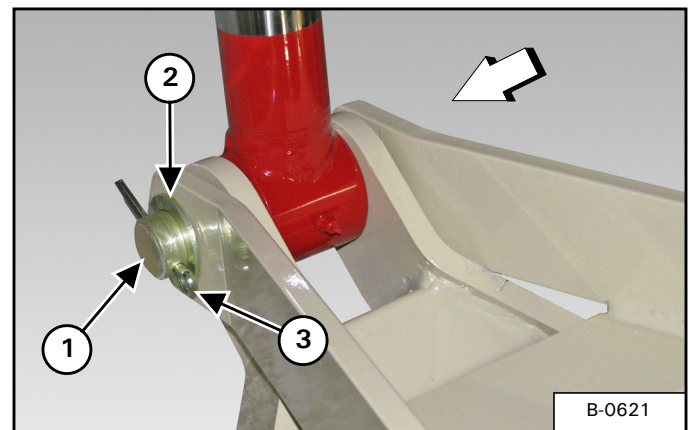
Install the yoke pin (Item 1) through the upper lift arm and pivot yoke weldment. Install one 1-1/4" x 10 ga. narrow rim washer onto the yoke pin. Install one cotter pin (Item 2) [Figure 27] through the connecting link swivel pin.

Figure 28



Place the narrow end of the pivot yoke weldment (Item 1) over the end of the connecting link (Item 2). Place the rod end (Item 3) [Figure 28] of the hydraulic cylinder inside the connecting link.

Figure 29



Locate the connecting link swivel pin (Item 1) [Figure 29].

Connecting Link Swivel Pin Sizes

1" x 5-1/2" - Model 1050 & 1060

1-1/4" x 5-1/2" - Model 1070

Cotter Pin Sizes

3/16" x 1-1/2" - Model 1050 & 1060

1/4" x 2" - Model 1070

Install the connecting link swivel pin (Item 1) through the pivot yoke weldment, connecting link and hydraulic cylinder. Install one 1-1/4" x 10 ga. narrow rim washer (Item 2) onto the connecting link swivel pin. Install one cotter pin (Item 3) [Figure 29] through the connecting link swivel pin.

Tube Assembly

Assemble the tube on a flat level surface.



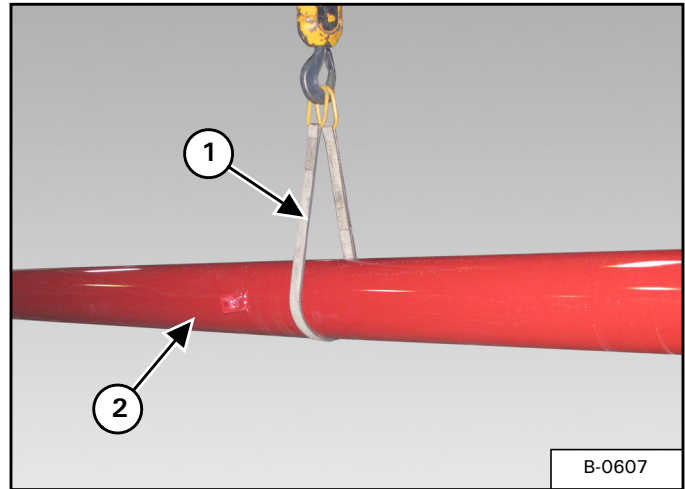
- **DO NOT** permit bystanders to be in the work area when unloading and assembling the auger components.
- **DO NOT** work under suspended parts.
- **Keep away** from moving parts.
- **Always use lifting devices / vehicles, chains or straps of adequate size and strength** when unloading and assembling the auger components.



AVOID INJURY OR DEATH

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

Figure 30



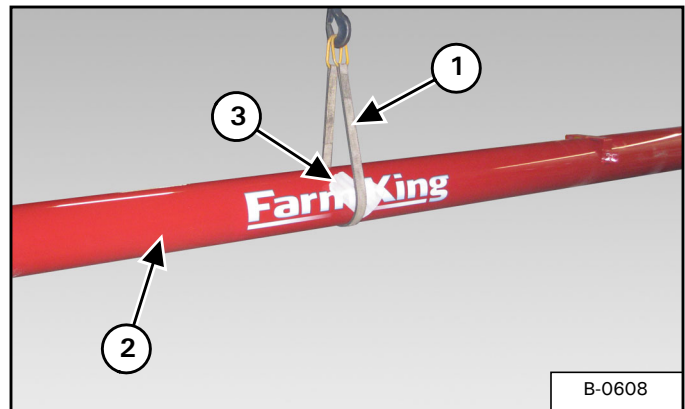
Install a strap (Item 1) around top tube section (Item 2) [Figure 30].

Connect the strap to an approved lifting device.

Raise and move the top tube section to the assembly area.

Place a block under the discharge spout end of the top tube section. Lower the tube onto the block. Remove strap.

Figure 31

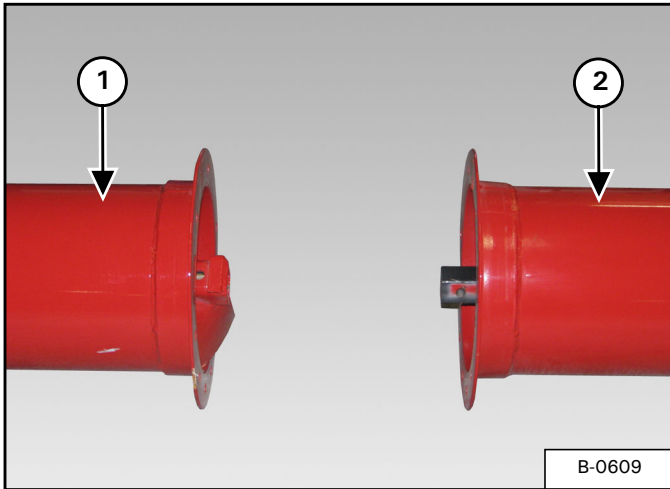


Install a strap (Item 1) around the center tube section (Item 2) [Figure 31].

NOTE: Place a rag (Item 3) [Figure 31] between the strap and decal to prevent decal damage while lifting and moving the center tube section.

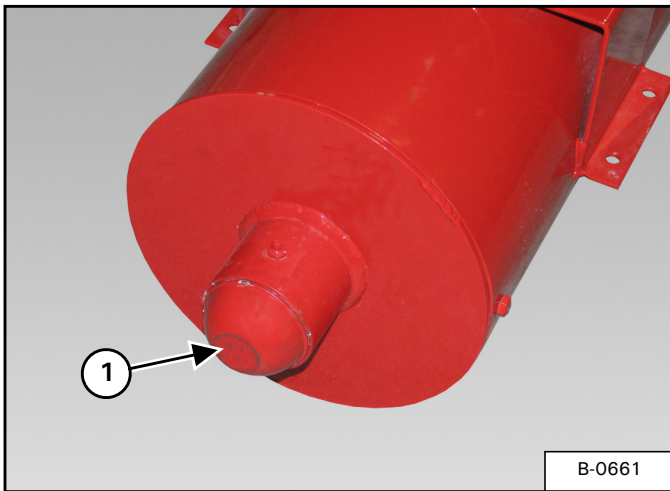
Raise and move the center tube section to the assembly area.

Figure 32



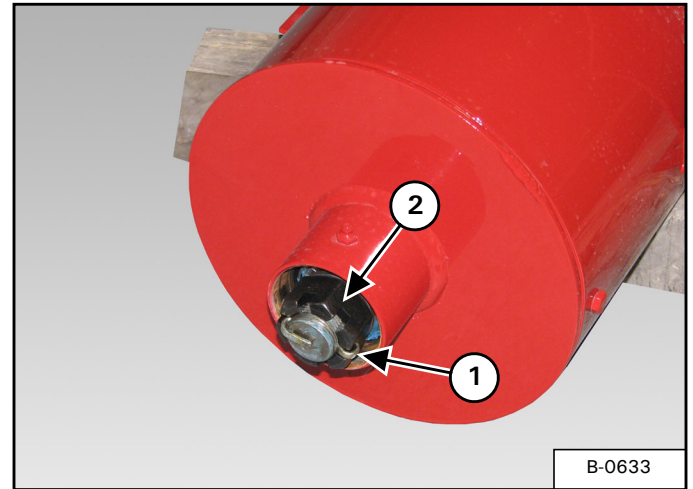
Align the mounting flanges of the top tube section (Item 1) and center tube section (Item 2) [Figure 32].

Figure 33



Remove the dust cap (Item 1) [Figure 33].

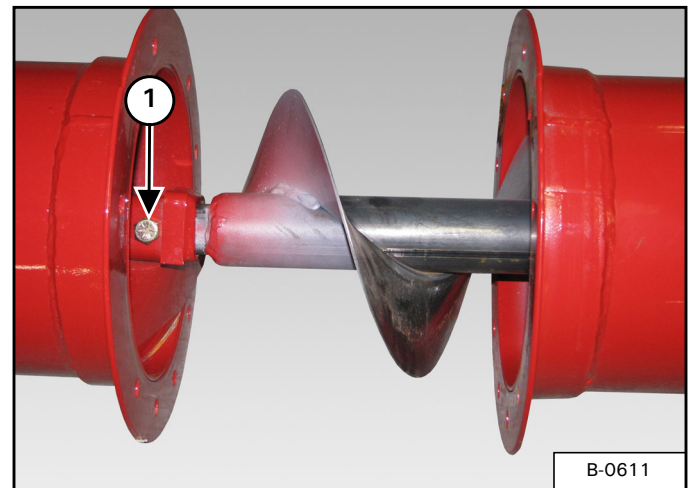
Figure 34



Remove the cotter pin (Item 1) and loosen the castle nut (Item 2) [Figure 34]. Do not remove the castle nut.

NOTE: Loosening the castle nut will allow the flighting to move in the tube for connecting additional tubes.

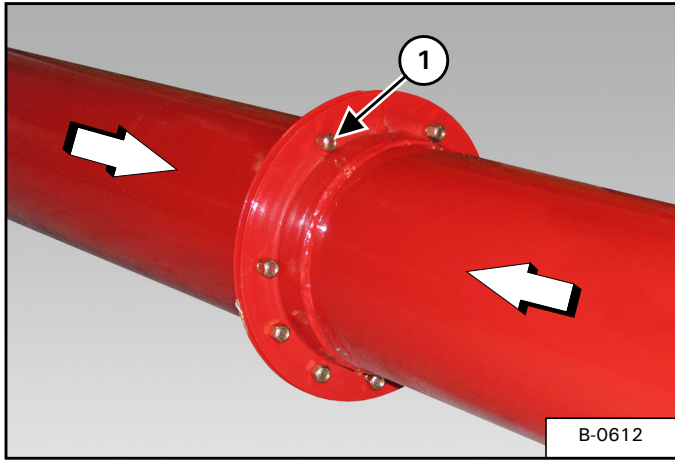
Figure 35



Slide the flighting from the center tube section forward into the flighting of the top tube section.

Install one 1/2" x 2-3/4" Gr. 8 bolt (Item 1) [Figure 35] and 1/2" lock nut. Tighten bolt and lock nut.

Figure 36



Slide the top and center tube sections together until the mounting flanges contact each other [Figure 36].

Install the nine 1/2" x 1-1/4" bolts (Item 1) [Figure 36] through the tube flanges. Install one 1/2" lock nut on each bolt.

Lift center tube up until top of rings touch and tighten top two bolts. Lower center tube and tighten bottom bolt. Tighten remaining bolts in a criss-cross pattern.

Repeat [Figure 35] & [Figure 36] for the bottom tube section.

Locate and uncoil the four cables.

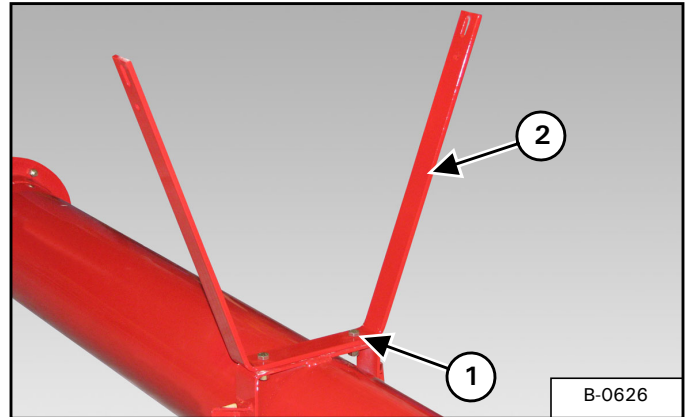
Cable Sizes

3/8" - Model 1050 & 1060

1/2" - Model 1070

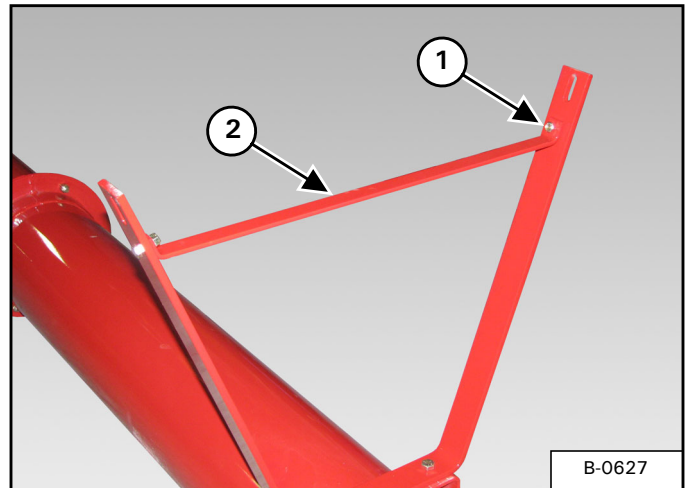
Place one long and one short cable on each side of the tube assembly (longest cable towards the outside).

Figure 37



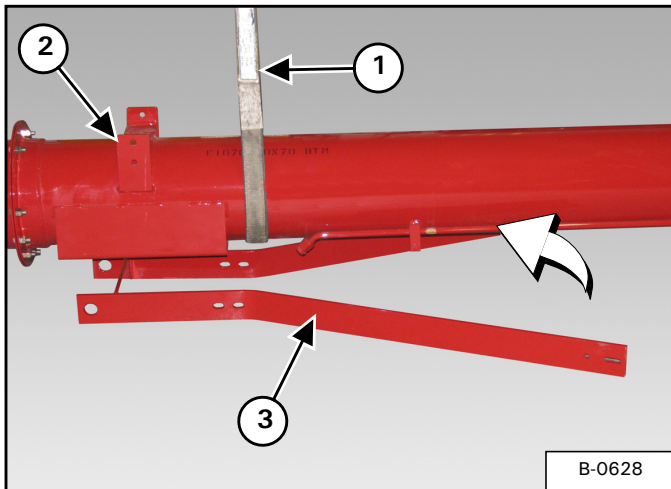
Using two 1/2" x 1-1/2" bolts (Item 1) and 1/2" lock nuts, align and install the 3/8" x 2" x 57-1/4" center section bridging yoke (Item 2) [Figure 37]. Tighten bolts and lock nuts.

Figure 38



Using two 3/8" x 1-1/4" bolts (Item 1) and 3/8" lock nuts, align and install the 1/4" x 1" x 25-1/2" center section bridging tie bar (Item 2) [Figure 38]. Tighten bolts and lock nuts.

Figure 39



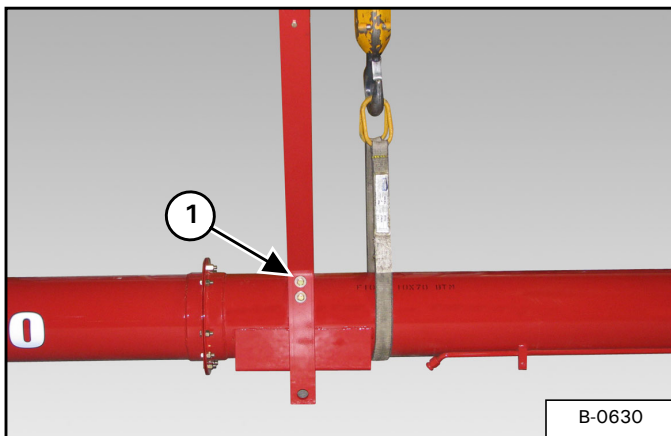
Install a strap (Item 1) on the bottom tube section, forward of the main bridging yoke mounting brackets (Item 2) [Figure 39].

Connect the strap to an approved lifting device.

Raise the bottom tube section until the main bridging yoke (Item 3) [Figure 39] can be placed under the bottom tube section.

Rotate the main bridging yoke

Figure 40



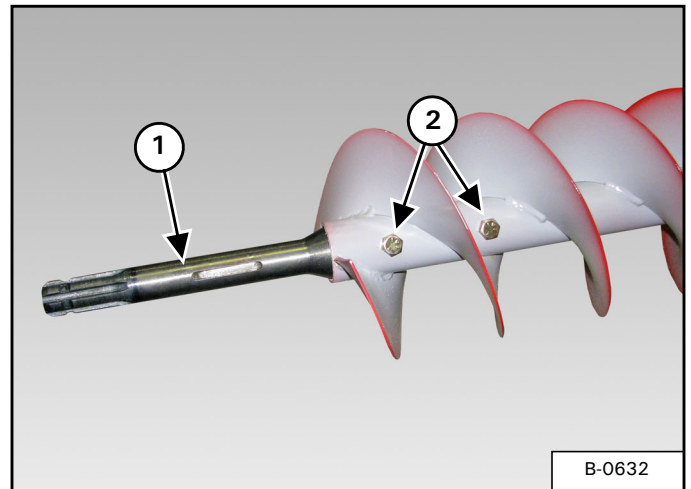
Align the mounting holes of the main bridging yoke and bottom tube section bridging yoke mounting brackets [Figure 40].

Install four 1/2" x 1-3/4" Gr. 5 bolts (Item 1) [Figure 40], four 1/2" flat washers and 1/2" lock nuts.

Lower the tube assembly to the ground. Remove the strap.

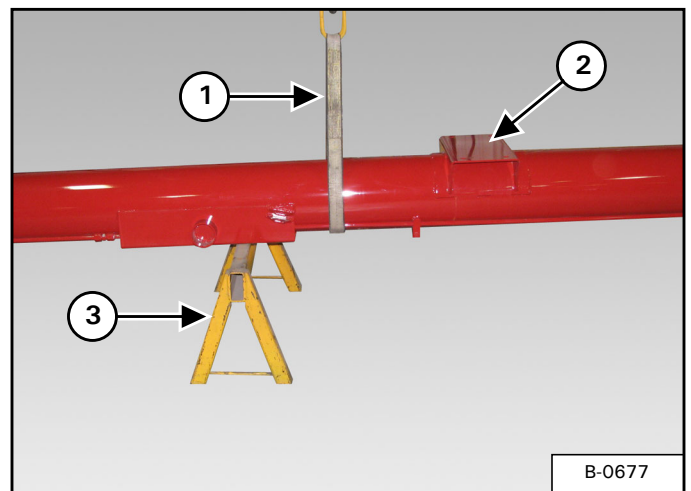
Tighten the 1/2" bridging bolts and the 3/8" x 1-1/4" tie bar bolts.

Figure 41



Locate and install the splined shaft (Item 1) into the bottom tube section flighting, using two 1/2" x 3" bolts (Item 2) [Figure 41] and 1/2" lock nuts. Tighten bolts and lock nuts.

Figure 42



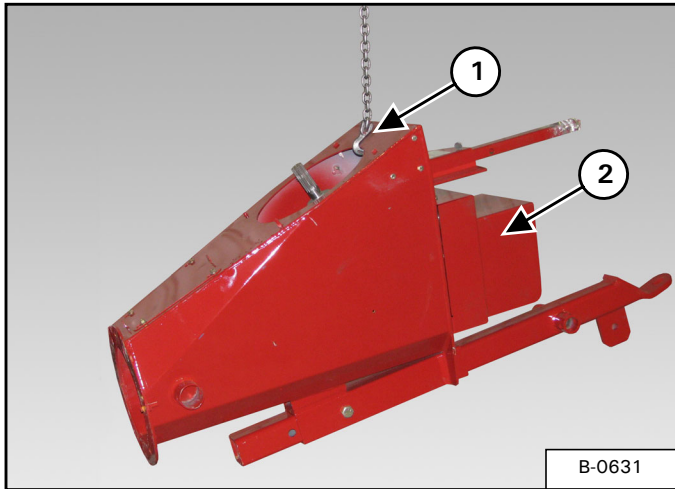
Install a strap (Item 1) around the bottom tube section, just behind the winch mounting plate (Item 2) [Figure 42].

Connect the strap to an approved lifting device.

Raise the bottom tube section and place a support (Item 3) [Figure 42] under the bottom tube section.

Lower the bottom tube section onto the support (leave strap and lifting device installed).

Figure 43

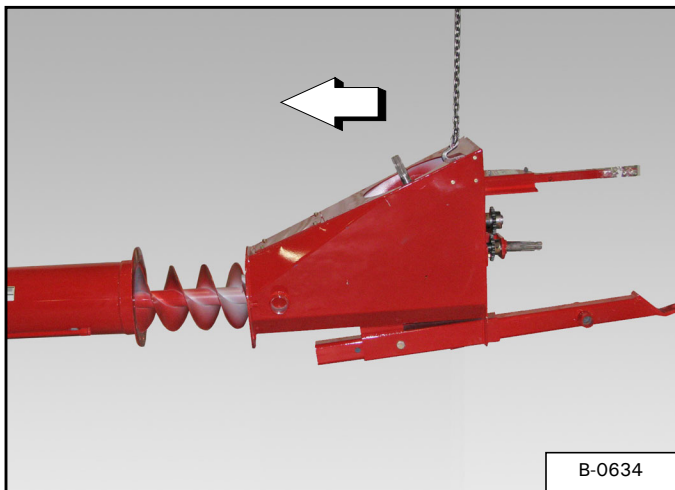


Install a chain (Item 1) [Figure 43] onto the input box. Connect the chain to an approved lifting device.

Raise and move the input box in front of the bottom tube section.

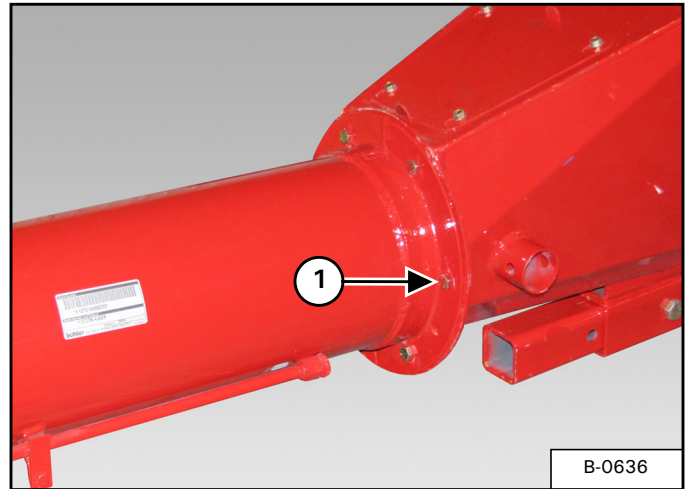
Remove chain guard (Item 2) [Figure 43].

Figure 44



Align and guide the input box onto the flighting of the bottom tube section [Figure 44].

Figure 45

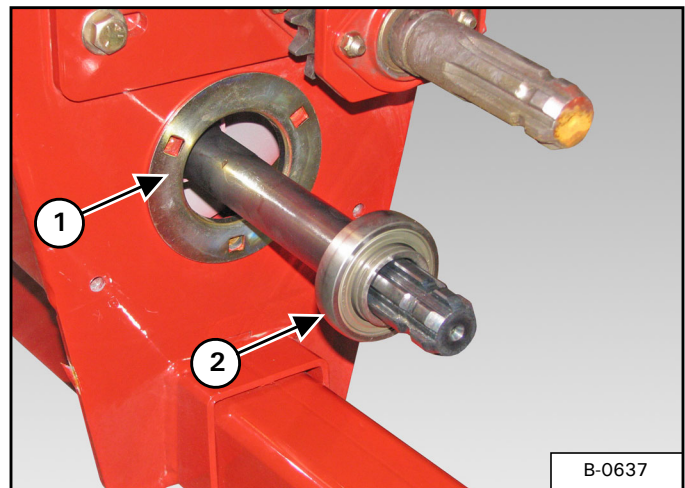


NOTE: When installing the input box onto the flighting, guide the splined shaft through the opening on the opposite end of the input box.

Guide the input box onto the flighting of the bottom tube section until the two mounting flanges make contact [Figure 45].

Align the holes of the two mounting flanges. Install the six 1/2" x 1-1/4" bolts (Item 1) [Figure 45] through the bottom tube section flange and into threaded holes of the input box. Tighten the bolts.

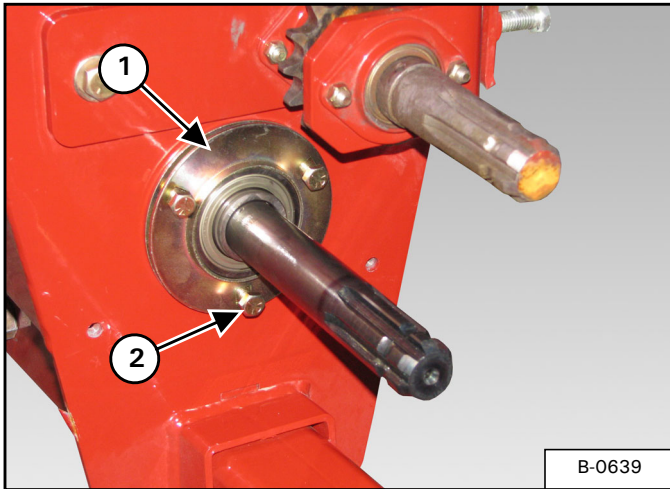
Figure 46



Install one bearing flange (Item 1) [Figure 46] over the drive stub shaft.

Install the 1-3/8" bearing (Item 2) [Figure 46] onto the drive stub shaft.

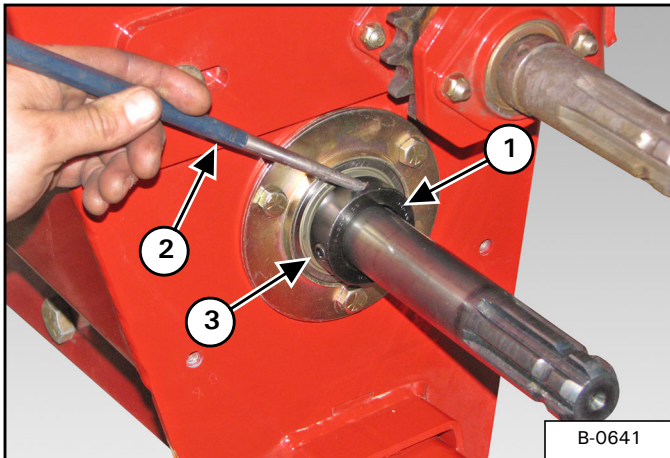
Figure 47



Install the second bearing flange (Item 1) [Figure 47] over the drive stub shaft and 1-3/8" bearing. Align the mounting holes of the two bearing flanges.

Install three 3/8" x 1" Gr. 5 bolts (Item 2) [Figure 47]. Tighten bolts.

Figure 48

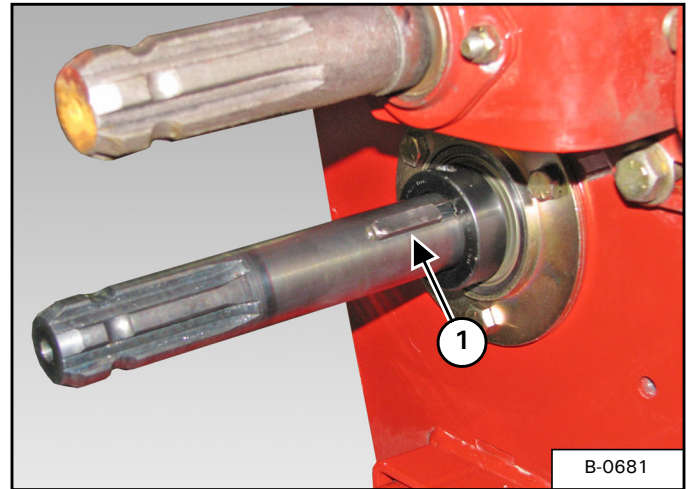


NOTE: Before installing the locking collar, verify the castle nut is set correctly. Back the castle nut off just far enough that the cotter pin hole is covered. Verify that the flighting is pulled all the way down.

Install the locking collar (Item 1). Using a punch (Item 2) [Figure 48], tap / rotate the locking collar clockwise to secure in position.

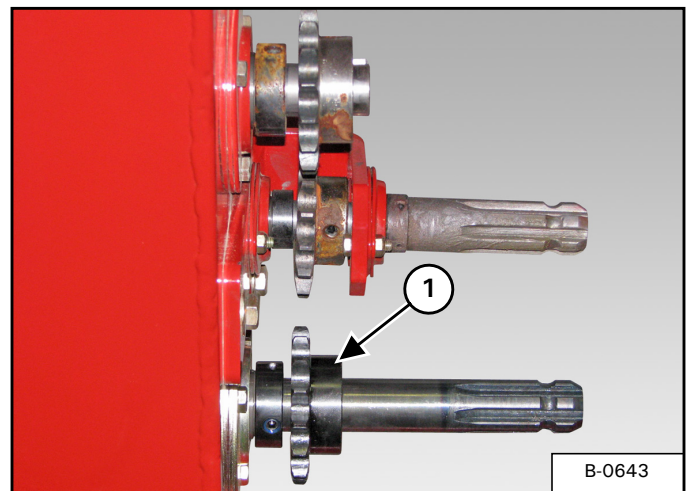
Apply Loctite® to the set screw (Item 3) [Figure 48], install and tighten.

Figure 49



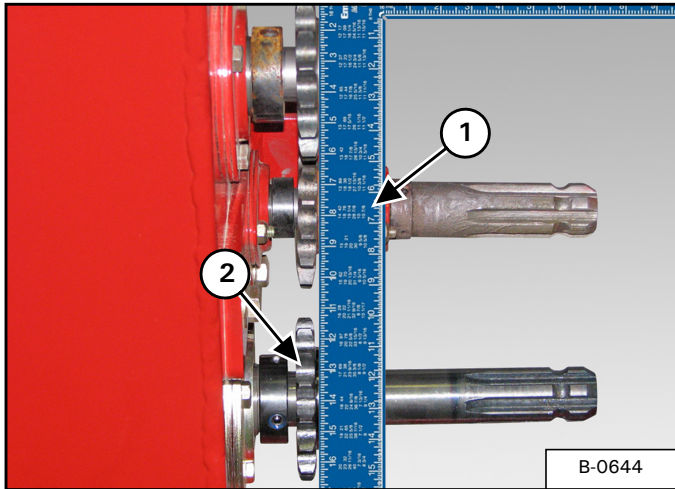
Install the 5/16" x 58 mm key (Item 1) [Figure 49].

Figure 50



Install the sprocket (Item 1) [Figure 50] onto the drive stub shaft (align with key).

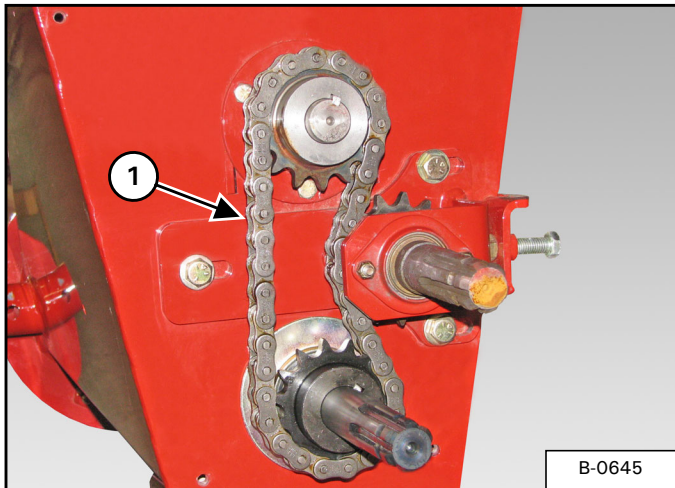
Figure 51



Place a straight edge (Item 1) along side the three sprockets. Align sprocket (Item 2) [Figure 51] with the two pre-installed sprockets.

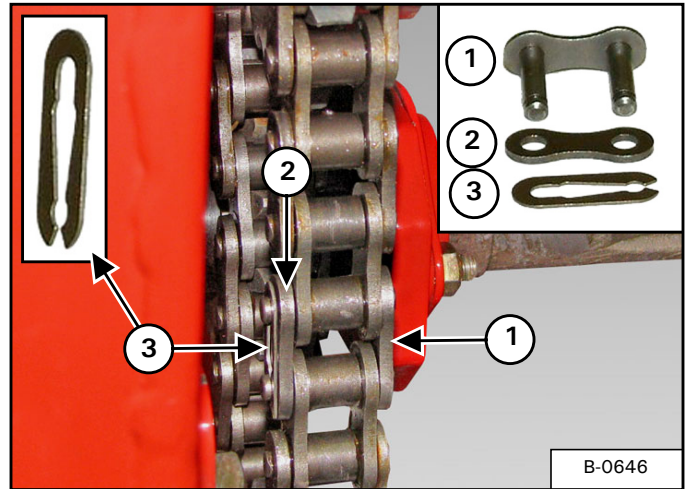
Tighten set screws to secure the sprocket in the set position.

Figure 52



Install the roller chain (Item 1) [Figure 52] as shown.

Figure 53

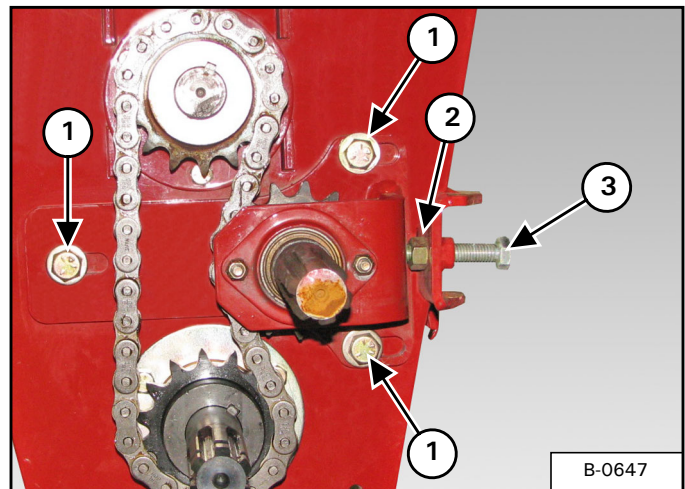


Install the connecting link (Item 1) through the two ends of the chain. Install the connecting link plate (Item 2) onto the connecting link (backside of chain).

NOTE: The spring clip (Item 3) [Figure 53] must be installed with the closed end facing the direction the flighting turns.

Install the spring clip (Item 3) [Figure 53] onto the connecting link securing the two ends of the chain together.

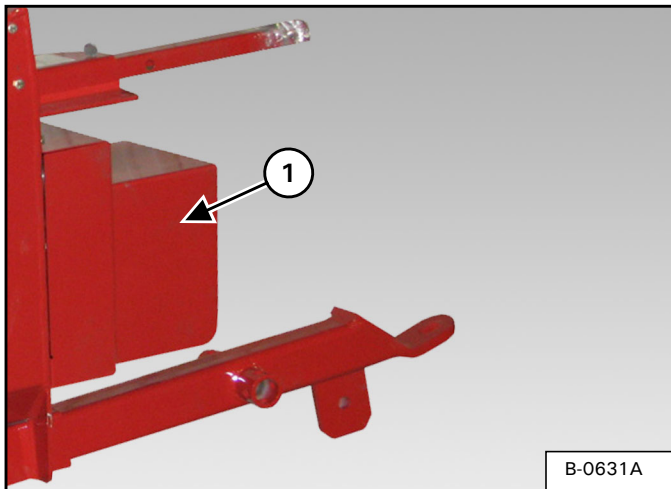
Figure 54



Loosen the three bolts (Item 1) and jam nut (Item 2). Tighten the adjustment bolt (Item 3) [Figure 54] until there is approximately 1/4" deflection in the chain.

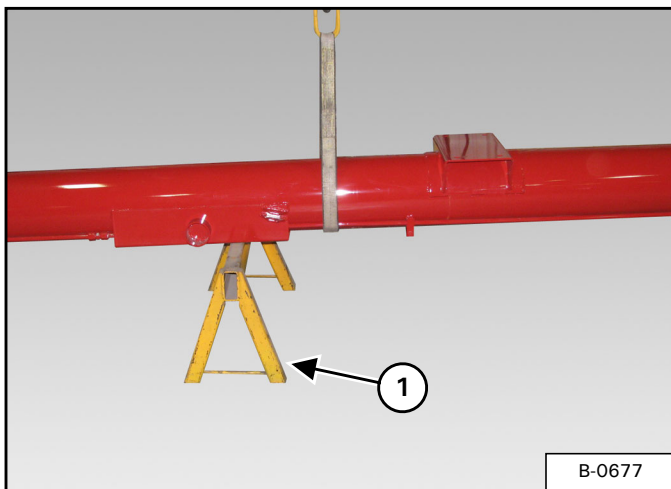
Tighten jam nut and bolts.

Figure 55



Install chain guard (Item 1) [Figure 55].

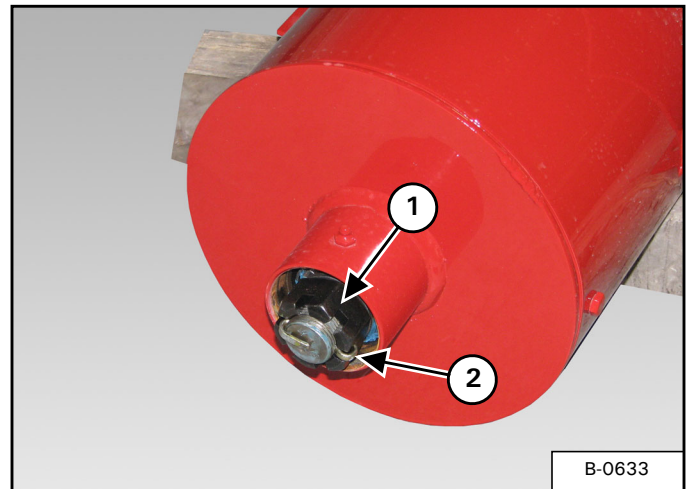
Figure 56



Raise the bottom tube section and remove the support (Item 1) [Figure 56]. Lower the tube assembly to the ground.

Remove strap.

Figure 57



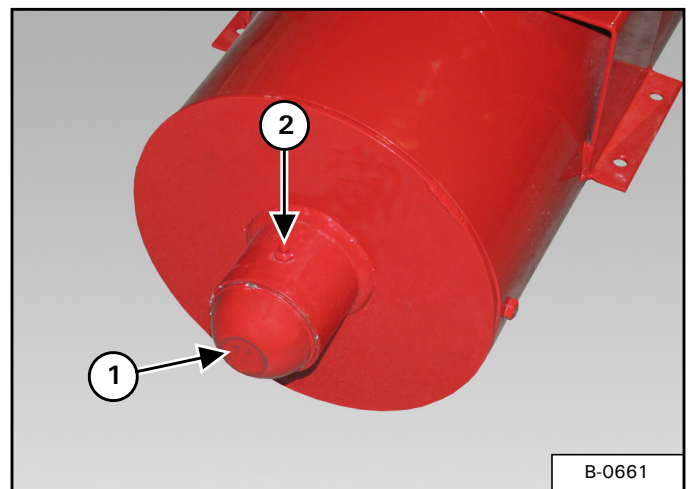
With the tube assembly complete, tighten the castle nut (Item 1) [Figure 57] just enough to install the cotter pin (Should feel a little tension on the flighting).

NOTE: Bag of hardware for the tube supplies an extra cotter pin to replace the one removed by the castle nut when the tube assembly started.

Check for cotter pin hole in the shaft. Tighten or back the castle nut off (applying some tension on the flighting) until the closest cotter pin hole(s) is exposed.

Install the cotter pin (Item 2) [Figure 57].

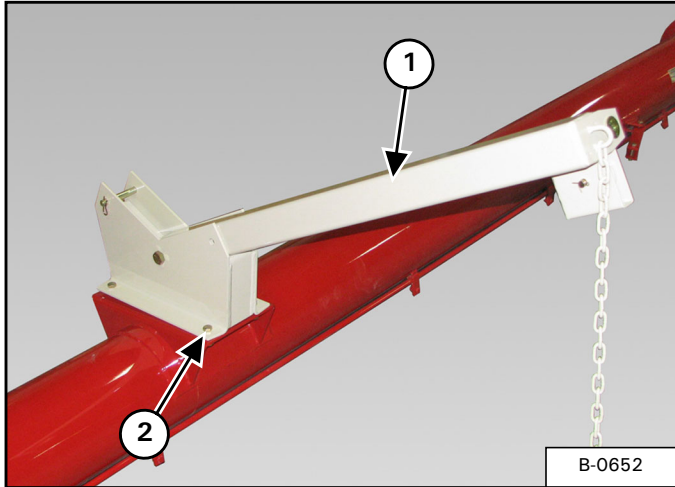
Figure 58



Install the dust cap (Item 1) [Figure 58].

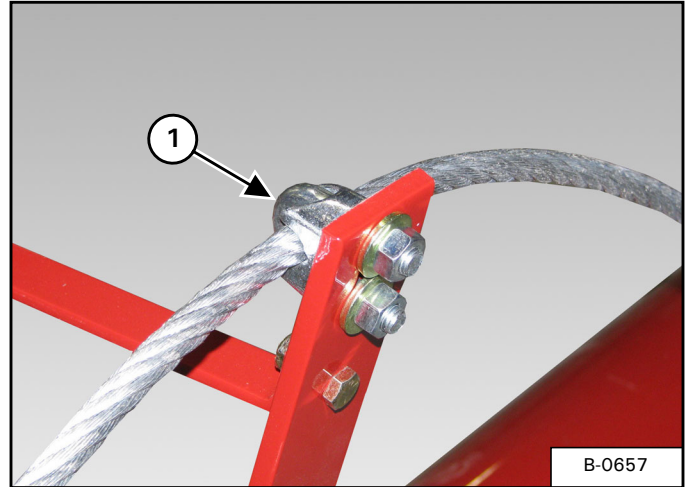
Add 10 pumps of grease to top bearing (Item 2) [Figure 58].

Figure 59



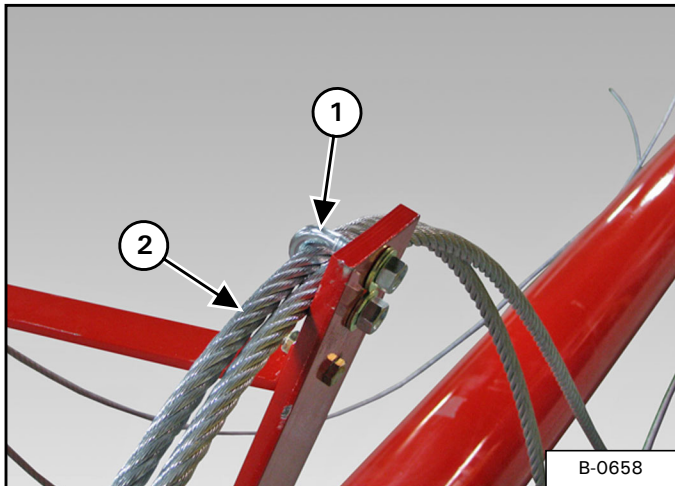
Align the intake lift boom (Item 1) with the mounting plate on the bottom tube section. Install four 1/2" x 1-1/2" bolts (Item 2) [Figure 59], down through the intake lift boom and mounting plate. Install one 1/2" flat washer and 1/2" lock nut the four 1/2" bolts. Tighten the bolts and nuts.

Figure 61



Install one 1/2" cable clamp (Item 1) [Figure 61] around the long cable, then install into the upper bridging yoke (on the center tube section). Do not tighten cable clamp at this time.

Figure 60

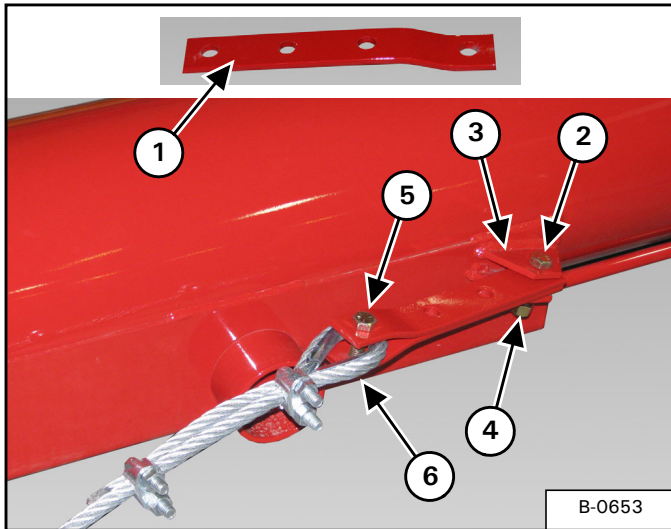


NOTE: Remove clamp section of two 1/2" cable clamps. Use only the u-bolts and nuts.

NOTE: When installing the u-bolt around the two cables, place the short cable into the u-bolt first (both sides).

Install one 1/2" cable clamp (Item 1) [Figure 60] around both the long and short cables, then install into the bridging yoke (on the bottom tube section) (both sides). Do not tighten cable clamp at this time.

Figure 62



Locate two cable yoke brackets (Item 1) [Figure 62].

Install the cable loop into the end of the cable yoke bracket.

Install one 1/2" x 2" bolt (Item 2) through the mounting bracket (Item 3) and cable yoke bracket. Install one 1/2" lock nut (Item 4) [Figure 62] on the bolt. Do not tighten at this time.

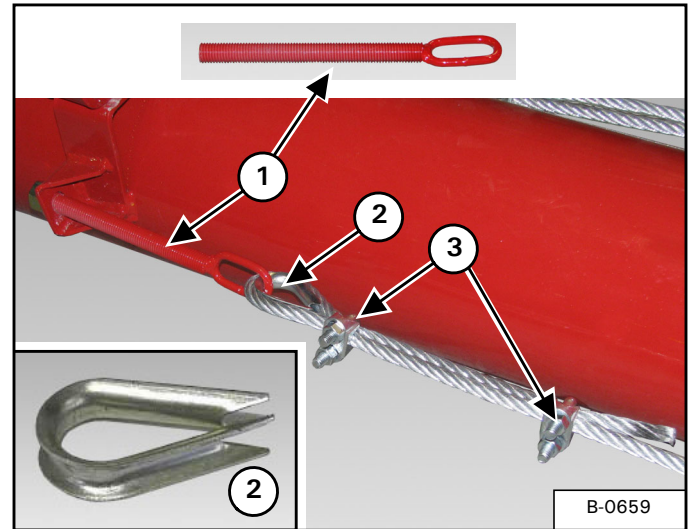
Align the end hole of the cable yoke bracket with the mounting bracket (Item 3) [Figure 62] on the bottom tube section (both sides).

Install one 1/2" x 2" bolt (Item 5) through the cable yoke bracket and cable loop (1/2" cable). Install one 1/2" lock nut (Item 6) [Figure 62]. Do not tighten at this time.

Repeat the above procedure for the remaining three cables.

Tighten all 1/2" cable bolts at this time.

Figure 63



Raise input box end of tube approximately three feet off the ground.

Locate one eyebolt (Item 1) [Figure 63].

Install the thimble (Item 2) [Figure 63] onto the eyebolt (both sides).

Thread the cable through the eyebolt (both sides). Pull cable as tight as possible.

! IMPORTANT

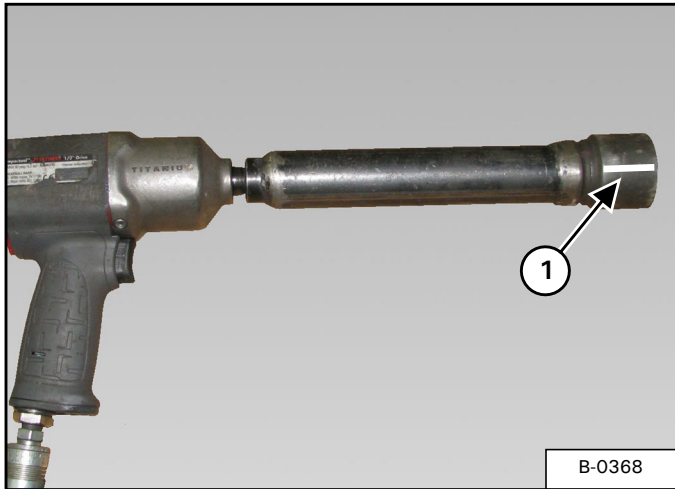
Always insert the tail of the cable into the clamp first when forming a loop in a cable.

Install the two 1/2" cable clamps (Item 3) [Figure 63] onto the cable. Slide the first cable clamp (loop end) as close to the thimble as possible and tighten (both sides).

Slide the second cable clamp approximately 2 inches (51 mm) from the end of the tail and tighten (both sides).

Repeat the above procedure for the remaining three 1/2" cables.

Figure 64



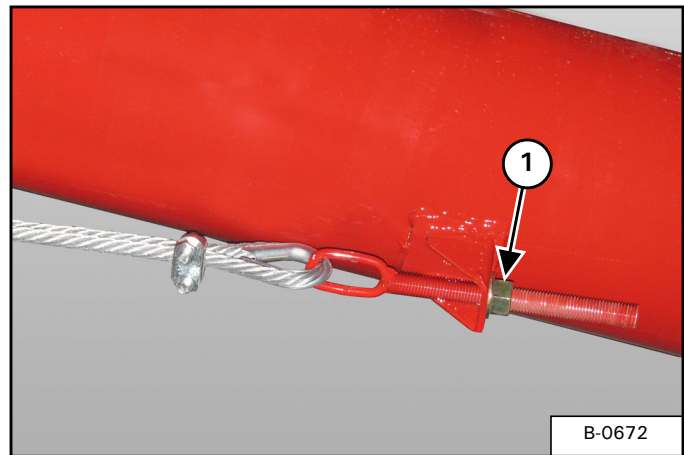
Place a mark (Item 1) [Figure 64] on the cable tightening tool. This will help to tighten the cables evenly.

Count the revolutions as the tool is turning while tightening.

! IMPORTANT

All tube and bridging hardware should be tightened before tightening cables.

Figure 65



NOTE: Cable lengths may vary. The following is a starting point and cables may need to be tightened more or loosened depending on the cable length.

Verify that the input box end of tube is approximately three feet off the ground. Look down the tube to see how straight the tubes are.

NOTE: Use the cables to bow up the discharge end and straighten tubes.

Tightening The Long Cables

1050 Model - The discharge end should bow up about 3 to 4" from bottom of tube to the ground.

1060 Model - The discharge end should bow up about 6 to 8" from bottom tube to ground.

1070 & 1080 Models - The discharge end should bow up about 12" to allow adequate space to install the discharge spout.

Tighten long cable eyebolts (Item 1) [Figure 65] first. Once cables are tight, tighten both sides three additional revolutions with the impact wrench and socket.

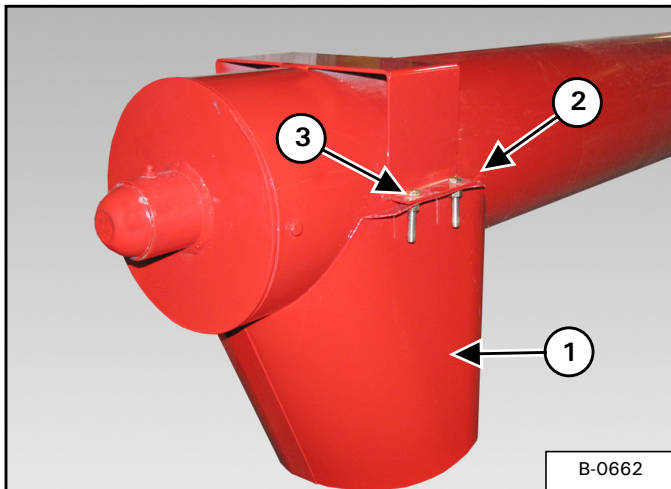
Tightening The Short Cables

Tighten short cables just enough to take the slack out. Lower the input box end of the tube to the ground.

Stand behind the input box and look down the full length of the tubes and check to see how straight the tubes are and how much the discharge end bows up.

Repeat cable tightening procedure (if needed).

Figure 66



Align the discharge spout (Item 1) with the mounting brackets (Item 2) [Figure 66] on both sides of the top tube section.

Install the four 3/8" x 2" (full thread) bolts (Item 3) [Figure 66] and 3/8" lock nuts. Tighten bolts and lock nuts evenly until the discharge spout contacts the top tube section.

Lower the tube assembly to the ground.

! IMPORTANT

Check over all tube and bridging hardware to make sure all hardware is tight before installing tube assembly onto the undercarriage.

Installing Tube On Undercarriage

Install the tube on the undercarriage on a flat level surface.

! WARNING



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

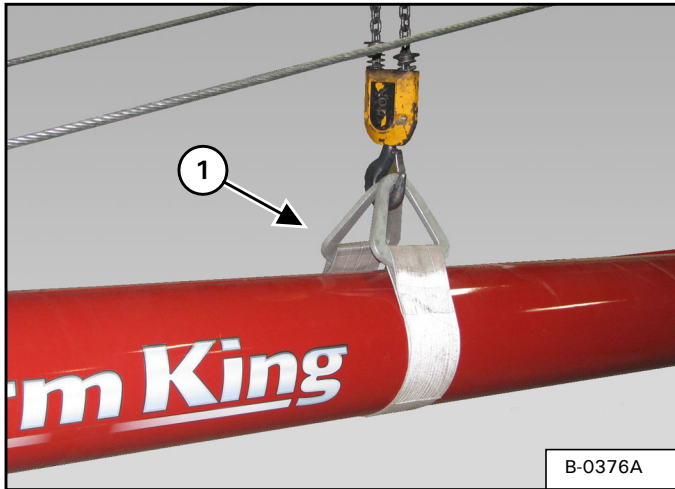
! WARNING



AVOID INJURY OR DEATH

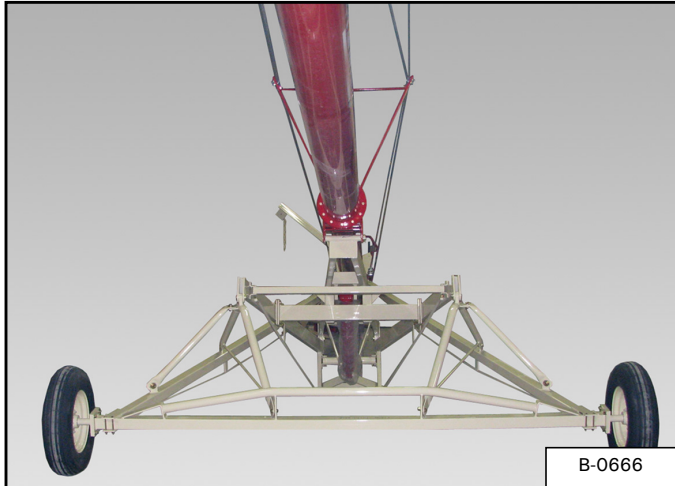
Keep fingers and hands out of pinch points when assembling the equipment.

Figure 67



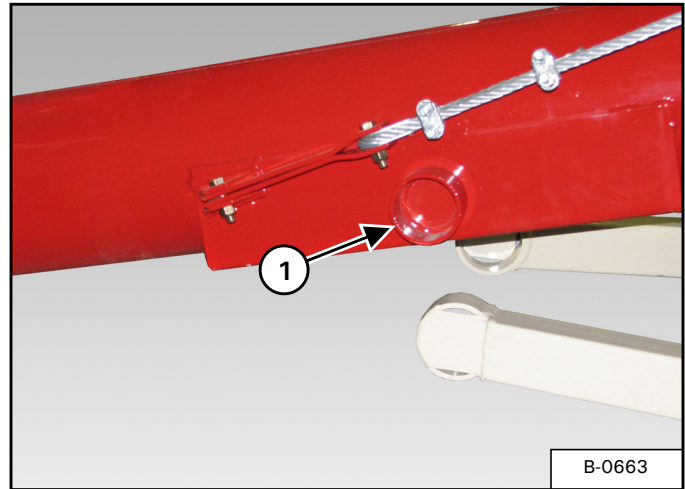
With the strap (Item 1) [Figure 67] installed around the center tube section and connected to an approved lifting device, raise the tube assembly high enough to allow the undercarriage to be moved under the tube assembly.

Figure 68



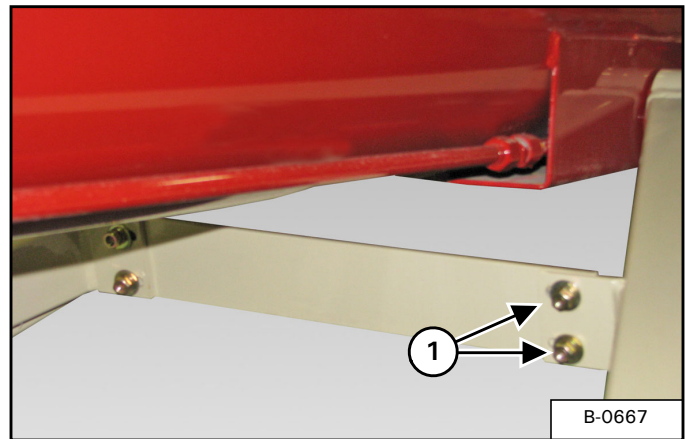
Move the undercarriage into position below the tube assembly [Figure 68].

Figure 69



Align the RH & LH undercarriage arms with the mounts (Item 1) [Figure 69] on the bottom tube section (both sides).

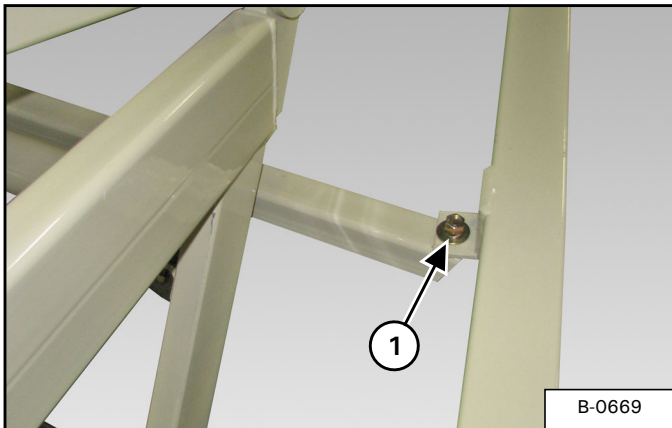
Figure 70



Remove the two 3/8" x 1-1/4" bolts (Item 1) [Figure 70], 3/8" lock nut and 3/8" flat washers from the undercarriage tie plate.

NOTE: Loosening the undercarriage tie plate will allow the RH & LH undercarriage arms to be moved during installation to the tube assembly.

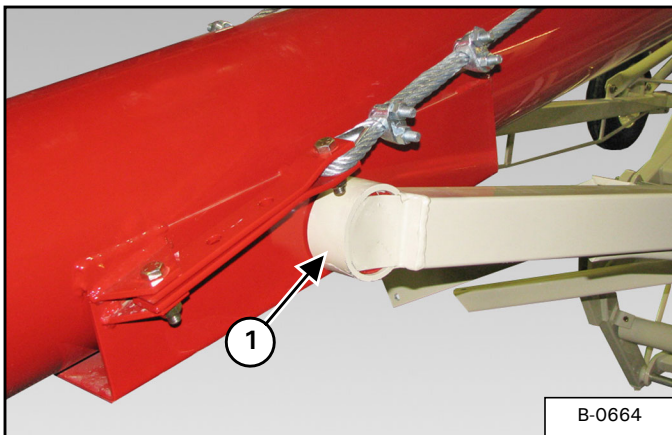
Figure 71



Remove the 1/2" x 1-1/4" bolt (Item 1) [Figure 71], 1/2" lock nut and 1/2" flat washer from the lift arm cradle.

NOTE: Loosening the lift arm cradle will allow the RH & LH undercarriage arms to be moved during installation to the tube assembly.

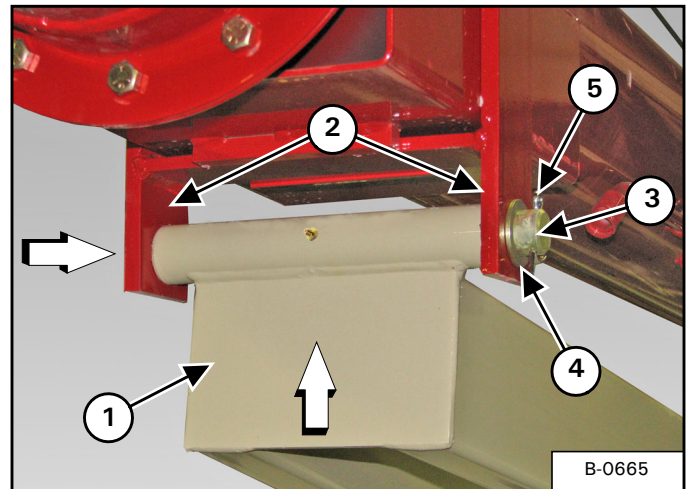
Figure 72



Fully install the RH & LH undercarriage arms (Item 1) [Figure 72] onto the mounts of the bottom tube section.

Align the undercarriage tie plate and install the two 3/8" x 1-1/4" bolts (Item 1) [Figure 70], 3/8" lock nut and 3/8" flat washers. Do not tighten bolts and lock nuts at this time.

Figure 73



Raise the upper lift arm (Item 1), align upper lift arm with the main bridging yoke (Item 2) [Figure 73] on the bottom tube section.

Lift Arm Pivot Pin Sizes

1" x 11-7/8" - Model 1050 & 1060

1-1/4" x 12-1/4" - Model 1070

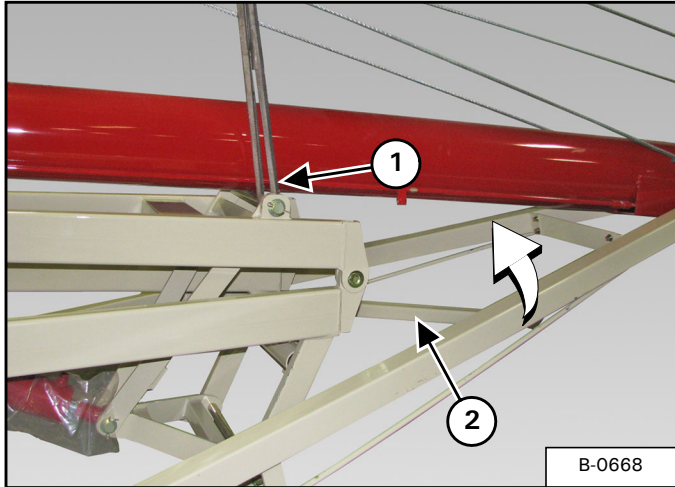
Cotter Pin Sizes

3/16" x 1-1/2" - Model 1050 & 1060

1/4" x 2" - Model 1070

Install the lift arm pivot pin (Item 3) through the main bridging yoke and upper lift arm. Install one 1-1/4" x 10 ga. narrow rim washer (Item 4) onto the lift arm pivot pin, and install one 1/4" x 2" cotter pin (Item 5) [Figure 73] through the lift arm pivot pin.

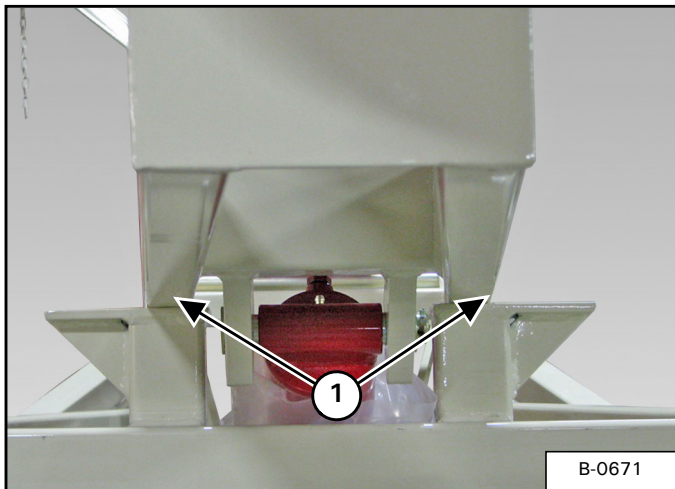
Figure 74



Install a strap (Item 1) around the yoke pin. Attach the strap to an approved lifting device.

Swing the lift arm cradle (Item 2) [Figure 74] to the side to allow the lift assembly to be raised above the lift arm cradle. Re-install the lift arm cradle.

Figure 75



Lower the tube / undercarriage assembly down onto the cradle (Item 1) [Figure 75]. Center the tube / undercarriage assembly on the cradle.

Tighten all remaining undercarriage bolts.

Lower tube assembly onto the undercarriage and remove the strap from tube assembly.

Grease all zerks on undercarriage. (See "LUBRICATION" on page 89.)

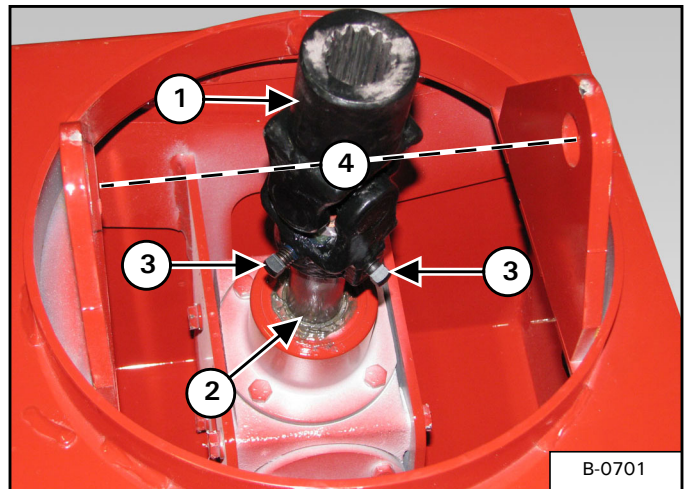
! IMPORTANT

Check over undercarriage, verify all bolts are tight, all zerks are greased and cotter pins bent over.

Installing The Intake Auger

NOTE: The following images may not show your exact intake auger as it appears but the procedure is correct.

Figure 76



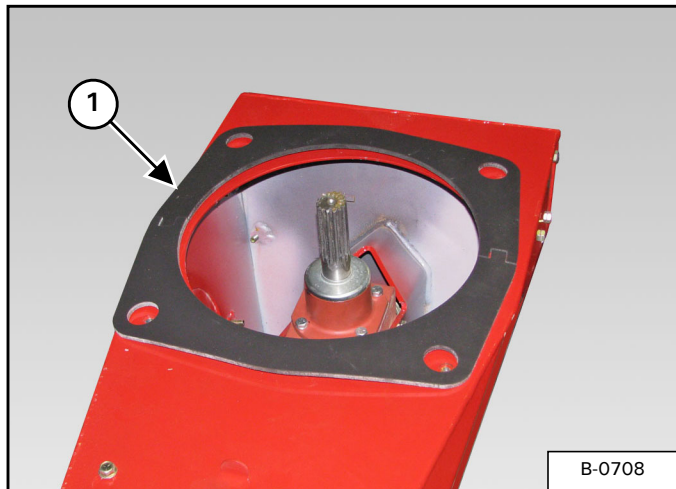
Install the u-joint (Item 1) onto the shaft (Item 2) [Figure 76] of the upper gearbox (intake elbow).

! IMPORTANT

Position the u-joint center (Item 4) [Figure 76] at the same height as the pivot mounting holes.

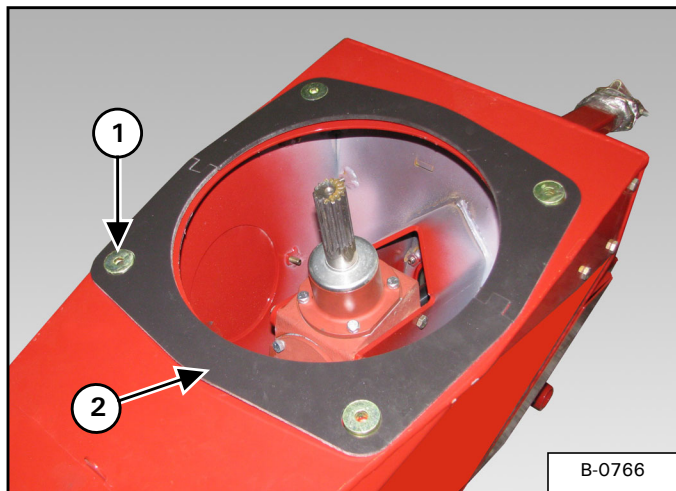
Apply Locktite® to the set screw (Item 3) [Figure 76], install and tighten the set screw.

Figure 77



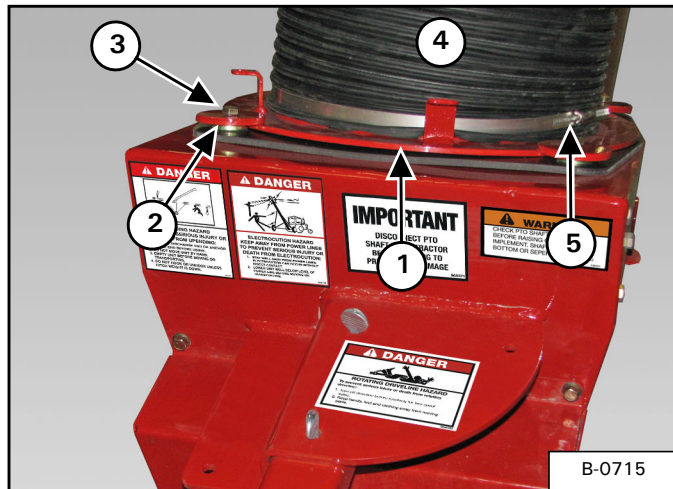
Install the intake spacer (Item 1) [Figure 77] on the top of the input box.

Figure 78



Install one 1/4" x 13/32" ID x 1-1/4" OD washer (Item 1) in the four corners of the intake spacer (Item 2) [Figure 78].

Figure 79



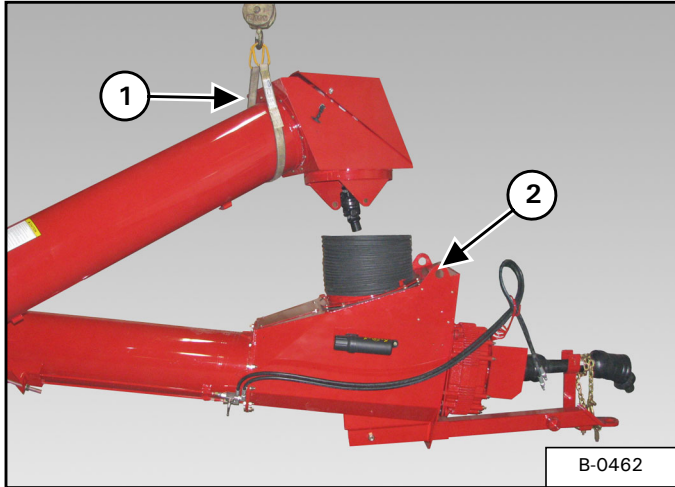
Install the input box pivot (Item 1) inside the four 1/4" x 13/32" ID x 1-1/4" OD washers. Align the mounting holes and install one input box ring clamp (Item 2) and one 3/8" x 1-1/2" bolt (Item 3) [Figure 79] at the four corners of the intake spacer.

Tighten bolts to secure the input box pivot to the input box.

NOTE: The input box pivot should rotate freely.

Install the plastic sleeve (Item 4) onto the input box pivot. Install one clamp (Item 5) [Figure 79] and tighten to secure the plastic sleeve to the intake auger

Figure 80

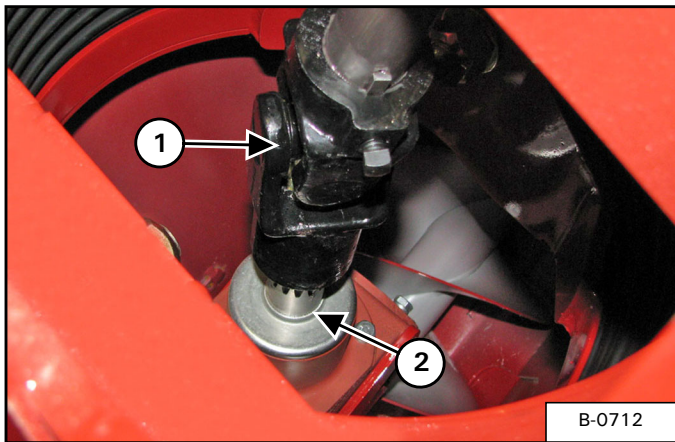


Install a strap (Item 1) [Figure 80] around the intake auger.

Connect the strap to an approved lifting device.

Raise the intake auger and position over the input box (Item 2) [Figure 80].

Figure 81

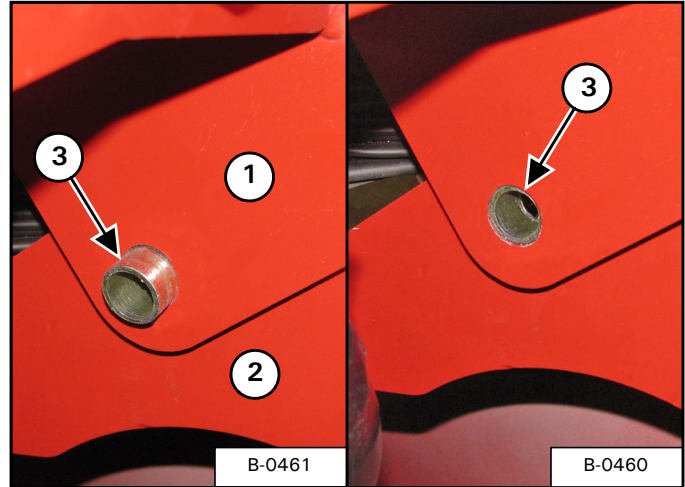


Lower the intake auger, align the u-joint (Item 1) with the top gearbox shaft (Item 2) [Figure 81] of the input box.

NOTE: Lubricate top gearbox shaft before lowering the intake auger onto the shaft.

Lower the intake auger onto the shaft.

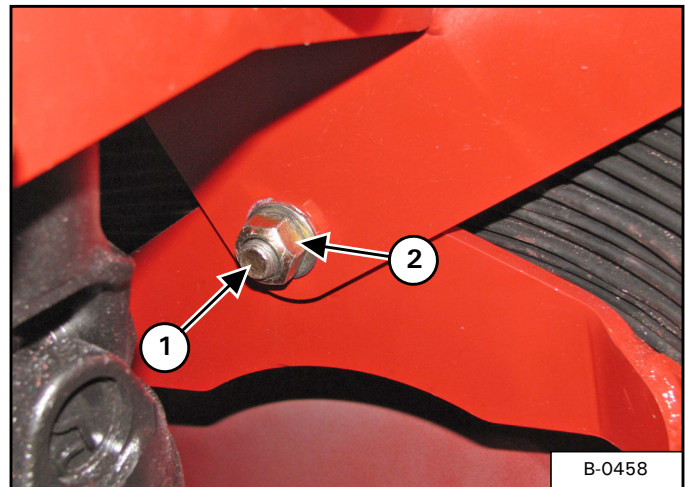
Figure 82



Align the hole of intake auger mounting plate (Item 1) and the hole of intake box mounting plate (Item 2) [Figure 82] (both sides).

Install bushing (Item 3) [Figure 82] through the intake auger mounting plate and input box mounting plate until flush with the inside of the intake auger mounting plate (both sides).

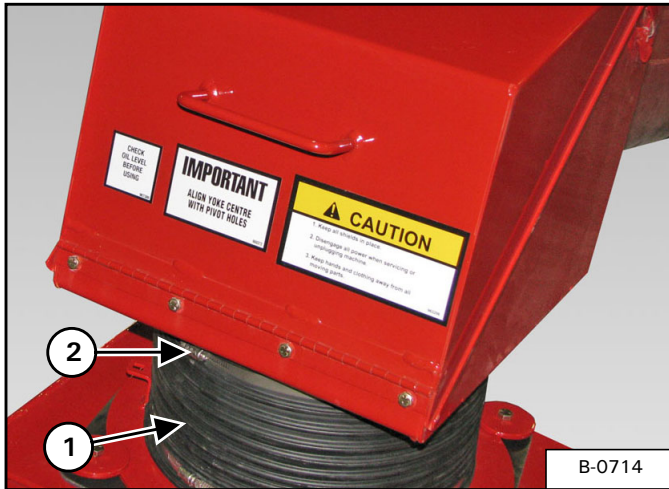
Figure 83



Install one bolt (Item 1) and lock nut (Item 2) [Figure 83] (both sides).

Tighten the bolt and lock nut securely against the bushing.

Figure 84



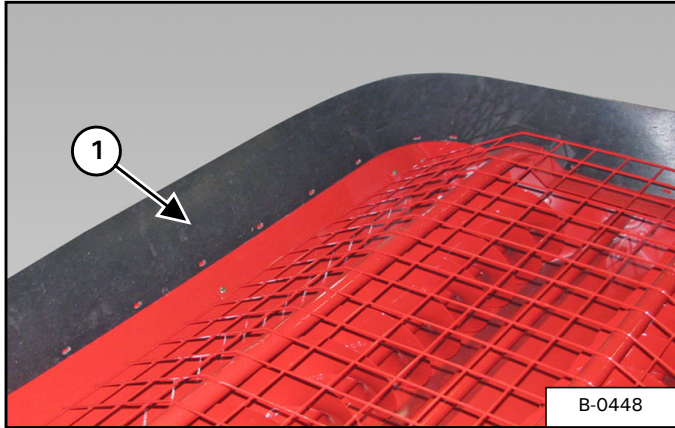
Slide the plastic sleeve (Item 1) up onto the intake auger. Install the clamp (Item 2) [Figure 84] and tighten to secure the plastic sleeve to the intake auger.

Remove the strap and lifting device.

Hopper Assembly And Installation

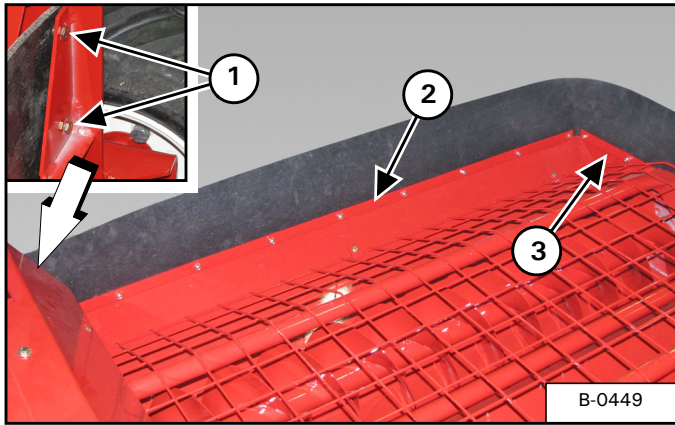
NOTE: The following images may not show your exact hopper components as they appear but the procedure is correct.

Figure 85



Place the rubber edge (Item 1) [Figure 85] inside the outer flange of the hopper.

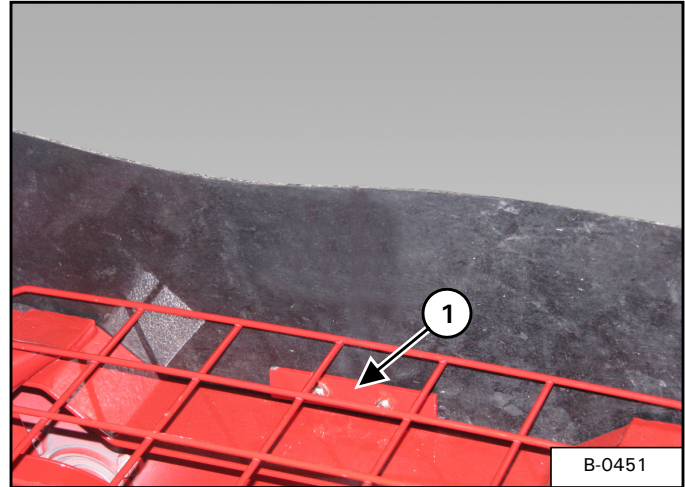
Figure 86



Align the end of the rubber edge with the two holes at the back of the hopper. Install two 1/4" x 1" bolts (Item 1) [Figure 86] through the hopper and rubber edge. Install a 1/4" lock nut on each bolt.

Align one long rubber reinforcement (Item 2) and one short rubber reinforcement (Item 3) [Figure 86] with holes in the rubber edge and outer hopper flange (both sides). Install 1/4" x 1" bolts through the hopper, rubber edge and rubber reinforcements (install bolts from the outside of the hopper flange). Install a 1/4" lock nut on each bolt. Do not tighten bolts and lock nuts at this time.

Figure 87

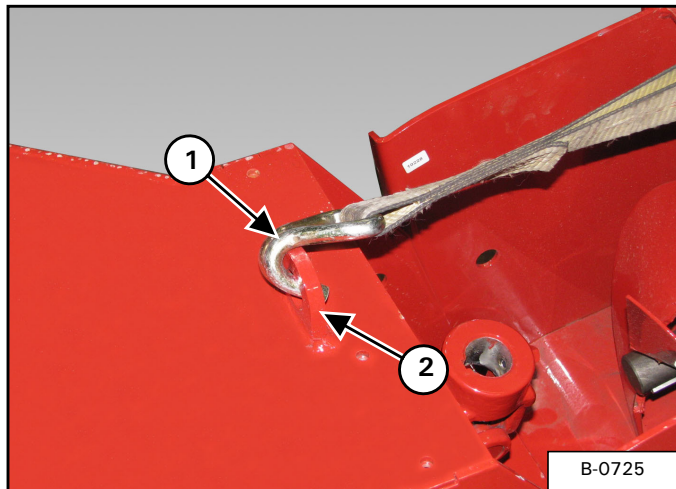


Align the two-hole rubber reinforcement (Item 1) [Figure 87] with holes in the rubber edge and outer hopper flange. Install two 1/4" x 1" bolts through the hopper, rubber edge and rubber reinforcement (install bolts from the outside of the hopper flange). Install a 1/4" lock nut on each bolt. Do not tighten bolts and lock nuts at this time.

NOTE: When tightening the rubber edge bolts and lock nuts, tighten until the lock nut contacts the rubber reinforcements. Do not over tighten and cause the rubber reinforcements to become wavy.

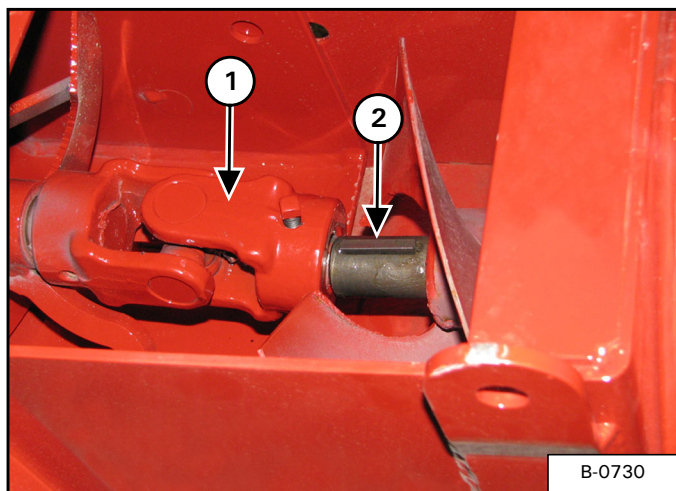
Tighten all bolts and lock nuts to secure the rubber edge to the hopper.

Figure 88



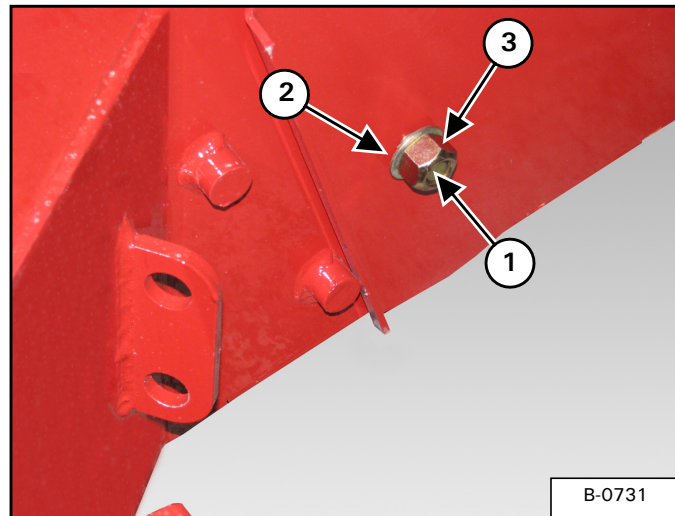
Install a ratchet strap (Item 1) onto the bracket (Item 2) [Figure 88] on the top of the hopper (connect the opposite end of the ratchet strap to the mounting bracket on the top of the intake auger).

Figure 89



Tighten the ratchet strap, align the hopper u-joint (Item 1) with the shaft (Item 2) [Figure 89] on the intake auger. Tighten the ratchet strap until the u-joint is all the way on the shaft.

Figure 90



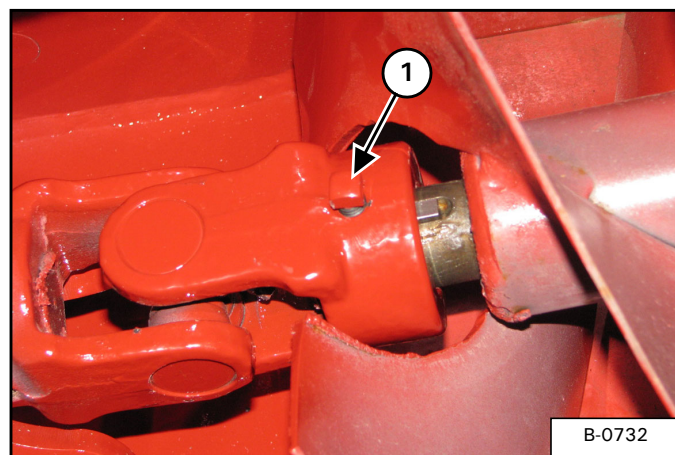
Align the mounting holes on the hopper and intake auger.

Install one 3/4" x 1-5/8" bolt (Item 1) (from inside) through the hopper and intake auger. Install one 3/4" flat washer (Item 2) and 3/4" lock nut (Item 3) [Figure 90] onto the bolt.

Repeat the [Figure 90] procedure on the opposite side of the hopper and intake auger.

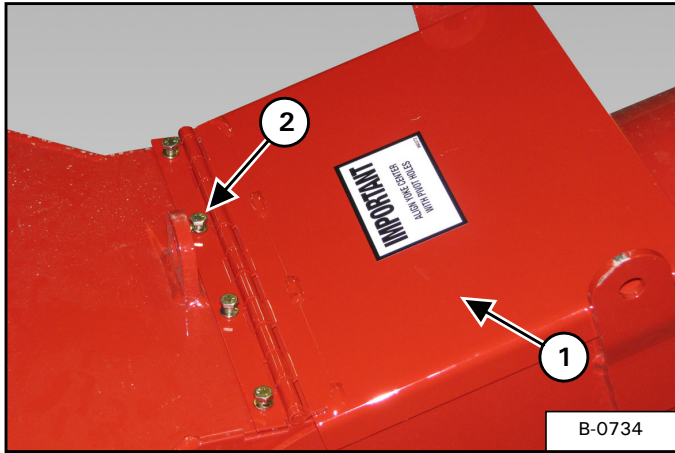
Tighten the bolt (Item 1) [Figure 90] and lock nut (both sides).

Figure 91



Apply Loctite® to the set screw (Item 1) [Figure 91], install and tighten the set screw.

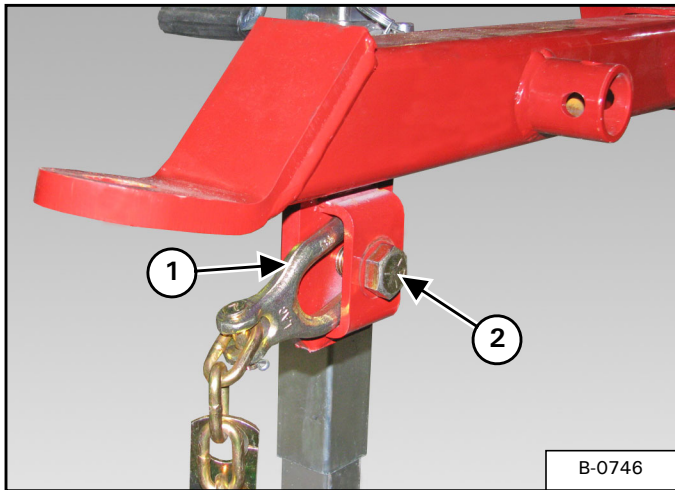
Figure 92



Align the hinged intake auger cover (Item 1) with the four mounting holes in the hopper. Install four 5/16" x 1" bolts (Item 2) [Figure 92] and 5/16" lock washers through the hinged intake auger cover and into the hopper. Tighten bolts.

Safety Chain Installation

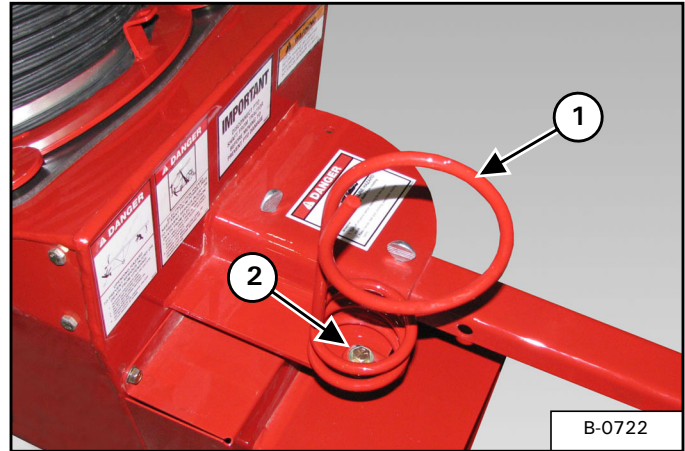
Figure 93



Install the safety chain loop (Item 1) into the opening on the bottom side of the hitch, install one 3/4" x 2-1/2" bolt (Item 2) [Figure 93] through the hitch and safety chain loop. Install one 3/4" lock nut and tighten to secure the safety chain to the hitch.

Hydraulic Hose Holder Installation

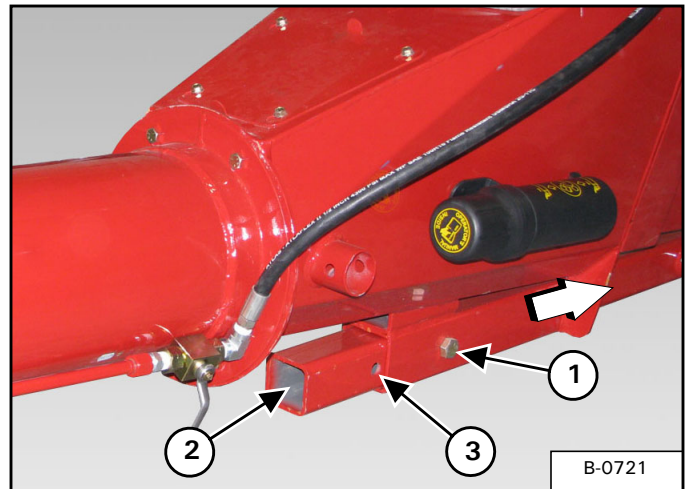
Figure 94



Install the hydraulic hose holder (Item 1) [Figure 94] onto the mounting bracket located on the top of the gearbox (above the hitch).

Install one 3/8" flat washer onto one 3/8" x 1-1/4" bolt (Item 2) [Figure 94], install the bolt down through the storage bracket and mounting bracket. Install one 3/8" lock nut on the bolt and tighten to secure the hydraulic hose holder to the gearbox.

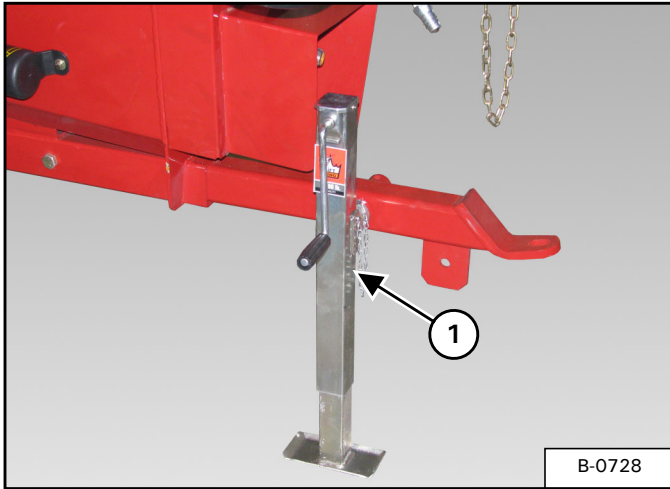
Figure 95



Remove bolt (Item 1) and lock nut. Move the hitch (Item 2) forward and align the back hole (Item 3) [Figure 95] of the hitch with the hitch mount. Re-install and tighten the bolt and lock nut.

Jack Installation

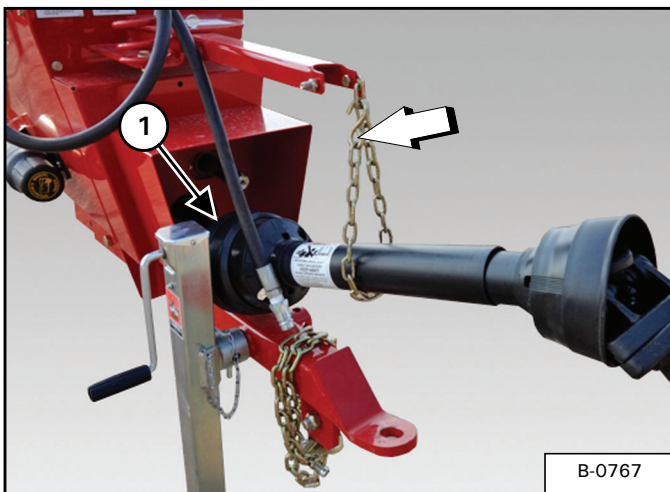
Figure 96



Align and install the jack (Item 1) [Figure 96] onto the hitch (hopper side).

PTO Driveline Installation

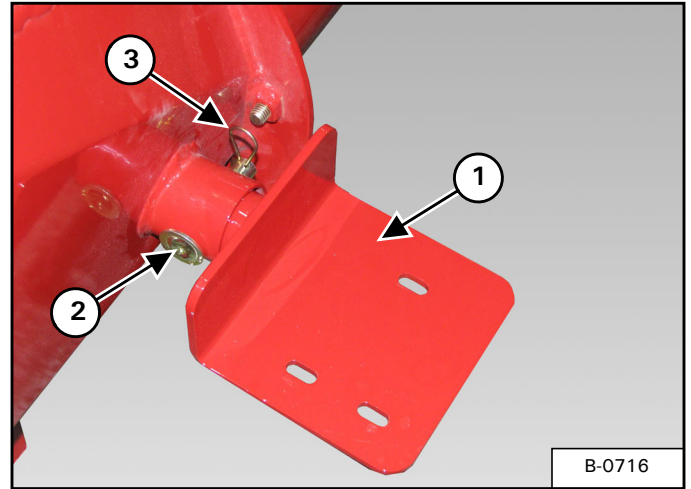
Figure 97



Push back on the collar (Item 1) [Figure 97] and install the shaft into the gearbox until the collar slides forward, locking the shaft in the gearbox. Place the PTO holder chain around the PTO driveline and hook chain back to itself.

Hand Winch And Cable Installation

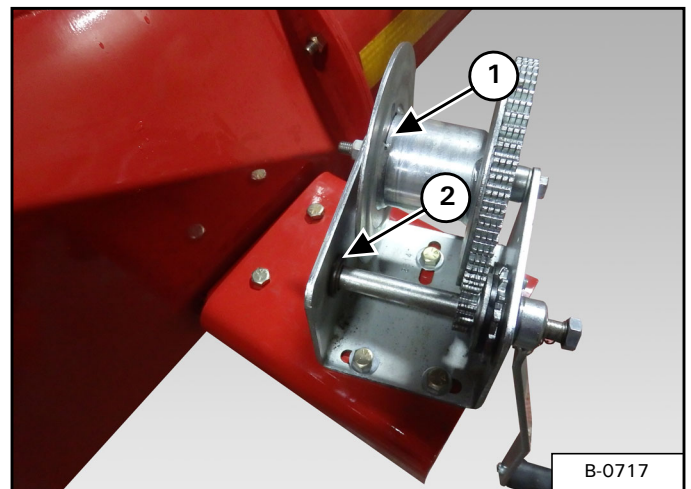
Figure 98



Install the hand winch mounting bracket (Item 1) [Figure 98] on the opposite side of the hopper.

Install the pin (Item 2) and retaining clip (Item 3) [Figure 98] to secure the hand winch mounting bracket to the input box.

Figure 99

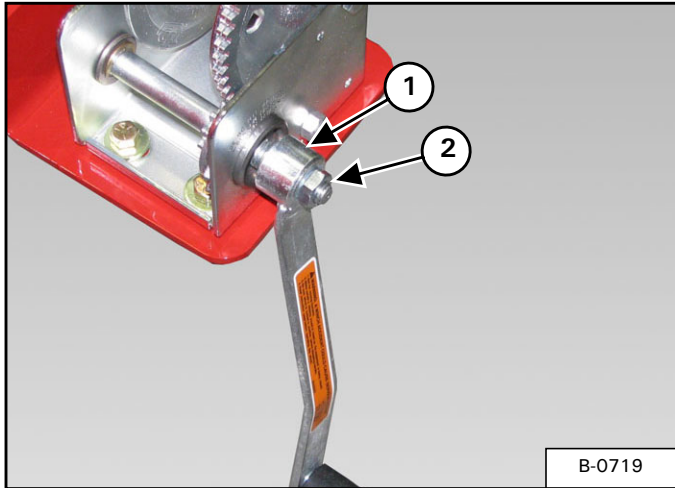


Align the hand winch (Item 1) [Figure 99] with the three mounting slots on the hand winch mounting bracket.

Install one 7/16" flat washer onto three 3/8" x 1" (Gr. 5) bolts (Item 2) [Figure 99]. Install the three bolts and flat washers down through the winch and mounting

bracket. Install one 7/16" flat washer and 3/8" lock nut on the three bolts. Tighten bolts and nuts.

Figure 100



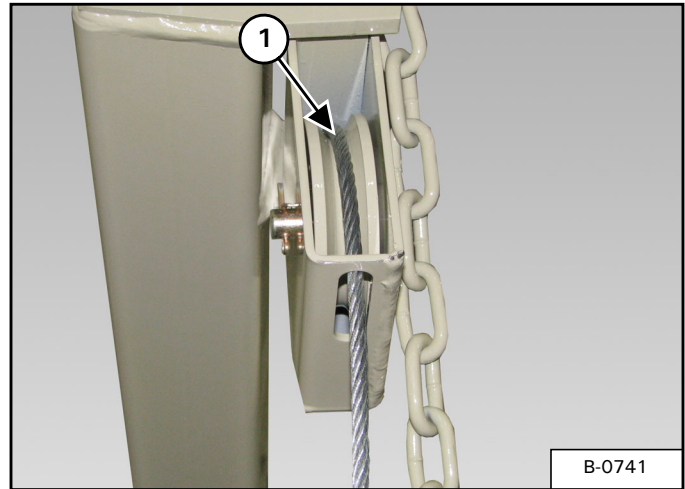
Align the handle (Item 1) [Figure 100] with the input shaft.

Install the nut (Item 2) [Figure 100]. Tighten the nut against the handle and torque to 22 - 25 ft.-lb. (30 - 34 N•m).

! IMPORTANT

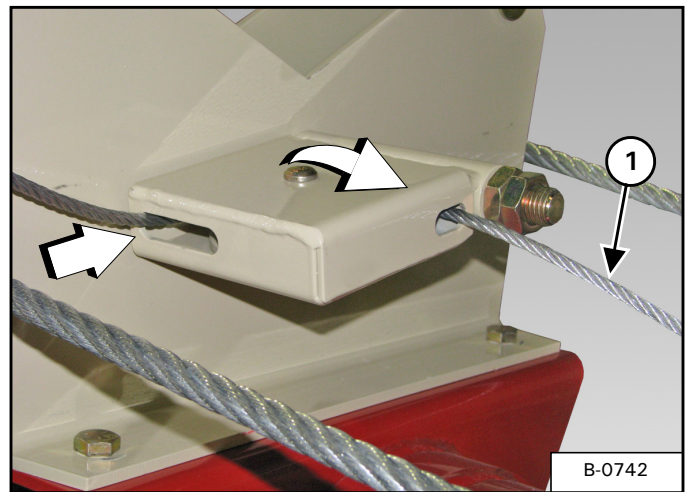
- Do not over torque the nut against the handle.
- Do not adjust the double lock nuts on the long end of the input shaft.

Figure 101



Locate the winch cable. Install the open end of the cable (Item 1) [Figure 101] over the pulley on the top of the lift boom.

Figure 102



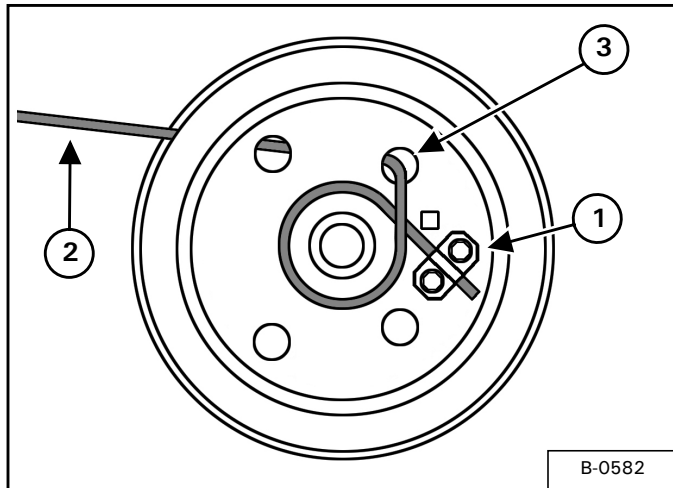
Feed the open end of the cable (Item 1) [Figure 102] through the slot(s) and around the lower pulley on the bottom of the lift boom.

Route the cable to the hand winch.

! IMPORTANT

Do not remove the drum to install the cable.

Figure 103



Install the cable clamp (Item 1) [Figure 103] using the two bolts provided with winch. Leave bolts loose.

Route the cable over the top of the hand winch drum.

Install the cable (Item 2) from the inside of the drum through one of the dimpled holes (Item 3) [Figure 103] in the outer plate.

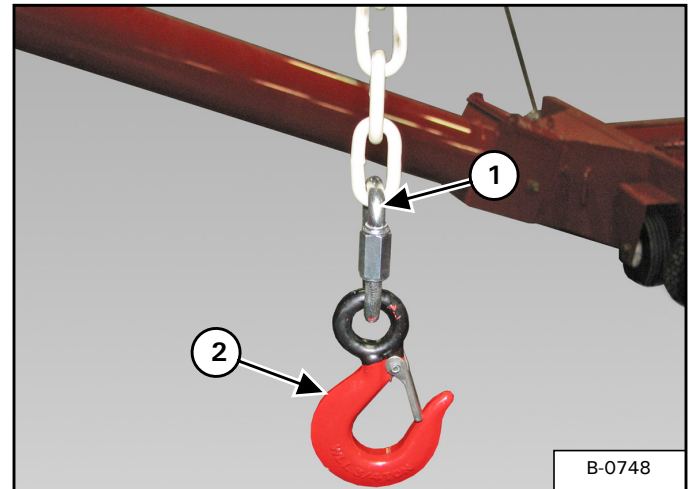
Loop the cable around the drum bearing. Feed the cable between the loop and outer plate, then through the cable clamp.

Leave approximately 1" of cable extending past the clamp. Tighten and torque the clamp bolts to approximately 2 ft.-lb. (3 N•m).

Turn handle to wrap cable around drum.

Hopper Safety Hook Installation

Figure 104



Install the quick link (Item 1) through the eye of the hook (Item 2) [Figure 104]. Install the quick link onto the safety chain at the desired location. Tighten the quick link nut to securely fasten the quick link and hook to the safety chain.

NOTE: The quick link and hook may need to be adjusted higher on the safety chain to make sure the hopper is approximately 16" above the ground for transport.

HYDRAULIC ASSEMBLY

Hydraulic Cylinder Hose Installation



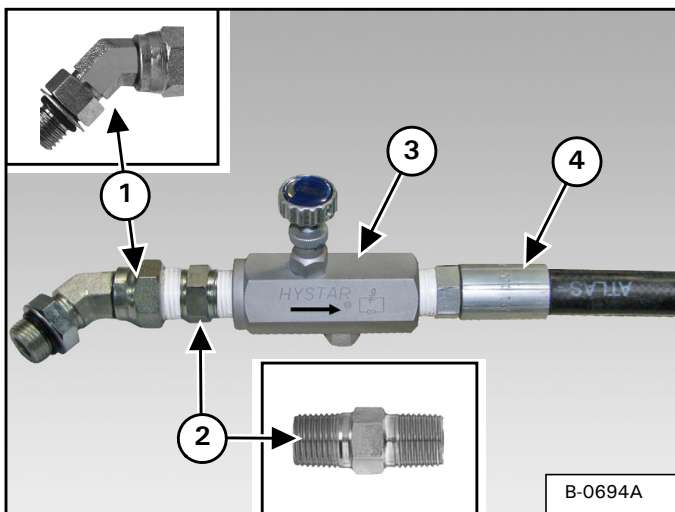
When installing and servicing hydraulic systems, clean the work area before assembly or disassembly and keep all parts clean. Always use caps and plugs on hoses, hydraulic tubes and ports to keep dirt out. Dirt can quickly damage the system.



Contain and dispose of any oil leakage 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.

Backsaver Auger 1050 Flow Control Assembly

Figure 105



Locate one each of the following components:

1. 08 MORB x 08 SWFNPT 45° Elbow
2. 08 MNPT x 08 MNPT Straight Adaptor
3. 08 FNPT One Way Flow Control Valve
4. 08 x 010 MJIC x 08 MNPT Hydraulic Hose

NOTE: Apply teflon tape to the male threads of each fitting.

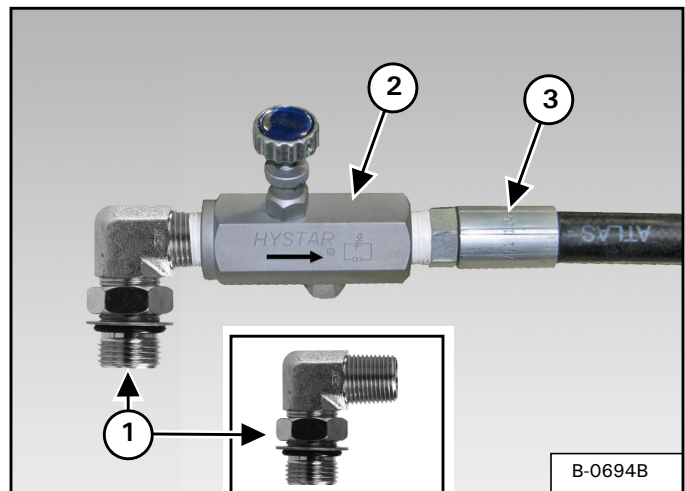
Install the 08 MNPT x 08 MNPT straight adaptor into the flow control valve [Figure 105].

Install the 08 MORB x 08 SWFNPT 45° elbow onto the 08 MNPT x 08 MNPT straight adaptor [Figure 105].

Install the 08 x 010 MJIC x 08 MNPT hydraulic hose into the 08 MORB x 08 SWFNPT 45° elbow [Figure 105].

Backsaver Auger 1060 Flow Control Assembly

Figure 106



Locate one each of the following components:

1. 08 MNPT x 08 MNPT 90° Elbow
2. 08 FNPT One Way Flow Control Valve
3. 08 x 010 MJIC x 08 MNPT Hydraulic Hose

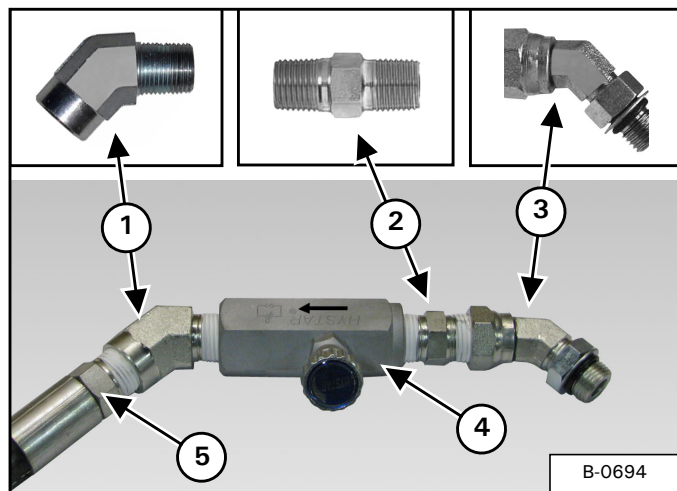
NOTE: Apply teflon tape to the male threads of each fitting.

Install the 08 MNPT x 08 MNPT 90° elbow into the flow control valve [Figure 106].

Install the 08 x 010 MJIC x 08 MNPT hydraulic hose into the 08 FNPT One Way Flow Control Valve [Figure 106].

Backsaver Auger 1070 Flow Control Assembly

Figure 107



Locate one each of the following components:

1. 08 MNPT x 08 FNPT 45° Elbow
2. 08 MNPT x 08 MNPT Straight Adaptor
3. 08 MORB x 08 SWFNPT 45° Elbow
4. 08 FNPT One Way Flow Control Valve
5. 08 x 010 MJIC x 08 MNPT Hydraulic Hose

NOTE: Apply teflon tape to the male threads of each fitting.

Install the 08 MNPT x 08 FNPT 45° elbow into the flow control valve [Figure 107].

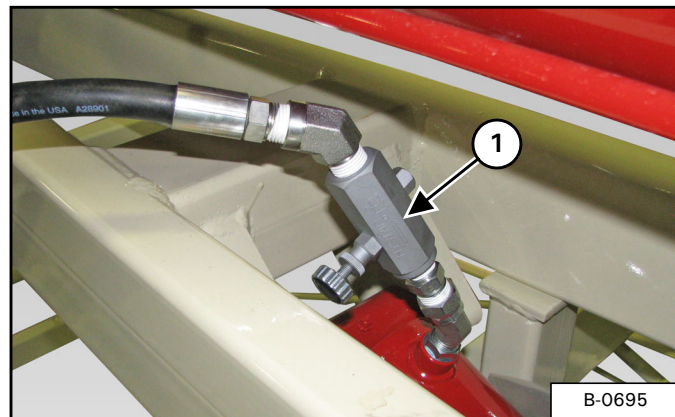
Install the 08 MNPT x 08 MNPT straight adaptor into the flow control valve [Figure 107].

Install the 08 MORB x 08 SWFNPT 45° elbow onto the close nipple [Figure 107].

Install the 08 x 010 MJIC x 08 MNPT hydraulic hose into the 08 MNPT x 08 FNPT 45° elbow [Figure 107].

NOTE: Place a collection container under the hydraulic cylinder ports before removing the plugs.

Figure 108



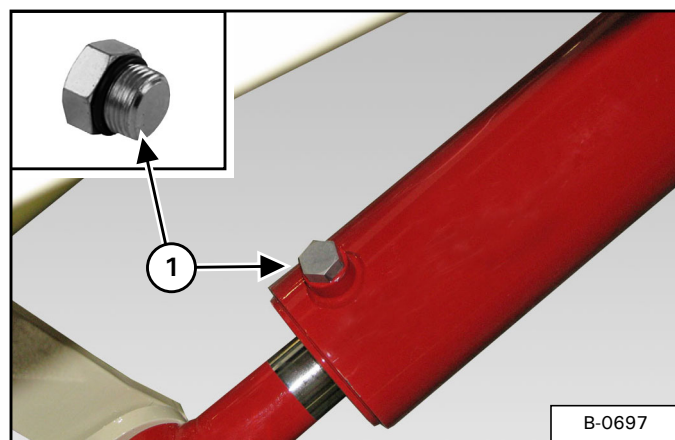
NOTE: Model 1070 Backsaver Auger Flow Control Assembly shown above [Figure 108].

Remove the plastic plug from the base end (upper) of the hydraulic cylinder.

Install the flow control valve assembly (Item 1) [Figure 108] into the hydraulic cylinder.

Tighten all connections.

Figure 109

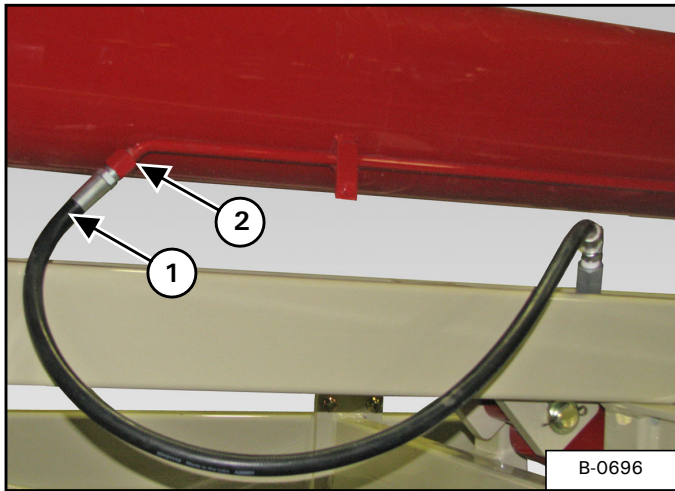


Remove the plastic plug from the rod end (lower) of the hydraulic cylinder.

Locate and install the 08 MORB vent plug (Item 1) [Figure 109] into the hydraulic cylinder.

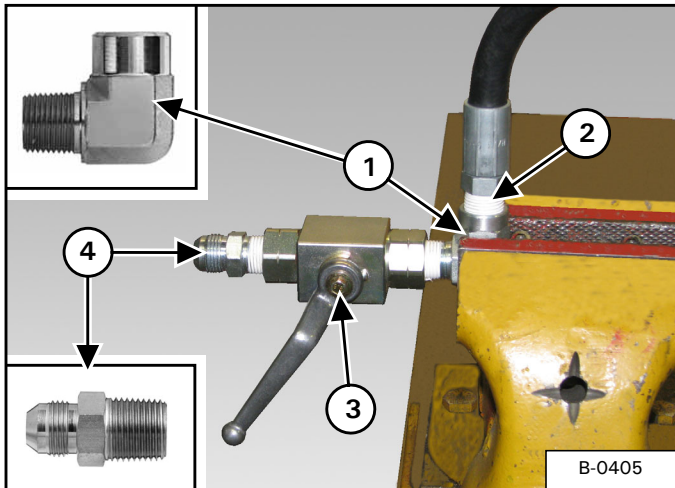
All Models (1050, 1060 & 1070)

Figure 110



Apply teflon tape to the threads of the 08 x 010 MJIC x 08 MNPT hydraulic hose (Item 1), then install and tighten into the tube (Item 2) [Figure 110] on the bottom tube section.

Figure 111



Locate one 90° elbow (Item 1) [Figure 111] and place in a vise.

Apply teflon tape to the threads (Item 1) of the hydraulic hose fitting, then install and tighten quick coupler hose assembly into the 90° elbow (Item 2) [Figure 111].

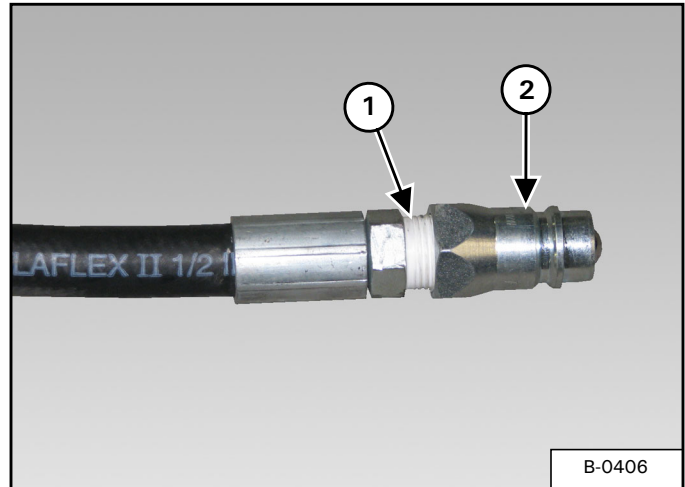
Apply teflon tape to the threads of the 90° elbow.

Locate, install and tighten the 1/2" ball valve (Item 3) onto the 90° elbow.

Locate one adapter fitting (Item 4) [Figure 111].

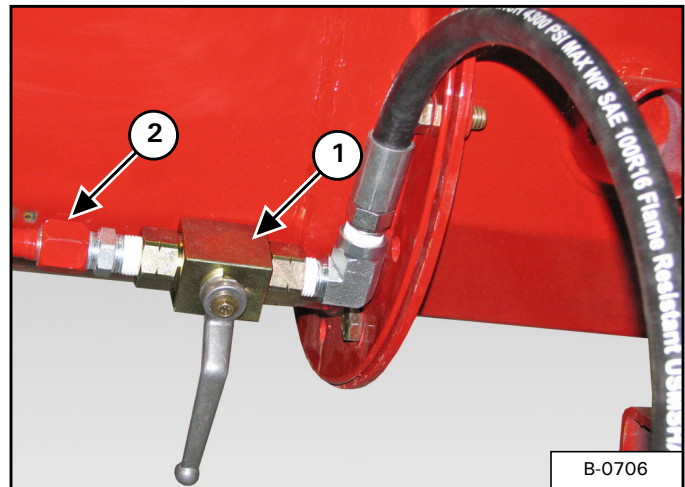
Apply teflon tape to the threads of the adapter fitting, then install and tighten adapter fitting into the 1/2" ball valve (Item 3) [Figure 111].

Figure 112



Apply teflon tape to the threads (Item 1) of the hydraulic hose fitting, then install and tighten the male quick coupler fitting (Item 2) [Figure 112].

Figure 113



Install hose assembly (Item 1) into the hydraulic tube (Item 2) [Figure 113] on the bottom tube section.

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Farm King



GENERAL OPERATION INFORMATION

Pre - Operation Checklist

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



AVOID INJURY OR DEATH

- Disengage the PTO, engage the machine’s parking brake, stop the engine and make sure all rotating components are completely stopped before connecting, disconnecting, adjusting or cleaning any PTO driven equipment.
- Always keep PTO shields and all guards in place when using PTO driven equipment.
- Disengage PTO for road travel.
- Keep hands, feet and clothing away.



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 outline in the Maintenance Section. (See “SERVICE SCHEDULE” on page 88.)
 2. Check the Backsaver Auger’s hitch for damaged, loose or missing parts. Repair as needed before operation.
 3. Check tire pressure. Inflate per manufacturer’s

specification.

4. Check wheel bolts for tightness. Torque as required. (See “AXLE” on page 93.)
5. Check the augers. Remove any material build-up or debris that has become entangled.
6. Check that all bearings turn freely. Replace as required.
7. Make sure that all guards and shields are in place, secured and functioning as designed.



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.

8. Check condition of all hydraulic components for leaks. Repair as required.

NOTE: Do not operate with hydraulic leaks.

9. Check gearbox oil level. Fill as required. (See “LUBRICATION” on page 89.)
10. Verify that the tractor’s drawbar is adjusted correctly for use with the auger. (See “Drawbar Adjustment” on page 65.)
11. Check that the PTO driveline telescope easily and turn freely.
12. Make sure the PTO ends are securely attached to the auger and the tractor.

Break - In Checklist

NOTE: The Backsaver Auger must have a break-in period with different operating conditions than for normal use.

The tube and flighting must get a polished surface through use. Once the new auger has polished it will run smooth at recommended speed.

NOTE: Never operate an empty auger for over one minute, as the flighting and housing will experience excessive wear.

During the break-in-period:

1. Run the tractor at slow idle until grain begins to flow from the discharge. For the first 500 bushels, operate at the slow speed and restrict the flow of grain at the intake.
2. Gradually increase the speed until operating at full PTO speed.

NOTE: Do not run empty during break-in period.

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

1. Check the auger hitch for damaged, loose or missing parts. Repair as needed before operation.
2. Check for loose fasteners and hardware. Tighten as required.
3. Make sure that all guards and shields are in place, secured and functioning as designed
4. Check that the PTO driveline telescopes easily and turns freely.
5. Check condition of all hydraulic components for leaks. Tighten fittings to correct leaks or replace components. Do not operate with hydraulic leaks.
6. Check tire pressure. Inflate per manufacturer’s specification.
7. Check gearbox oil level. Fill as required. (See “LUBRICATION” on page 89.)
8. Check the augers. Remove any debris.



AVOID INJURY OR DEATH

- Disengage the PTO, engage the machine’s parking brake, stop the engine and make sure all rotating components are completely stopped before connecting, disconnecting, adjusting or cleaning any PTO driven equipment.
- Always keep PTO shields and all guards in place when using PTO driven equipment.
- Disengage PTO for road travel.
- Keep hands, feet and clothing away.

Tractor Requirements



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

Figure 114

AUGER MODEL	HITCH WEIGHT	TOTAL WEIGHT
1050	770 lb (349 kg)	2545 lb (1155 kg)
1060	840 lb (381 kg)	2987 lb (1356 kg)
1070	840 lb (381 kg)	3354 lb (1523 kg)
1080	660 lb (299 kg)	3622 lb (1644 kg)

The chart [Figure 114] lists the hitch weight and total weight of the 10" Backsaver Auger models. The tractor / tow vehicle must be rated for listed weight to transport the specified auger model.

Figure 115

AUGER MODEL	MINIMUM PTO HP (with 540 RPM PTO)	HYD PSI FOR LIFT (approximate)
1050	40 hp	1000 psi
1060	48 hp	1000 psi
1070	55 hp	1000 psi
1080	65 hp	1000 psi

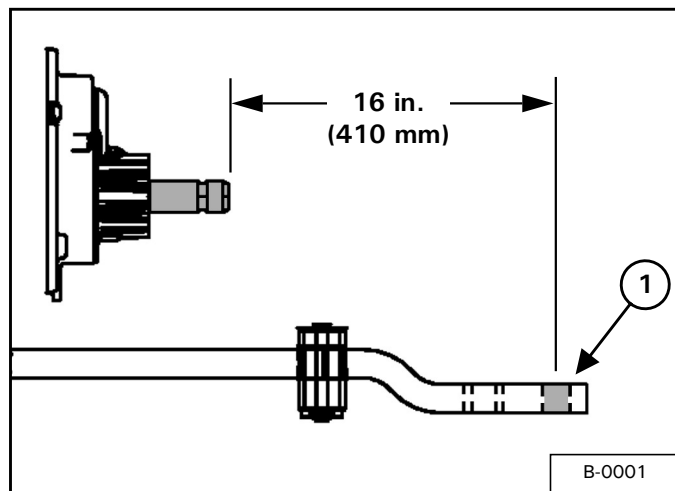
The chart [Figure 115] lists the minimum tractor PTO hp (with 540 rpm PTO) and approximate hydraulic pressure for lift.

The 10" Backsaver Auger will require a tractor, three auxiliary hydraulic functions, Category IV rated drawbar.

The tractor must be equipped with a 6 - spline, 1-3/8 inch PTO shaft when used with the 10" Backsaver Auger.

Drawbar Adjustment

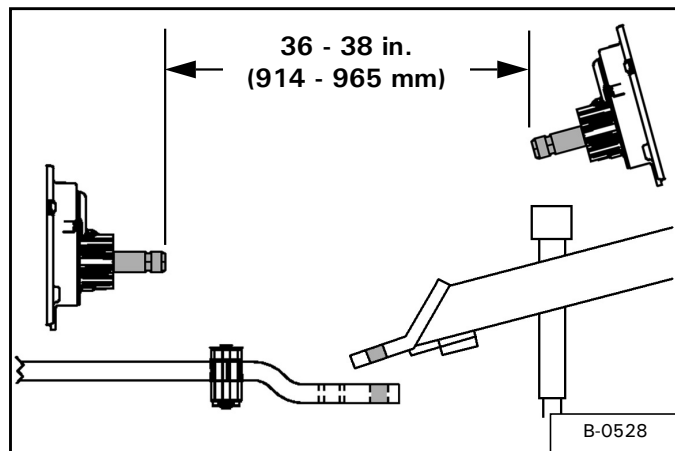
Figure 116



Adjust the tractor's drawbar in / out, until the center of the hitch pin hole (Item 1) [Figure 116] is 16 inches (410 mm) from the end of the tractor's PTO shaft. See your tractor's owner's manual for correct adjustment procedures.

NOTE: A tractor hitch of less than 16" minimum will result in PTO bottoming out, when operating auger at maximum height.

Figure 117

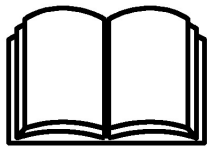


The distance between the tractor and the auger PTO shaft should be between 36 - 38 in. (914 - 965 mm) with the tractor and auger on level ground and the auger in full down position. This distance is obtained

by either adjusting the tractor hitch, the auger hitch or both [Figure 117].

For checking PTO driveline see "PTO Driveline" on page 69.

Entering And Leaving The Operator's Position



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



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.

INITIAL SET-UP

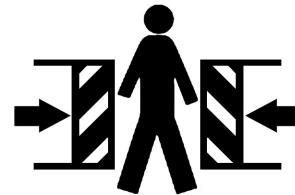
Connecting The Backsaver Auger To The Tractor

Always inspect the tractor's drawbar and Backsaver Auger's hitch before connecting. See the tractor's owner's manual.

Verify that the tractor's drawbar is adjusted correctly for use with the Backsaver Auger. (See "Drawbar Adjustment" on page 65.)

Enter the operator's position. (See "Entering The Operator's Position" on page 66.)

Move the tractor into position in front of the Backsaver Auger.



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.

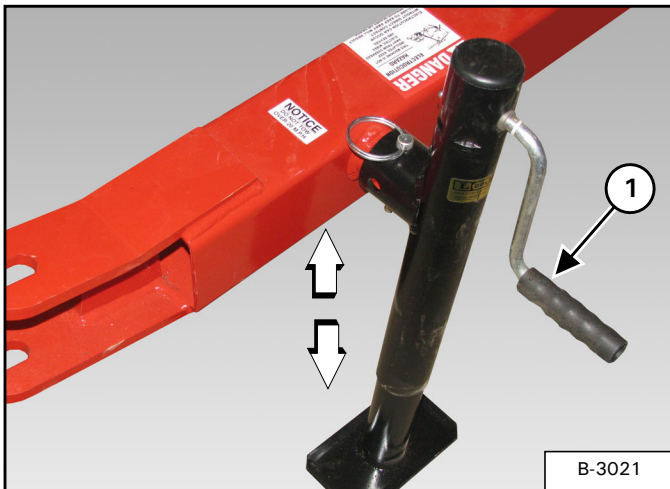
Move the tractor backwards, aligning the drawbar with the Backsaver Auger hitch.

NOTE: The jack may need to be lowered or raised for proper alignment of the drawbar and hitch.

If the Backsaver Auger hitch needs to be adjusted, stop the tractor when drawbar is just in front of the Backsaver Auger hitch.

Leave the operator's position. (See "Leaving The Operator's Position" on page 66.)

Figure 118



Turn the handle (Item 1) [Figure 118] clockwise to raise the hitch or counterclockwise to lower the hitch.

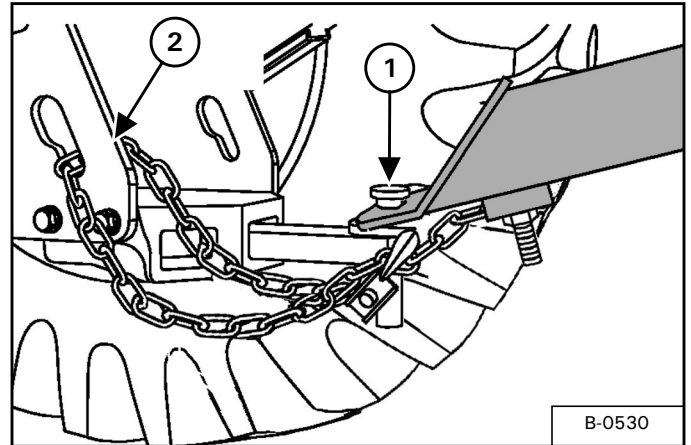
Lower or raise the Backsaver Auger hitch until aligned with the tractor’s drawbar.

Move to the operator’s seat, start the engine and release the parking brake.

Move the tractor backwards, aligning the drawbar hitch pin hole with the Backsaver Auger hitch pin hole(s).

Stop the tractor and leave operator’s position. (See “Leaving The Operator’s Position” on page 66.)

Figure 119



Install the hitch pin (Item 1) [Figure 119] and retaining pin to securely fasten the Backsaver Auger hitch to the tractor drawbar.

Attach the safety chain (Item 2) [Figure 119] around the drawbar.



AVOID INJURY OR DEATH

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

NOTE: Always use a hitch pin of adequate size and strength and a retaining pin with a locking device.

Connecting The PTO Driveline



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.

Stop the engine and leave the operator's position. (See "Leaving The Operator's Position" on page 66.)



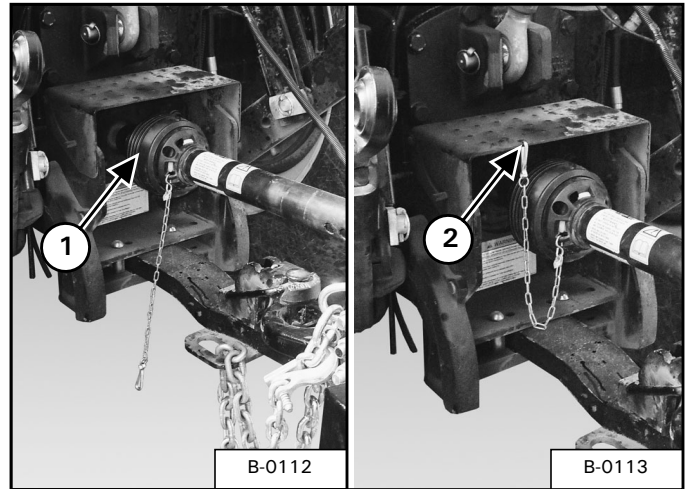
IMPORTANT

Improper hitch installation can cause PTO driveline damage.

- Do not modify the hitch or use an unapproved 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 120



Retract the collar and slide the PTO driveline (Item 1) onto the tractor PTO shaft until it locks onto the shaft. Push and pull on the PTO driveline to verify it is securely attached to the PTO shaft. Install PTO driveline safety chain (Item 2) [Figure 120].

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

PTO Driveline Length Check

NOTE: 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

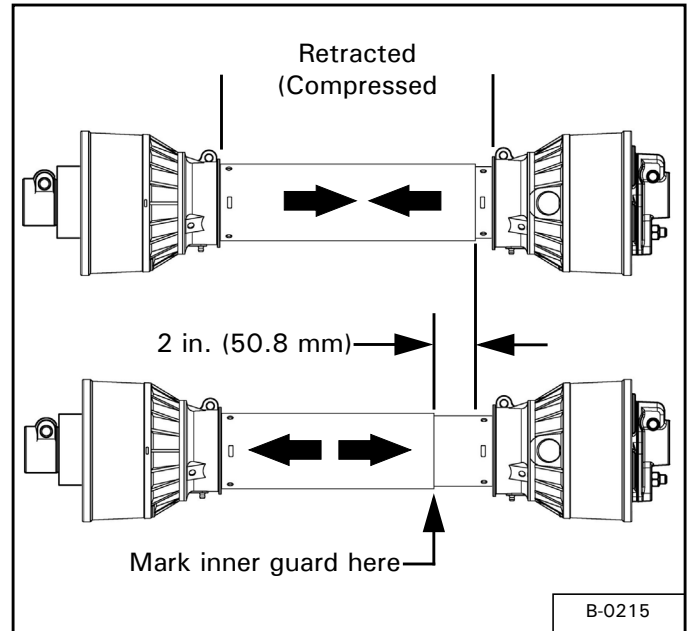
- Do NOT exceed the rated implement PTO speed.
- Stay clear of rotating driveline.
- Keep bystanders away.
- Keep hands, feet, clothing and long hair away.
- Keep PTO shields and all guards in place.
- Disengage PTO, move the tractor controls to the Neutral position, stop the engine, engage parking brake 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" on page 66.)

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

Figure 121



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 121].
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 121].
4. Reattach the PTO driveline to the tractor PTO shaft.
5. Enter the operator's position. (See "Entering The Operator's Position" on page 66.) 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" on page 66.)

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



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, engage parking brake 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).

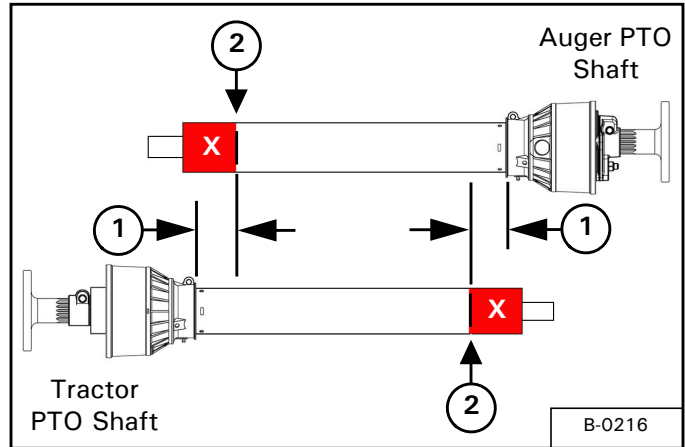
Enter the operator's position. (See "Entering The Operator's Position" on page 66.) Start the engine.

Raise or lower the auger to get the shortest distance between the tractor PTO shaft and auger gearbox PTO shaft.

Stop the engine and leave the operator's position. (See "Leaving The Operator's Position" on page 66.)

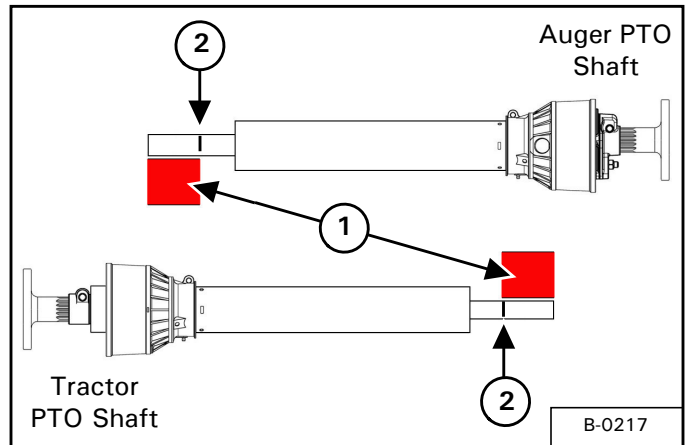
Pull the PTO driveline apart and reinstall each individual section; one half to the tractor PTO shaft and one half to the implement gearbox PTO shaft.

Figure 122



1. Hold PTO driveline sections parallel to one another and measure back 2 in. (50,8 mm) (Item 1) from the yoke of each section and place mark on opposite section. Cut the plastic shield at this length (Item 2) [Figure 122].

Figure 123



2. Using the plastic guard lengths that were cut off in [Figure 122], align the cut off lengths (Item 1) with the end of the inner & outer shafts. Place a mark (Item 2) [Figure 123] on the inner & outer shafts and cut the inner & outer shafts off at this length.
3. Round off all sharp edges and debur.
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” on page 66.)

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

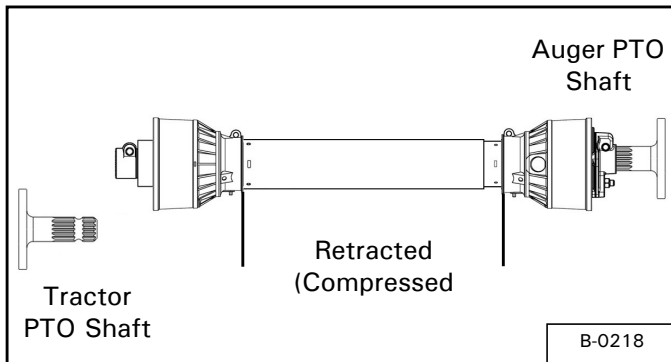


AVOID INJURY OR DEATH

- 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, engage parking brake 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).

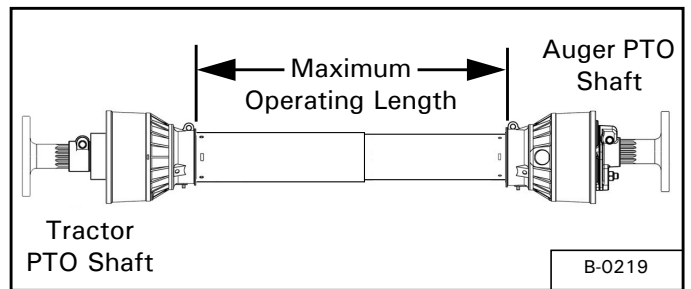
Figure 124



2. Measure the retracted (compressed) length of the PTO driveline between the bases of the plastic guards [Figure 124].

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” on page 66.)
6. With the PTO driveline attached, position the auger to where the telescoping PTO driveline is at its maximum operating extension.
7. Stop the engine and leave the operator’s position. (See “Leaving The Operator’s Position” on page 66.) Make sure the PTO driveline and all rotating components have come to a complete stop before leaving the operator’s position.

Figure 125



8. Measure the length of the PTO driveline between the bases of the plastic shields [Figure 125] to determine the maximum operating length.

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

B. 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.

Connecting Hydraulic Hoses



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.

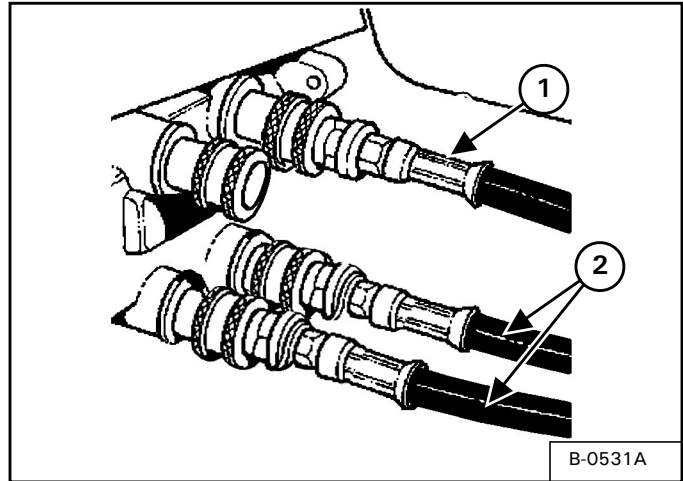


- Contain and dispose of any oil leakage in an environmentally safe manner.
- Thoroughly clean the quick couplers before making connections. Dirt can quickly damage the system.

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.

To Connect:

Figure 126



Pull back on the collar of the female coupler, push couplers together, release the collar when the couplers are fully engaged and locked [Figure 126].

Install the lift cylinder quick coupler hose (Item 1) [Figure 126].

Install the two control valve quick coupler hoses (Item 2) [Figure 126] (if equipped).

To Disconnect:



AVOID BURNS

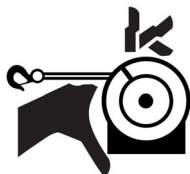
Hydraulic fluid, tubes, fittings and quick couplers can get hot when running equipment. Be careful when connecting and disconnecting quick couplers.

Pull back on the collar and pull the male coupler out to disconnect.

AUGER OPERATION

Manual Hopper And Winch

Winch Operation



ENTANGLEMENT HAZARD

To prevent injury to fingers and hands:

- Keep hands clear of winch during operation.



CUT HAZARD

To prevent injury to fingers and hands:

- Always wear heavy leather gloves when handling a wire rope and operating the winch.
- Never guide the cable with your hands.
- Never let wire rope slip through your hands.



- Frayed, kinked or damaged wire rope must be replaced immediately.
- Always stand clear of wire rope and hopper during operation.
- Always stand clear and keep others away during operation.
- Never touch wire rope or hook while in tension or under load.
- Never touch wire rope or hook during winching operation.

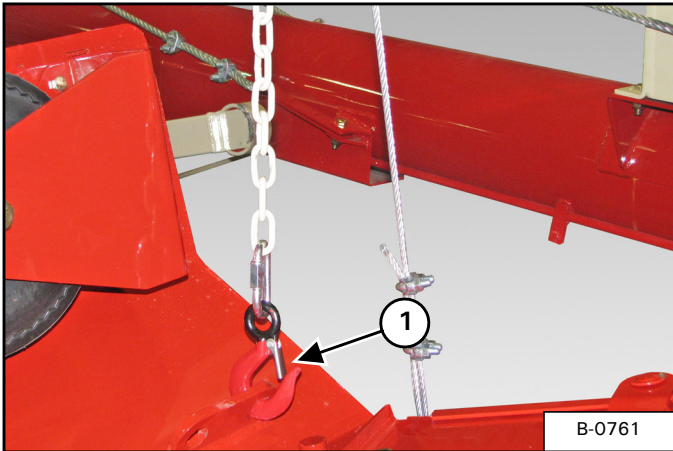


Always maintain a minimum of three wraps of cable on the drum of the winch.

Move the winch handle counterclockwise (towards the hitch) to raise the lift boom cable (wind cable). Move the handle clockwise (away from the hitch) to lower the boom cable (unwind cable).

Hopper Operation

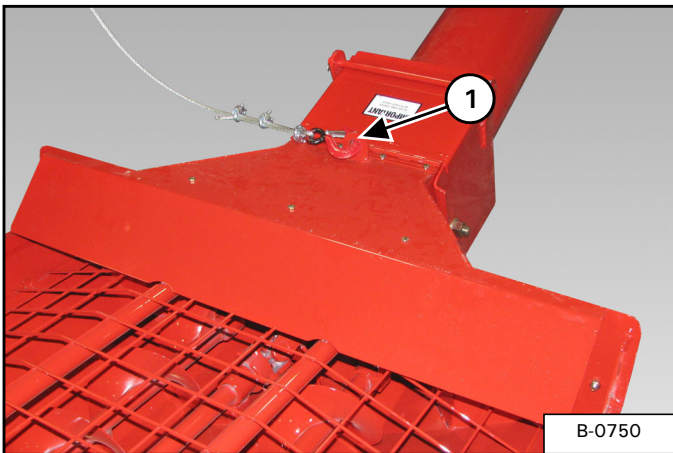
Figure 127



Turn the winch handle to raise the hopper and release the safety chain tension. Remove the safety chain hook (Item 1) [Figure 127] from the hopper.

Using the winch handle, slowly lower the hopper to the ground. Continue turning the winch handle until cable has enough slack to removed from the hopper.

Figure 128

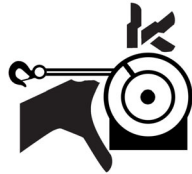


Remove the lift boom / winch cable hook (Item 1) [Figure 128] from the hopper.

Move the hopper to the desired location. (See "Unloading Belly Dump Units" on page 78.) or (See "Unloading Rear And Side Dump Units" on page 80.) for additional information.

Hydraulic Hopper Mover And Winch (If Equipped)

 **WARNING**



ENTANGLEMENT HAZARD

To prevent injury to fingers and hands:

- Keep hands clear of winch during operation.
-

 **CAUTION**



CUT HAZARD

To prevent injury to fingers and hands:

- Always wear heavy leather gloves when handling a wire rope and operating the winch.
 - Never guide the cable with your hands.
 - Never let wire rope slip through your hands.
-

 **CAUTION**

- Frayed, kinked or damaged wire rope must be replaced immediately.
 - Always stand clear of wire rope and hopper during operation.
 - Always stand clear and keep others away during operation.
 - Never touch wire rope or hook while in tension or under load.
 - Never touch wire rope or hook during winching operation.
-

 **CAUTION**

Never operate the hydraulic hopper mover or winch when the PTO is engaged.

 **IMPORTANT**

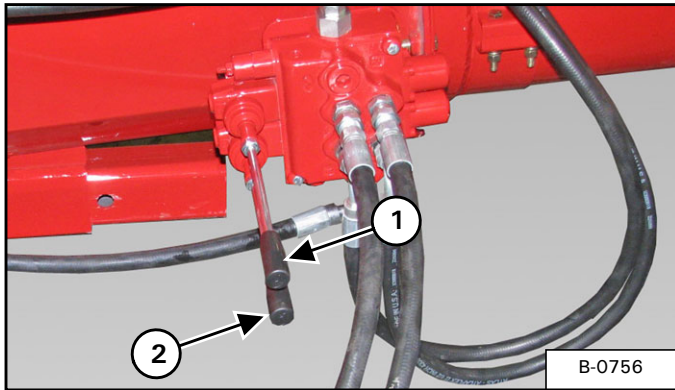
Always maintain a minimum of three wraps of cable on the drum of the winch.

Enter the tractor and start the engine.

Engage the hydraulic circuit for the hopper / winch control valve on the intake box. Run the tractor engine at low idle.

Winch Operation

Figure 129



Move the lever (Item 2) [Figure 129] to the left (towards the hitch) to raise the boom cable (wind cable). Move the lever to the right (away from the hitch) to lower the boom cable (unwind cable).

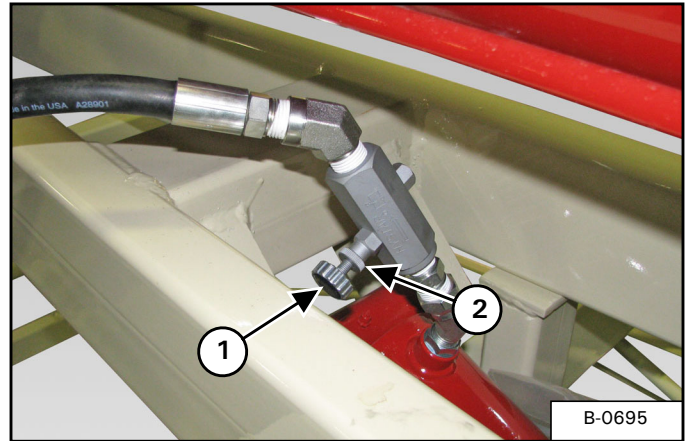
NOTE: Never have less than three wraps of cable on the drum of the winch.

Hopper Mover Operation

Move the lever (Item 1) [Figure 129] to the right (away from the hitch) to move the hopper to the right. Move the lever to the left (towards the hitch) to move the hopper to the left.

Adjusting Flow Control Valve

Figure 130



Turn the knob (Item 1) [Figure 130] on the flow control valve "IN" to decrease the speed the auger lowers. Turn the knob "OUT" to increase the speed the auger lowers.

Loosen the nut (Item 2) [Figure 130] and turn the knob all the way in (tight). The approximate initial setting should be 3-1/2 turns out from the tight position. When set, re-tighten nut to set position.

NOTE: Be sure that the valve is slightly open before raising the first time or auger will not lower.

Auger Placement



ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Keep away from power lines when transporting or raising auger.
- Electrocution can occur without direct contact.



- Do not operate the unit before reading and understanding the Operator Manual.
- Keep all safety devices in place.
- Keep off the equipment at all times.
- Keep hands, feet and clothing away from moving parts while in operation.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- Do not adjust, service, lubricate, clean, unclog or move the mechanism until all power is shut off.
- While in operation, always support the discharge end or provide adequate anchoring of the intake end to prevent sudden tipping.
- Disconnect power of electrical driven units before resetting motor overloads.
- To avoid tipping, make sure auger is empty before attempting to move.
- Keep wheels of undercarriage level and on firm ground.
- Lower unit to the recommended transport position before transporting.



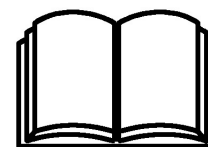
- Do not raise the main auger higher than 35° before lowering the intake auger or interference between the intake auger and the intake box will occur.
- Never attempt to raise or lower the auger during operation.
- Verify wheels are free to move.



- Operate the auger at a 35° angle. Do not exceed a 42° angle.
- Angles above 35°, decreases auger capacity.



- Some types of fertilizer may cause accelerated wear and corrosion as well as added stress on lift components due to additional load.
- Use of fertilizer can affect warranty.



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

With the main auger in the fully down position, move the auger towards the bin or barn. Position the auger as close as possible to the bin or barn.



Never place blocks under the wheels to increase the elevation of auger.

Stop the tractor and engage the parking brake. Engage the tractor's hydraulics. Run the tractor engine at low idle.

Figure 131



Using the tractor controls, slowly raise the main auger to the desired height (do not exceed a 42° angle).



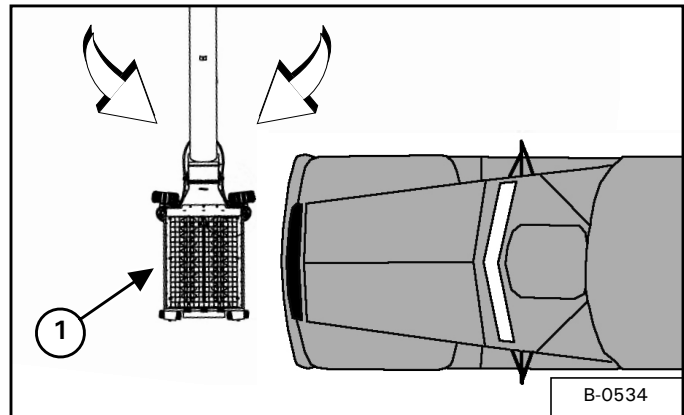
Keep wheels of undercarriage level and on firm ground. Raise the auger to the desired height and back the auger into position. Do not support the auger on the bin. As the auger becomes full, the weight may cause damage to the underside of the auger or to the bin.

Back the auger into position above the bin. Lower the auger until the downspout (Item 1) [Figure 131] enters the bin.

Engage the tractor's parking brake, stop the engine and exit the tractor.

Unloading Belly Dump Units

Figure 132



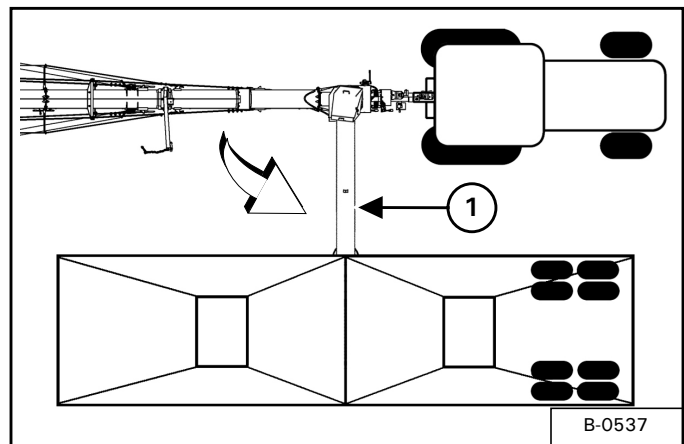
Move the hopper (Item 1) [Figure 132] out at a 90° angle from the auger.

Move the belly dump unit into position, centered on the hopper [Figure 132].

Mark the path of the belly dump unit for future units to unload and maintain the proper distance from the auger to allow adequate space for the hopper to be moved in and out without interference.

Move the hopper mover lever left or right to move the hopper in towards the auger, away from vehicle traffic.

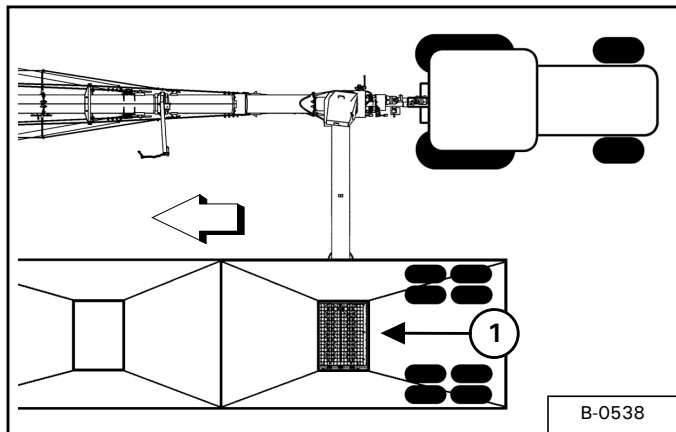
Figure 133



Move the belly dump unit straight forward until centered on the intake auger pivot. Stop the belly dump unit.

Move the hopper (Item 1) [Figure 133] under the belly dump unit.

Figure 134



Move the belly dump unit forward until the rear compartment is directly over the hopper (Item 1) [Figure 134].



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

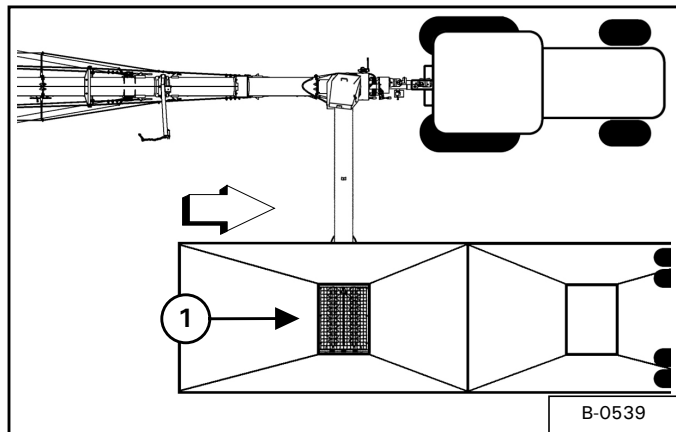
With tractor running at a low idle, engage the tractor PTO slowly to start the auger. Increase engine RPM (do not exceed 540 RPM PTO speed).

Slowly open the rear compartment gate.

Adjust gate until the hopper augers and intake auger can move grain to the main auger without overflowing the hopper.

When the rear compartment is empty, close the gate, disengage the PTO and lower engine RPM speed.

Figure 135



Move the belly dump unit back until the front compartment is directly over the hopper (Item 1) [Figure 135].



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

With tractor running at a low idle, engage the tractor PTO slowly to start the auger. Increase engine RPM (do not exceed 540 RPM PTO speed).

Slowly open the front compartment gate.

Adjust gate until the hopper augers and intake auger can move grain to the main auger without overflowing the hopper.

When the front compartment is empty, close the gate, disengage the PTO and lower engine RPM speed.

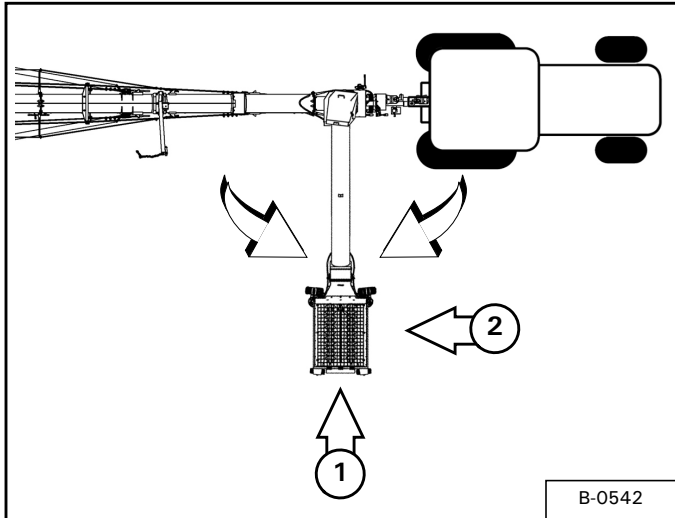
Move the hopper in the desired position away from vehicle traffic.

Disengage the tractor hydraulics and exit the tractor.

Unloading Rear And Side Dump Units

Rear Dump Units

Figure 136



Move the hopper out at a 90° angle from the auger [Figure 136].

Move the rear dump unit into the unloading position at the end of the hopper (Item 1) or on the tractor side of the hopper (Item 2) [Figure 136].

Position the gate of the rear dump unit over the hopper (as close to the center of the hopper as possible).

Stop the rear dump unit and engage the parking brake (if equipped).

! WARNING



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

With tractor running at a low idle, engage the tractor PTO slowly to start the auger. Increase engine RPM (do not exceed 540 RPM PTO speed).

Slowly open the gate on the rear dump unit.

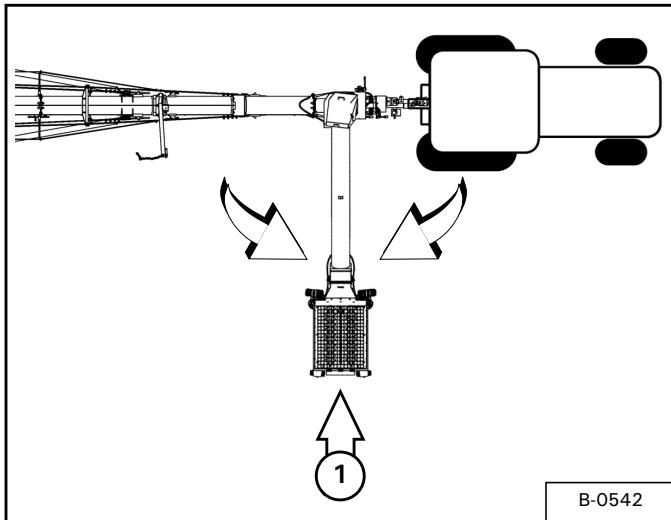
Adjust gate until the hopper augers and intake auger can move grain to the main auger without overflowing the hopper.

When the unit is empty, close the gate, disengage the PTO and lower engine RPM speed.

Disengage the tractor hydraulics and exit the tractor.

Side Dump Units

Figure 137



Move the hopper out at a 90° angle from the auger [Figure 137].

Move the side dump unit into the unloading position at the end of the hopper (Item 1) [Figure 137].

Position the gate of the side dump unit over the hopper (as close to the center of the hopper as possible).

Stop the side dump unit and engage the parking brake (if equipped).



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

With tractor running at a low idle, engage the tractor PTO slowly to start the auger. Increase engine RPM (do not exceed 540 RPM PTO speed).

Slowly open the gate on the side dump unit.

Adjust gate until the hopper augers and intake auger can move grain to the main auger without overflowing the hopper.

When the unit is empty, close the gate, disengage the PTO and lower engine RPM speed.

Disengage the tractor hydraulics and exit the tractor.

TRANSPORTING

Requirements



ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Keep away from power lines when transporting or raising auger.
- Electrocution can occur without direct contact.



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.



- Do not operate the unit before reading and understanding the Operator Manual.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- To avoid tipping, make sure auger is empty before attempting to move.
- Keep wheels of undercarriage level and on firm ground.
- Lower unit to the recommended transport position before transporting.
- Disconnect PTO driveline from the tractor before moving or transporting.



Never exceed 20 mph (32 kph).



Do not move or transport the auger unless the hopper and intake auger are in the raised / transport position and securely fastened before transporting.

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

Verify that the tractor / tow vehicle are 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.

Always attach a red flag to the end of the auger when transporting on roads.

Disconnect the PTO driveline from the tractor before transporting.

Transporting Guidelines

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

Transporting Procedure

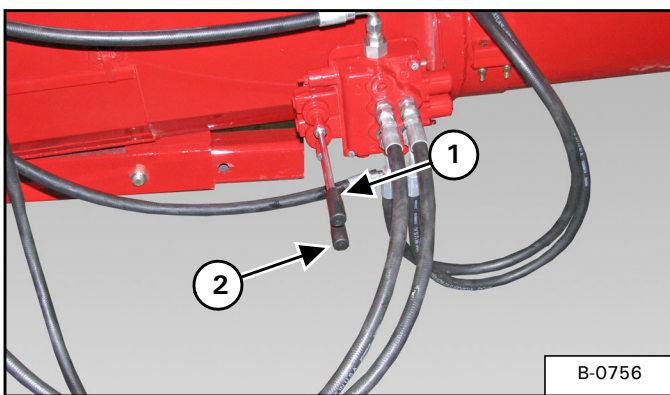
Remove all supports on the discharge end and anchoring from the intake end (if required).

Hydraulic Mover And Winch (If equipped)

Enter the tractor, start the engine and engage the tractor's hydraulics.

Engage the hydraulic circuit for the hopper / winch control valve (if equipped) on the intake box. Run the tractor engine at low idle.

Figure 138

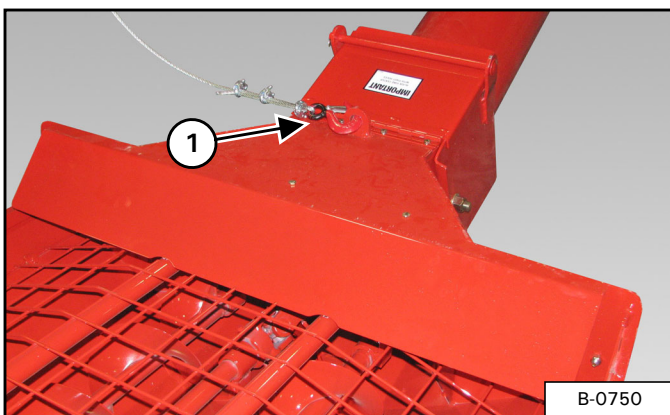


Move the lever (Item 1) [Figure 138] to the right (away from the hitch) to move the hopper to the right (toward the auger) until the boom cable can be installed.

Move the lever (Item 2) [Figure 138] to the right (away from the hitch) to lower the boom cable (unwind cable).

Hydraulic Or Manual Winch

Figure 139



Install the boom cable (Item 1) [Figure 139] onto the hopper.

Hydraulic Winch

Move the lever (Item 2) [Figure 138] to the left (towards the hitch) to raise the boom cable (wind cable).

Raise the hopper until the transport chain can be installed.

Manual Winch

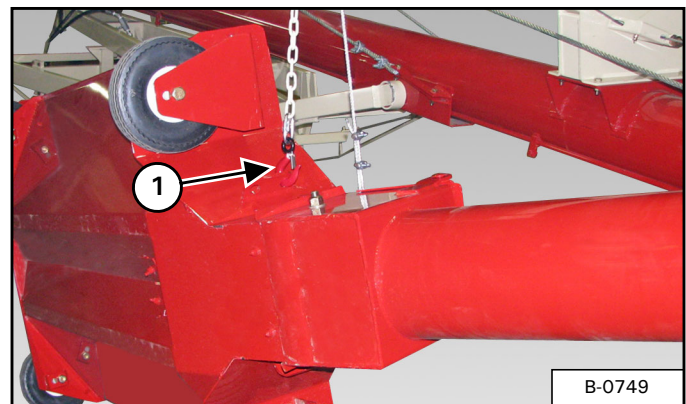
Move the lever to raise the boom cable (wind cable).

Raise the hopper until the transport chain can be installed.



The weight of the hopper and intake auger assembly must be supported by the transport chain whenever the auger is moved. If the weight of the intake auger is on the winch, the winch may be damaged during transport.

Figure 140



Install the transport chain (Item 1) [Figure 140] onto the hopper.

Lower the hopper until the transport chain is supporting the weight of the hopper and intake auger.

Enter the tractor, using the tractor controls, slowly raise the main auger until the discharge spout is clear from the bin.

Release the parking brake and move the tractor and auger forward (away from the bin) until there is

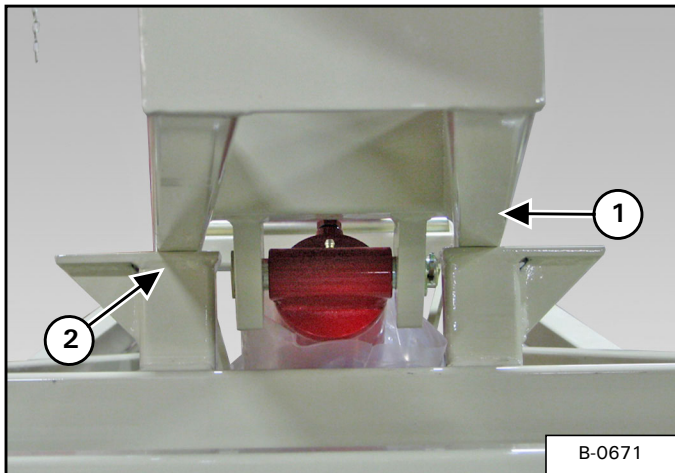
adequate space for the auger to be lowered into the transport position.

Stop the tractor and engage the parking brake.

! IMPORTANT

Always lower the auger before transporting and allow the weight of the auger to rest on the undercarriage and not the hydraulic cylinders.

Figure 141



Fully lower the auger until the upper lift arm (Item 1) contacts the cradle rest (Item 2) [Figure 141] (both sides).

! WARNING

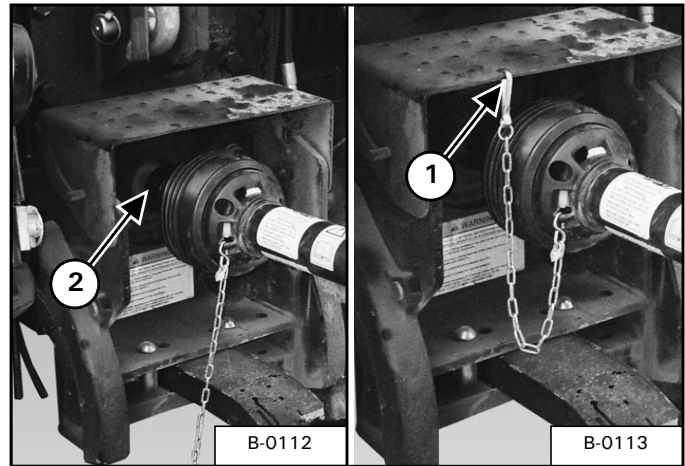
AVOID INJURY OR DEATH

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.

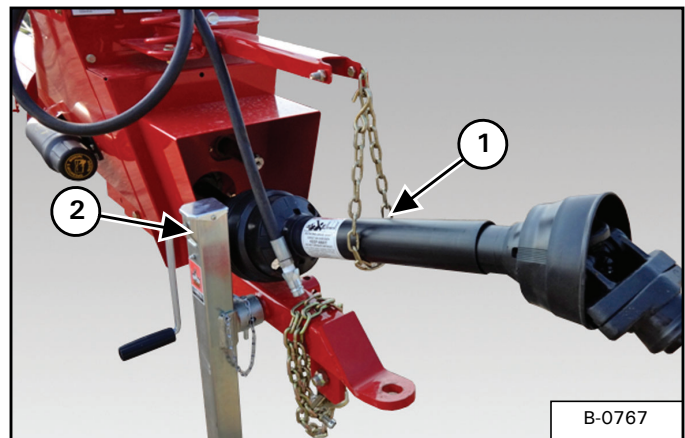
Engage the tractor's parking brake, stop the engine and exit the tractor.

Figure 142



Remove the PTO driveline safety chain (Item 1). Retract the collar (Item 2) [Figure 142] and slide the PTO driveline off the tractor PTO shaft.

Figure 143



Place the PTO holder chain (Item 1) [Figure 143] around the PTO driveline.

Fully raise the jack (Item 2) [Figure 143] and rotate into the transport position (horizontal).

Verify that the auger is securely fastened to the tractor / tow vehicle and that the hitch safety chain is properly attached to the auger and tractor / tow vehicle.

Verify that the SMV (Slow Moving Vehicle) sign is attached and visible.

Verify that the amber lights are clean and operating correctly.

MAINTENANCE

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TROUBLESHOOTING

Chart



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.

PROBLEM	CAUSE	CORRECTION
Cannot start augers.	Plugged auger or obstruction.	Shutoff tractor and disconnect the PTO. Remove obstruction.
	Bearing failure.	Check bearings and replace if required.
Grain flow is too fast.	Discharge gate(s) open too far.	Close the gate(s) to allow a slower grain flow to the hopper / intake auger.
Grain flow is too slow.	Discharge gate(s) not open enough.	Open the gate(s) to allow a faster grain flow to the hopper intake auger.
	Tractor RPM set too low.	Raise tractor RPM to proper setting.
Excessive auger vibration.	Flighting and/or tube are damaged.	Replace flighting and / or tube.
	Running auger empty.	Replace flighting and / or tube.
	Bent auger flighting.	Remove flighting and inspect for straightness. If a bend is detected, straighten the flight and re-install.
	Improper PTO speed.	Adjust PTO speed.
Plugging the auger.	Improper PTO speed.	Adjust PTO speed.
	Overloading hopper and / or auger.	Reduce the rate of flow into the intake hopper.
	Foreign objects in the auger.	Disconnect PTO driveline and remove foreign objects.
	Wet grain.	Reduce the rate of flow into the intake hopper.
	Snow or ice in grain.	Reduce the rate of flow into the intake hopper.

SERVICE SCHEDULE

Maintenance Intervals

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 Backsaver Auger.



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.

#	DESCRIPTION	SERVICE PROCEDURES						
		Check	Clean	Lube	Change	Adjust	Drain	Locations
Daily Maintenance (or every 8 hours)								
1	CV Joints, U-Joints and Bearings			•				
2	PTO Driveline			•				
3	Universal Joint (Front)			•				
4	Lower & Upper Lift Arm Pivots			•				
5	Hopper Drive Shaft & U-Joints			•				
6	Intake Auger Shaft & U-Joints			•				
7	Dual Auger Hopper Drive Chains			•				
Weekly (or every 50 hours)								
8	Lower Intake Auger Gearbox Oil Level	•						
9	Upper Intake Auger Gearbox Oil Level	•						
10	Main Gearbox	•						
11	Wheel Lug Nut Torque	•						
12	Winch Cable	•						
13	Bridging Cable Tension	•						
Semi-Annually (or every 250 hours)								
14	Bridging Cables	•	•			•		
15	Backsaver Auger		•					
Annually (or every 500 hours)								
16	Lower Intake Auger Gearbox Oil				•			
17	Upper Intake Auger Gearbox Oil				•			
18	Main Gearbox				•			
19	Main Tubes	•						

LUBRICATION

Recommendations

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

! IMPORTANT

Do not over-grease bearings. Greasing too often can damage seals and lead to premature bearing failure.

- 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.

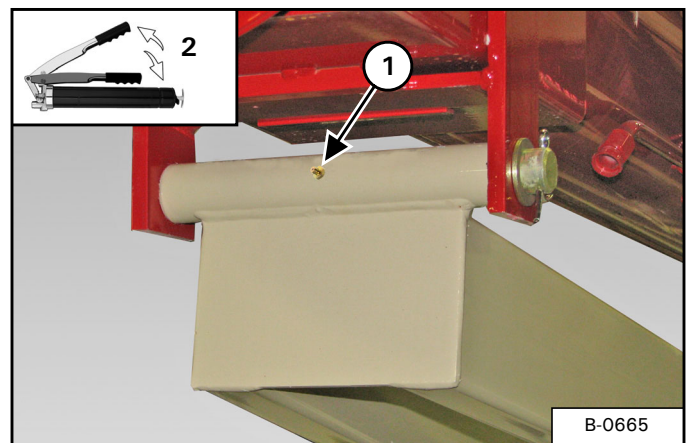
Locations

! 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.

Lubricate the following grease locations EVERY 8 HOURS:

Figure 144

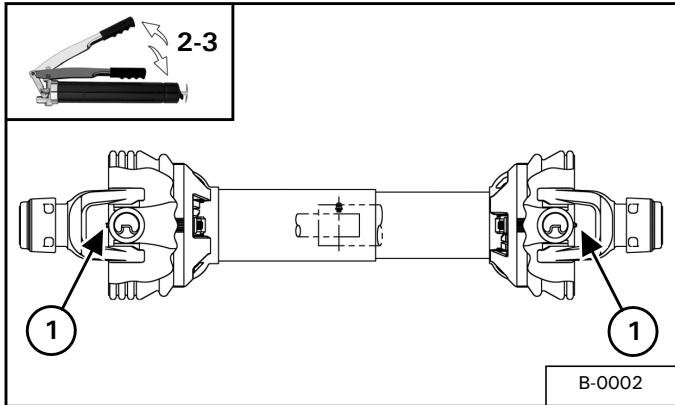


Apply two pumps of grease to the lift arm pivot (Item 1) [Figure 144].

Lubricate the following grease locations EVERY 50 HOURS:

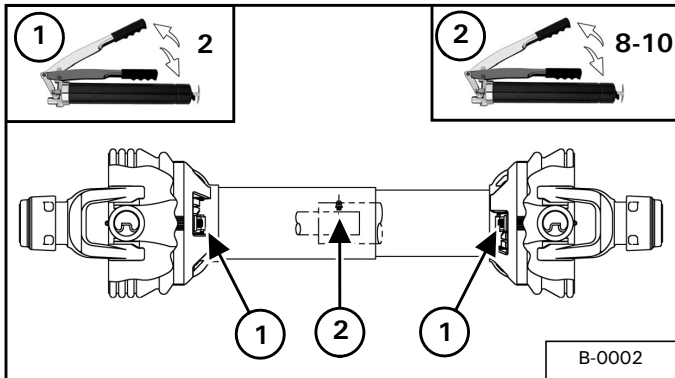
NOTE: The PTO shaft is equipped with extended life bearings. Do not over-grease.

Figure 145



Apply two - three pumps of grease to the cross and bearings (Item 1) [Figure 145] on the PTO driveline.

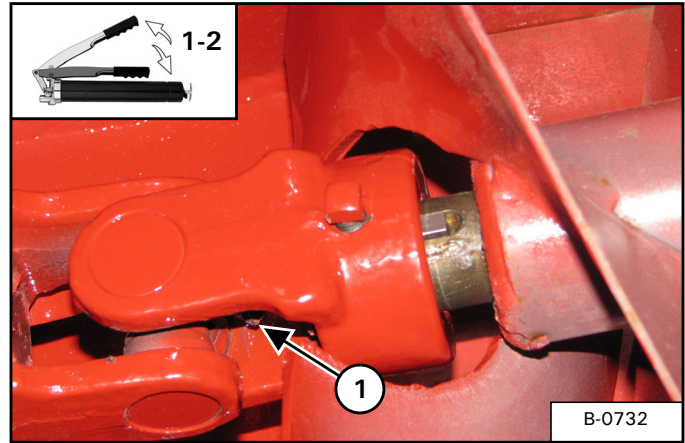
Figure 146



Apply two pumps of grease to the guard bushings (Item 1) [Figure 146].

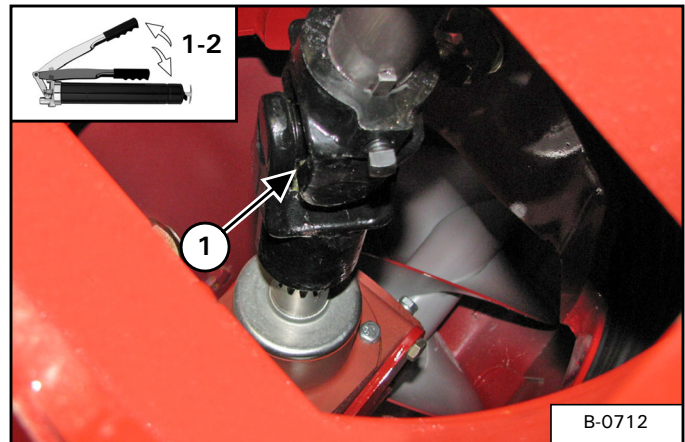
Apply eight - ten pumps of grease to the telescoping member (Item 2) [Figure 146].

Figure 147



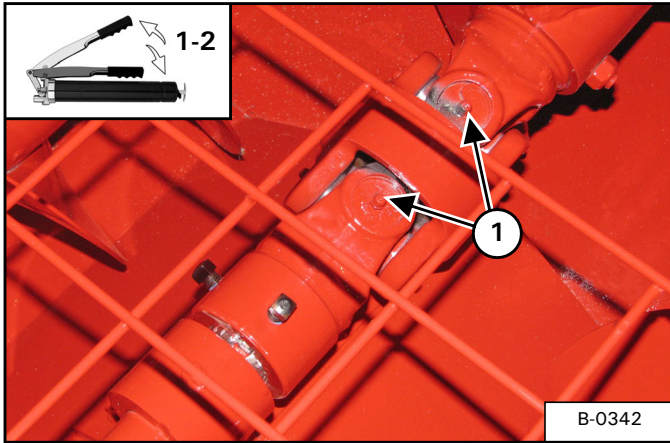
Apply 1-2 pumps of grease to the universal joint (Item 1) [Figure 147] on the hopper auger drive shaft.

Figure 148



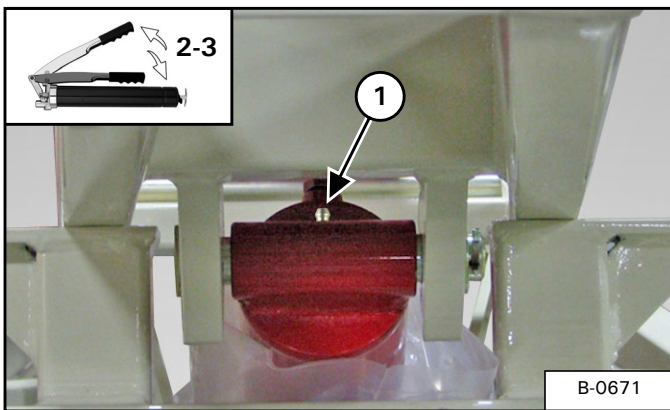
Apply 1-2 pumps of grease to the intake drive shaft side (Item 1) [Figure 148].

Figure 149



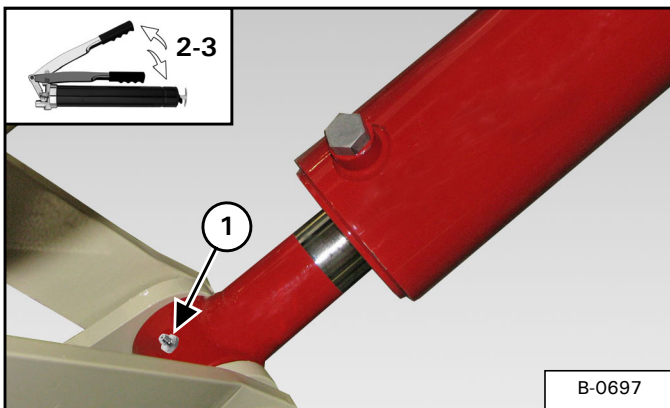
Apply 1-2 pumps of grease to the intake hopper drive shaft (Item 1) [Figure 149].

Figure 150



Apply two - three pumps of grease to the base end of the lift cylinder (Item 1) [Figure 150].

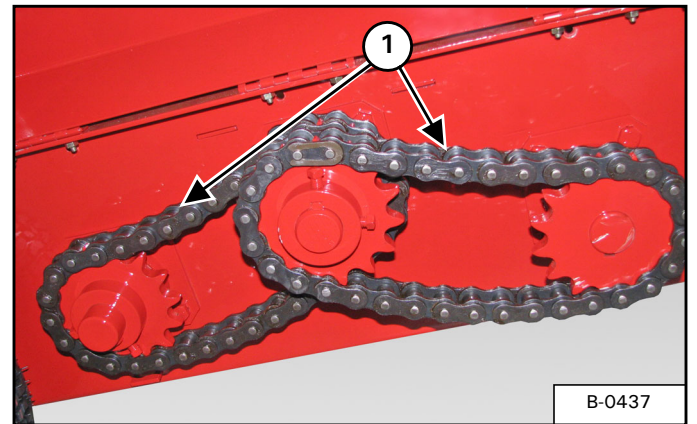
Figure 151



Apply two - three pumps of grease to the rod end of the lift cylinder (Item 1) [Figure 151].

Hopper Dual Auger Drive Chains

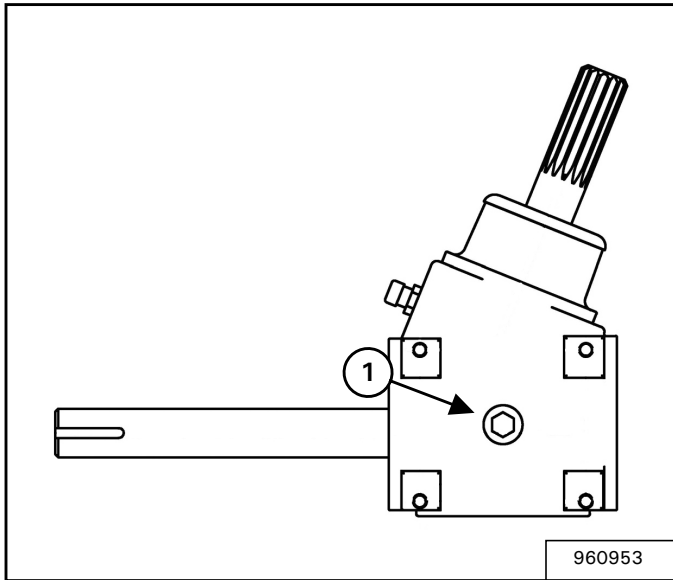
Figure 152



Apply oil to the dual auger drive chains (Item 1) [Figure 152] daily or every eight hours.

2168 Lower Gearbox

Figure 153



Check the gearbox oil level every 50 hours or weekly.

Remove the fill / drain plug (Item 1) [Figure 153] from the gearbox. Oil level should be at the bottom of the plug hole.

If the oil level is low, add SAE 75W-90 synthetic gear oil until the oil is at the bottom of the hole.

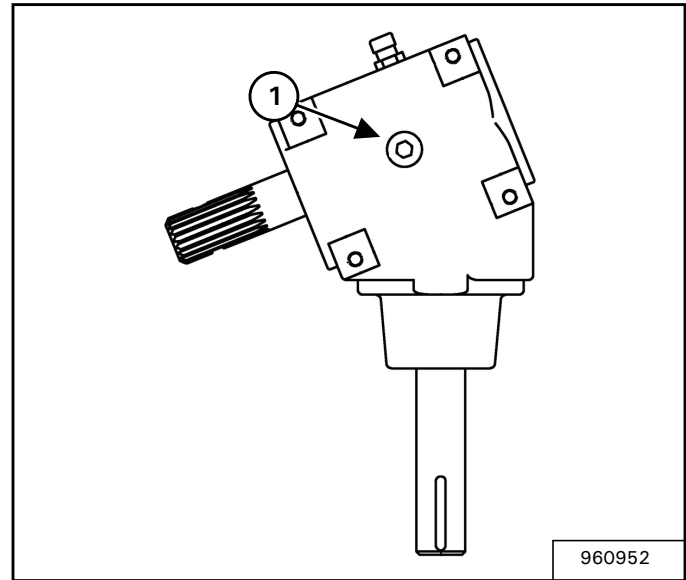
Changing Gear Oil

Remove the fill / drain plug (Item 1) [Figure 153] and siphon all the gear oil from the gearbox.

Fill with SAE 75W-90 synthetic gear oil to the bottom of the plug hole. Install fill / drain plug.

2168 Upper Gearbox

Figure 154



Check the gearbox oil level every 50 hours or weekly.

Remove the fill / drain plug (Item 1) [Figure 154] from the gearbox. Oil level should be at the bottom of the plug hole.

If the oil level is low, add SAE 75W-90 synthetic gear oil until the oil is at the bottom of the hole.

Changing Gear Oil

Remove the fill / drain plug (Item 1) [Figure 154] and siphon all the gear oil from the gearbox.

Fill with SAE 75W-90 synthetic gear oil to the bottom of the plug hole. Install fill / drain plug.

Cleaning And Inspection

NOTE: Inspect the driveline components, replace all damaged or worn components.

Use solvent to clean the shaft and tube. Use compressed air to dry and remove excess solvent from the parts.

Apply a light coat of grease to the shaft and the tube end.

Use solvent to clean the slide collars, yokes, crosses and bearings. Use compressed air to dry the parts.

Apply a light coat of grease to the inside of the slide collars.

AXLE

Wheel Lug Nut Torque

Check the torque on wheel lug nuts daily. Tighten lug nuts to 80 - 100 lb. / ft. (108 - 135 N•m) torque.

Tire / Wheel Replacement

Empty the Backsaver Auger (if required).



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.



AVOID INJURY OR DEATH

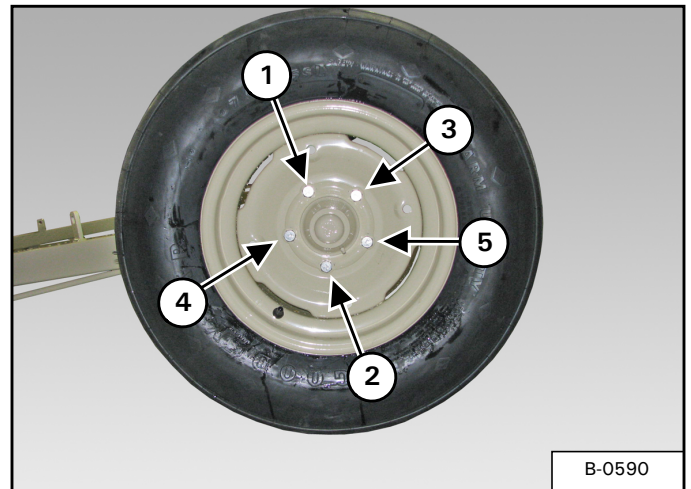
- The parking brake must be engaged before leaving the operator’s position. Rollaway can occur because the transmission may not prevent machine movement.
- Always chock tires before performing any maintenance or service.

Place chock blocks behind and in front of the auger tire(s).

Place a jack under the axle frame on the side the wheel is to be replaced. Raise the jack until the wheel is slightly off the ground.

NOTE: Place blocks under the frame to help secure the auger when wheel is raised off the ground.

Figure 155



Remove the wheel nuts and tire from the hub.

Install the new tire with the valve stem facing out (both sides). Install the eight wheel nuts (both sides) [Figure 155].

Tighten wheel nuts in a criss-cross pattern [Figure 155]. Tighten wheel nuts to 80 - 100 lb. / ft. (108 - 135 N•m) of torque.

BRIDGING CABLES

Cable Inspection



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

Regularly check the tightness of all cable clamps to avoid slipping. Inspect cables regularly for damage, wear or corrosion.

Cable inspections should be done at the beginning of operation and directly after the auger has been towed or transported.

Use a piece of cloth or rag to slide across the cables to locate broken or frayed wires. Replace cables as needed.

Lubricating

To prevent damage by corrosion, the cables should be kept well lubricated.

Cleaning

Periodic cleaning of cables by using a stiff brush and kerosene or with compressed air or live steam and re-lubricating will help to lengthen cable life and reduce abrasion and wear on sheaves and drums.

Lower And Upper Bridging Cables



AVOID INJURY OR DEATH

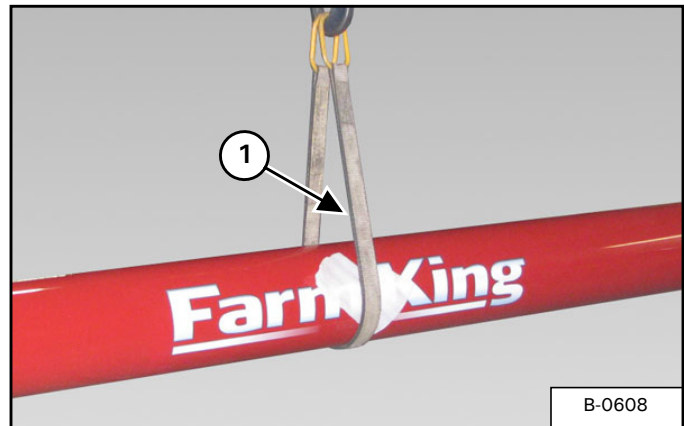
Before servicing bridging cables:

- Always park on a flat level surface.
- Fully lower the main auger into the transport position.
- Disconnect the PTO driveline.
- Support the main auger tube with an approved lifting device.
- Chock tires.



Completely unload auger before adjusting bridging cables.

Figure 156

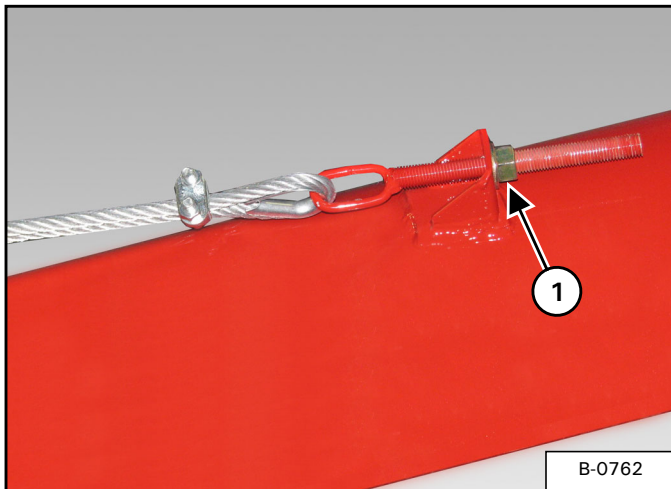


Install a strap (Item 1) [Figure 156] around the tube.

Connect the strap to an approved lifting device.

Raise the lifting device, until tight, to support the auger tube(s).

Figure 157



Loosen all cable clamps along the cable being tightened.

Tighten the nut (Item 1) [Figure 157] of the desired bridging cable on tube.

Tighten both left and right cables evenly.

Tighten the upper bridging cable until the discharge end of the tube bows up slightly.

Tighten the lower bridging cable to hold the tube in the slightly raised position.

After tightening the lower and upper cables, check that the auger tube is straight. No bend right or left.

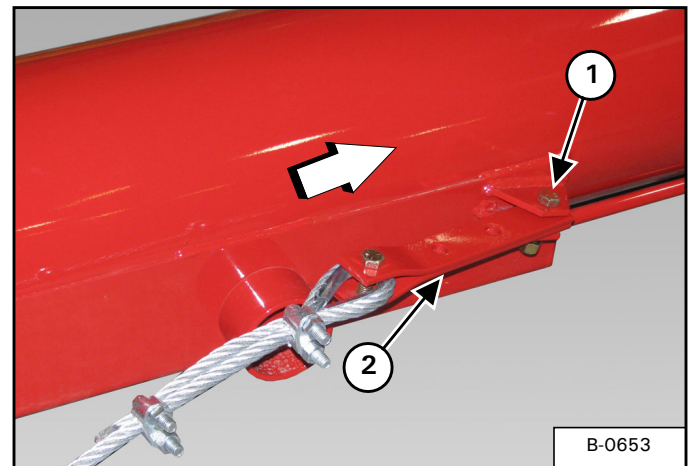
NOTE: If the nut is fully tightened and bottoms out against the eye of the adjustment bolt, the cable will need to be loosened and additional adjustments will be made on the opposite end of the cable.

If the nut bottoms out against the eye of the adjustment bolt, loosen the nut (Item 1) [Figure 157].

NOTE: Do not remove the nut from the adjustment bolt.

After adjusting the cable(s), tighten all cable clamps along the cable(s).

Figure 158



Remove bolt (Item 1) [Figure 158] and lock nut (from mounting bracket on the bottom tube section), move the yoke (Item 2) back, one hole. Re-install the bolt and lock nut. Tighten until the yoke is securely fastened to the tube mount.

Repeat for adjusting remaining bridging cables.

SAFETY SIGN (DECAL) INSTALLATION**Procedure**

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 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.

STORAGE AND RETURN TO SERVICE**Storage**

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



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

- 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.
- Check the tightness of all cable clamps to avoid slipping.
- Inspect the cables for wear or corrosion. Replace if worn.
- Lubricate the cables.
- If stored outside, lower the auger to its lowest position and block the wheels so the auger will not move.
- Place the equipment flat on the ground.

Return To Service

After the Farm King Backsaver Auger 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.

Farm King



PARTS IDENTIFICATION

GENERAL PARTS IDENTIFICATION INFORMATION101

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Farm King

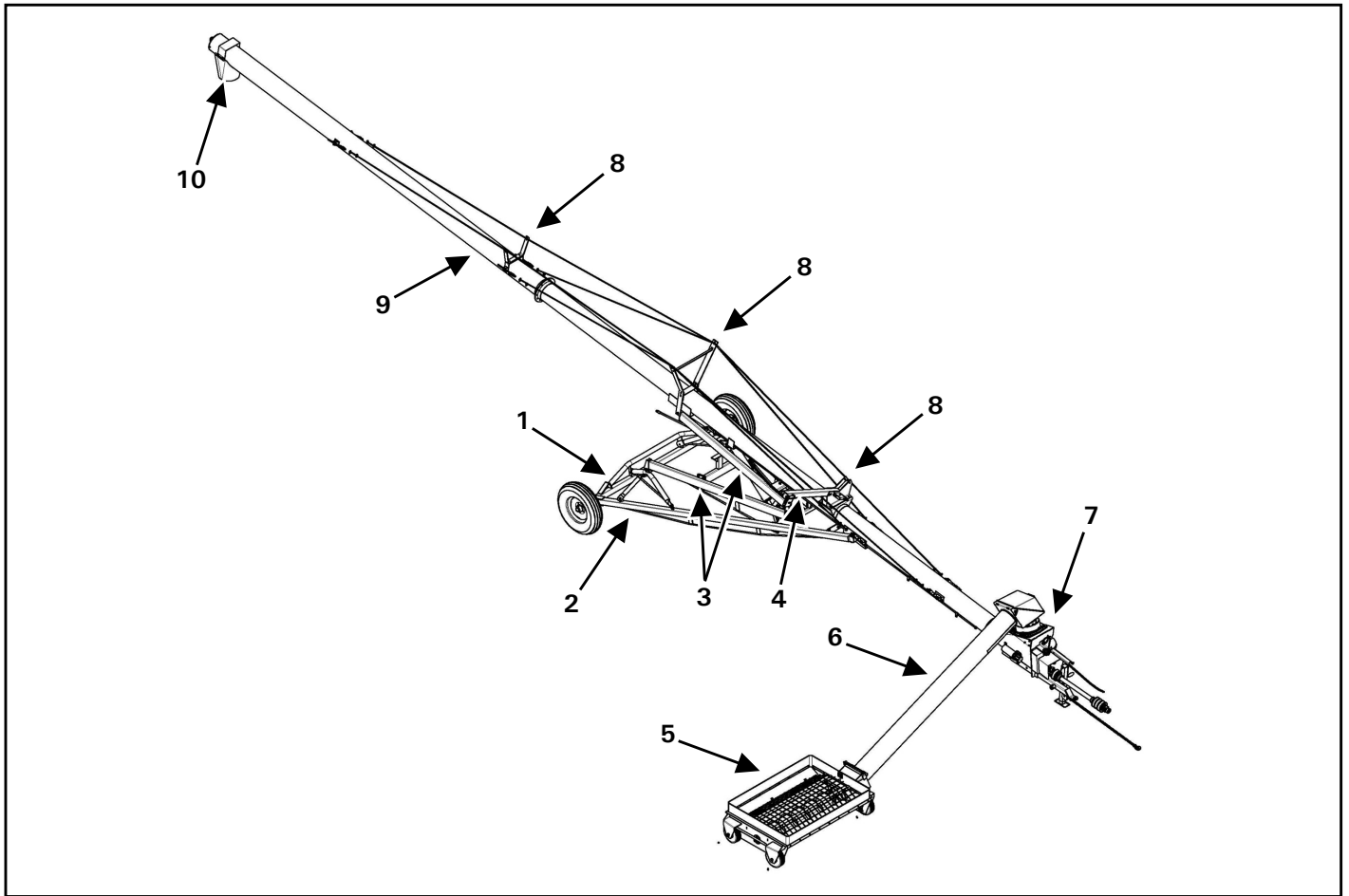


GENERAL PARTS IDENTIFICATION INFORMATION

The parts identification section list descriptions, part numbers and quantities for all 10" Backsaver Augers. Contact your Farm King dealer for additional 10" Backsaver Auger parts information.

10" BACKSAVER AUGER

Components

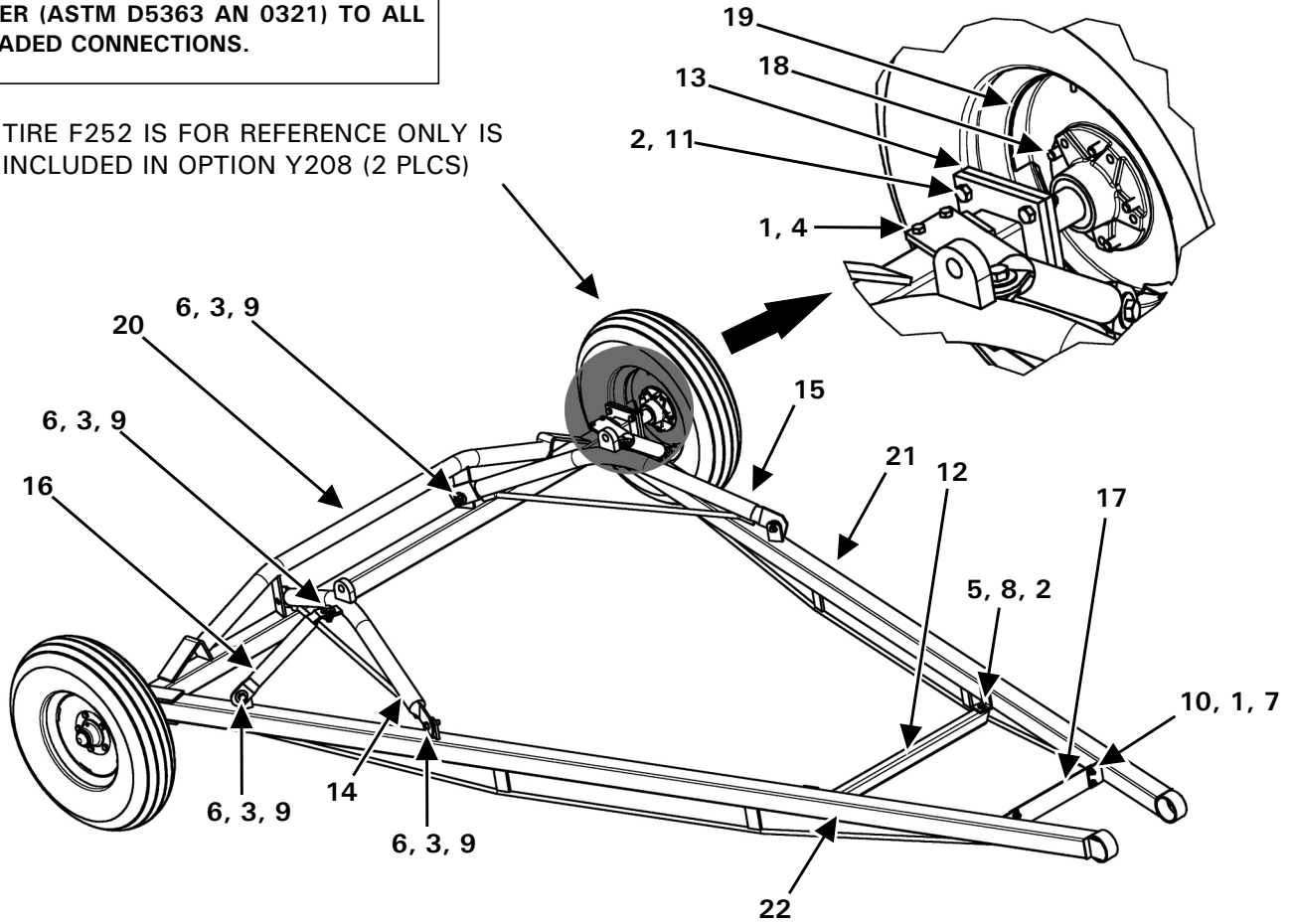


ITEM	DESCRIPTION
1	AXLE
2	UNDERCARRIAGE
3	LIFT ARMS
4	BOOM
5	HOPPER
6	INTAKE AUGER
7	INPUT BOX
8	BRIDGING
9	MAIN AUGER
10	DISCHARGE SPOUT

BS1050 Undercarriage

NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

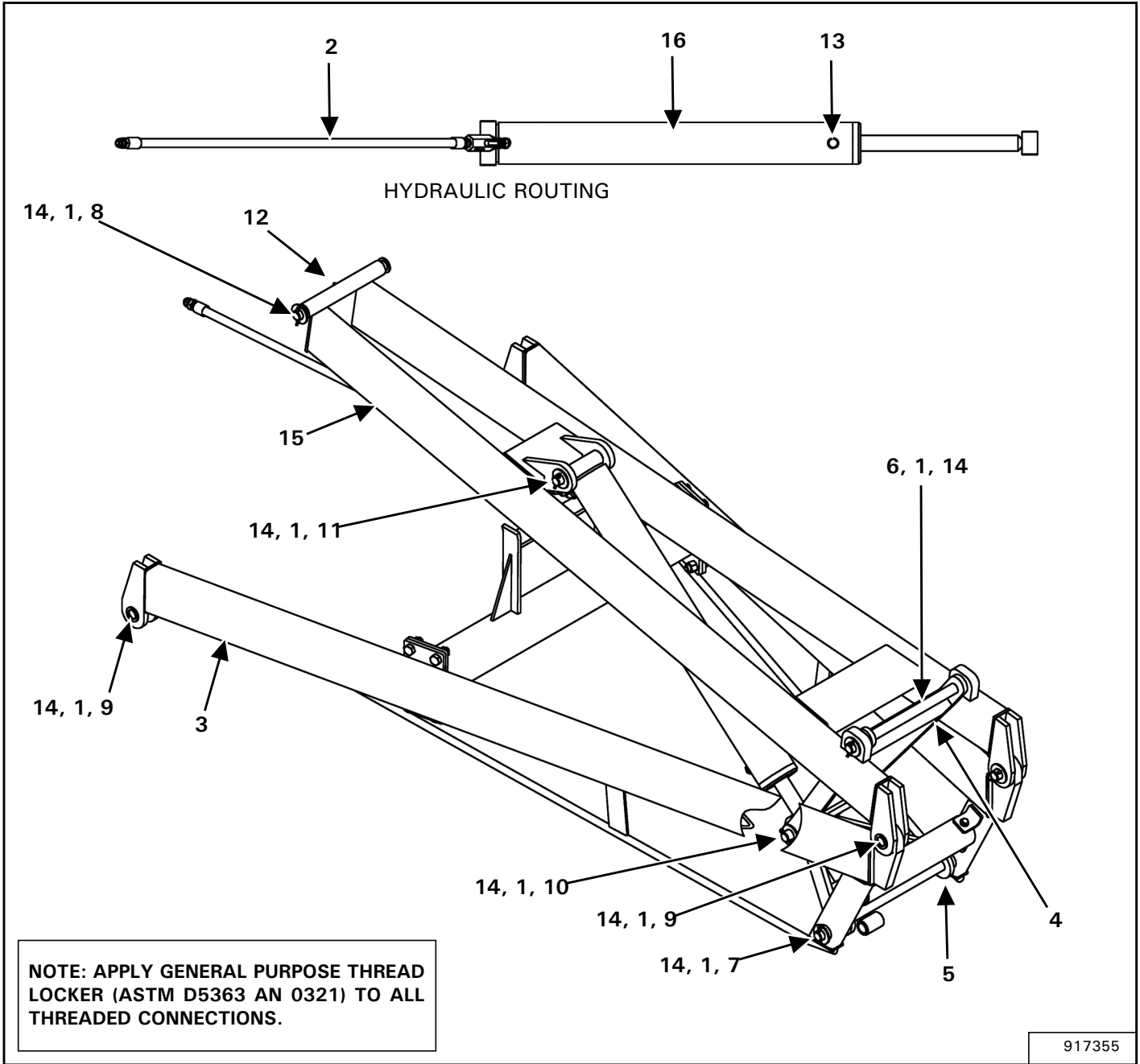
TIRE F252 IS FOR REFERENCE ONLY IS INCLUDED IN OPTION Y208 (2 PLCS)



917354

ITEM	PART NUMBER	DESCRIPTION	QTY
1	812363	LOCK NUT, 3/8" (PL)	8
2	812364	LOCK NUT, 1/2" (PL)	10
3	812482	LOCK NUT, 5/8" (PL)	8
4	81588	BOLT, 3/8" x 4 1/2" HEX (PL)	4
5	81620	BOLT, 1/2" x 1 1/4" HEX (PL)	2
6	81678	FLAT WASHER, 5/8" STD (PL)	12
7	84039	FLAT WASHER, 3/8" (PL)	4
8	84048	FLAT WASHER, 1/2" SAE (PL)	2
9	84270	BOLT, 5/8" x 1 3/4" HEX (PL)	8
10	86171	BOLT, 3/8" x 1 1/4" HEX (PL)	4
11	87553	BOLT, 1/2" x 1 3/4" HEX UNC GR5 (PL)	8
12	904980	LIFT ARM CRADLE, 3/16" W x 2" x 2" x 33 1/4"	1
13	906571	STUB AXLE ASSEMBLY	2
14	960079	(RH) UNDERCARRIAGE ARCH WELDMENT	1
15	960082	(LH) UNDERCARRIAGE ARCH WELDMENT	1
16	960085	UNDERCARRIAGE ARCH BRACE	2
17	960088	UNDERCARRIAGE TIE PLATE, 1/4" x 3" x 16"	1
18	968404	WHEEL BOLT, 1/2" x 1 1/4" (PL)	10
19	F0110	WHEEL, 15" x 5" x 5 BOLT	2
20	F1468	AXLE TUBE WELDMENT (1050)	1
21	F9252	(LH) UNDERCARRIAGE ARM WELDMENT	1
22	F9253	(RH) UNDERCARRIAGE ARM WELDMENT	1

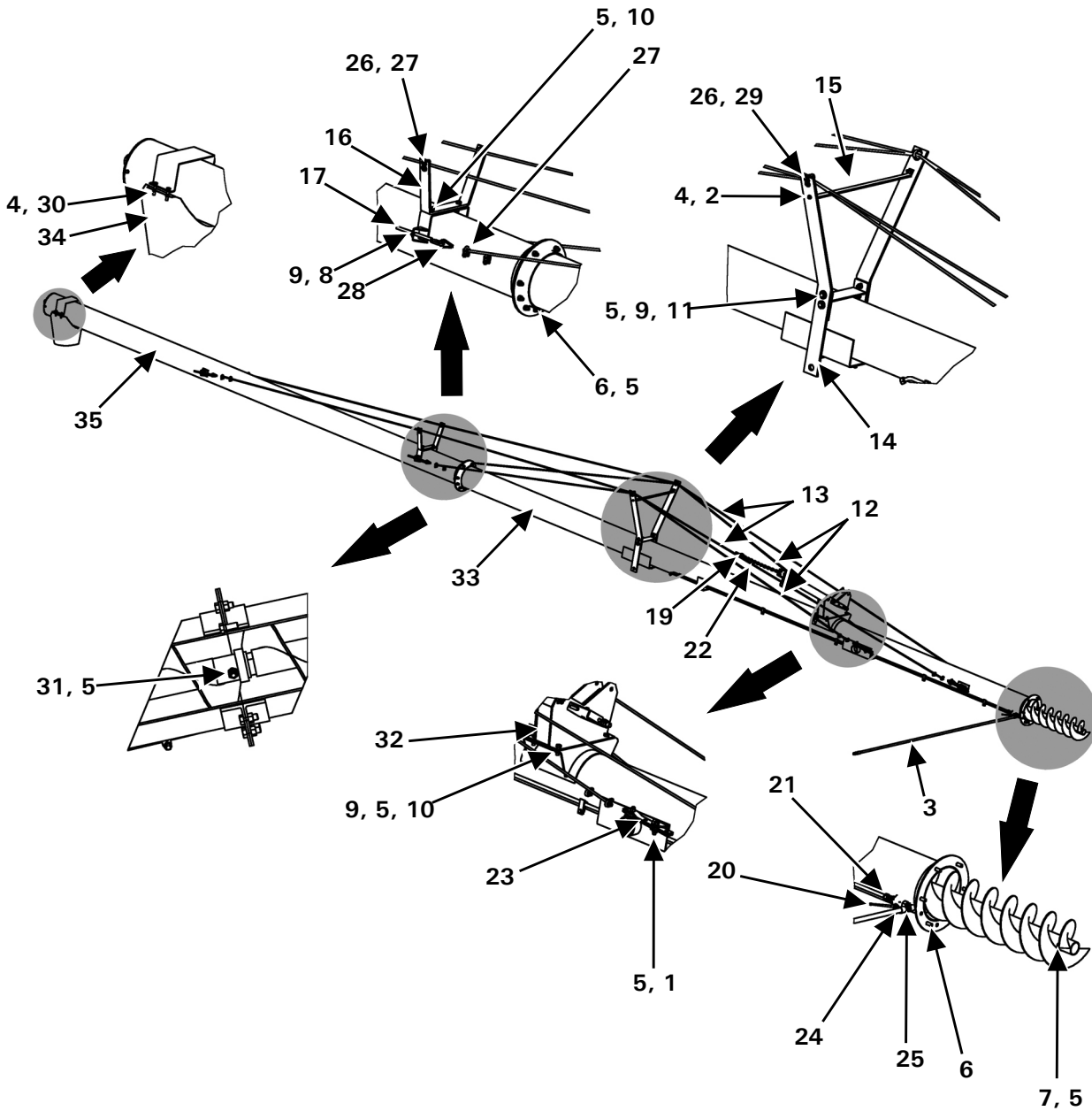
BS1050 Lift Arms



ITEM	PART NUMBER	DESCRIPTION	QTY
1	84522	FLAT WASHER, 1" ID SAE (PL)	9
2	912752	HYDRAULIC ROUTING	1
3	916594	LOWER LIFT ASSEMBLY (1050)	1
4	960093	PIVOT YOKE WELDMENT	1
5	960096	CONNECTING LINK WELDMENT	1
6	960099	YOKE PIN WELDMENT	1
7	960102	CONNECTING PIN BASE PIN WELDMENT	1
8	960105	LIFT ARM PIVOT PIN WELDMENT	1
9	960107	LIFT ARM CLEVIS PIN WELDMENT	4
10	960109	CONNECTING LINK SWIVEL PIN WELDMENT	1
11	960111	CYLINDER PIN WELDMENT	1
12	967164	GREASE ZERK, DRIVE-IN	1
13	967908	PLUG, 8 ORB VENT	1
14	9812433	COTTER PIN, 3/16" x 1 1/2"	9
15	F9021	UPPER LIFT ARM WELDMENT (1050)	1
16	F9183	HYDRAULIC CYLINDER, 4" x 36"	1

BS1050 Tubes

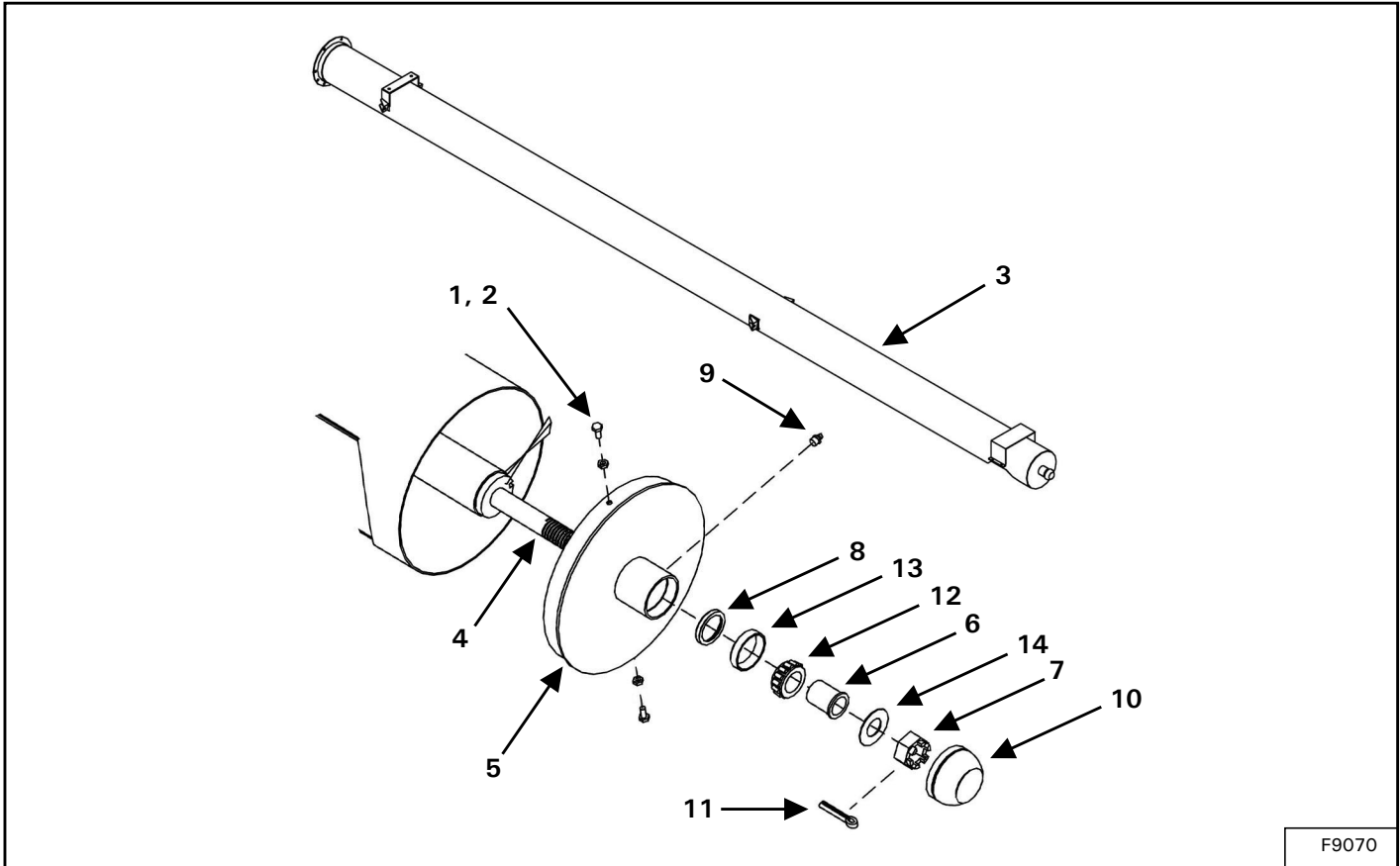
NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.



ITEM	PART NUMBER	DESCRIPTION	QTY
1	811791	BOLT, 1/2" x 2" HEX (PL)	8
2	811792	BOLT, 3/8" x 1 1/2" HEX GR.5 (PL)	2
3	812208	NIPPLE 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	1
4	812363	LOCK NUT, 3/8" (PL)	6
5	812364	LOCK NUT, 1/2" (PL)	30
6	81620	BOLT, 1/2" x 1 1/4" HEX PL	15
7	81627	BOLT, 1/2" x 3" HEX (PL)	2
8	81636	NUT, 1/2" HEX (PL)	4
9	81638	FLAT WASHER, 1/2" BS (PL)	12
10	84277	BOLT, 1/2" x 1 1/2" HEX (PL)	6
11	87553	BOLT, 1/2" x 1.75" HEX UNC GR5 (PL)	4
12	903714	LOWER CABLE BUNDLE	1
13	903718	UPPER CABLE BUNDLE	1
14	960014	MAIN BRIDGING YOKE WELDMENT	1
15	960016	MAIN BRIDGING TIE BAR 1/4" x 1" x 29"	1
16	960018	YOKE, UPPER BRIDGING 3/8" x 2" x 31 1/2"	1
17	960031	CABLE TIGHTNER WELDMENT	4
18	960040	CABLE, INTAKE AUGER (Not Shown)	1
19	960041	HOOK WITH LATCH	1
20	960057	BALL VALVE, -08 FNPT 2 WAY	1
21	960152	ADAPTOR STRAIGHT -10 MJIC x -8 MNPT	1
22	960167	QUICK LINK (PL)	1
23	960244	CABLE YOKE	8
24	960466	HOSE-8 x -8 MNPT x -8 MNPT	1
25	960585	ELBOW, 1/2" x 90 DEGREE STREET (STEEL)	1
26	964001	FLAT WASHER, 1" x 7/16" x 10GA (PL)	8
27	964264	CABLE CLAMP, 3/8"	10
28	964267	CABLE THIMBLES 3/8"	4
29	964565	CABLE CLAMP, 1/2" (PL)	2
30	967291	BOLT, 3/8" x 2" FULL THREAD HEX (PL)	4
31	9812368	BOLT, 1/2" x 2 3/4" GR8 HEX (PL)	1
32	F0099*	INTAKE LIFT BOOM, ASSEMBLY	1
33	F1075*	BOTTOM SECTION 10" x 50'	1
34	F9047	DISCHARGE SPOUT	1
35	F9070*	TOP SECTION 10" x 50'	1

*See the following pages for individual part break downs.

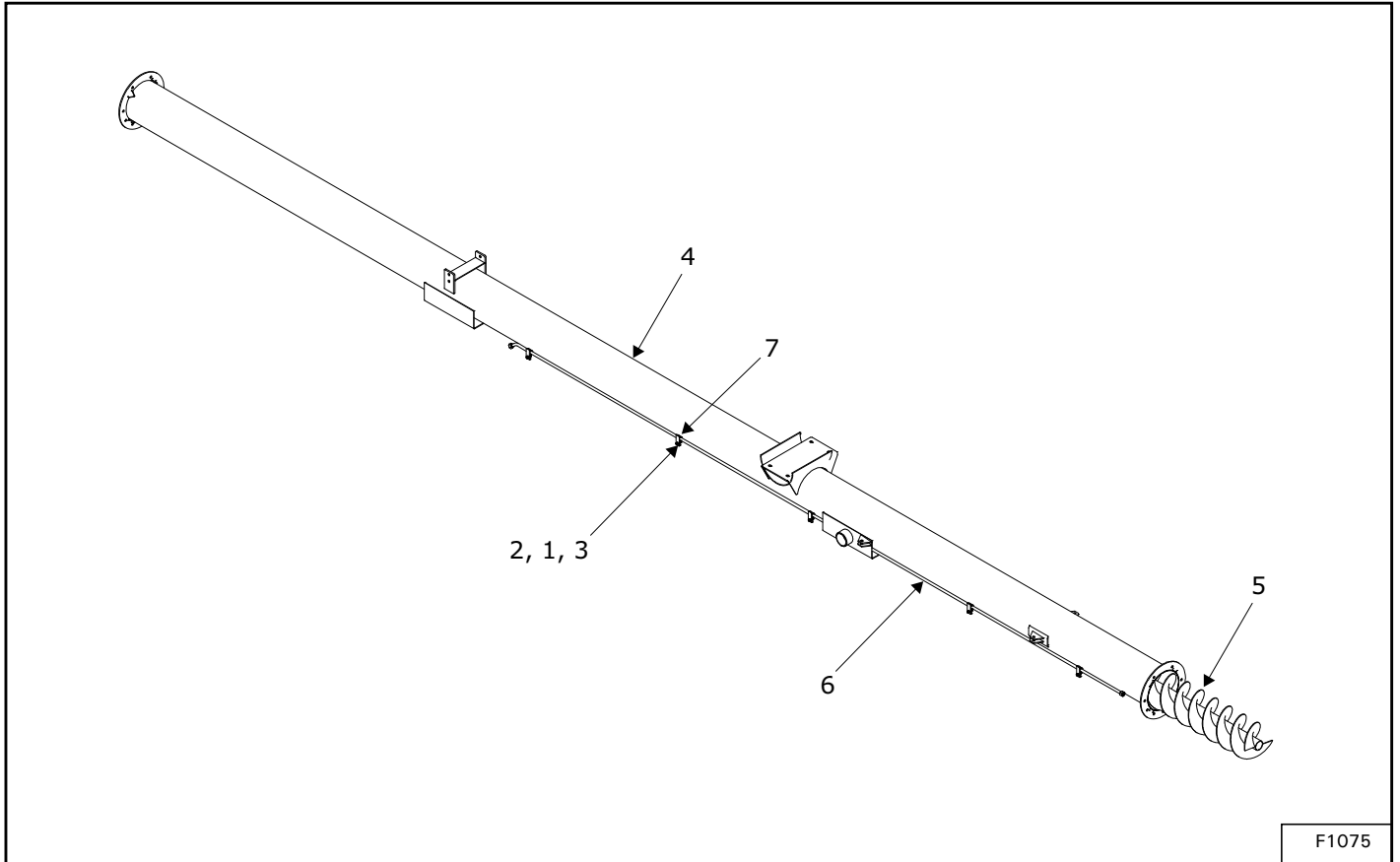
Top Section 10" X 50'



F9070

ITEM	PART NUMBER	DESCRIPTION	QTY
1	812362	5/16" LOCK NUT (PL)	2
2	81549	5/16" X 3/4" HEX BOLT (PL)	2
3	960006	20' TOP SECTION TUBING, 50'	1
4	960012	TOP SECTION FLTG WELDT	1
5	960034	WELDT-TOP END PLATE	1
6	960035	END BEARING SLEEVE	1
7	960037	SLOTTED HEX NUT 1 1/4" UNF	1
8	960125	OIL SEAL (CR14939)	1
9	967164	DRIVE-IN GREASE ZERK	1
10	967209	DUST CAP (DC15)	1
11	967459	COTTER PIN - 1/4" X 1 3/4" (PL)	1
12	967708	BEARING CONE (LM29749)	1
13	967709	BEARING CUP (LM29710)	1
14	9812442	1 1/4" X 10GA FLAT WASHER (BR)	1

Bottom Section 10" X 50'

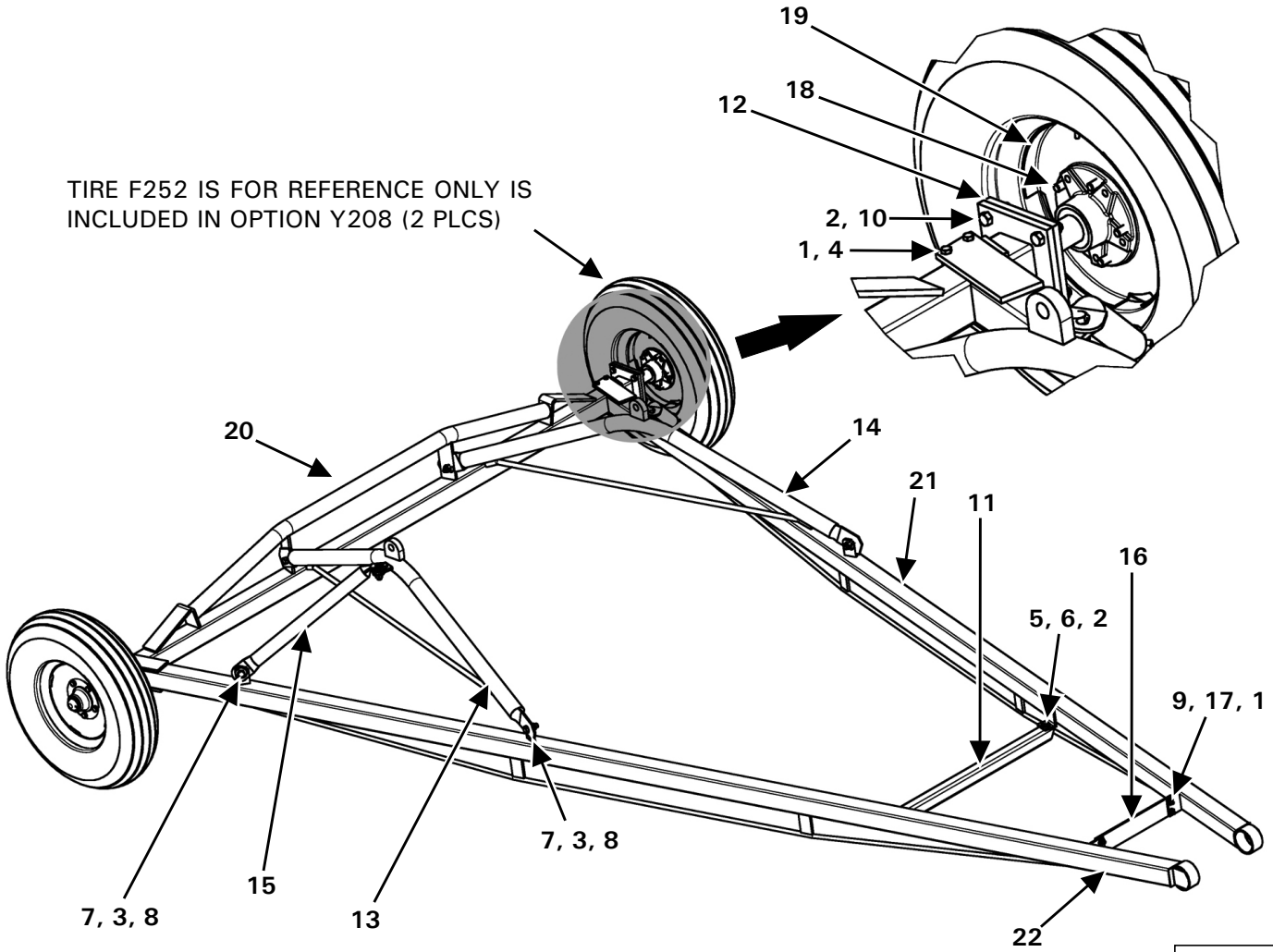


ITEM	PART NUMBER	DESCRIPTION	QTY
1	81592	3/8" HEX NUT (PL)	5
2	81593	3/8" LOCK WASHER (PL)	5
3	86170	3/8" X 1" HEX BOLT GR.5 (PL)	5
4	905644	BOTTOM SECTION TUBE 27' 4"	1
5	911117	BOTTOM FLIGHTING WELDT	1
6	960469	5/8" X 11' HYD LINE (JIC FEMALE ENDS)	1
7	960639L	HYDRAULIC LINE CLAMP	5

BS1060 Undercarriage

NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

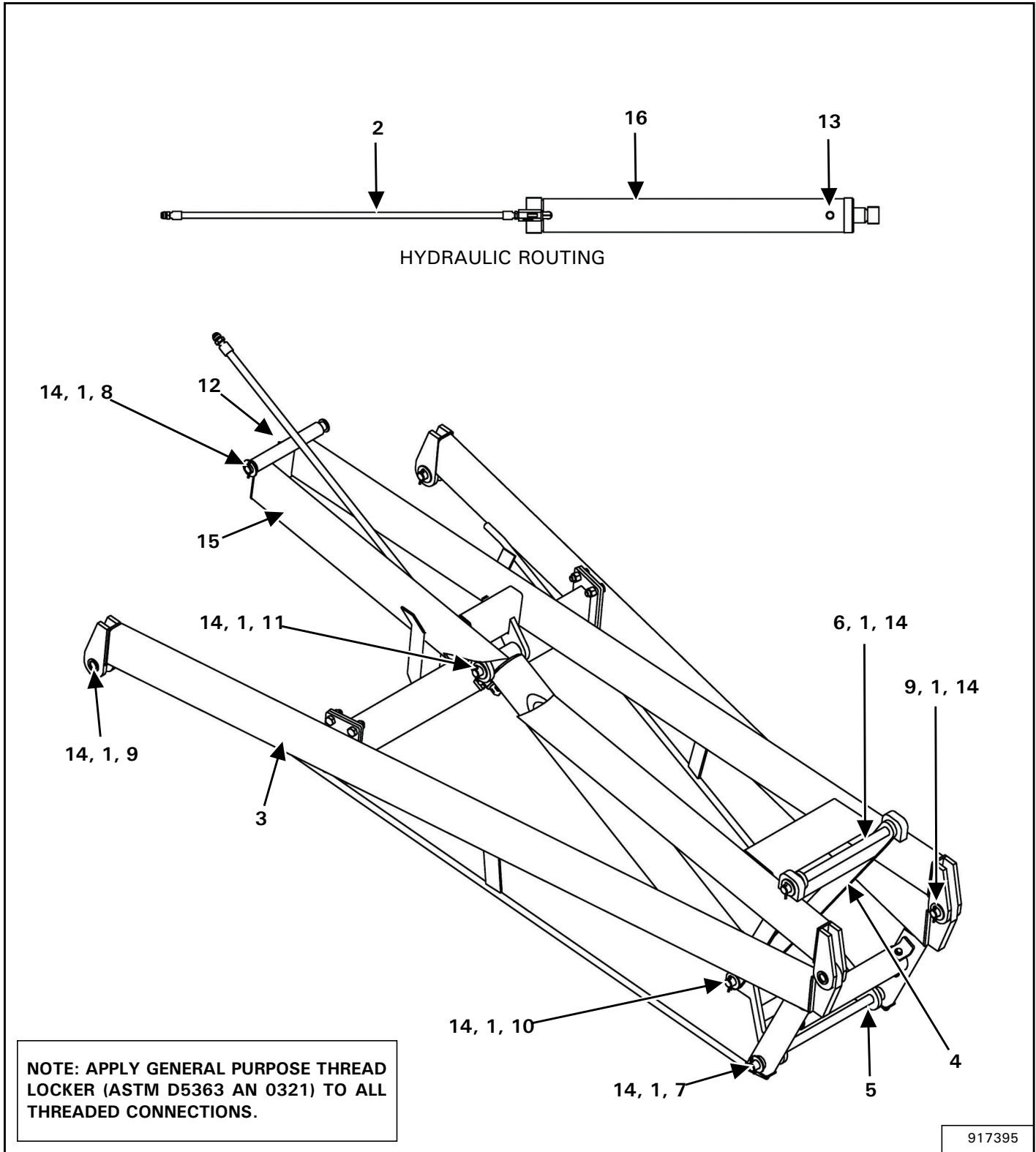
TIRE F252 IS FOR REFERENCE ONLY IS INCLUDED IN OPTION Y208 (2 PLCS)



917394

ITEM	PART NUMBER	DESCRIPTION	QTY
1	812363	LOCK NUT, 3/8" (PL)	8
2	812364	LOCK NUT, 1/2" (PL)	10
3	812482	LOCK NUT, 5/8" (PL)	8
4	81588	BOLT, 3/8" x 4-1/2" HEX (PL)	4
5	81620	BOLT, 1/2" x 1-1/4" HEX PL	2
6	81638	FLAT WASHER, 1/2" BS (PL)	2
7	81678	FLAT WASHER, 5/8" STD (PL)	12
8	84270	BOLT, 5/8" x 1-3/4" HEX (PL)	8
9	86171	BOLT, 3/8" x 1-1/4" HEX (PL)	4
10	87553	BOLT, 1/2" x 1.75" HEX UNC GR5 (PL)	8
11	904981	LIFT ARM CRADLE 3/16" W x 2" x 2" x 36"	1
12	906571	STUB AXLE ASSEMBLY	2
13	960080	(RH) UNDERCARRIAGE ARCH WELDMENT	1
14	960083	(LH) UNDERCARRIAGE ARCH WELDMENT	1
15	960086	UNDERCARRIAGE ARCH BRACE	2
16	960088	UNDERCARRIAGE TIE PL 1/4" x 3" x 16"	1
17	964001	FLAT WASHER, 1" x 7/16" x 10GA (PL)	4
18	968404	WHEEL BOLT 1/2" x 1-1/4" (PL)	10
19	F0110	WHEEL, 15" x 5" x 5 BOLT	2
20	F1467	AXLE TUBE WELDMENT (1060)	1
21	F9250	(LH) UNDERCARRIAGE ARM WELDMENT	1
22	F9251	(RH) UNDERCARRIAGE ARM WELDMENT	1

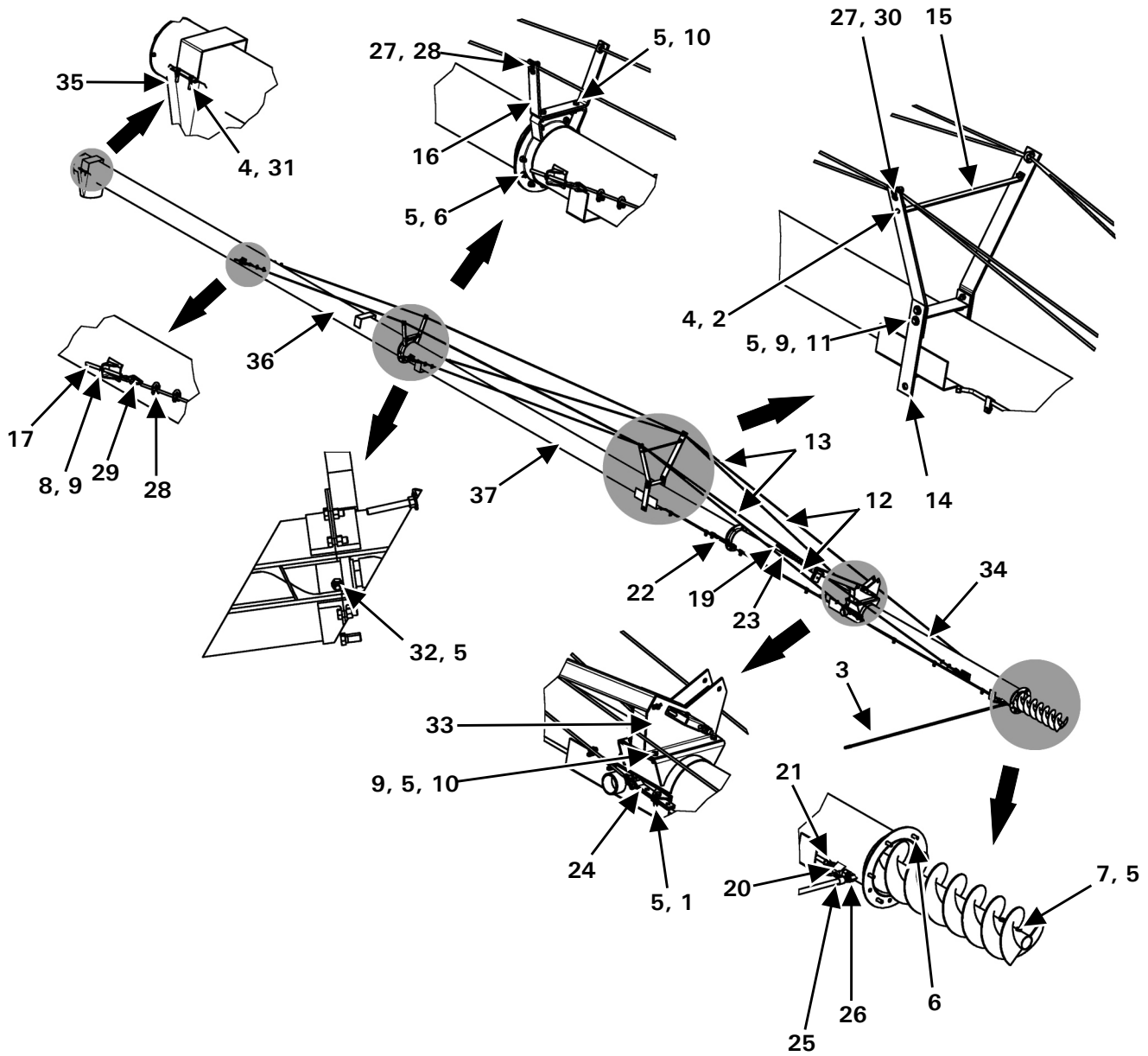
BS1060 Lift Arms



ITEM	PART NUMBER	DESCRIPTION	QTY
1	84522	FLAT WASHER, 1" ID SAE (PL)	1
2	912753	HYDRAULIC ROUTING	1
3	916593	LOWER LIFT 1060 ASSEMBLY	1
4	960094	PIVOT YOKE WELDMENT	1
5	960097	CONNECTING LINK WELDMENT	1
6	960100	YOKE PIN WELDMENT	1
7	960103	CONNECTING LINK BASE PIN WELDMENT	1
8	960105	LIFT ARM PIVOT PIN WELDMENT	1
9	960107	LIFT ARM CLEVIS PIN WELDMENT	4
10	960109	CONNECTING LINK SWIVEL PIN WELDMENT	1
11	960112	CYLINDER PIN WELDMENT	1
12	967164	GREASE ZERK, DRIVE-IN	1
13	967908	PLUG-8 ORB VENT	1
14	9812433	COTTER PIN, 3/16" x 1-1/2"	9
15	F9022	UPPER LIFT ARM WELDMENT (1060)	1
16	F9184	HYDRAULIC CYLINDER, 4" x 36"	1

BS1060 Tubes

NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

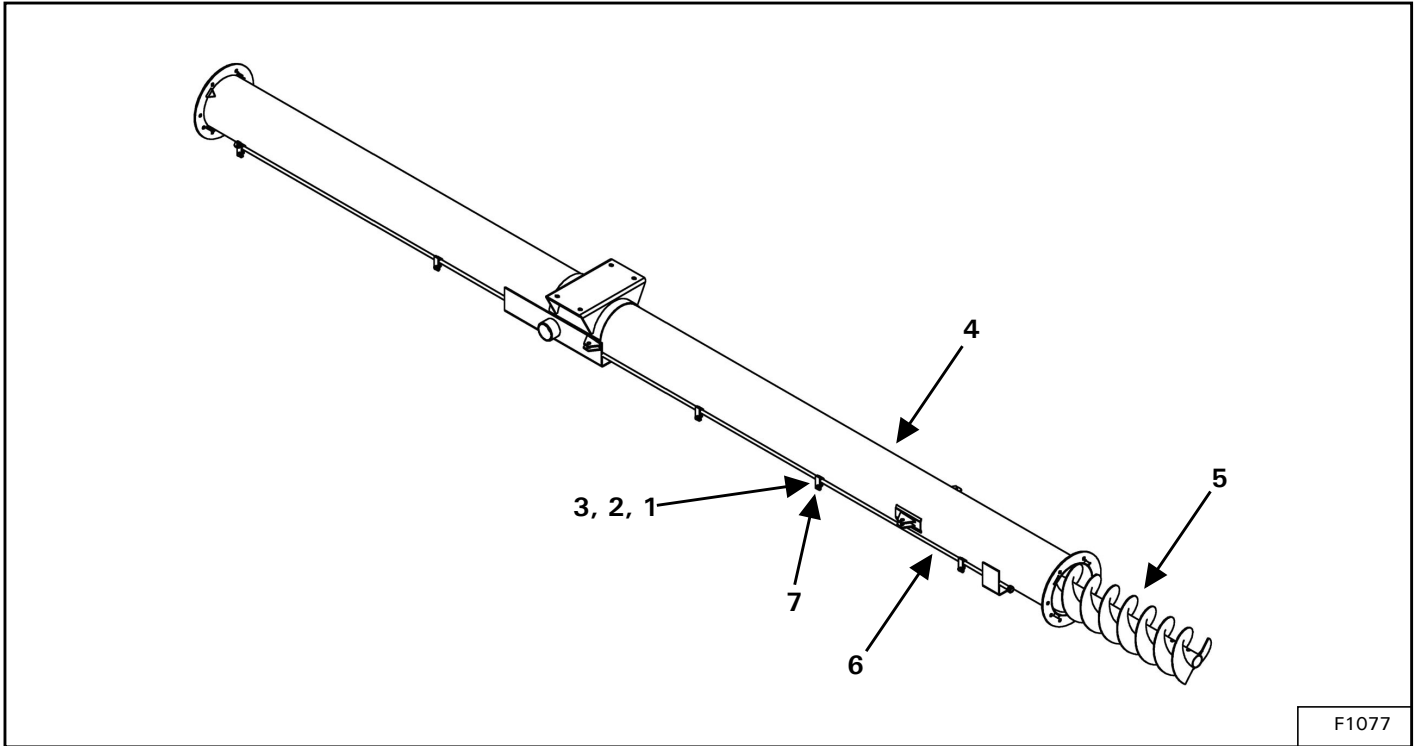


917656

ITEM	PART NUMBER	DESCRIPTION	QTY
1	811791	BOLT, 1/2" x 2" HEX (PL)	8
2	811792	BOLT, 3/8" x 1-1/2" HEX GR.5 (PL)	2
3	812208	NIPPLE, 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	1
4	812363	LOCK NUT, 3/8" (PL)	6
5	812364	LOCK NUT, 1/2" (PL)	40
6	81620	BOLT, 1/2" x 1-1/4" HEX PL	24
7	81627	BOLT, 1/2" x 3" HEX (PL)	2
8	81636	NUT, 1/2" HEX (PL)	4
9	81638	FLAT WASHER, 1/2" BS (PL)	12
10	84277	BOLT, 1/2" x 1-1/2" HEX (PL)	6
11	87553	BOLT, 1/2" x 1 3/4" HEX UNC GR5 (PL)	4
12	903717	LOWER CABLE BUNDLE	1
13	903719	UPPER CABLE BUNDLE	1
14	960014	MAIN BRIDGING YOKE WELDMENT	1
15	960016	MAIN BRIDGING TIE BAR 1/4" x 1" x 29"	1
16	960018	UPPER BRIDGING YOKE 3/8" x 2" x 31-1/2"	1
17	960031	CABLE TIGHTNER WELDMENT	4
18	960040	INTAKE AUGER CABLE	1
19	960041	HOOK WITH LATCH	1
20	960057	BALL VALVE, #8 FNPT 2 WAY	1
21	960152	ADAPTOR STRAIGHT, #10 MJIC x #8 MNPT	1
22	960162	HOSE, #8 x #10 MJIC x #10 MJIC	1
23	960167	QUICK LINK (PL)	1
24	960244	CABLE YOKE	8
25	960466	HOSE, #8 x #8 MNPT x #8 MNPT	1
26	960585	ELBOW, 1/2" x 90 DEGREE STREET (STEEL)	1
27	964001	FLAT WASHER, 1" x 7/16" x 10 GA (PL)	9
28	964264	CABLE CLAMP, 3/8"	10
29	964267	CABLE, THIMBLES 3/8"	4
30	964565	CABLE CLAMP (PL), 1/2"	2
31	967291	BOLT, 3/8" x 2" FULL THREAD HEX (PL)	4
32	9812368	BOLT, 1/2" x 2-3/4" GR8 HEX (PL)	2
33	F0099*	INTAKE LIFT BOOM ASSEMBLY	1
34	F1077*	BOTTOM SECTION 10" x 60'	1
35	F9047	DISCHARGE SPOUT	1
36	F9071*	TOP SECTION 10" x 60'	1
37	F9073*	CENTER SECTION 10" x 60'	1

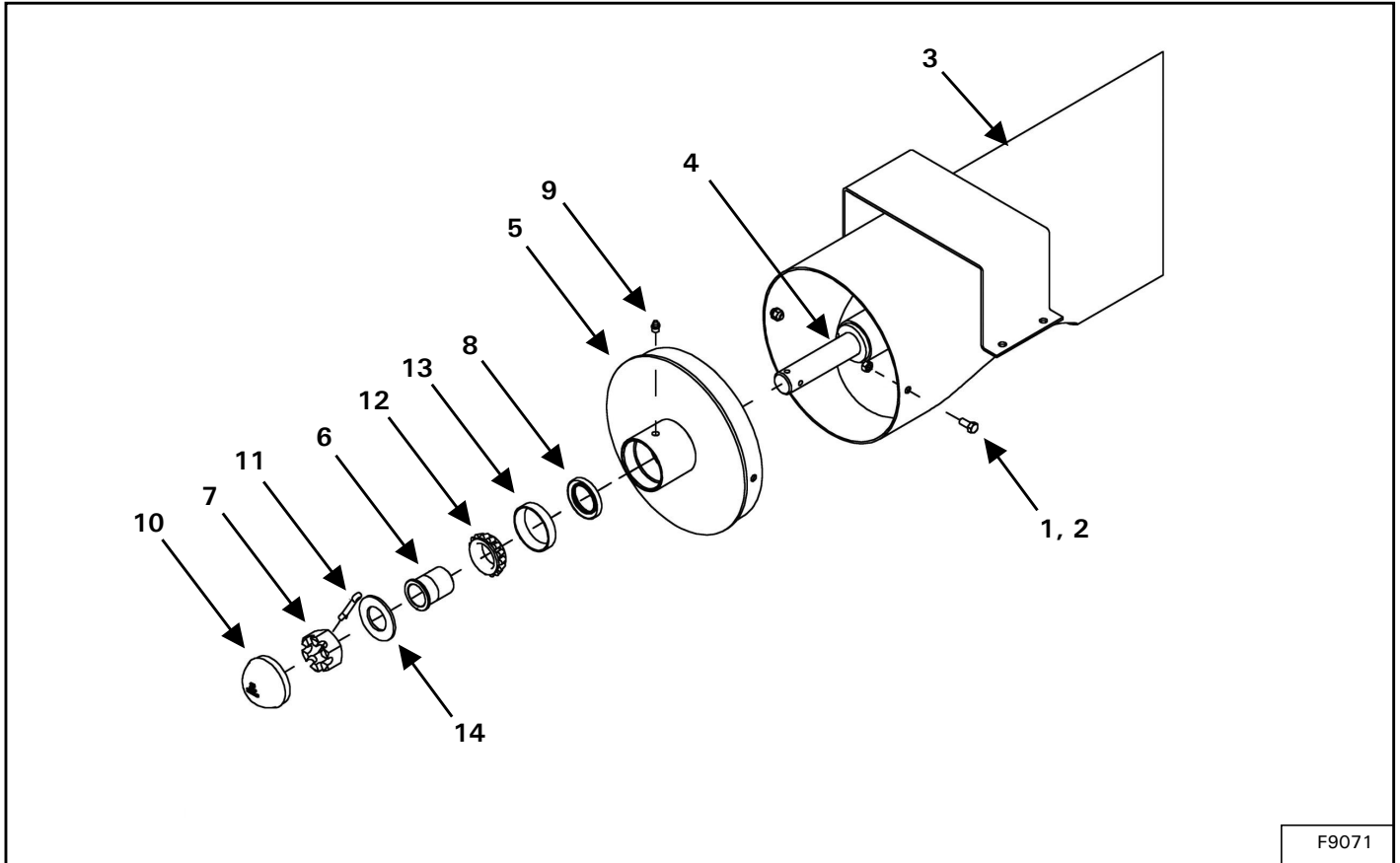
*See the following pages for individual part break downs.

Bottom Section 10" X 60'



ITEM	PART NUMBER	DESCRIPTION	QTY
1	81592	NUT, 3/8" HEX (PL)	5
2	81593	LOCK WASHER, 3/8" (PL)	5
3	86170	BOLT, 3/8" x 1" HEX GR5 (PL)	5
4	905645	BOTTOM SECTION TUBE 17'-4"	1
5	911119	BOTTOM FLTG WELDT	1
6	960467	HYD LINE 5/8" x 15'-10"	1
7	960639L	HYDRAULIC LINE CLAMP	5

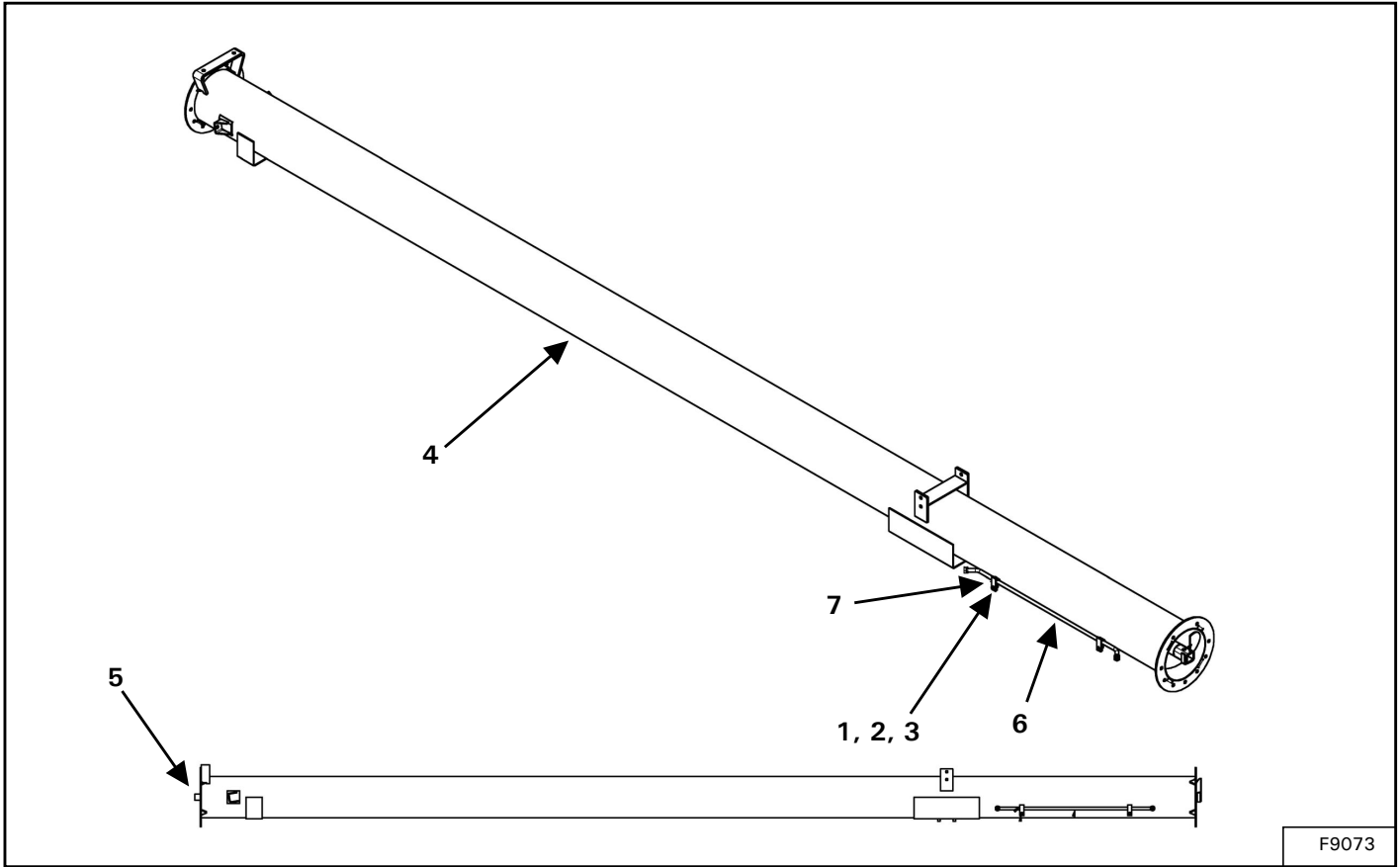
Top Section 10" X 60'



F9071

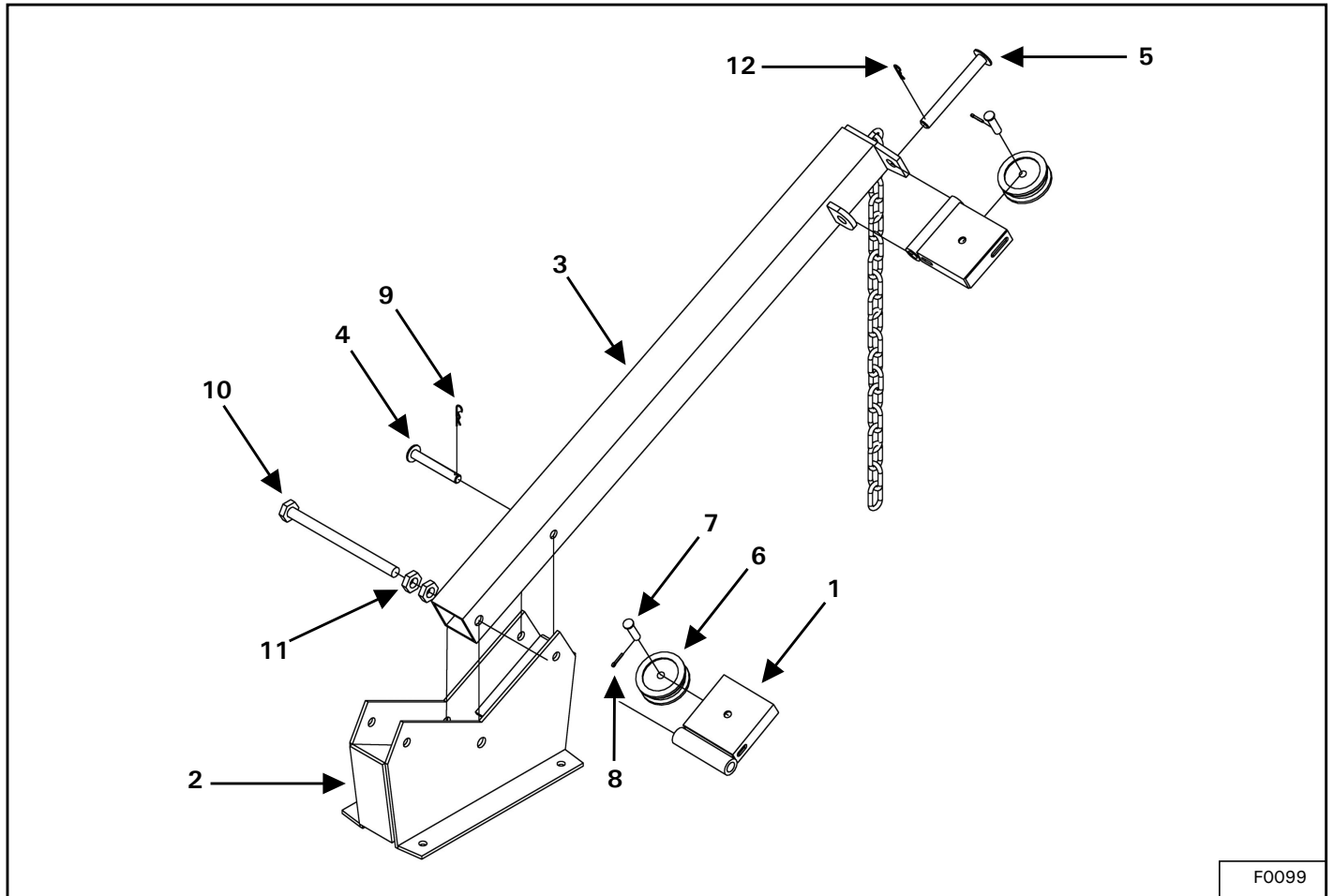
ITEM	PART NUMBER	DESCRIPTION	QTY
1	812362	5/16" LOCK NUT (PL)	2
2	81549	5/16" X 3/4" HEX BOLT (PL)	2
3	960007	20' TOP SECTION TUBING, 60'	1
4	960012	TOP SECTION FLTGD WELDT	1
5	960034	WELDT-TOP END PLATE	1
6	960035	END BEARING SLEEVE	1
7	960037	SLOTTED HEX NUT 1 1/4" UNF	1
8	960125	OIL SEAL (CR14939)	1
9	967164	DRIVE-IN GREASE ZERK	1
10	967209	DUST CAP (DC15)	1
11	967459	COTTER PIN - 1/4" X 1 3/4" (PL)	1
12	967708	BEARING CONE (LM29749)	1
13	967709	BEARING CUP (LM29710)	1
14	9812442	1 1/4" X 10GA FLAT WASHER (BR)	1

Center Section 10" X 60'



ITEM	PART NUMBER	DESCRIPTION	QTY
1	81592	NUT, 3/8" HEX (PL)	2
2	81593	LOCK WASHER, 3/8" (PL)	2
3	86170	BOLT, 3/8" x 1" HEX GR 5 (PL)	2
4	960004	CENTER SECTION TUBING 20'	1
5	960011	CENTER SECT FLTG WELDT	1
6	960143	HYDRAULIC LINE 5/8" x 36"	1
7	960639L	HYDRAULIC LINE CLAMP	2

Intake Lift Boom Assembly

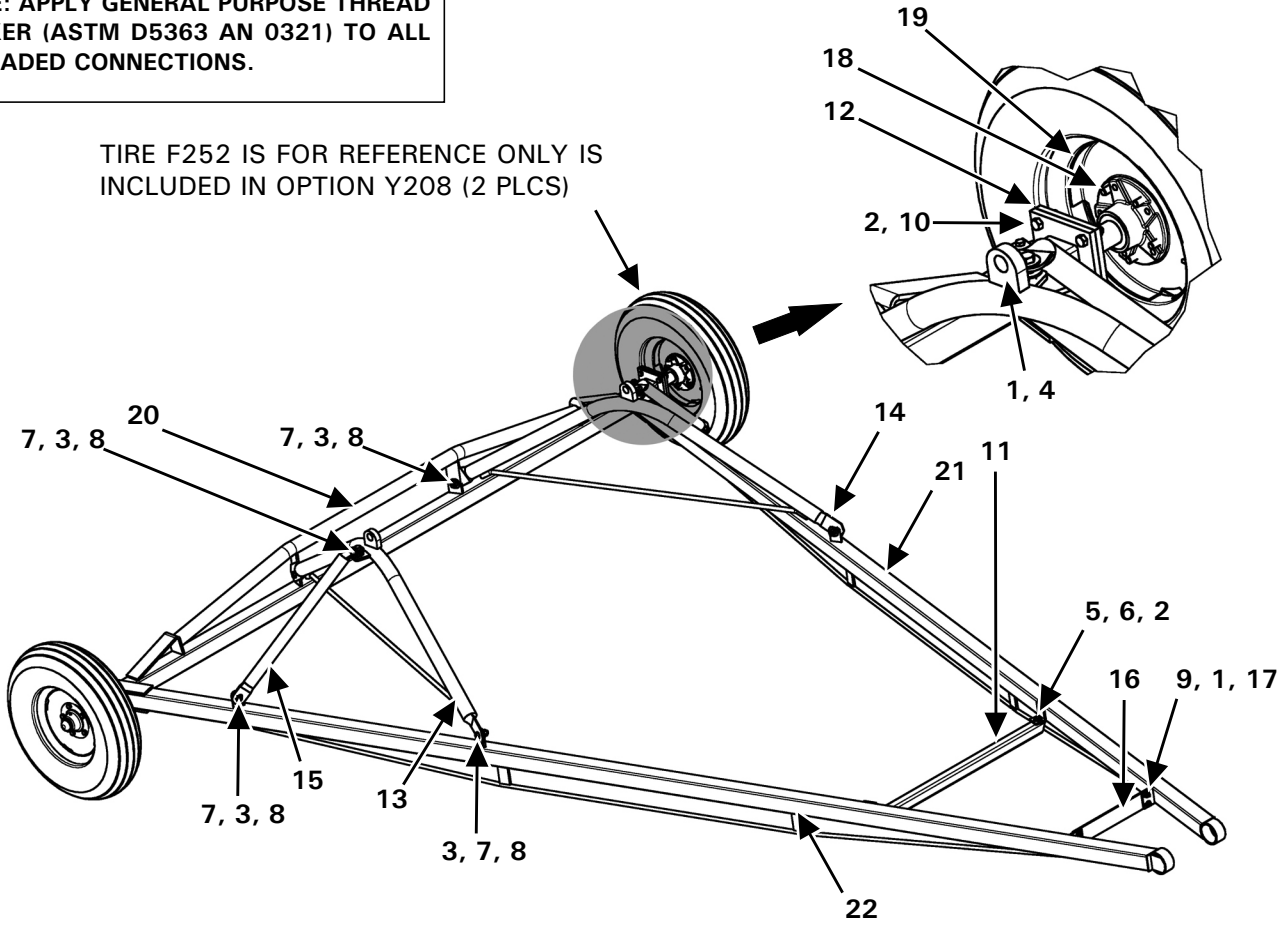


ITEM	PART NUMBER	DESCRIPTION	QTY
1	905602	PULLEY HOLDER WELDMENT	2
2	905601	SIDE PLATE WELDMENT	1
3	905604	LIFT BOOM ARM WELDMENT	1
4	905568	PIN WELDMENT, 5/8" x 4-1/4" LG	1
5	905570	PIN WELDMENT, 3/4" x 6-3/8" LG	1
6	961846	CABLE PULLEY, 3-1/2" OD x 1-1/8" W	2
7	960913	CLEVIS PIN, 1/2" x 1-13/16" (PL)	2
8	9812430	COTTER PIN, 1/8" x 1" (PL)	2
9	961012	HAIR PIN CLIP, #16	1
10	811803	BOLT, 3/4" x 10" HEX (PL)	1
11	86111	JAM NUT, 3/4" (PL)	2
12	9812433	COTTER PIN, 3/16" x 1-1/2" (PL)	1

BS1070 Undercarriage

NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

TIRE F252 IS FOR REFERENCE ONLY IS INCLUDED IN OPTION Y208 (2 PLCS)

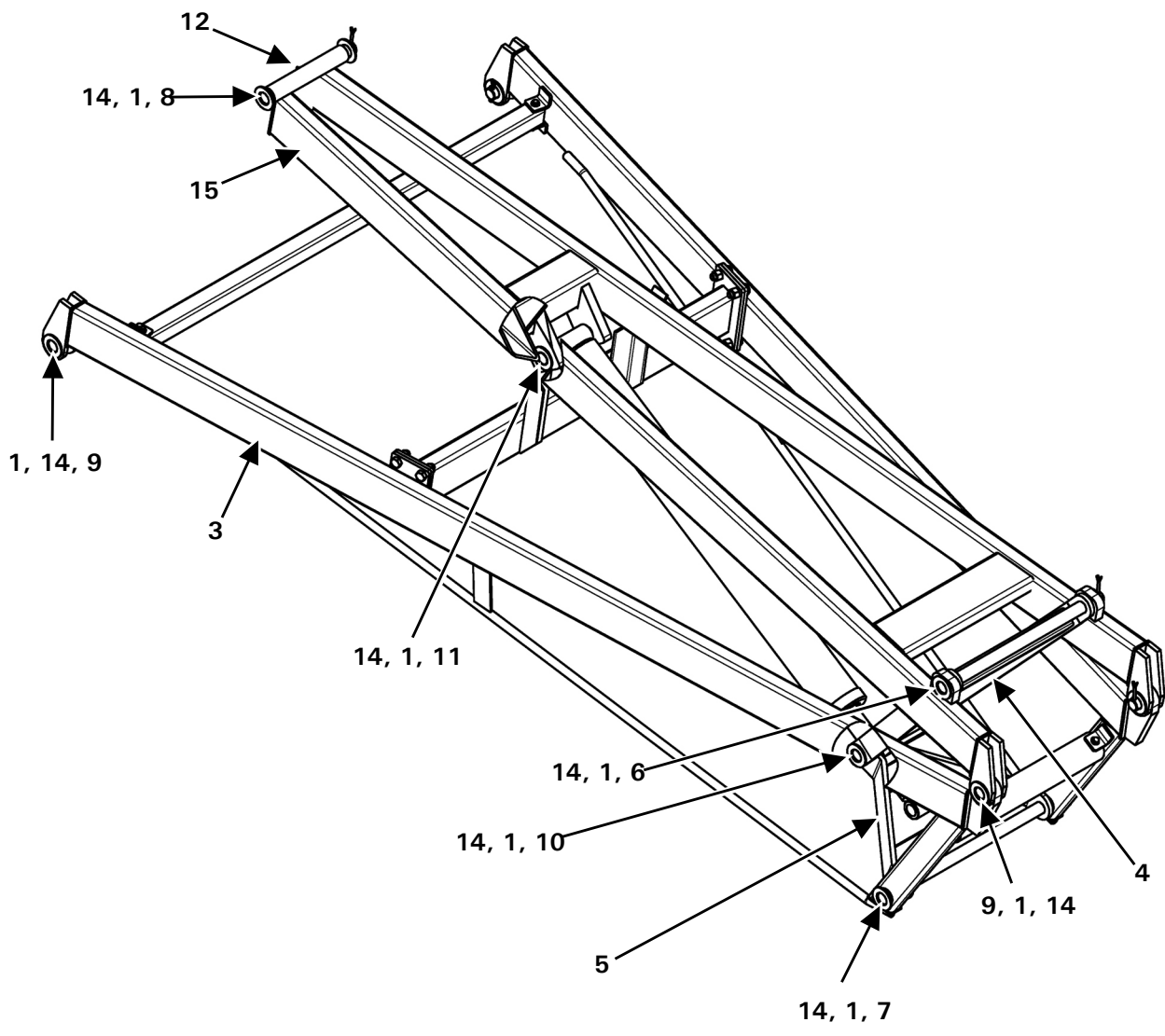
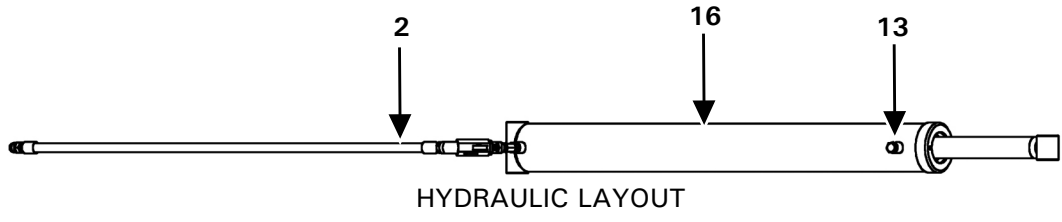


917680

ITEM	PART NUMBER	DESCRIPTION	QTY
1	812363	LOCK NUT, 3/8" (PL)	8
2	812364	LOCK NUT, 1/2" (PL)	10
3	812482	LOCK NUT, 5/8" (PL)	8
4	81588	BOLT, 3/8" x 4-1/2" HEX (PL)	4
5	81620	BOLT, 1/2" x 1-1/4" HEX PL	2
6	81638	FLAT WASHER, 1/2" BS (PL)	2
7	81678	FLAT WASHER, 5/8" STD (PL)	12
8	84270	BOLT, 5/8" x 1-3/4" HEX (PL)	8
9	86171	BOLT, 3/8" x 1-1/4" HEX (PL)	4
10	87553	BOLT, 1/2" x 1.75" HEX UNC GR5 (PL)	8
11	904982	LIFT ARM CRADLE 3/16" W x 2" x 2" x 41"	1
12	906571	ASSY-STUB AXLE	2
13	960081	(RH) UNDERCARRIAGE ARCH WELDMENT	1
14	960084	(LH) UNDERCARRIAGE ARCH WELDMENT	1
15	960087	UNDERCARRIAGE ARCH BRACE	2
16	960089	UNDERCARRIAGE TIE PL 1/4" x 3" x 18"	1
17	964001	FLAT WASHER, 1" x 7/16" x 10 GA (PL)	4
18	968404	WHEEL BOLT, 1/2" x - 1/4" (PL)	10
19	F0110	WHEEL, 15" x 5" x 5 BOLT	2
20	F1400	AXLE TUBE WELDMENT (1070)	1
21	F9248	(LH) UNDERCARRIAGE ARM WELDMENT	1
22	F9249	(RH) UNDERCARRIAGE ARM WELDMENT	1

BS1070 Lift Arms

NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

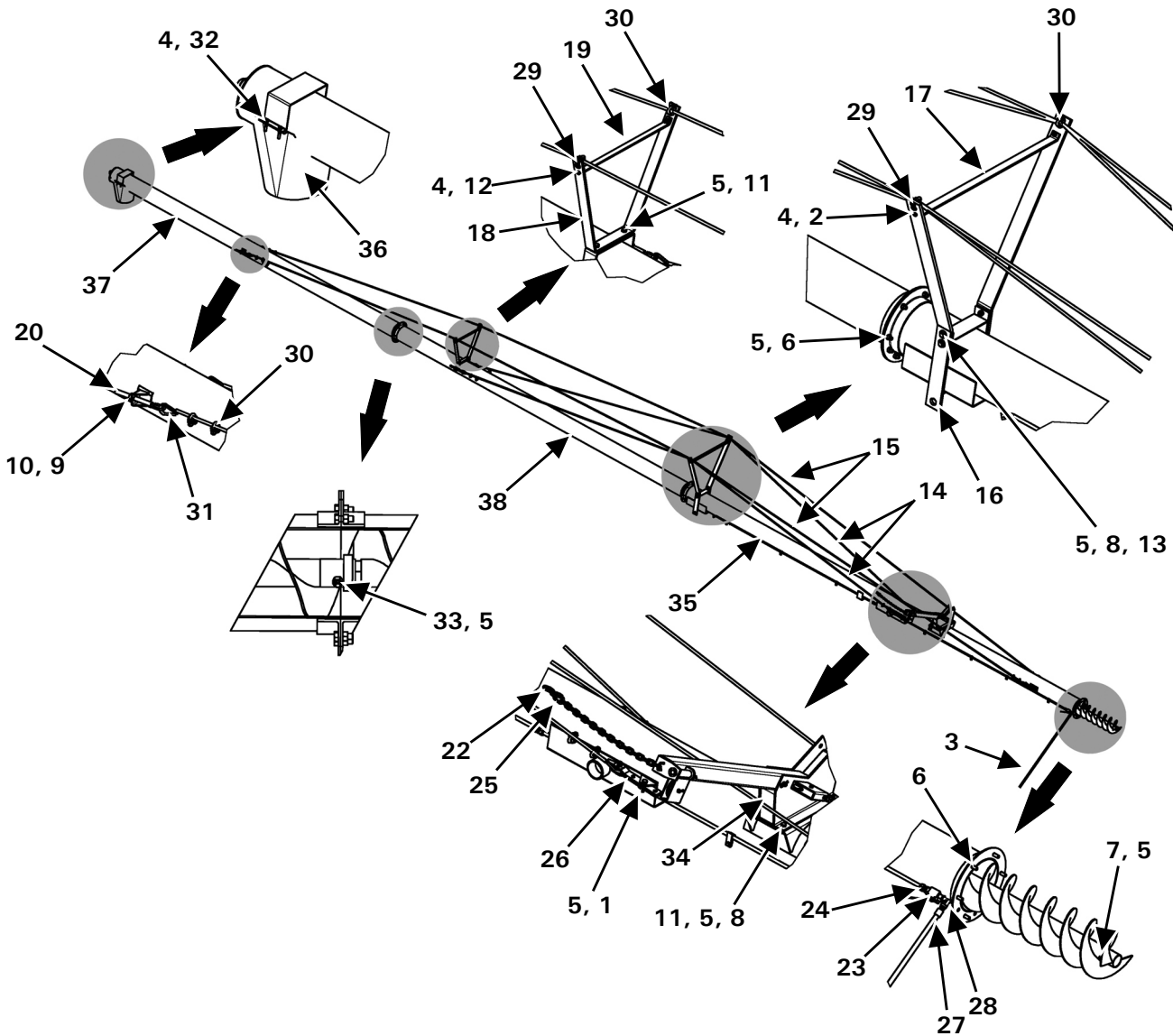


917681

ITEM	PART NUMBER	DESCRIPTION	QTY
1	81210	COTTER PIN, 1/4" x 2" (PL)	9
2	912754	HYDRAULIC ROUTING	1
3	916589	LOWER LIFT ASSEMBLY (1070)	1
4	960095	PIVOT YOKE WELDMENT	1
5	960098	CONNECTING LINK	1
6	960101	YOKE PIN WELDMENT	1
7	960104	CONNECTING LINK BASE PIN WELDMENT	1
8	960106	LIFT ARM PIVOT PIN WELDMENT	1
9	960108	LIFT ARM CLEVIS PIN WELDMENT	4
10	960110	CONNECTING LINK SWIVEL PIN WELDMENT	1
11	960113	CYLINDER PIN WELDMENT	1
12	967164	GREASE ZERK, DRIVE-IN	1
13	967908	PLUG, #8 ORB VENT	1
14	9812487	WASHER, 1-1/4" x 10 GA NARROW RIM (PL)	9
15	F9023	UPPER LIFT ARM WELDMENT (1070)	1
16	F9185	HYDRAULIC CYLINDER, 4" x 36"	1

BS1070 Tubes

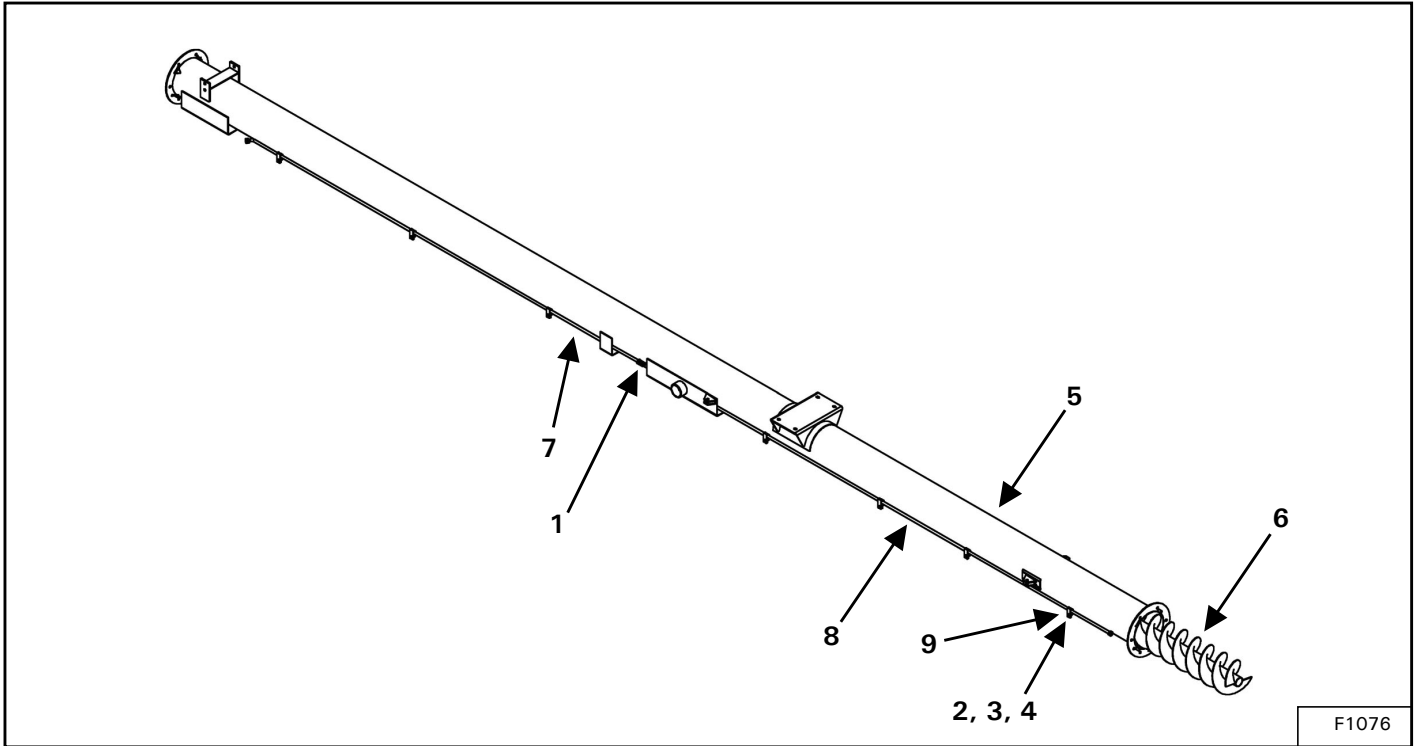
NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.



ITEM	PART NUMBER	DESCRIPTION	QTY
1	811791	BOLT, 1/2" x 2" HEX (PL)	8
2	811792	BOLT, 3/8" x 1-1/2" HEX GR.5 (PL)	2
3	812208	NIPPLE, 1/2" BODY 1/2"-14 NPTF QUICK CONNECT	1
4	812363	LOCK NUT, 3/8" (PL)	8
5	812364	LOCK NUT, 1/2" (PL)	40
6	81620	BOLT, 1/2" x 1-1/4" HEX (PL)	24
7	81627	BOLT, 1/2" x 3" HEX (PL)	2
8	81638	FLAT WASHER, 1/2" BS (PL)	8
9	81700	NUT, 3/4" HEX (PL)	4
10	84050	FLAT WASHER, 3/4" S.A.E. (PL)	4
11	84277	BOLT, 1/2" x 1-1/2" HEX (PL)	6
12	86171	BOLT, 3/8" x 1-1/4" HEX (PL)	2
13	87553	BOLT, 1/2" x 1.75" HEX UNC GR5 (PL)	4
14	905525	LOWER CABLE BUNDLE	1
15	905526	UPPER CABLE BUNDLE	1
16	960015	MAIN BRIDGING YOKE WELDMENT	1
17	960017	MAIN BRIDGING TIE BAR, 5/16" x 1-1/2" x 38 7/8"	1
18	60019	CENTER SECTION BRIDGING YOKE, 3/8" x 2" x 57-1/4"	1
19	960020	CENTER SECTION BRIDGING TIE BAR, 1/4" x 1" x 25-1/2"	1
20	960032	CABLE TIGHTENER, 7-7/8"	4
21	960040	INTAKE AUGER CABLE	1
22	960041	HOOK WITH LATCH	1
23	960057	BALL VALVE, #8 FNPT 2 WAY	1
24	960152	ADAPTOR STRAIGHT, #10 MJIC x #8 MNPT	1
25	960167	QUICK LINK (PL)	1
26	960244	CABLE YOKE	8
27	960466	HOSE, #8 x #8 MNPT x #8 MNPT	1
28	960585	ELBOW, 1/2" x 90 DEGREE STREET (STEEL)	1
29	964001	FLAT WASHER, 1" x 7/16" x 10 GA (PL)	8
30	964565	CABLE CLAMP, 1/2" (PL)	12
31	964587	CABLE THIMBLE, 1/2"	4
32	967291	BOLT, 3/8" x 2" FULL THREAD HEX (PL)	4
33	9812368	BOLT, 1/2" x 2-3/4" GR 8 HEX (PL)	2
34	F0099*	INTAKE LIFT BOOM ASSEMBLY	1
35	F1076*	BOTTOM SECTION 10" x 70'	1
36	F9047	DISCHARGE SPOUT	1
37	F9072*	TOP SECTION 10" x 70'	1
38	F9074*	CENTER SECTION 10" x 70'	1

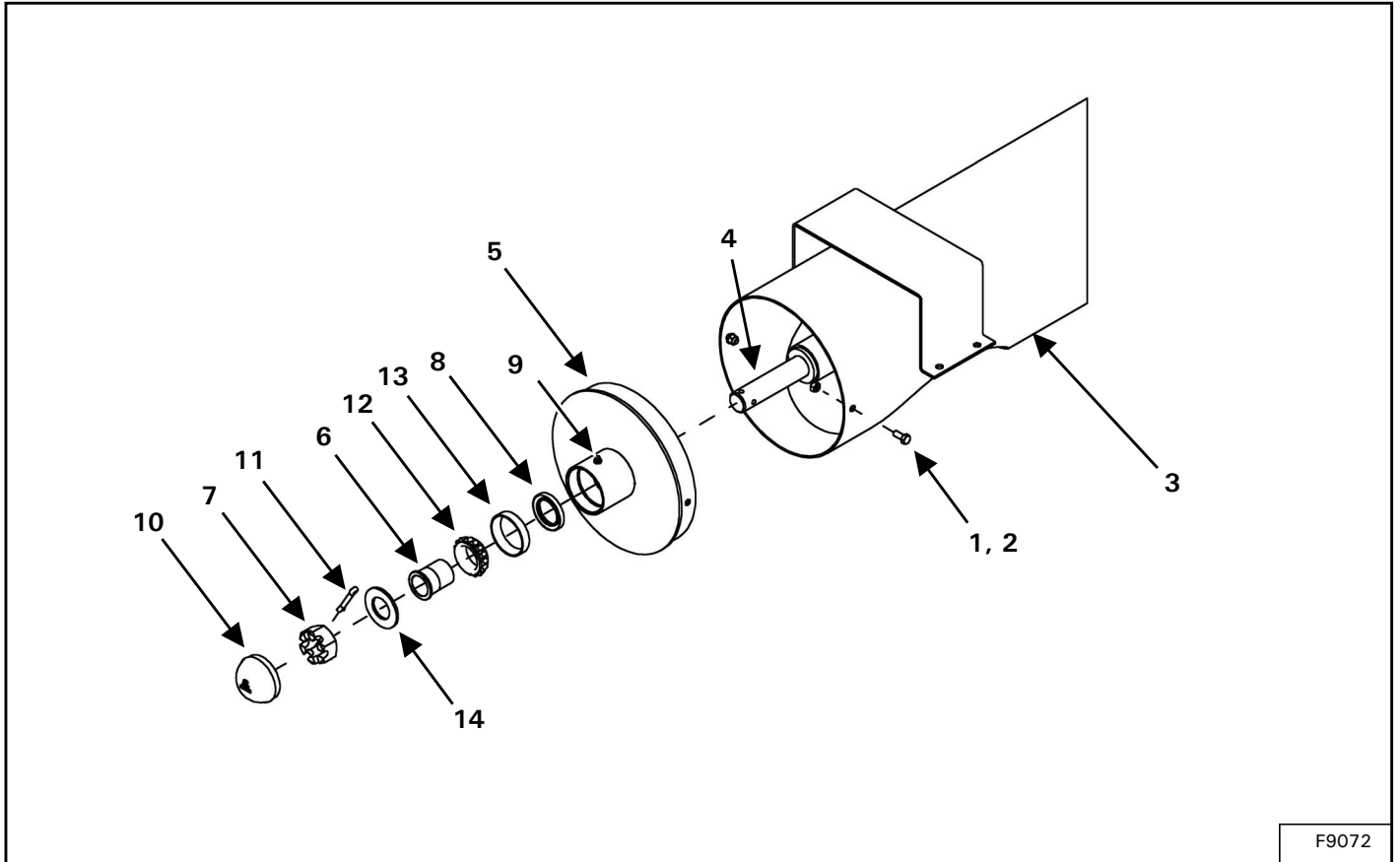
*See the following pages for individual part break downs.

Bottom Section 10" X 70'



ITEM	PART NUMBER	DESCRIPTION	QTY
1	812711	UNION, JIC 10 - 10	1
2	81592	NUT, 3/8" HEX (PL)	7
3	81593	LOCK WASHER, 3/8" (PL)	7
4	86170	BOLT, 3/8" x 1" HEX GR 5 (PL)	7
5	905646	BOTTOM SECTION TUBE 27'-4"	1
6	911117	BOTTOM FLIGHTING WELDMENT	1
7	960144	HYDRAULIC LINE, 5/8" x 11' (JIC FEMALE ENDS)	1
8	960468	HYDRAULIC LINE, 5/8" x 1"-4" (JIC FEMALE ENDS)	1
9	960639L	HYDRAULIC LINE CLAMP	7

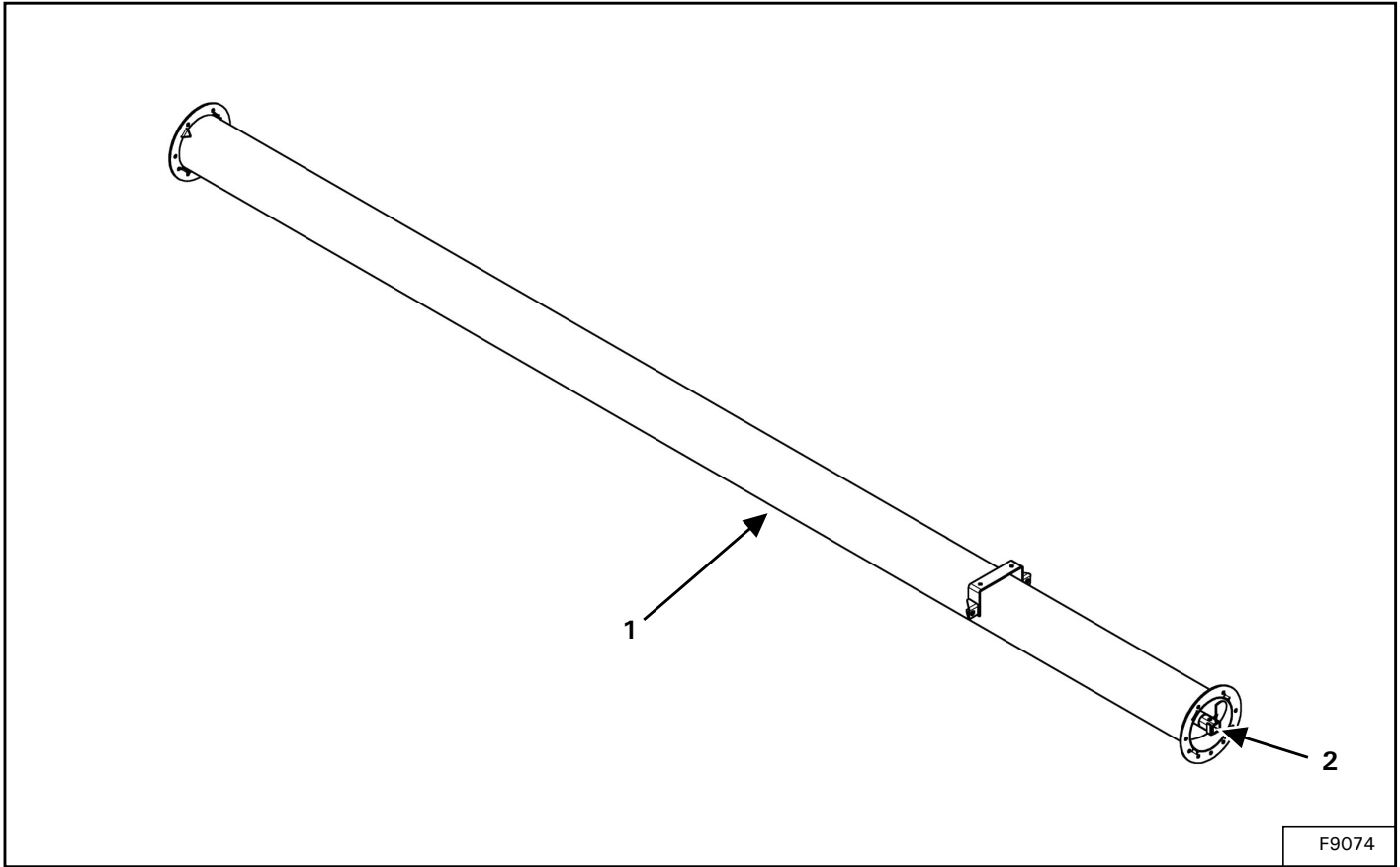
Top Section 10" X 70'



F9072

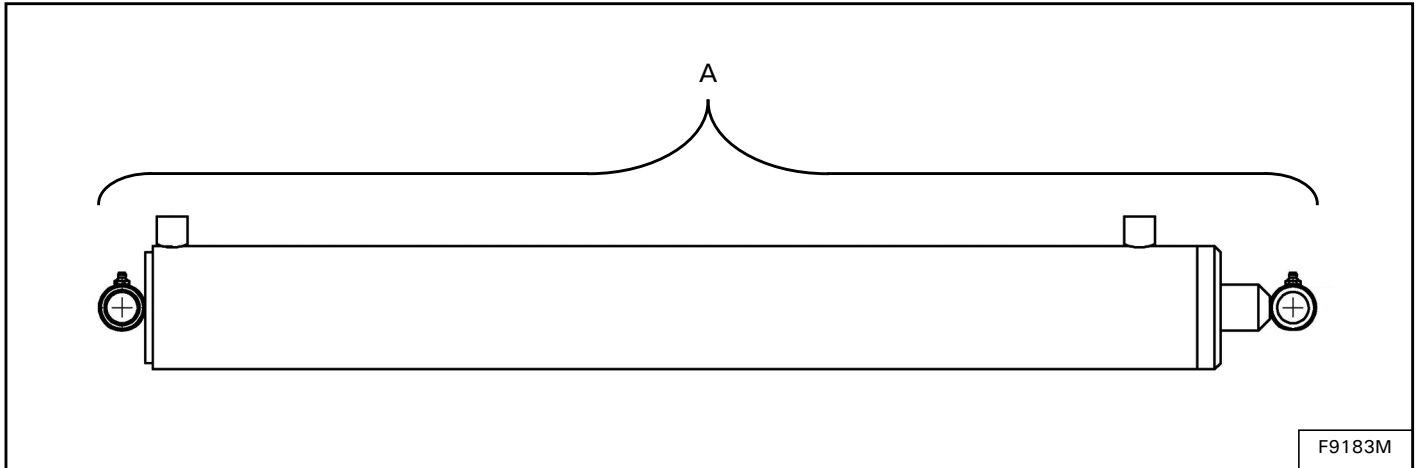
ITEM	PART NUMBER	DESCRIPTION	QTY
1	812362	5/16" LOCK NUT (PL)	2
2	81549	5/16" X 3/4" HEX BOLT (PL)	2
3	960008	20' TOP SECTION TUBING, 70'	1
4	960012	TOP SECTION FLTG WELDT	1
5	960034	WELDT-TOP END PLATE	1
6	960035	END BEARING SLEEVE	1
7	960037	SLOTTED HEX NUT 1 1/4" UNF	1
8	960125	OIL SEAL (CR14939)	1
9	967164	DRIVE-IN GREASE ZERK	1
10	967209	DUST CAP (DC15)	1
11	967459	COTTER PIN - 1/4" X 1 3/4" (PL)	1
12	967708	BEARING CONE (LM29749)	1
13	967709	BEARING CUP (LM29710)	1
14	9812442	1 1/4" X 10GA FLAT WASHER (BR)	1

Center Section 10" X 70'



ITEM	PART NUMBER	DESCRIPTION	QTY
1	960005	20' CENTER SECTION TUBING, 70'	1
2	960011	CENTER SECT FLTG WELDT	1

F9183M Hydraulic Cylinder



ITEM	PART NUMBER	DESCRIPTION	QTY
A	F9183M	3.50" DIA x 30.00" STROKE HYDRAULIC CYLINDER (COMPLETE)	1
	X2098	REPAIR KIT, (SEAL KIT)	1

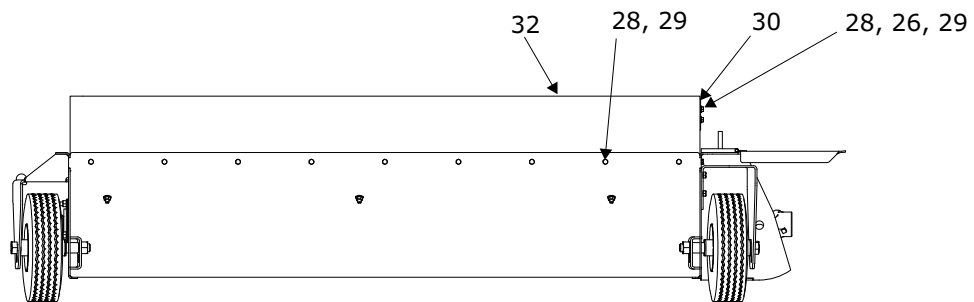
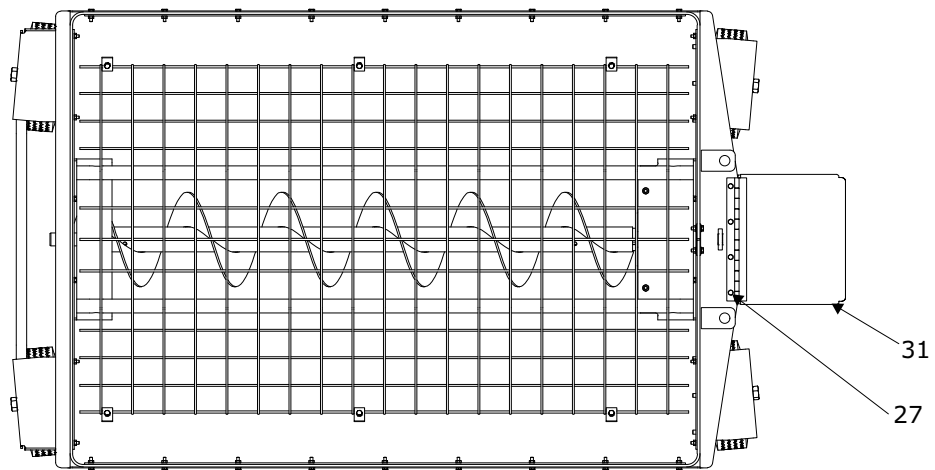
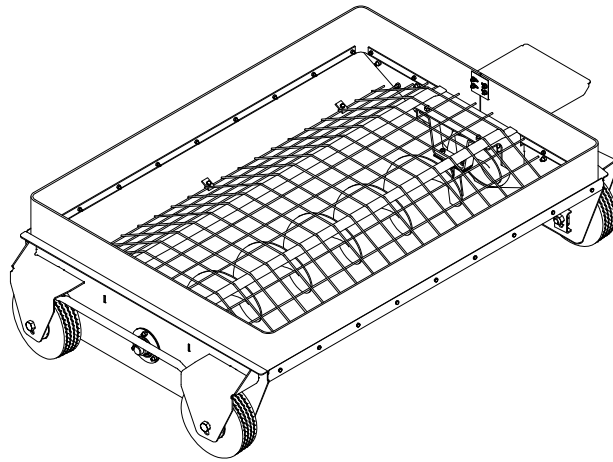
F9184M Hydraulic Cylinder

ITEM	PART NUMBER	DESCRIPTION	QTY
A	F9184M	4.0" DIA x 36.00" STROKE HYDRAULIC CYLINDER (COMPLETE)	1
	X2318	REPAIR KIT, (SEAL KIT)	1

F9185M Hydraulic Cylinder

ITEM	PART NUMBER	DESCRIPTION	QTY
A	F9185M	4.0" DIA x 40.00" STROKE HYDRAULIC CYLINDER (COMPLETE)	1
	X2318	REPAIR KIT, (SEAL KIT)	1

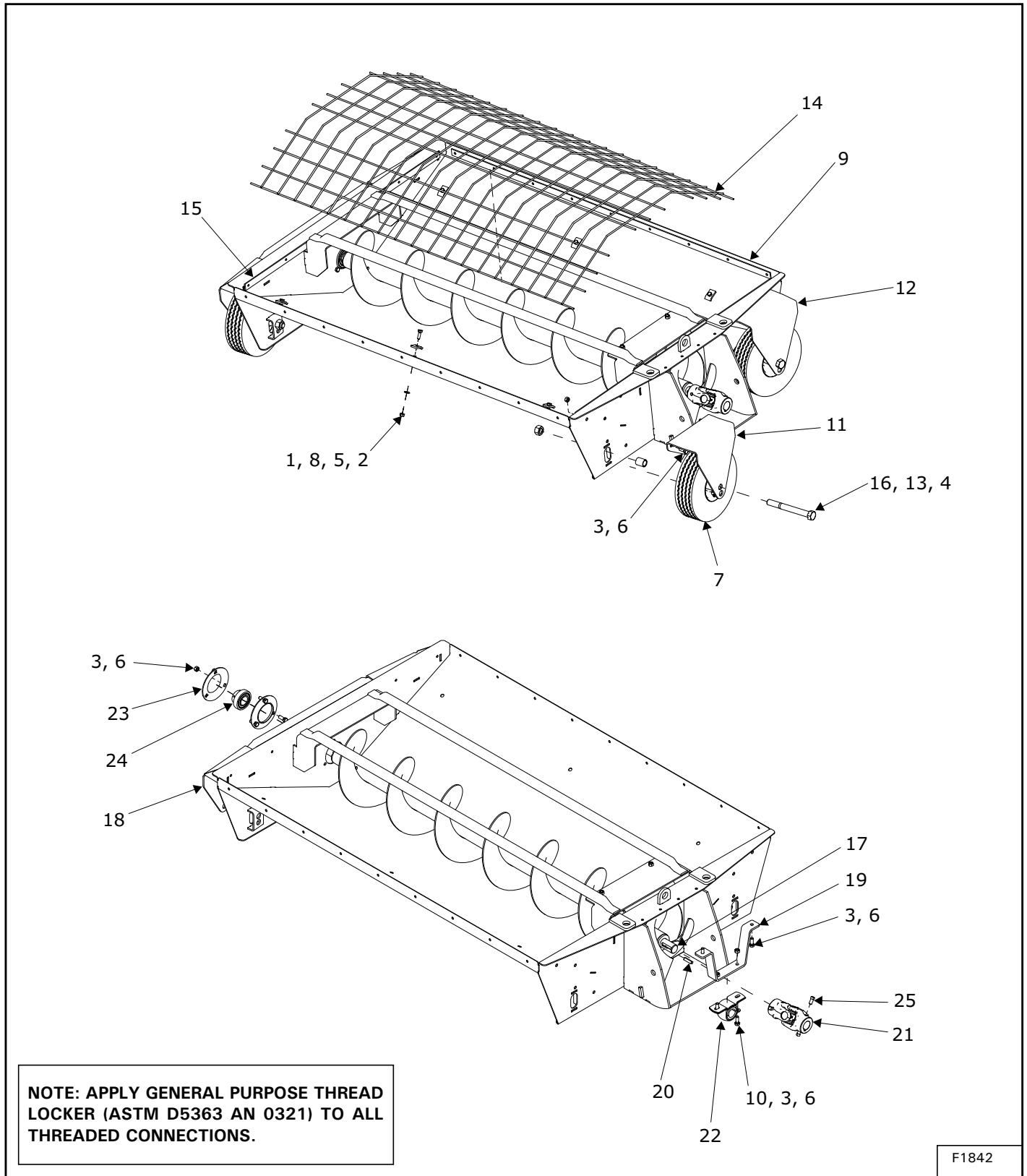
Single Flighting Hopper



NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

F1842

Single Flighting Hopper Cont.



NOTE: APPLY GENERAL PURPOSE THREAD LOCKER (ASTM D5363 AN 0321) TO ALL THREADED CONNECTIONS.

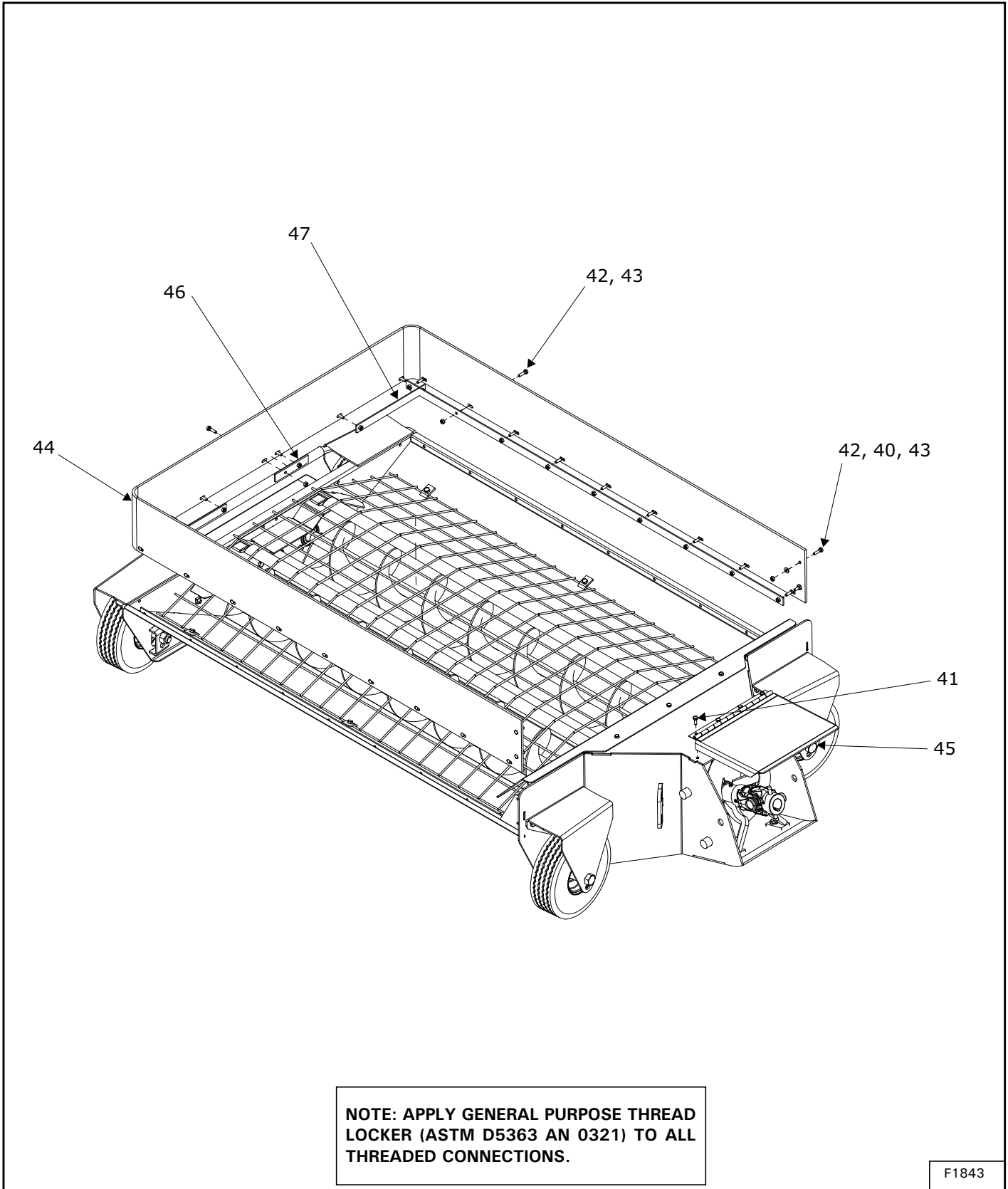
F1842

IT	PART NUMBER	DESCRIPTION	QTY
1	812026	5/16" X 1" HEX BOLT (PL)	6
2	812362	5/16" LOCK NUT (PL)	6
3	812363	3/8" LOCK NUT (PL)	13
4	812365	3/4" LOCK NUT (PL)	4
5	81546	5/16" FLAT WASHER (PL)	6
6	86170	3/8" X 1" HEX BOLT GR.5 (PL)	13
7	909670	4.10-4/2.25 FOAM FILLED WHEEL	4
8	910898	CAGE MOUNTING PL	6
9	914768L	RUBBER REINFORCEMENT	2
10	84039	WASHER - 3/8" SAE FLAT (PL)	2
11	917536	BRKT-WHEEL MOUNT LH	1
12	917537	BRKT-WHEEL MOUNT RH	1
13	917546	TUBE-WHEEL SPACER 1.000" DIA	4
14	917578	GUARD-HOPPER GRATE	1
15	917579L	PLATE-RUBBER REINFORCEMENT	2
16	967222	HEX BOLT-3/4 X 7" (PL)	4
17	909923	WELDT-INTAKE FLIGHTING BS10	1
18	917539	WELDT-SINGLE FLTG HOPPER	1
19	917573	BRKT-BEARING MOUNT	1
20	960180	U-JOINT & SPROCKET KEY .313"SQ. X 1.375"	1
21	960547	UNIVERSAL JOINT - 12E	1
22	960658	WOODEN BEARING (01 1/4")	1
23	961675	BEARING FLANGE 72MS	2
24	961676	1 1/4" BEARING AEL207-104 (RHP #1230)	1
25	9812378	3/8" X 3/4" SQ HD SET SCREW SER	4
26	812624	1/4" FLAT WASHER PL	8
27	81525	1/4" X 3/4" HEX BOLT (PL)	4
28	81527	1/4" X 1" HEX BOLT (PL)	34
29	84498	1/4" LOCK NUT (PL)	34
30	903483L	RUBBER CONN PL 14GA X 3"SQ.	2
31	917575	WELDT-INTAKE ACCESS	1
32	917580	RUBBER-HOPPER SKIRT	1

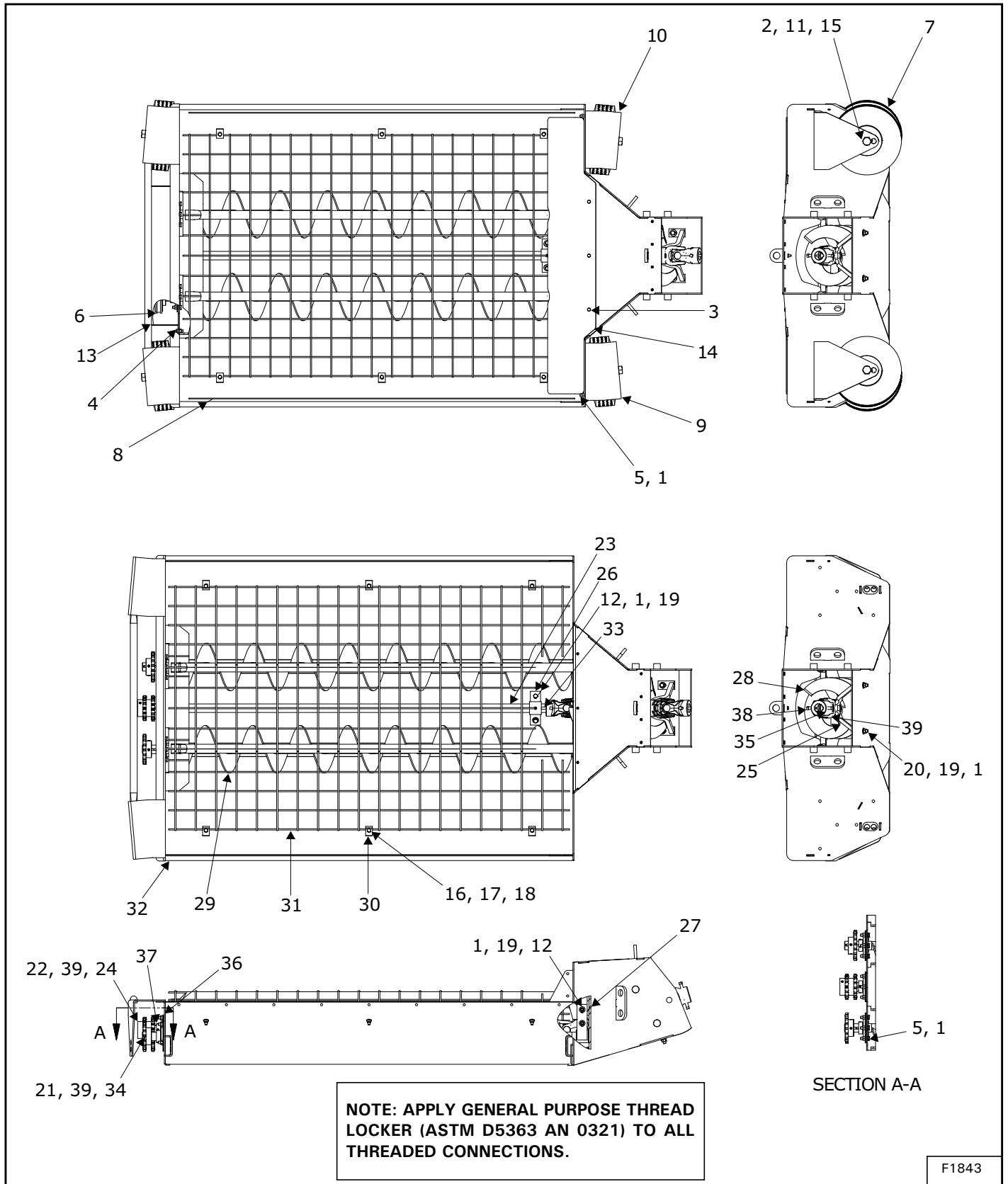
Farm King



Multi-Flighting Hopper



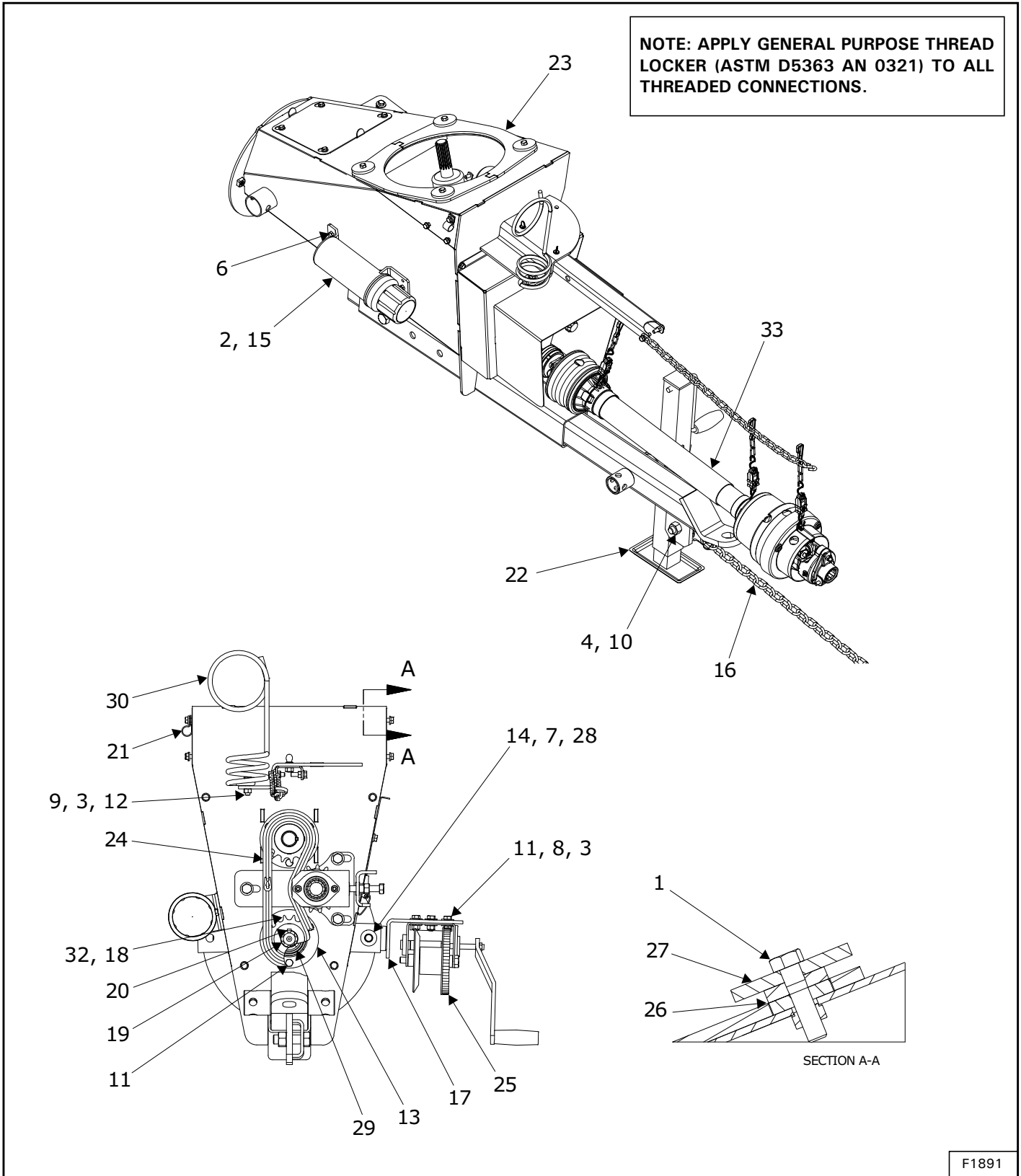
Multi-Flighting Hopper Cont.



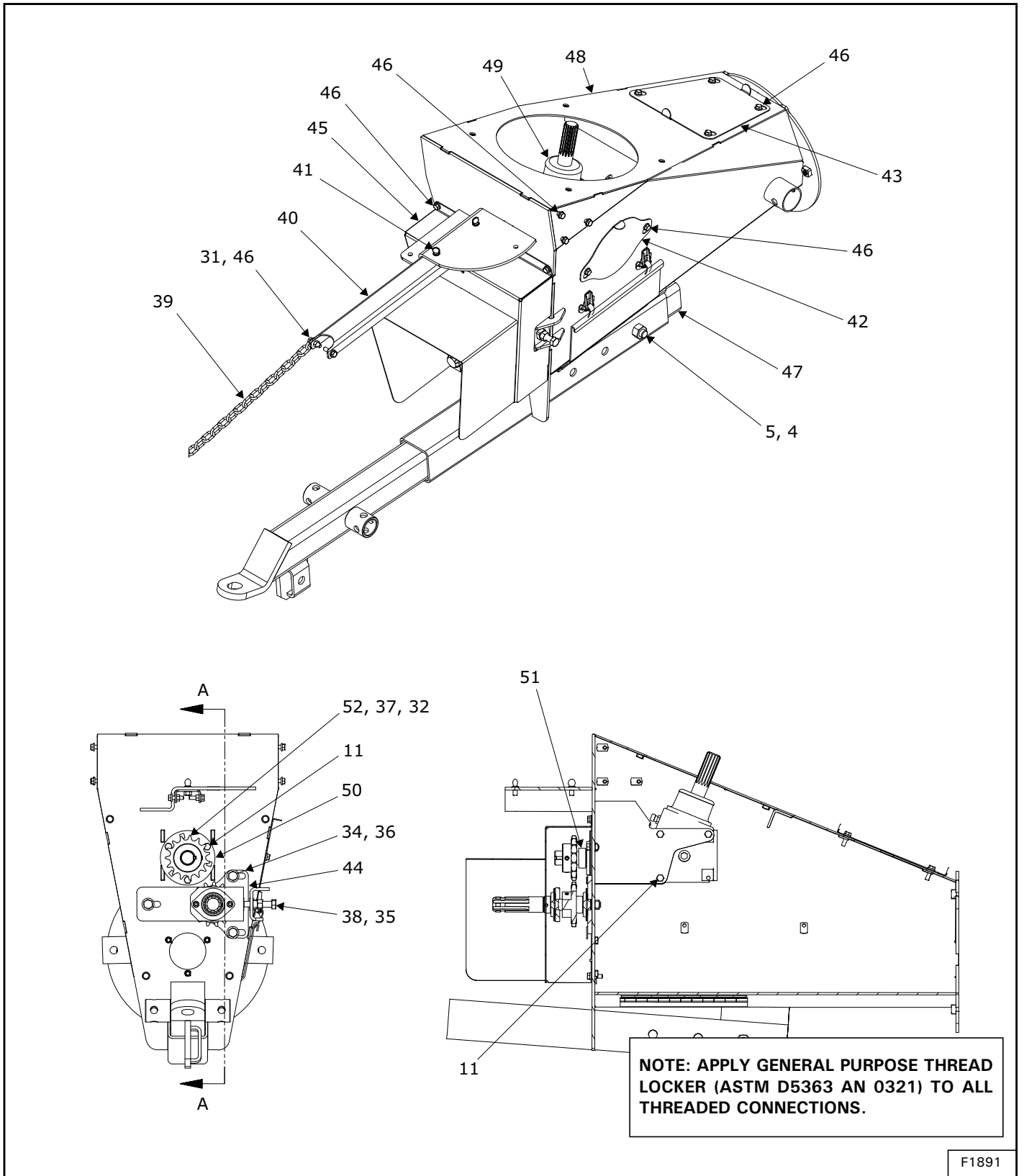
ITEM	PART NUMBER	DESCRIPTION	QTY
1	812363	3/8" LOCK NUT (PL)	23
2	812365	3/4" LOCK NUT (PL)	4
3	81525	1/4" X 3/4" HEX BOLT (PL)	3
4	84072	3/8" X 3/4" HEX BOLT (PL)	2
5	86170	3/8" X 1" HEX BOLT GR.5 (PL)	15
6	906480	CHAIN ASSY #60 X 32 PITCHES	2
7	909670	4.10-4/2.25 FOAM FILLED WHEEL	4
8	914768L	RUBBER REINFORCEMENT	2
9	917536	BRKT-WHEEL MOUNT LH	1
10	917537	BRKT-WHEEL MOUNT RH	1
11	917546	TUBE-WHEEL SPACER 1.000" DIA	4
12	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	6
13	917607	GUARD-HOPPER CHAIN	1
14	917642	BRKT-HOPPER ACCESS	1
15	967222	HEX BOLT-3/4 X 7" (PL)	4
16	812026	5/16" X 1" HEX BOLT (PL)	6
17	812362	5/16" LOCK NUT (PL)	6
18	81546	5/16" FLAT WASHER (PL)	6
19	81570	3/8" STD FLAT WASH (PL)	12
20	86171	3/8" X 1 1/4" HEX BOLT (PL)	2
21	900930	1/4" X 1/4" X 1-1/2" KEY	2
22	905369	INSIDE SPRKT KEY 1/4" X 1/4" X 2 1/2"	1
23	905434	CENTER FLTG ROD	1
24	905562	H60B14 SPROCKET (1 1/4" BORE)	2
25	905840	CENTER FLIGHTING HOLDER	1
26	905842	CENTER SHAFT HOLDER	1
27	905844	OUTSIDE FLIGHTING HOLDER	2
28	906446	FINAL CENTER FLTG WELDT	1
29	909908	OUTSIDE FLIGHTING	2
30	910898	CAGE MOUNTING PL	6
31	911126	HOPPER CAGE	1
32	917595	WELDT-MULTI FLIGHTING HOPPER	1
33	960180	U-JOINT & SPROCKET KEY .313"SQ. X 1.375"	3
34	960492	H60B17 SPROCKET (1 1/4" BORE)	2
35	960547	UNIVERSAL JOINT - 12E	2
36	961637	BEARING FLANGE 62MS	6
37	965818	1 1/4" Bearing AEL206-104 (RHP #1230)	3
38	9812378	3/8" X 3/4" SQ HD SET SCREW SER	6
39	988999	3/8"0 X 3/8" SOCKET SET SCREW (BR)	10
40	812624	1/4" FLAT WASHER PL	4
41	81525	1/4" X 3/4" HEX BOLT (PL)	4
42	81527	1/4" X 1" HEX BOLT (PL)	28

43	84498	1/4" LOCK NUT (PL)	28
44	911359	RUBBER HOPPER EDGING	1
45	917575	WELDT-INTAKE ACCESS	1
46	960834	RUBBER REINF 3/16" X 1" X 5"	1
47	960837L	PLATE - BACK RUBBER REINF	2

Input Box



Input Box Cont.

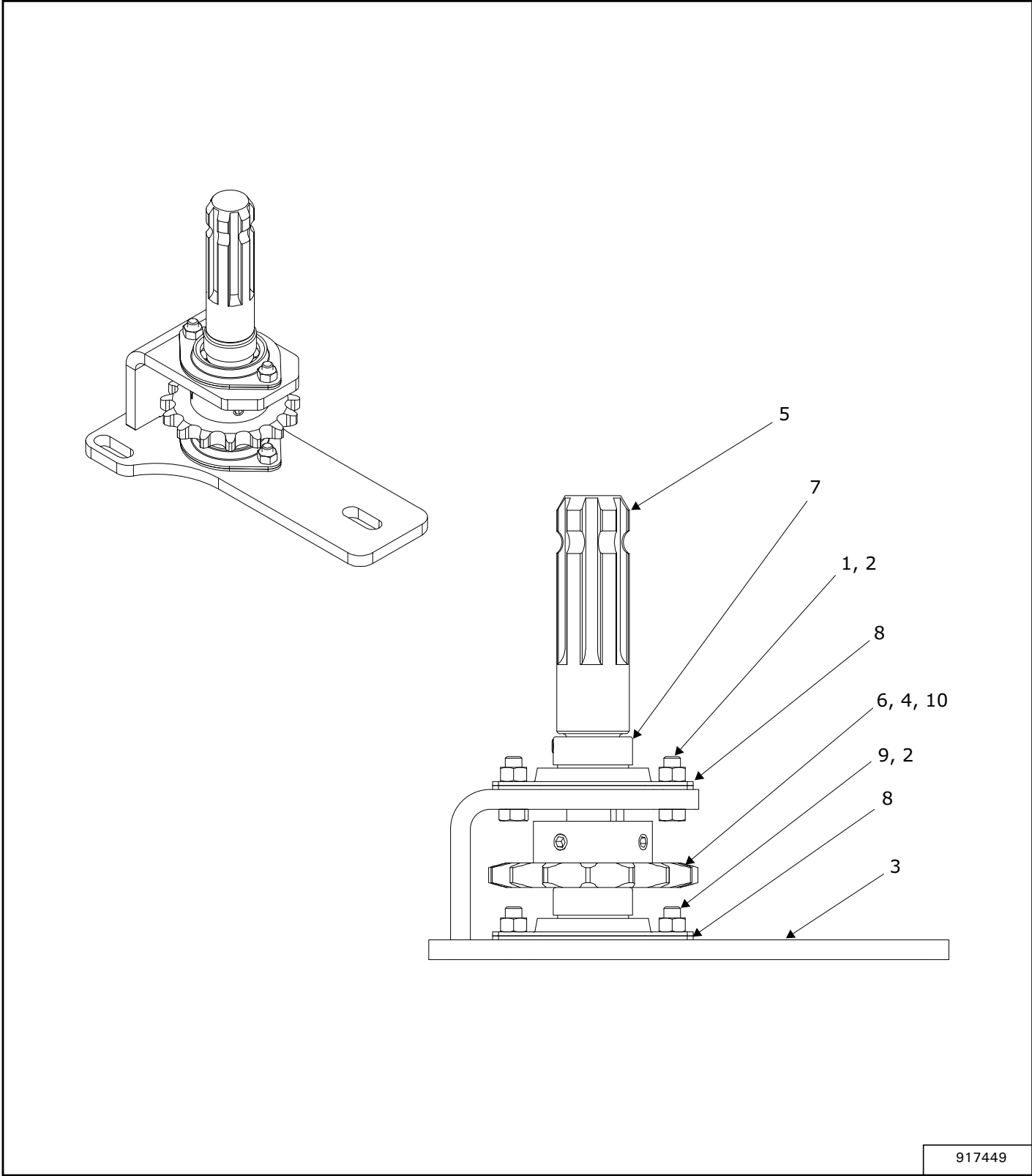


F1891

ITEM	PART NUMBER	DESCRIPTION	QTY
1	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	4
2	81210	1/4" X 2" COTTER PIN (PL)	1
3	812363	3/8" LOCK NUT (PL)	4
4	812365	3/4" LOCK NUT (PL)	2
5	811790	3/4" X 4 1/2" HEX BOLT GR5 (PL)	1
6	81549	5/16" X 3/4" HEX BOLT (PL)	2
7	81678	5/8" FLAT WASHER STD (PL)	1
8	84000	7/16" FLAT WASHER (PL)	6
9	84039	WASHER - 3/8" SAE FLAT (PL)	1
10	84346	3/4" X 2 1/2" HEX BOLT (PL)	1
11	86170	3/8" X 1" HEX BOLT GR.5 (PL)	15
12	86171	3/8" X 1 1/4" HEX BOLT (PL)	1
13	902396	FLANGE BRG (72MS) PL	2
14	902486	SKID PIN WELDT 0.625" DIA	1
15	909277	MANUAL HOLDER 3 1/2" X 12"	1
16	910287	HOOK & SAFETY CHAIN ASSEMBLY	1
17	911000	WINCH MOUNT WELDMENT	1
18	911116	SPROCKET - 60B15 (1.375" BORE)	1
19	911144	DRIVE STUB SHAFT	1
20	911394	KEY 5/16"SQ. X 58mm	1
21	913193	P-CLIP 0.75	1
22	914426	5000 LB JACK	1
23	917437	SPACER-INTAKE	2
24	917474	ROLLER CHAIN - 60H	1
25	960150	WINCH (FULTON - K1051)	1
26	960494	1/4"W X 13/32"ID X 1 1/4"OD WASHER (PL)	8
27	960495	INPUT BOX RING CLAMP 13/32"ID X 2 13/32"OD X 1/4"	4
28	961012	#16 HAIR PIN CLIP	1
29	965917	1 3/8" BEARING	1
30	966314	HYDRAULIC HOSE HOLDER	1
31	812362	5/16" LOCK NUT (PL)	2
32	988999	3/8"O X 3/8" SOCKET SET SCREW (BR)	4
33	F2294	PTO-1 3/8 X 6 U-JOINT - 1 3/8 X 6 CV	1
34	81620	1/2" X 1 1/4" HEX BOLT PL	3
35	81636	1/2" HEX NUT (PL)	1

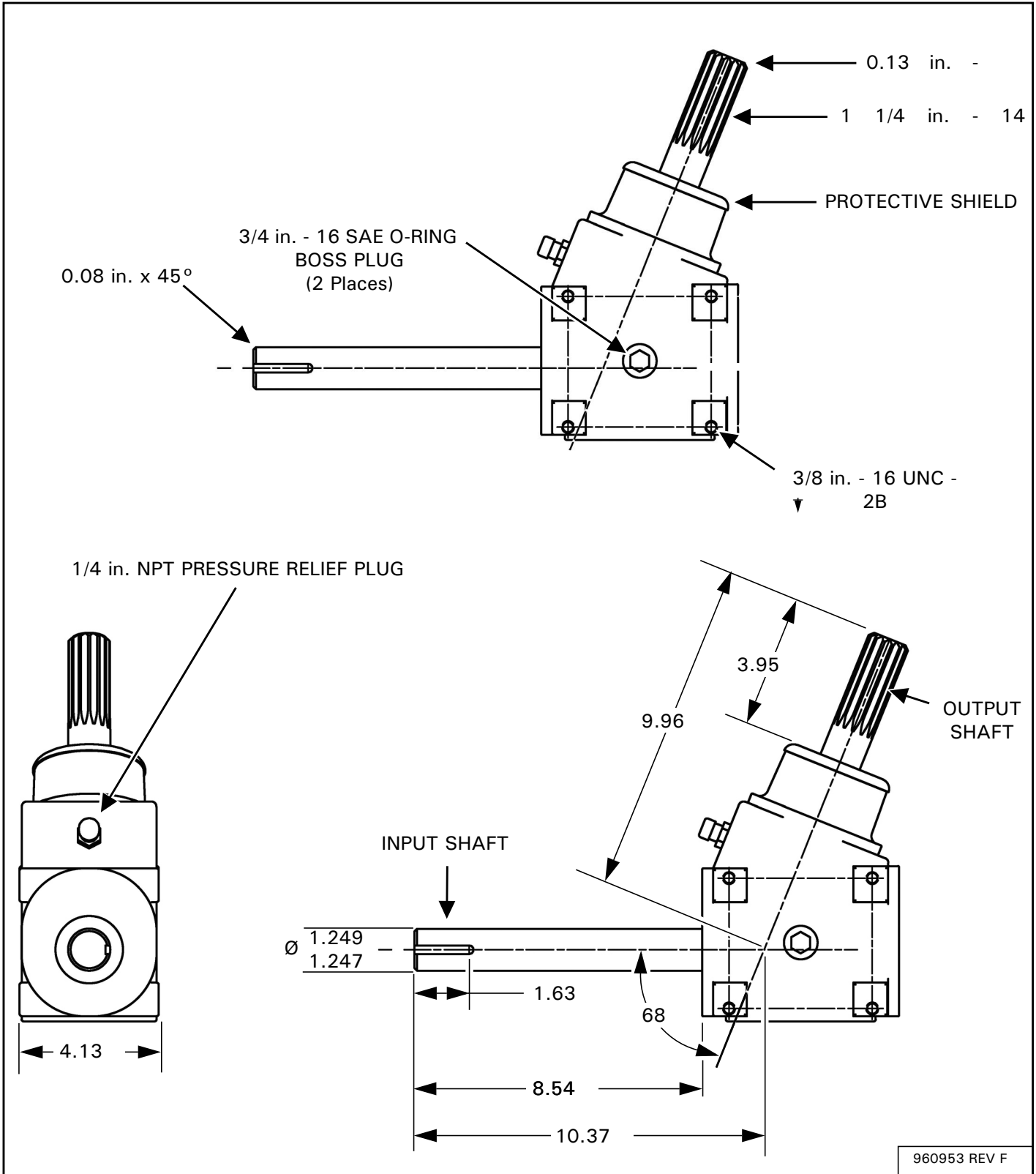
36	84048	1/2" SAE FLAT WASHER (PL)	3
37	900930	1/4" X 1/4" X 1-1/2" KEY	1
38	907986	1/2" X 2 1/2" HEX BOLT FULL THREAD (PL)	1
39	909703	PTO HOLDER CHAIN ASSY	1
40	911111	PTO HOLDER ARM WELDT	1
41	911943	3/8" X 3/4" THUMB SCREW (PL)	2
42	917446	COVER-GEARBOX ACCESS	1
43	917447	COVER-TOP ACCESS	1
44	917449	ASSY-IDLER	1
45	917470	WELDT-PTO SHIELD	1
46	917483	BOLT FL 0.313NC X 1.00 GR5 PL	18
47	930534	HITCH WELDMENT	1
48	932209	WELDT-INPUT BOX BS10	1
49	960953	2168 GEARBOX-LOWER 68 DEG	1
50	961675	BEARING FLANGE 72MS	2
51	961676	1 1/4" BEARING AEL207-104 (RHP #1230)	1
52	961684	SPROCKET - 60B15 (1.25" BORE)	1

Idler Assembly

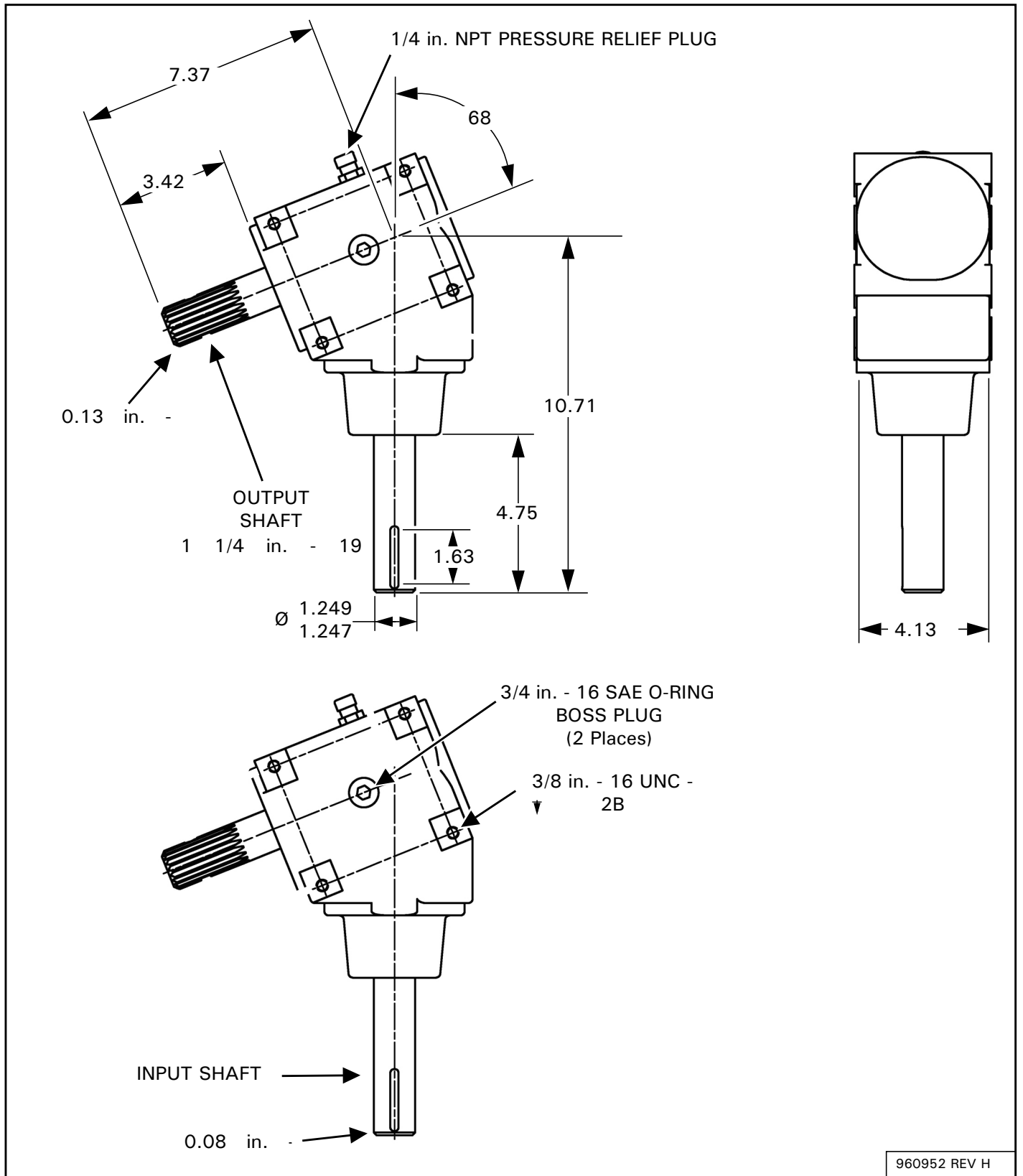


ITEM	PART NUMBER	DESCRIPTION	QTY
1	812026	5/16" X 1" HEX BOLT (PL)	2
2	812362	5/16" LOCK NUT (PL)	4
3	917450	WELDT-IDLER	1
4	960177	1/4" SQ X 1 1/4" KEY	1
5	960182	REVERSE KIT IDLER SHAFT 01 3/8" X 8 3/4"	1
6	960532	60B15 SPROCKET (1" BORE)	1
7	961627	1" BEARING W/COLLAR	2
8	963009	FLANGE BEARING (52 MST)	4
9	967183	5/16" X 1" FLAT HEAD SOCKET BOLT (PL)	2
10	988999	3/8"0 X 3/8" SOCKET SET SCREW (BR)	2

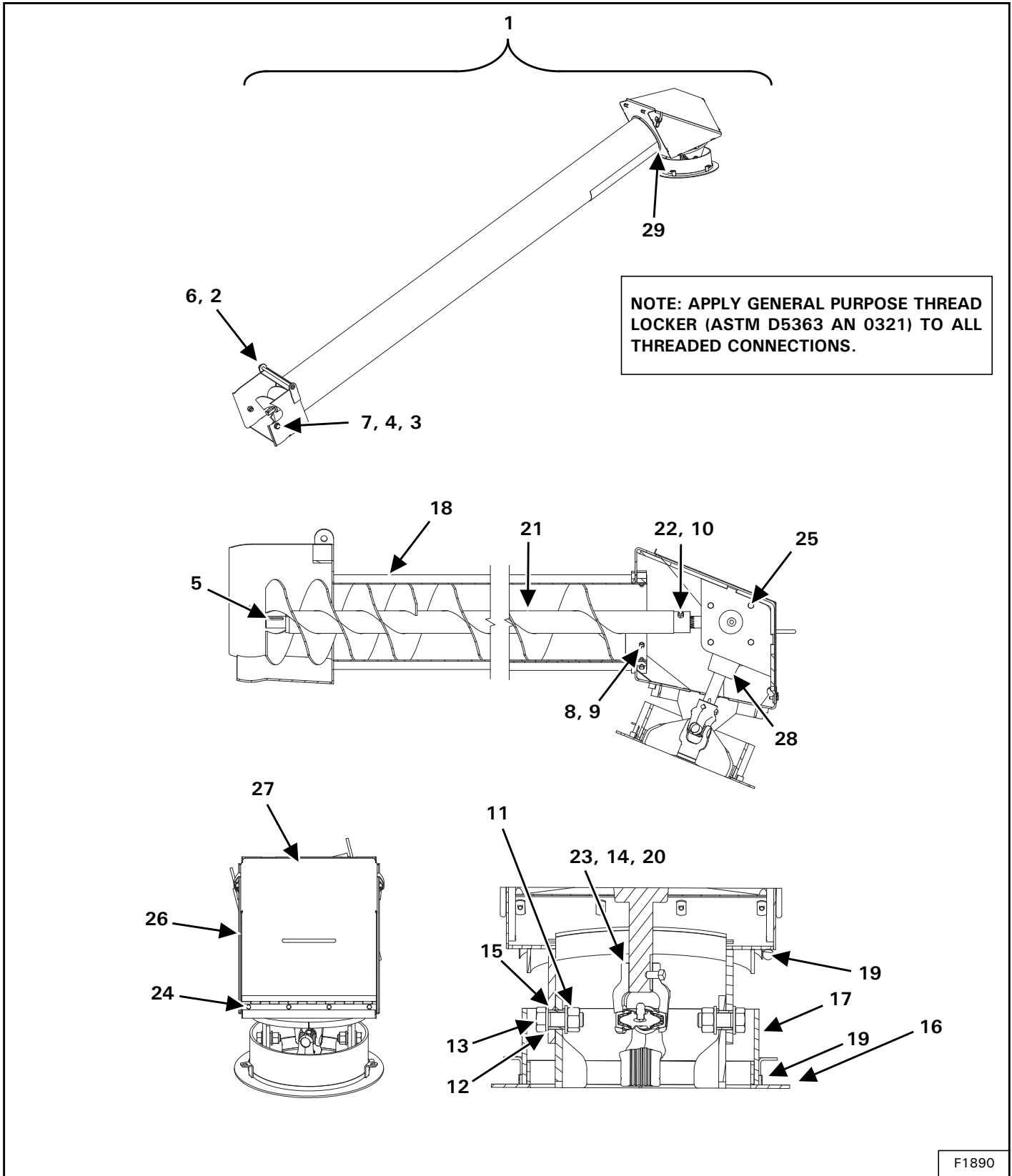
2168 Lower Gearbox 960953



2168 Upper Gearbox 960952



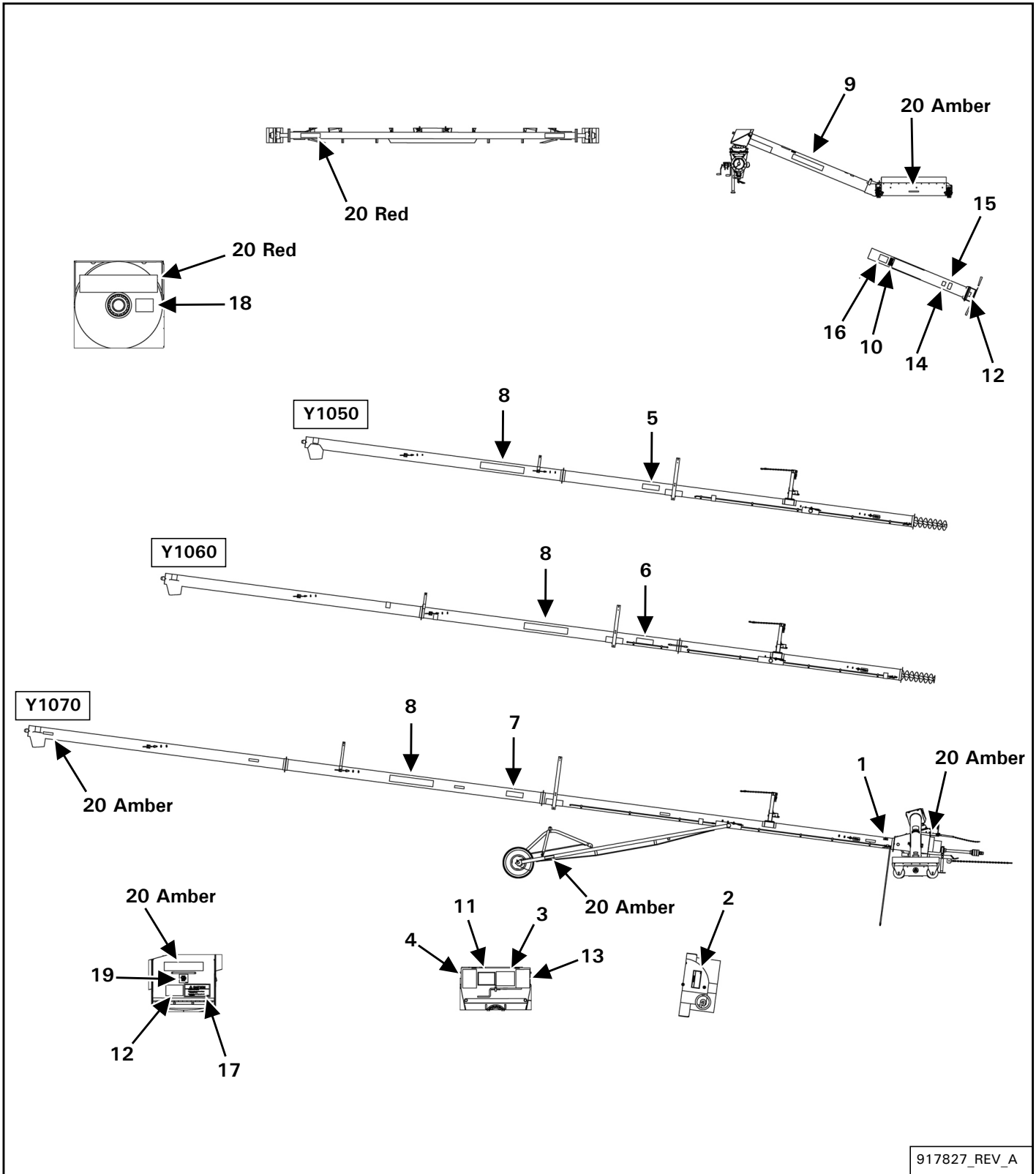
Intake Auger



F1890

ITEM	PART NUMBER	DESCRIPTION	QTY
1	F1890	INTAKE AUGER ASSEMBLY BS10	1
2	12780	HAIR PIN CLIP, #7	1
3	812365	LOCK NUT, 3/4" (PL)	2
4	84050	FLAT WASHER, 3/4" S.A.E. (PL)	2
5	960180	U-JOINT & SPROCKET KEY 0.313" SQ. x 1-3/8"	1
6	960349	PIVOT HOPPER LID ROD WELDMENT	1
7	967437	BOLT, 3/4" x 1-5/8" HEX (PL)	2
8	812026	BOLT, 5/16" x 1" HEX (PL)	4
9	812362	LOCK NUT, 5/16" (PL)	4
10	812363	LOCK NUT, 3/8" (PL)	1
11	812365	LOCK NUT, 3/4" (PL)	2
12	84050	FLAT WASHER, 3/4" S.A.E. (PL)	4
13	84467	BOLT, 3/4" x 2" HEX (PL)	2
14	900930	KEY, 1/4" x 1/4" x 1-1/2"	1
15	912503	UNDERCARRIAGE SPACER	2
16	917438	INPUT BOX PIVOT WELDMENT	1
17	917453	COVER, INPUT BOX PIVOT	1
18	917461	INTAKE AUGER TUBE WELDMENT (10" BS)	1
19	917478	CLAMP HOSE, 11-3/4" TO 13-3/4"	2
20	960751	UNIVERSAL JOINT, 12E	1
21	960941	INTAKE AUGER FLIGHTING WELDMENT	1
22	967906	BOLT, 3/8" x 2-3/4" HEX GR 8 (PL)	1
23	9812378	SET SCREW, 3/8" x 3/4" SQ HD SER	2
24	81525	BOLT, 1/4" x 3/4" HEX (PL)	4
25	86170	BOLT, 3/8" x 1" HEX GR 5 (PL)	8
26	917409	INPUT BOX ELBOW WELDMENT, BS10	1
27	917428	ELBOW ACCESS DOOR WELDMENT, BS10	1
28	960952	2168 GEARBOX, UPPER 68 DEG	1
29	917463	RING-INTAKE TUBE BS10	1

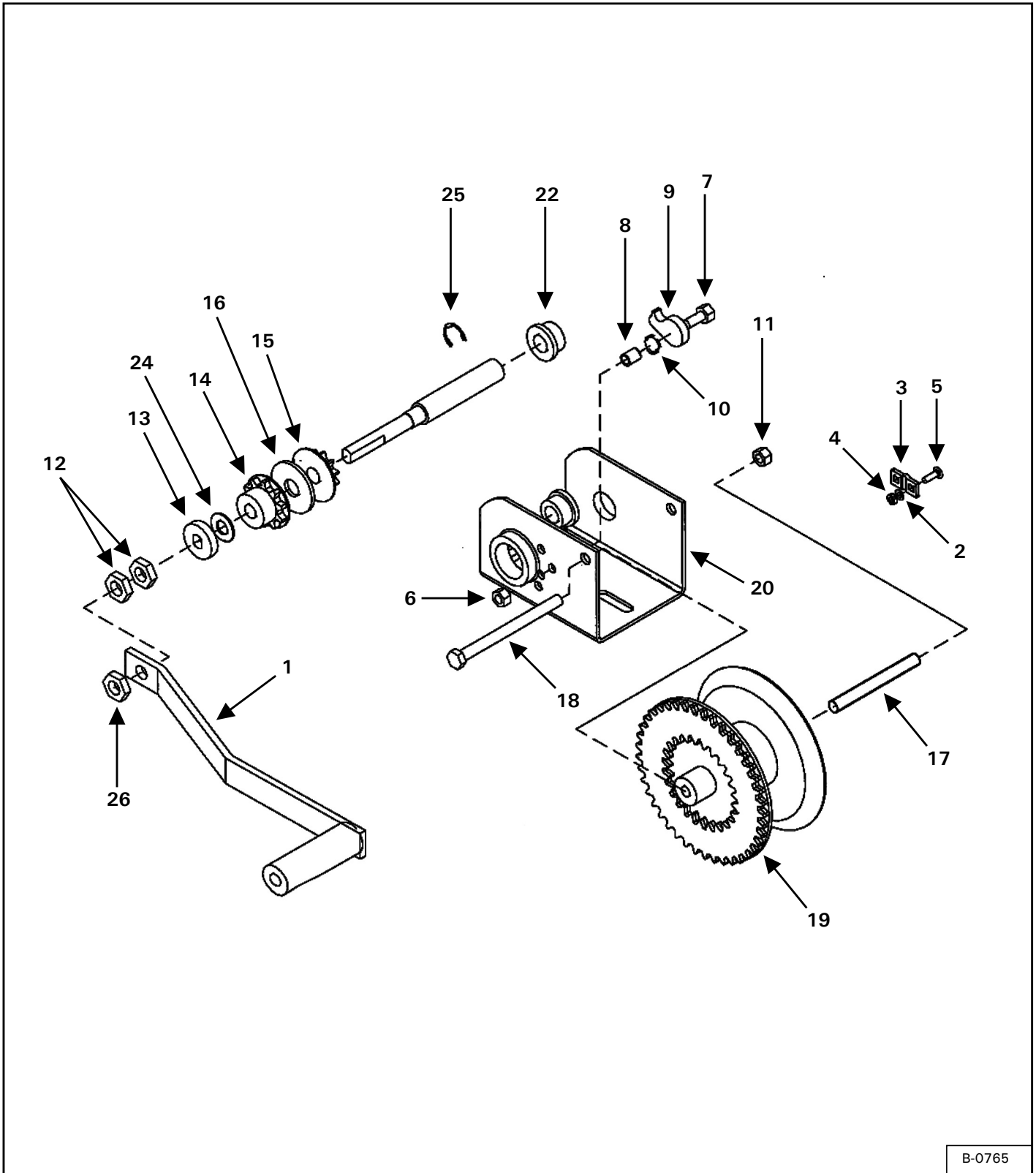
BS10 Auger Decal Assembly



917827_REV_A

ITEM	PART NUMBER	DESCRIPTION	QTY
1	105420	DECAL, REFERENCE PLATE JBI / FK SERIAL #	1
2	108431	DECAL, WARNING CHECK PTO SHAFT	1
3	904585	DECAL, DANGER ROTATING DRIVELINE	1
4	909745	DECAL, DANGER ELECTROCUTION	1
5	910570	DECAL, 1050 BS	2
6	910571	DECAL, 1060 BS	2
7	910572	DECAL, 1070 BS	2
8	910580	DECAL, FARM KING 6.0 x 40.6	2
9	910601	DECAL, FARM KING 4.5 x 30.5	2
10	917765	DECAL, INTAKE AUGER	1
11	960371	LABEL INPUT BOX 3" x 4"	1
12	960372	DECAL, IMPORTANT ALIGN YOKE	2
13	960569	DECAL, DANGER UPENDING	1
14	961015	DECAL, IMPORTANT RUN AUGER PARTIALLY	1
15	961016	DECAL, DANGER KEEP HANDS AND FEET	1
16	961017	DECAL, CAUTION 14 POINT LIST RULES	1
17	963206	DECAL, CAUTION	1
18	966699	DECAL, GREASE	1
19	967388	DECAL, CHECK OIL	1
20	F0014	REFLECTIVE TAPE BAG (OPTIONAL)	1

1051 Winch



B-0765

Handle Assembly #2461S01

ITEM	PART NUMBER	DESCRIPTION
1	2461S01	HANDLE ASSEMBLY

Cable Keeper Kit #5621S01

NOTE: Cable Keeper Kit includes items 2 - 5.

ITEM	PART NUMBER	DESCRIPTION
2	-	LOCK WASHER, #10
3	-	CABLE CLAMP
4	-	NUT, #10 - 24 HEX
5	-	CARRIAGE BOLT, #10 - 24 x 0.69 LG

Ratchet Kit #6731S00

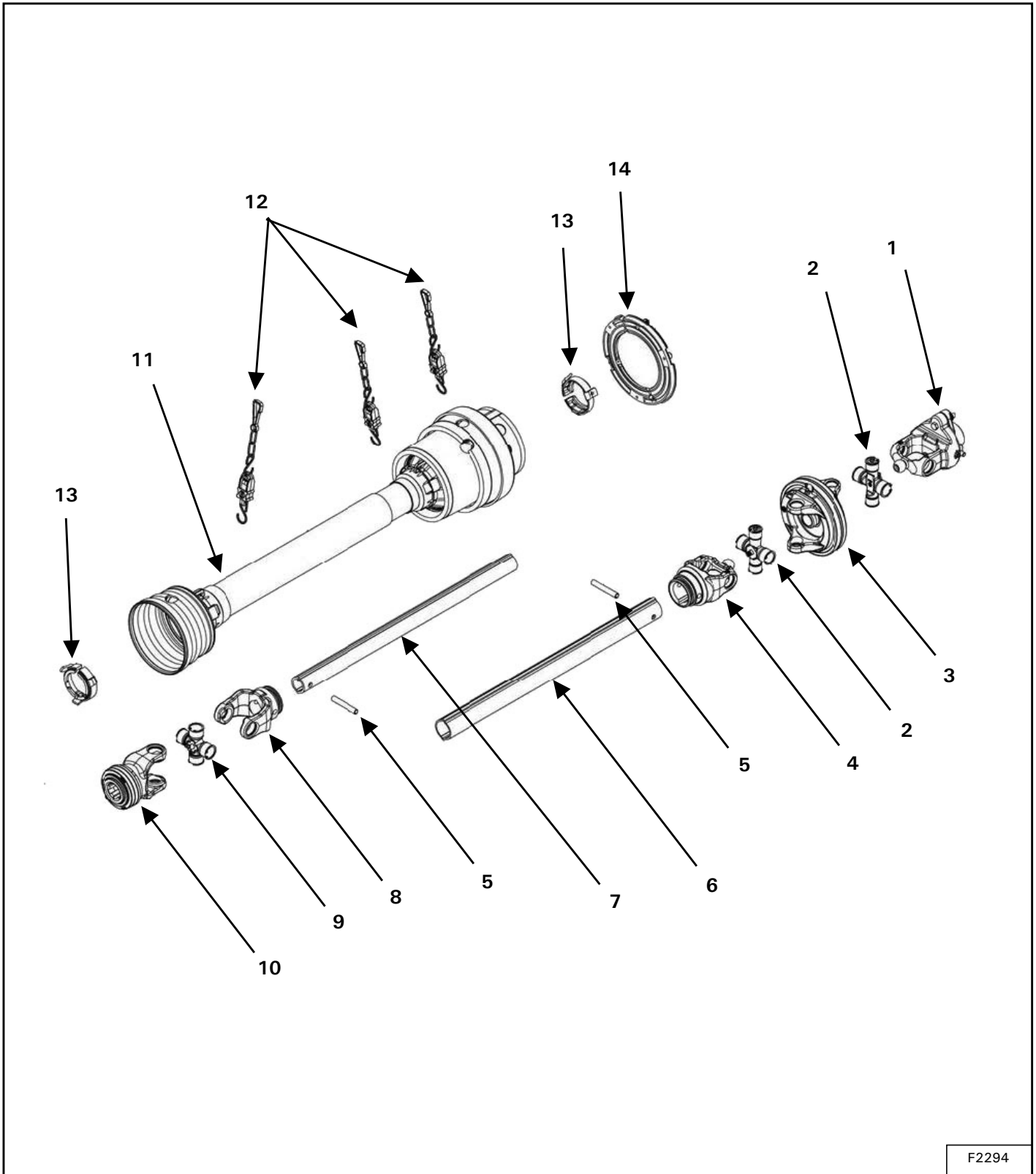
NOTE: Ratchet Kit includes items 6 - 10.

ITEM	PART NUMBER	DESCRIPTION
6	-	LOCK NUT, 5/16" - 18
7	-	BOLT, 5/16" - 18 x 1" LG GR. 5
8	-	RATCHET SPACER
9	-	RATCHET PAWL
10	-	RATCHET SPRING

NOTE: The following items are not available.

ITEM	PART NUMBER	DESCRIPTION
11	-	LOCK NUT, 3/8" - 16
12	-	LOCK NUT, 1/2" - 13
13	-	BRAKE DISC
14	-	RATCHET ASSEMBLY
15	-	PINION GEAR ASSEMBLY
16	-	FRICTION DISC
17	-	DRUM SPACER, 3.81" LG
18	-	BOLT, 3/8" - 16 x 4-1/2" LG GR. 2
19	-	DRUM WELDMENT
20	-	FRAME (K1051)
21	-	BUSHING, 1-1/4" ID x 1/2" LG
22	-	BUSHING, 0.785" ID x 1/2" LG
23	-	PINION SHAFT
24	-	NYLON WASHER
25	-	RETAINING RING, 3/4"
26	-	LOCK NUT, 1/2" - 13 NYLON

PTO - F2294



F2294

ITEM	PART NUMBER	DESCRIPTION	QTY
1	930749	SHEAR BOLT CLUTCH WITH PUSH PIN 1600 Nm ± 10%	1
2	930750	CROSS KIT WITH GREASE NIPPLE ON BEARING CUP	2
3	930751	CV WIDEANGLE DOUBLE YOKE 80°	1
4	930752	CV WIDEANGLE INBOARD YOKE WELDED WITH HUB	1
5	930753	ELASTIC PIN - ISO 8752	2
6	930754	OUTER LEMON TUBE L = 570 WITH PIN HOLE	1
7	930755	RILSAN LEMON TUBE L = 575 WITH PIN HOLE	1
8	930756	INBOARD YOKE FOR INNER TUBE	1
9	930757	CROSS KIT WITH GREASE NIPPLE ON BEARING CUP	1
10	930758	YOKE WITH QL BALL TYPE	1
11	930759	SHAFT SHIELD	1
12	925361	PRE-SET DESENGAGEMENT SYSTEM CHAIN	3
13	930760	RETAINER	2
14	930761	WIDEANGLE RETAINER	1

Farm King



SHIPPING KIT AND BUNDLE NUMBERS

OPTIONAL BUNDLE NUMBERS157

Farm King



SHIPPING KIT AND BUNDLE NUMBERS

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

QTY	BUNDLE NUMBER	DESCRIPTION
1	Y1050TMR	10" x 50' Top Feed Mechanical Drive c/w reverse kit
1	Y1050TMMR	10" x 50' Mechanical Drive c/w Multi-Fltg intake hopper and reverse kit
1	Y1060TMR	10" x 60' Top Feed Mechanical Drive c/w reverse kit
1	Y1060TMMR	10" x 60' Mechanical Drive c/w Multi-Fltg intake hopper and reverse kit
1	Y1070TMR	10" x 70' Top Feed Mechanical Drive c/w reverse kit
1	Y1070TMMR	10" x 70' Mechanical Drive c/w Multi-Fltg intake hopper and reverse kit
1	Y121	10" x 10' Extension Kit c/w cables for extending 10" x 70' only

OPTIONAL BUNDLE NUMBERS

The following is a list of options available for the Standard Kits.

QTY	BUNDLE NUMBER	DESCRIPTION
1	F9552	EXTREME USE PTO SHAFT, (2 - 6 Splined Ends) (High Moisture corn, peas, beans)
1	F214	10" Oval Poly Spout
1	Y208	Set of 2 (F252) 7.60 x 15 x 4 ply tires (Non-highway rated 10" augers)
1	F7346	10" Mechanical Drive Reverse Kit ('92 & Up)
1	Y1105	10" Multi-Flighting Hopper Conversion (2015 & Up)
1	Y1104	2 Wheel Hopper Mover (10" Hydraulic)
1	F0946	Closed Center Hopper Mover Valve Kit
1	F0014	Reflective Safety Decal Kit
1	F1787	Auger Safety Light Kit (1050 & 1060 Backsaver)
1	F1788	Auger Safety Light Kit (1070 Backsaver)
1	F0923	Clevis Hitch (Less 909955 hitch weld)
1	Y1120	10" Hydraulic Winch Kit (2012 & Up)
1	Y1130	10" Hydraulic Hopper Mover & Winch Kit (2012 & Up)*

Farm King



SPECIFICATIONS

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Farm King

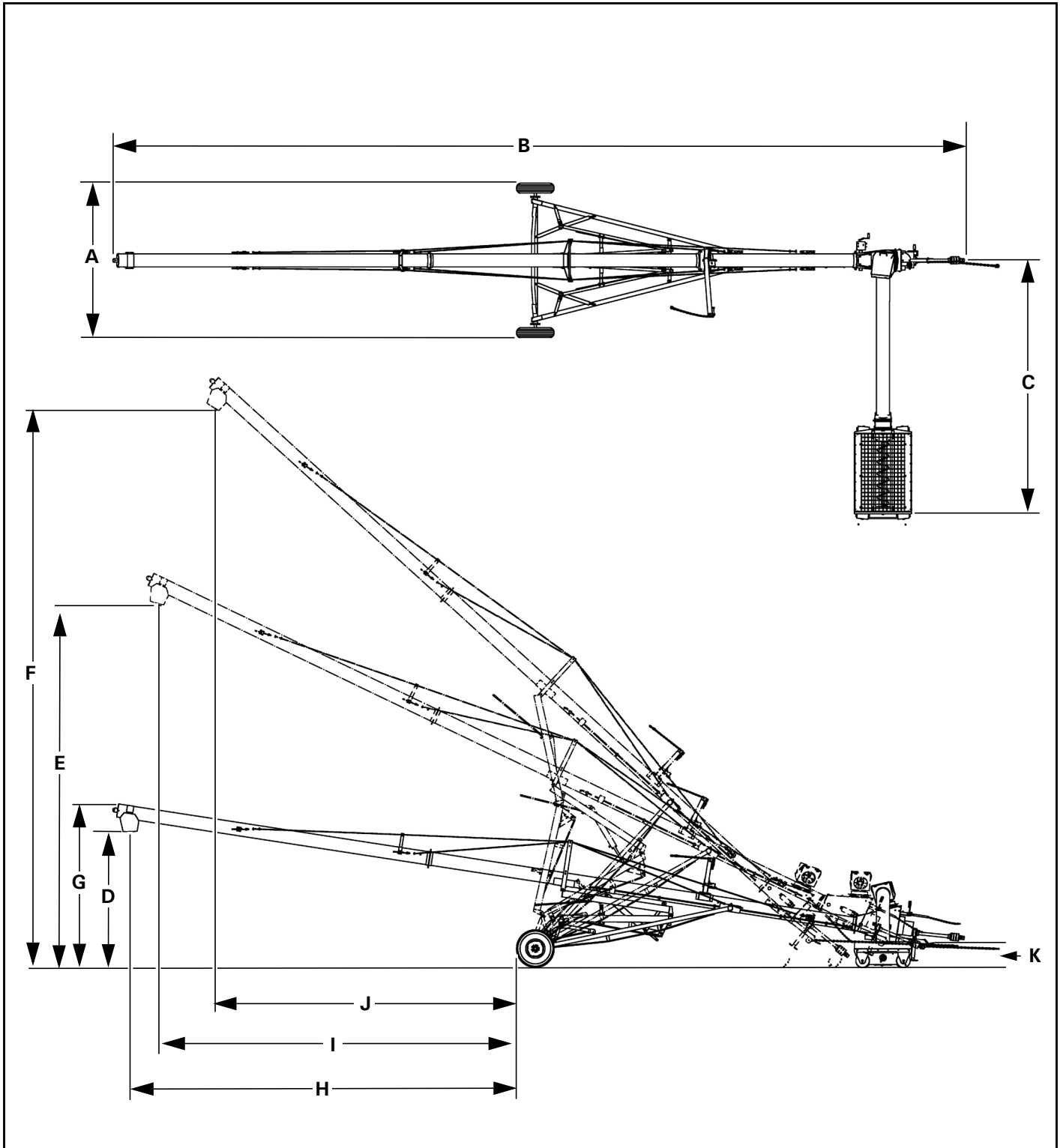


SPECIFICATIONS



SPECIFICATIONS

Dimensions



DESCRIPTION	1050	1060	1070	1080
Overall Width (A)	9'10"	10'10"	12'10"	
Overall Length (B)	-	-	-	-
Input Auger / Hopper Length (C)	16'	16'	16'	-
Spout Height - Lowest (D)	11'2"	11'3"	12'6"	13'6"
Spout Height - Halfway (E)	23'6"	27'6"	30'3"	34'3"
Spout Height - Highest (F)	36'	43'8"	48'	55'
Transport Height (G)	10'5"	10'4"	11'9"	-
Spout To Wheels - Lowest (H)	26'	30'3"	35'8"	45'7"
Spout To Wheels - Halfway (I)	-	-	33'5"	41'10"
Spout To Wheels - Highest (J)	18'	22'3"	27'10"	34'9"
Hitch Height (K)	1'6"	1'6"	1'6"	1'6"

Specifications

DESCRIPTION	1050	1060	1070	1080
Size	10" x 50'	10" x 60'	10" x 70'	10" x 80'
Tubing	12 gauge			
Flighting (Measured from centre of flighting strip)	7 gauge			
Flighting shaft	11 gauge, 2-3/8" diameter			
Undercarriage	3" x 3" x 1/8" square tube			
Lift arms	2" x 5" x 3/16" tube			
Bridging	3/8" cable on 50' and 60' models, 1/2" cable on 70' and 80' models			
Wheels and hubs	15" with 5 bolt automotive type hubs and bearings			
Swing auger drive	Two internal gearboxes (PTO driven), sprocket and chain			
Hopper dimensions	43-1/2" x 60"			
Standard hopper height from ground	15-1/4" at heel end, 14-1/4" at other end			
Multi-flighting hopper height from ground	11-3/4" at both ends			
Tractor requirements - min PTO hp (with 540 RPM PTO) - approx. hydraulic requirements for lift	40 hp 1000 PSI	48 hp 1000 PSI	55 hp 1000 PSI	65 hp 1000 PSI
Hitch weight	-	-	840 lb	-
Weight	2,545 lb	2,987 lb	3,354 lb	3,622 lb

HARDWARE TORQUE VALUES

Metric Chart

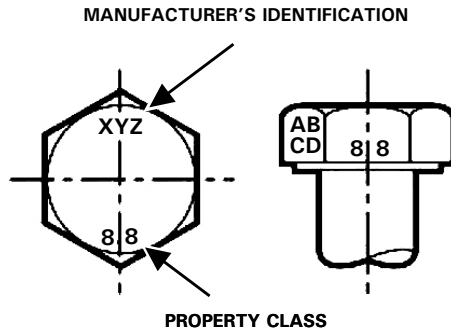
NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

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.

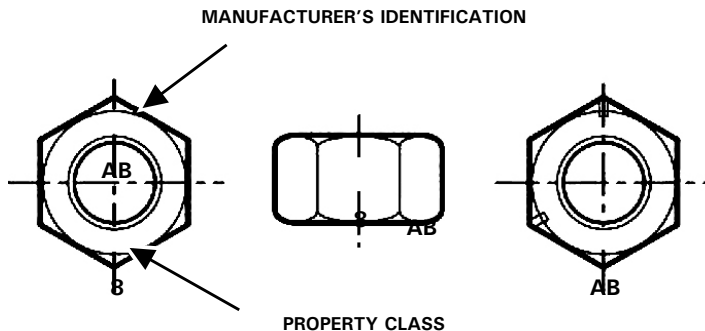
Nominal Size	Class 5.8		Class 8.8		Class 10.9		Lock nuts
	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 w/ CL. 8.8 Bolt
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)
M8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

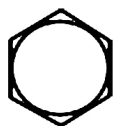
NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

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



SAE GRADE
2 BOLTS



SAE GRADE
5 BOLTS



SAE GRADE
8 BOLTS



SAE GRADE
2 NUTS

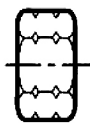


SAE GRADE
5 NUTS



SAE GRADE
8 NUTS

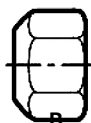
Identification of Hex Nuts and Lock Nuts



Grade A - No Notches

Grade B - One Circumferential Notch

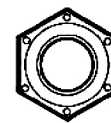
Grade C - One Circumferential Notches



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)

HYDRAULIC CONNECTION SPECIFICATIONS

O-Ring Fitting (Straight Thread)

Lubricate the O-ring before installing the fitting. Loosen the jam nut and install the fitting. Tighten the jam nut until the washer is tight against the surface.

O-ring Face Seal Connection

Figure 159

O-ring Face Seal Tightening Torque		
Tubeline O.D.	Thread Size	N•m (ft-lb)
1/4"	9/16" - 18	13 (18)
3/8"	11/16" - 16	22 (30)
1/2"	13/16" - 16	40 (54)
5/8"	1" - 14	60 (81)
3/4"	1-3/16" - 12	84 (114)
7/8"	1-3/16" - 12	98 (133)
1"	1-7/16" - 12	118 (160)
1-1/4"	1-11/16" - 12	154 (209)
1-1/2"	2" - 12	163 (221)

When the fitting is tightened, you can feel when the fitting is tight to eliminate leakage caused by under or over torqued fittings. Use petroleum jelly to hold the O-ring in position until the fittings are assembled.

Flare Fitting

Figure 160

Flare Fitting Tightening Torque		
Tubeline O.D.	Thread Size	N•m (ft-lb)
1/4"	7/16" - 20	13 (18)
5/16"	1/2" - 20	17 (23)
3/8"	9/16" - 18	22 (30)
1/2"	3/4" - 16	40 (54)
5/8"	7/8" - 14	60 (81)
3/4"	1-1/16" - 12	84 (114)
7/8"	1-3/16" - 12	98 (133)
1"	1-5/16" - 12	118 (160)
1-1/4"	1-5/8" - 12	154 (209)
1-1/2"	1-7/8" - 12	163 (221)
2"	2-1/2" - 12	252 (342)

Tighten until the nut makes contact with the seat. Use the chart [Figure 160] to find the correct tightness needed.

NOTE: If the fitting leaks, disconnect and inspect the seat area for damage.

Port Seal (O-ring Boss) Fitting

Figure 161

Port Seal And O-ring Boss Tightening Torque		
Tubeline O.D.	Thread Size	N•m (ft-lb)
1/4"	7/16" - 20	13 (18)
3/8"	9/16" - 18	22 (30)
1/2"	3/4" - 16	40 (54)
5/8"	7/8" - 14	60 (81)
3/4"	1-1/16" - 12	84 (114)
7/8"	1-3/16" - 12	98 (133)
1"	1-5/16" - 12	118 (160)
1-1/8"	1-7/16" - 12	154 (209)
1-1/4"	1-5/8" - 12	163 (221)

NOTE: Port seal and nut, washer and O-ring (O-ring Boss) fittings use the same tightening torque valve chart.

If a torque wrench cannot be used, use the following method.

Tighten the nut until it just makes metal to metal contact, you can feel the resistance.

Tighten the nut with a wrench no more than one hex flat maximum.

Do not over tighten the port seal fitting.

NOTE: If a torque wrench cannot be used, use the hex flat tightening method as an approximate guideline.

NOTE: Port seal fittings are not recommended in all applications. Use O-ring boss fittings in these applications.

Tubelines And Hoses

Replace any tubelines that are bent or flattened. They will restrict flow, which will slow hydraulic action and cause heat.

Replace hoses which show signs of wear, damage or weather cracked rubber.

Always use two wrenches when loosening and tightening hose or tubeline fittings.

WARRANTY

WARRANTY169

Farm King



WARRANTY

Farm King

Limited Warranty

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 two (2) years. 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 Farm King Dealer 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. Payment of labor costs will only be considered on repairs made to manufactured parts and components that have been found defective during a period of one (1) year following delivery to the original retail purchaser.

Farm King

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.

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Farm King



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