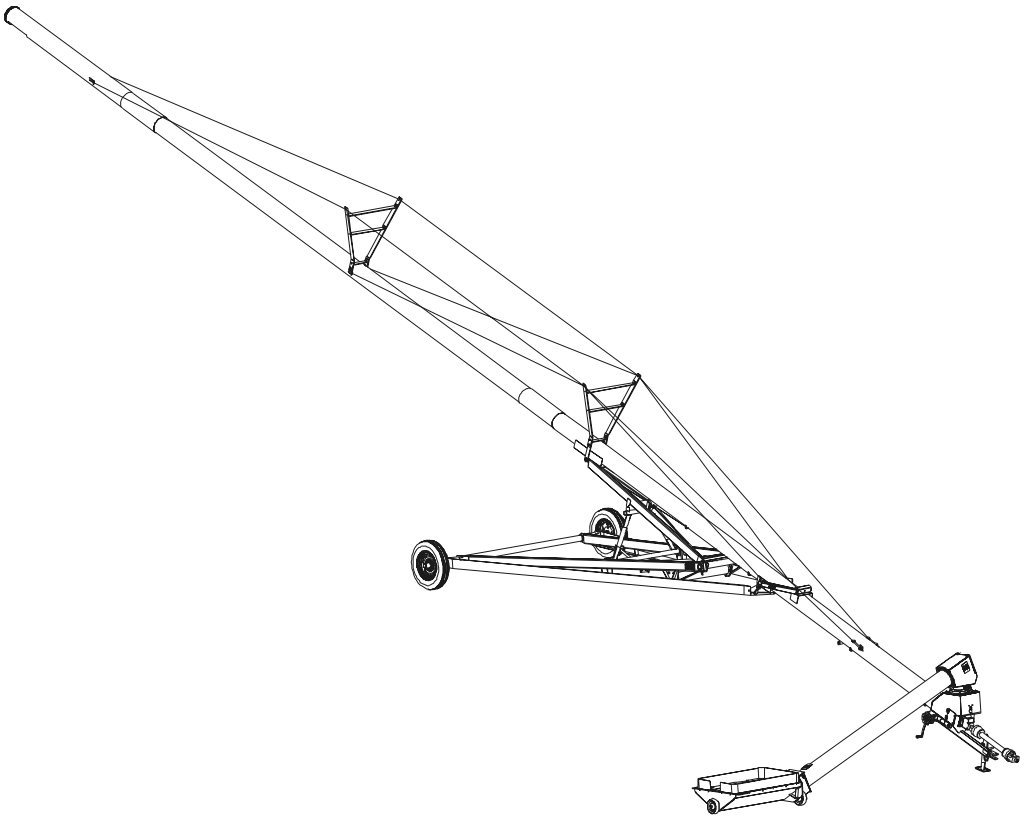
PNEG-1026
11-22-05

8" & 10" Direct Gear Drive SAW Transport Auger

Assembly & Operation Manual



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8" & 10" Direct Gear Drive SAW Transport Auger

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SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting ***personal safety*** and ***preventing equipment problems***. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and it's safety instructions is a misuse of the equipment and may lead to serious injury or death.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

NOTE indicates information about the equipment that you should pay special attention to.

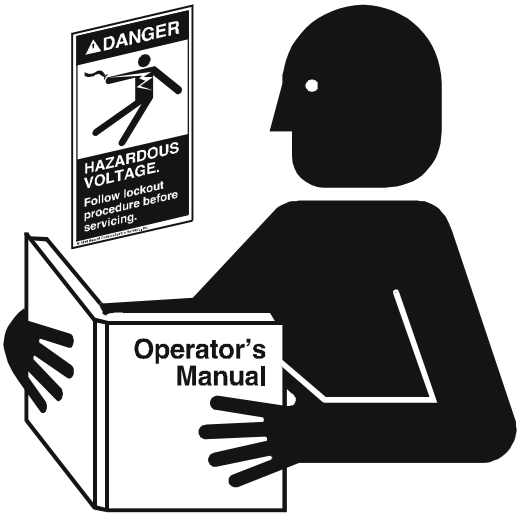
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your dealer.



STAY CLEAR OF ROTATING PARTS

Entanglement in rotating augers will cause serious injury or death.

Keep all shields and covers in place at all times.

Wear close fitting clothing. Stop and lock out power source before making adjustments, cleaning, or maintaining equipment.

STAY CLEAR OF HOISTED EQUIPMENT

Always use proper lifting/hoisting equipment when assembling or disassembling equipment.

Do not walk or stand under hoisted equipment.

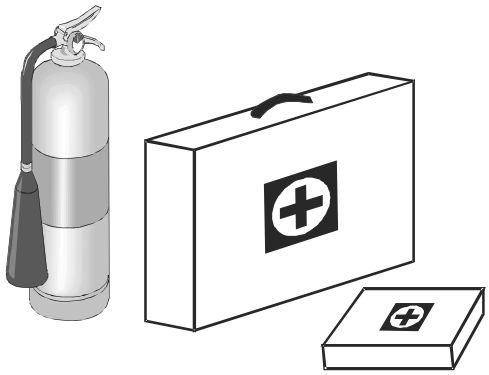
Always use sturdy and stable supports when needed for installation.

PREPARE FOR EMERGENCIES

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

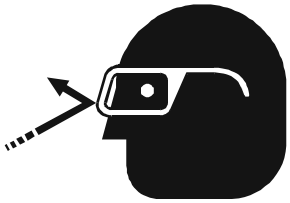
Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

A respirator may be needed to help prevent breathing potentially toxic fumes and dust.

Wear hard hat and steel toe boots to help protect your head and toes from falling debris.

Eye Protection



Gloves

Steel Toe Boots

Respirator

Hard Hat

1. GENERAL SAFETY STATEMENTS

A. The manufacturer's principle concern is your safety and the safety of others associated with grain handling equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

B. As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation, where SERIOUS INJURY or DEATH may occur.

C.  This symbol is used to call attention to instructions concerning your personal safety. Watch for this symbol; it points out important safety precautions. It means "ATTENTION", "WARNING", CAUTION", and "DANGER". Read the message that follows, and be cautious to the possibility of personal INJURY or DEATH.

D. This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

E. Untrained operators subject themselves and others to SERIOUS INJURY or DEATH. NEVER allow untrained personnel to operate this equipment.

F. Keep children and other unqualified personnel out of the working area at ALL times. Refer to the ***Startup*** section of this manual for diagrams of the working area.

G. NEVER start equipment until ALL persons are clear of the work area.

H. Be sure ALL operators are adequately rested and prepared to perform ALL functions of operating this equipment.

I. Keep hair, loose clothing, and shoestrings away from rotating and moving parts. NEVER wear loose fitting clothing when working around augers.

J. NEVER allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.

K. NEVER allow anyone inside a bin, truck or wagon which is being unloaded by an auger or conveyor. Flowing grain can trap and suffocate in seconds.

L. Make sure someone is nearby who is aware of the proper shutdown sequence in the event of an accident or emergency.

M. NEVER work alone.

N. ALWAYS think before acting. NEVER act impulsively around the equipment.

O. Make sure ALL equipment is locked in position before operating.

P. Keep hands and feet away from the auger intake and other moving parts.

1. GENERAL SAFETY STATEMENTS (CONT.)

Q. NEVER attempt to assist machinery operation or to remove trash from equipment while in operation.

R. NEVER drive, stand or walk under the equipment.

S. Use caution not to hit the auger when positioning the load.

T. Use ample overhead lighting after sunset to light the work area.

U. ALWAYS lockout ALL power to the equipment when finished unloading a bin.

V. Keep area around intake free of obstacles such as electrical cords, blocks, etc. that might trip workers.

2. IN AN EMERGENCY, SHUTDOWN THE POWER SOURCE.

3. PINCH POINTS

A. Be aware of pinch points. A *Pinch Point* is a narrow area between two surfaces that is likely to trap or catch objects and so is a potential hazard.

B. Components of this equipment have sharp edges which can scrape and/or cut an operator.

C. A moving auger can sever appendages possibly resulting in death.

4. SHIELDS AND GUARDS

A. ALWAYS keep ALL shields and guards in place during operation.

5. PERSONAL PROTECTIVE EQUIPMENT

A. The proper personal protective equipment should be worn at ALL times by anyone in the work area.

B. ALWAYS wear safety glasses when in the work area.

C. The operator should NEVER wear jewelry.

D. Loose clothing should not be worn. Any clothing that becomes loosened should be tucked in tightly.

E. Loose shoe strings or dangling shoe strings should be tucked in.

F. Long hair should be tied up and/or back.

6. OPERATOR QUALIFICATIONS

A. The User/Operator must be competent and experienced to operate auger equipment. Anyone who works with or around augers must have good common sense in order to be qualified. These persons must also know and meet all other qualifications, such as:

1. Any person who has not read and/or does not understand all operation and safety procedures is not qualified to operate any auger systems.
2. Certain regulations apply to personnel operating power machinery. Personnel under the age of 18 years may not operate power machinery, including augers. It is your responsibility, as owner and/or supervisor, to know what these regulations are in your area or situation.
3. Unqualified or incompetent persons are to remain out of the work area.
4. O.S.H.A. (Occupational Safety & Health Administration) regulations state: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved." (Federal Occupational Safety & Health Standards for Agriculture. Subpart D, Section 19287.57 (a) (6).

B. As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operating and safety procedures for this auger. We included this sign-off sheet for your convenience and personal record keeping. All unqualified persons are to stay out of the work area at all times. It is strongly recommended that another qualified person who knows the shutdown procedure is in the area in the event of an emergency. A person who has not read this manual and understands all operating and safety instructions is not qualified to operate the machine.

Date	Employer's Signature	Employee's Signature

SAFETY 1st

Our equipment is built to provide many years of dependable service to our customers through durable craftmanship.

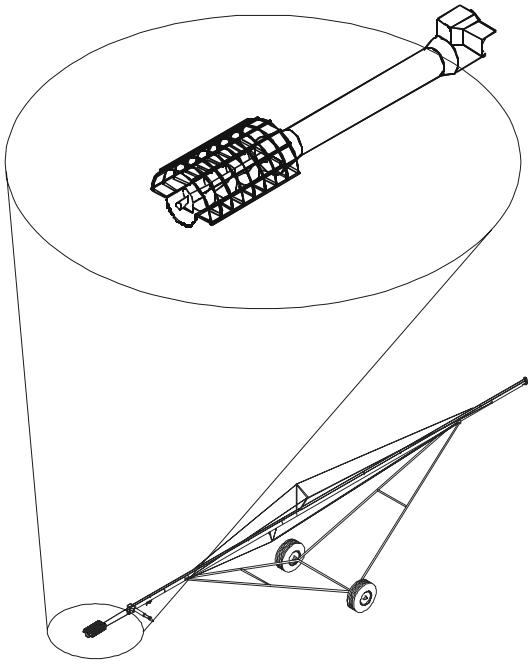
One of the most important aspects of our engineering is ***SAFETY* 1st** design throughout all product lines. At our company **-** safety is NO ACCIDENT!

That is why we are implementing the ***SAFETY* 1st** program. Should you ever need guards, shields, safety decals or owner/operator manuals, simply contact us and we will supply you with them **FREE OF CHARGE**!

While it is our main goal for our company to be the world leader in auger manufacturing, it is always our first priority to keep our customers safe.

If you need any of the above listed safety items or have safety questions, please contact the company or your local dealer.

We replace missing guards and shields ***FREE OF CHARGE****!*



Safety Decals

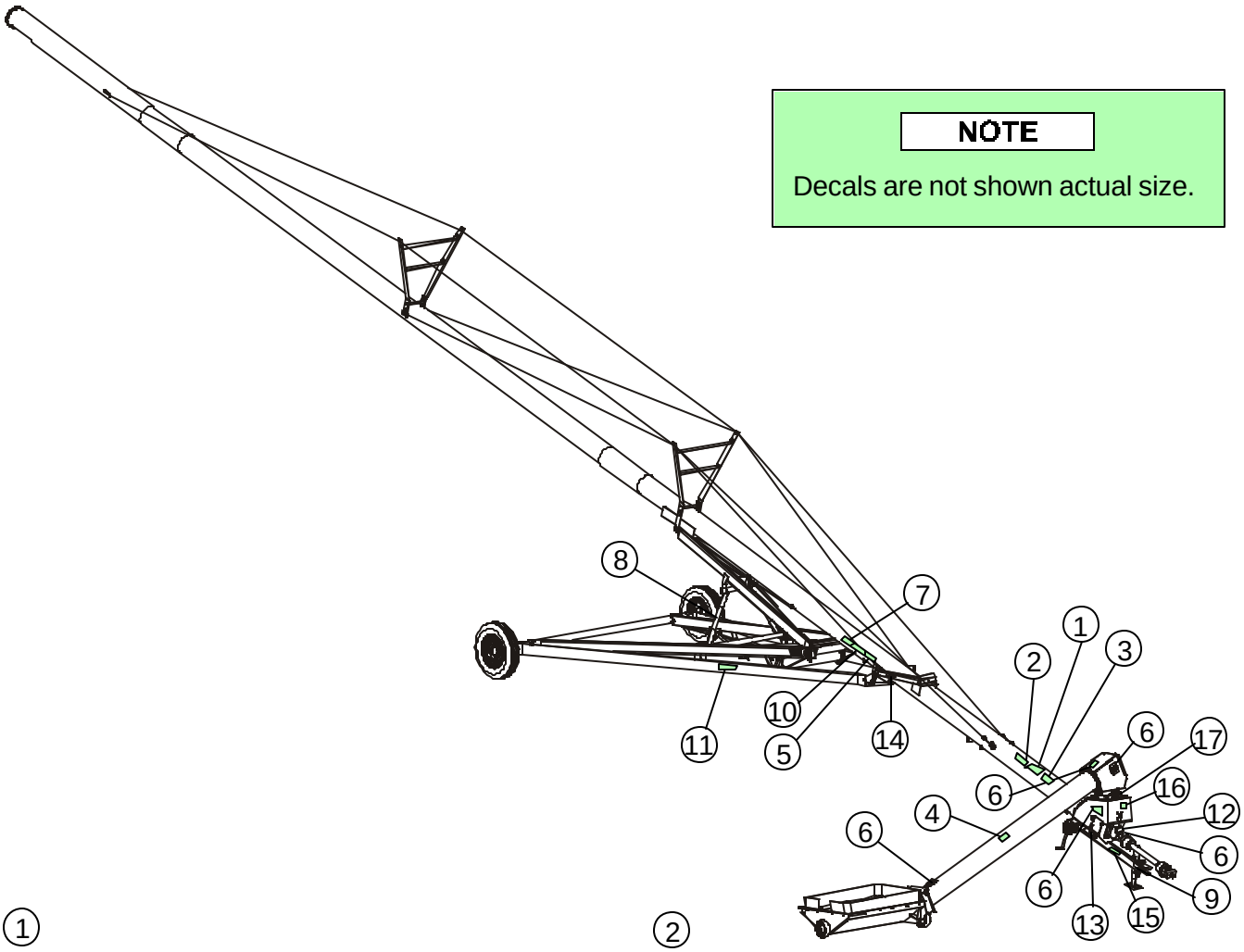
The Safety Decals listed below are included with the auger. The following page shows the locations of the decals on the auger. The following pages show a sample of each decal.

Inspect all decals and replace any that are illegible, worn, or missing. Contact your dealer or the factory to order replacement decals.

Safety Decals

Ref. #	Part #	Qty.	Description	Size
1	DC-1446	1	**Caution—General Statements 1-12** (On Main Auger Housing)	8-1/4" x 4-1/8"
2	DC-1412	1	**Danger—Electrocution** (On Main Auger Housing)	8" x 3-3/8"
3	DC-1419	1	**Warning—Hydraulic Fluid Leaking** (On Main Auger Housing)	8" x 3-3/8"
4	DC-1421	1	**Warning—Winch Handle** (On Side of Inlet Hopper)	7" x 3"
5	DC-1409	1	**Danger—Falling Auger** (On Main Auger Housing)	4-1/2" x 6-1/2"
6	DC-1416	5	**Danger—Rotating Auger** (On Intake End of Tube Near Hopper, On Side of Spout Head, On Underside of Inlet Hopper, On Side of Inlet Hopper, On Inlet Hopper Clean-Out Door)	4-1/2" x 5-1/2"
7	DC-1410	1	**Danger—Never Disassemble the Auger** (On Main Auger Housing)	4-1/2" x 2-1/8"
8	DC-1408	1	**Danger—Cylinder Guidelines** (On Side of Hydraulic Cylinder)	8" x 3-7/8"
9	DC-1418	1	**Safety First**—(On Main Auger Housing)	4-7/8" x 3-1/2"
10	DC-1445	1	**Warning—Caution Transporting Auger** (On Main Auger Housing for 62' and 72' Models Only)	6" x 3-1/2"
11	DC-1447	2	**Warning—Pinch Points** (On Both Sides of Undercarriage Frame)	7" x 3"
12	DC-1375	1	**Danger—Rotating Driveline** (On PTO Driveline Shield)	4-3/8" x 5-3/4"
13	DC-1425	1	**Manual Inside**—(On Operator Manual's Canister on Inlet Hopper)	7" x 1-1/4"
14	DC-1420	1	**Important—Before Moving Auger** (On Lift Arm)	5-3/8" x 2-1/8"
15	DC-1414	1	**Caution—PTO Driveline Guidelines**—(On Front of Inlet Hopper)	7" x 5-1/4"
16	DC-1413	1	**Grease Here**—(On Front of Inlet Hopper)	2" x 1"
17	DC-1411	1	**Danger—Shear Point** (On Front of Inlet Hopper)	4-1/2" x 2-1/16"
18	DC-1449	1	**Warning-Hitch**	

Safety Decals



NOTE

Decals are not shown actual size.

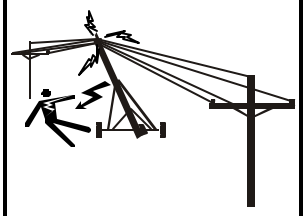
1

NOTICE

1. READ AND UNDERSTAND THE INSTALLATION & OPERATION MANUAL AND ALL SAFETY INSTRUCTIONS BEFORE OPERATING EQUIPMENT.
2. DO NOT OPERATE WHILE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.
3. DO NOT OPERATE UNLESS ALL SAFETY EQUIPMENT, SWITCHES, GUARDS AND SHIELDS ARE SECURELY IN PLACE AND OPERATIONAL.
4. BE SURE EVERYONE IS CLEAR OF THE EQUIPMENT BEFORE ATTEMPTING TO OPERATE OR MOVING THE MACHINE.
5. ALLOW ONLY TRAINED PERSONNEL IN the OPERATING AREA.
6. KEEP HANDS, FEET, HAIR AND CLOTHING AWAY FROM MOVING PARTS.
7. DISCONNECT AND LOCKOUT POWER BEFORE ADJUSTING OR SERVICING.
8. ELECTRICAL WIRING OR SERVICE WORK MUST BE PERFORMED BY A QUALIFIED ELECTRICIAN. IT MUST MEET ALL STATE AND LOCAL ELECTRICAL CODES.
9. EMPTY AUGER AND LOWER TO TRANSPORT POSITION BEFORE TRANSPORTING.
10. MAKE CERTAIN ALL ELECTRIC MOTORS ARE GROUNDED.
11. NEVER MOVE MACHINE MANUALLY. ALWAYS USE A TOWING VEHICLE.
12. KEEP CHILDREN AWAY FROM WORK AREA AT ALL TIMES.

DC-1446

2



⚠ DANGER

ELECTROCUTION!!

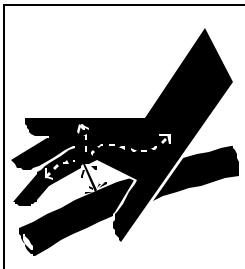
STAY CLEAR OF POWER LINES!

- THIS EQUIPMENT IS NOT INSULATED FROM ELECTRIC SHOCK.
- KEEP EQUIPMENT AWAY FROM POWER LINES.
- ELECTROCUTION CAN OCCUR WITH OR WITHOUT DIRECT CONTACT.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1412

3



⚠ WARNING

HYDRAULIC FLUID LEAKING UNDER PRESSURE CAN PENETRATE SKIN. IF THIS HAPPENS, SEEK MEDICAL ATTENTION IMMEDIATELY.

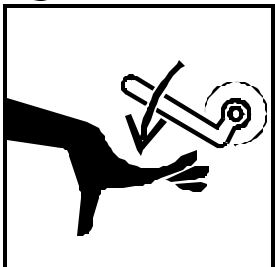
ALWAYS RELEASE PRESSURE FROM HYDRAULIC LINES BEFORE DISCONNECTING.

ALWAYS INSPECT THE HYDRAULIC LINES BEFORE AND AFTER USING THIS EQUIPMENT AND PERFORM ANY NECESSARY MAINTENANCE ON THE HYDRAULIC SYSTEM BEFORE OPERATING.

FAILURE TO HEED
WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1419

4



⚠ WARNING

WINCH HANDLE CAN MOVE WITHOUT WARNING CAUSING SEVERE INJURY.

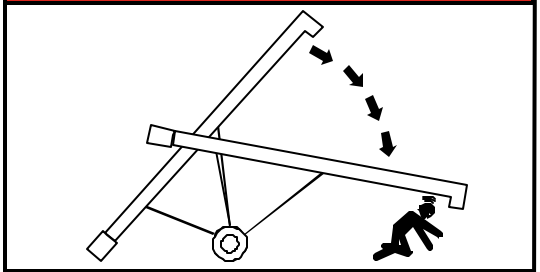
- NEVER RELEASE THE WINCH HANDLE UNTIL THE LOCK IS SECURELY IN PLACE.
- NEVER RELEASE WINCH LOCK BEFORE MANUALLY SECURING WINCH HANDLE WHEN LOWERING HOPPER.
- NEVER LEAVE HOPPER ON THE GROUND WHEN RAISING OR LOWERING THE AUGER. DOING SO COULD DAMAGE THE HOPPER WHEELS.

DC-1421

Safety Decals

⑤

DANGER



FALLING AUGER CAN CRUSH OR KILL!

ALWAYS SECURE INTAKE END SO THAT THE AUGER CANNOT FALL.

EMPTY THE AUGER BEFORE ATTEMPTING TO TRANSPORT IT.

NEVER PUSH THE UNDERCARRIAGE. ALWAYS USE PROPER TRANSPORTING METHODS.

USE CAUTION WHEN LIFTING THE INTAKE END. NEVER LIFT HIGHER THAN THE VEHICLE TOW BAR. DO NOT RELEASE UNTIL AUGER IS SECURELY ATTACHED TO THE TOW BAR OR ON THE GROUND.

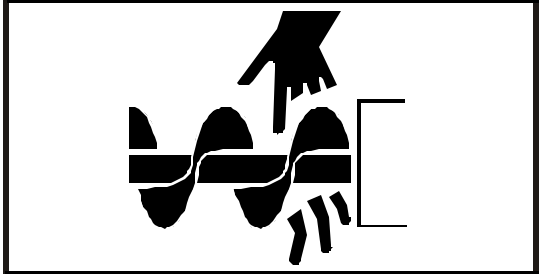
LOWER THE AUGER FOR TRANSPORTING IMMEDIATELY AFTER MOVING IT AWAY FROM THE GRAIN STORAGE BIN.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1409

⑥

DANGER



ROTATING AUGER!

- DISCONNECT AND LOCKOUT POWER BEFORE SERVICING, ADJUSTING OR CLEANING.
- KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM ROTATING AUGER AND MOVING PARTS AT ALL TIMES.
- NEVER REMOVE OR MODIFY GUARDS OR SHIELDS.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1416

⑦

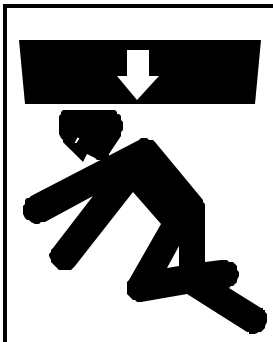
DANGER

NEVER DISASSEMBLE THE AUGER WITHOUT SUPPORTING IT WITH AN OVERHEAD HOIST. LOOSE COMPONENTS MAY CAUSE THE AUGER TO COLLAPSE, IF NOT SUPPORTED.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH.

DC-1410

⑧



DANGER

- PRIOR TO USING, ALWAYS CHECK THE CYLINDERS, LINE, HOSES AND VALVES FOR LEAKS, WEAR OR DAMAGE. REPLACE WORN OR DAMAGED PARTS IMMEDIATELY.
- THE AUGER WILL LOWER WITHOUT WARNING, IF ANY LOSS OF HYDRAULIC FLUID OCCURS.
- NEVER BLOCK CYLINDERS.
- FREQUENTLY INSPECT THIS HYDRAULIC SYSTEM AND PERFORM ANY NECESSARY MAINTENANCE.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH.

DC-1408

⑨

GRAIN KING

SAFETY 1st

ORDER SAFETY COMPONENTS **FREE OF CHARGE!**

• GUARDS • SHIELDS

• SAFETY DECALS • OWNER/OPERATOR MANUALS

CONTACT GRAIN KING

(618) 542-9197

At Grain King, safety is NO ACCIDENT!

DC-1418

Safety Decals

(10)

NOTICE

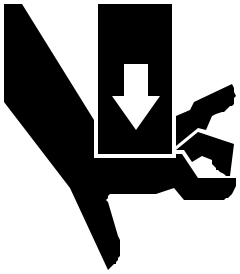
USE CAUTION WHEN TRANSPORTING AUGER! WIDTH EXCEEDS 8' 6".

TAKE PROPER PRECAUTIONS WHEN TRAVELING ON PUBLIC ROADS.

USE CAUTION WHEN NEAR OTHER VEHICLES, PEDESTRIANS, ANIMALS AND OBJECTS ON THE ROAD.

DC-1445

(11)



WARNING

KEEP HANDS, FEET, HAIR AND LOOSE CLOTHING AWAY FROM MOVING PARTS AND PINCH POINTS WHEN RAISING AND LOWERING THE AUGER.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1447

(12)

DANGER

ROTATING DRIVELINE CAN CAUSE SEVERE INJURY OR DEATH!

- KEEP AWAY FROM ROTATING DRIVELINE.
- KEEP LOOSE CLOTHING AWAY FROM ROTATING DRIVELINE.
- KEEP ALL GUARDS IN PLACE.
- BE SURE DRIVELINE IS SECURELY CONNECTED TO THE AUGER AND TRACTOR.
- THE DRIVELINE GUARDS MUST BE FREE TO TURN ON THE DRIVELINE.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

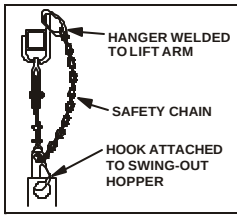
DC-1375

(13)

MANUAL INSIDE | MANUAL INSIDE | MANUAL INSIDE | MANUAL INSIDE

DC-1425

(14)



IMPORTANT!

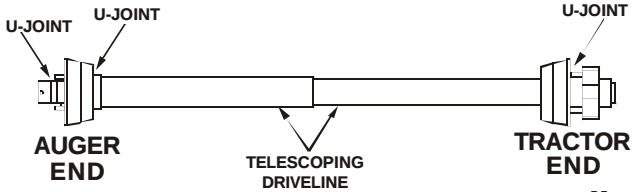
BEFORE MOVING AUGER, SAFETY CHAIN MUST BE HOOKED FROM SAW HOPPER OVER TRANSPORT HANGER.

DC-1420

(15)

NOTICE

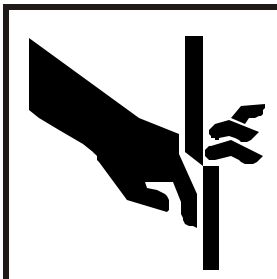
- PLACE AUGER IN OPERATING POSITION BEFORE ATTACHING PTO DRIVELINE TO AGRICULTURAL TRACTOR ONLY.
- NEVER MOVE THE AUGER FROM OPERATING POSITION BEFORE DETACHING THE PTO DRIVELINE FROM THE TRACTOR PTO.
- MOVING the AUGER WITH THE PTO DRIVELINE ATTACHED TO THE TRACTOR WILL CAUSE DAMGE TO THE PTO DRIVELINE.
- THIS IS CONSIDERED A MISUSE OF THE EQUIPMENT. ANY MISUSE OF THE EQUIPMENT MAY VOID THE WARRANTY.



DC-1414

(16)

(17)



DANGER

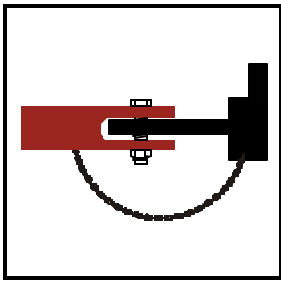
SHEAR POINT

KEEP FINGERS, HANDS, HAIR AND LOOSE CLOTHING AWAY FROM MOVING PARTS.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

DC-1411

(18)

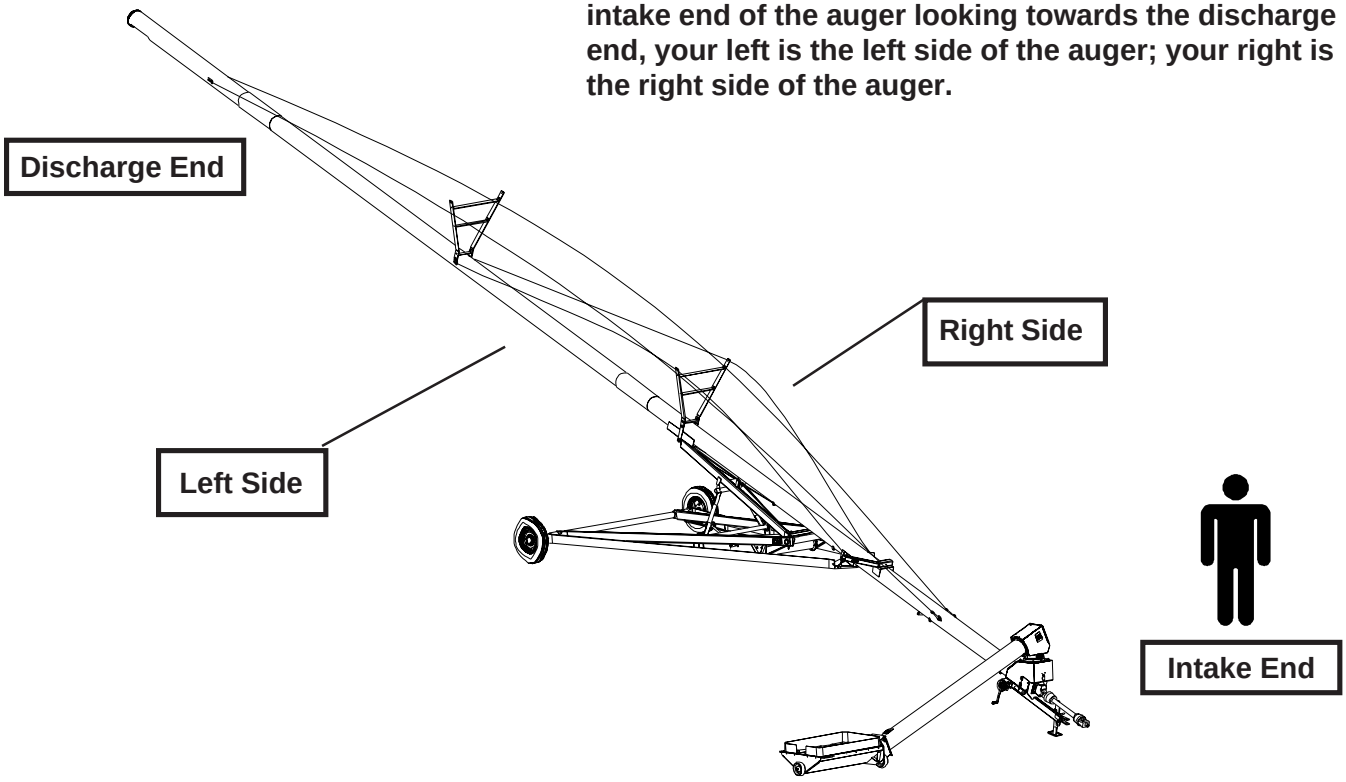


WARNING

HITCH MAY COME LOOSE IF NOT SECURELY FASTENED. HITCH BOLT SHOULD NOT BE LESS THAN 3/4 INCH IN DIAMETER. DAMAGE TO PROPERTY MAY OCCUR.

DC-1449

For the purpose of this manual, if you stand at the intake end of the auger looking towards the discharge end, your left is the left side of the auger; your right is the right side of the auger.



1. GENERAL INFORMATION

A. The manufacturer reserves the right to improve its product whenever possible and practical to do so. We reserve the right to change, improve and modify products at any time without obligation to make changes, improvements and modifications on equipment sold previously.

B. The Direct Gear Drive SAW Transport Augers have been designed and manufactured to give years of dependable service. The care and maintenance of this machine will affect the satisfaction and service obtained. By observing the instructions and suggestions we have recommended, the owner should receive competent service for many years. If additional information or assistance should be required, please contact your dealer or the manufacturer.

C. When receiving merchandise, it is important to check both the quantity of parts and their descriptions with the packing list enclosed within each package. All claims for freight damage or shortage must be made by the consignee within ten (10) days from the date of the occurrence of freight damage. The consignee should accept the shipment after noting the damage or loss.

2. CAPACITY

A. The capacities of augers or screw conveyers varies greatly under varying conditions. The following factors play a role in the performance of the auger:

- Speed
- Angle of operation
- Moisture content
- Amounts of foreign matter
- Methods of feeding
- Different materials

B. An auger operating at a 45° incline might experience 20% less capacity than an auger operating horizontally. Twenty-five percent (25%) moisture could cut capacity by as much as 40% under some conditions.

3. TRACTOR REQUIREMENTS

A. The SAW portable auger was designed for use with a tractor meeting the following requirements:
   1. 540 RPM Power Take Off (PTO)
   2. Adjustable Drawbar
   3. One (1) hydraulic control circuit for lifting the main auger.

Required Horse Power and Hydraulic Pressures

	8" x 52'	8" x 62'	8" x 72'	10" x 52'	10" x 62'	10" x 72'
Hydraulic Pressure (psi)	1300	1500	1800	1500	1800	2300
Horse Power	40	50	60	60	60	70

4. PTO DRIVELINE

A. The PTO driveline will be attached to the tractor during placement of the auger. Refer to the ***Startup*** section of this manual for more information.

B. The PTO driveline furnished with the auger is equipped with a “Spring-Lok” coupler at the tractor end. The coupler is spring loaded and will fit the standard 1-3/8” x 6” spline PTO output shaft from the tractor.

C. The PTO driveline is equipped with a shear bolt at the tractor connection. The shear bolt protects the auger from damage if the auger becomes plugged or subjected to high loads.

D. Do not exceed the maximum recommended operating length of the PTO driveline.

5. HYDRAULIC COMPONENTS

A. The hydraulic components received with your SAW Transport Auger were selected to deliver the most efficient and economical use.

NOTE **Any parts needing replacement should be replaced with parts of the same type and size. Immediately replace any hoses or fittings that develop leaks. For more information, refer to the *Maintenance* section of this manual.**

⚠CAUTION **Keep all hydraulic lines away from moving parts. Damaged lines can create extreme damage to the auger and cause serious bodily injury to the operator. Escaping oil will penetrate skin.**

B. Your SAW Transport Auger comes with the following standard hydraulic equipment:

- Hydraulic cylinder
- Shut-off valve
- Fittings
- Hydraulic line from the cylinder to the tractor

Excluded are the fittings necessary to attach the hose to the tractor and a 1/2” female pipe thread tractor fitting required to fit the shut-off valve.

C. The hydraulic cylinder includes a restrictor that limits the speed of operation and a vent plug which is located in the rod end of the cylinder. The 10" x 72' augers use an in-line restrictor which must be installed when the hydraulic cylinder is installed.

6. HYDRAULIC SHUT-OFF VALVE

A. The hydraulic shut-off valve is located at the end of the hydraulic hose that connects the tractor to the hydraulic line running to the lift cylinder.

B. Be sure that the shut-off valve is fully open before you raise or lower the auger.

6. HYDRAULIC SHUT-OFF VALVE (CONT.)

C. Make sure that the valve is closed at all other times. This will prevent possible leak-down or inadvertent hydraulic operation.

⚠CAUTION **Never connect or disconnect hydraulic parts when there is pressure within the system. Hydraulic systems are highly pressurized. Hydraulic oil that escapes, even through invisible pinhole-sized leaks, can penetrate body tissues and cause SERIOUS INJURY.**

Look for leaks using a piece of wood or cardboard. NEVER use your hands or other parts of your body.

When reassembling, be certain that all connections are tight. If you are injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not received at once.

7. MAIN AUGER DRIVE INFORMATION

A. The auger must remain hitched to the tractor drawbar during operation.

B. During operation, ensure the tractor is in line with the auger.

⚠CAUTION **The auger should not be operated with the hitch supported on the jack.**

Be sure to inspect your drive before adding power and know how to shutdown in case of emergency.

⚠CAUTION **Securely attach the flexible swing-out hopper to the inlet hopper on the main auger before operation. A hopper that is not securely attached can swing out and cause injury.**

⚠WARNING **Stop the engine and lockout the power source whenever the equipment must be serviced or adjusted.**

Do not use a PTO driveline without a rotating shield in good working order that can be turned freely on the shaft.

Be sure to securely attach the PTO driveline to the auger and the tractor.

Do not exceed the recommended distance from the end of the tractor PTO to the hitch pin.

NEVER start the tractor unless power to PTO is OFF.

Stay out of designated hazard areas of an operating PTO. Observe restricted work areas.

Do not operate unless ALL safety shields and devices are in place.

Be certain to close ALL the clean-out doors and inspection doors in the main auger hopper before operating the auger.

1. LAYOUT AUGER HOUSING

A. Layout the auger housing on an open area of level ground that is accessible to a chain hoist or other lifting devices. The area needs to be large enough to accommodate the auger being laid out at full length.

B. Assembling the undercarriage will be easier if you place the tubes on stands or saw horses. Make sure the stands or saw horses are strong enough to support the weight of the auger tubes. We recommend 36" tall stands or saw horses. Assembly tables will be helpful as well.

C. Separate and sort all hardware by size and place on the assembly table.

D. Lay the sections of the tube & flight assemblies in the approximate positions shown in the Figure 1.

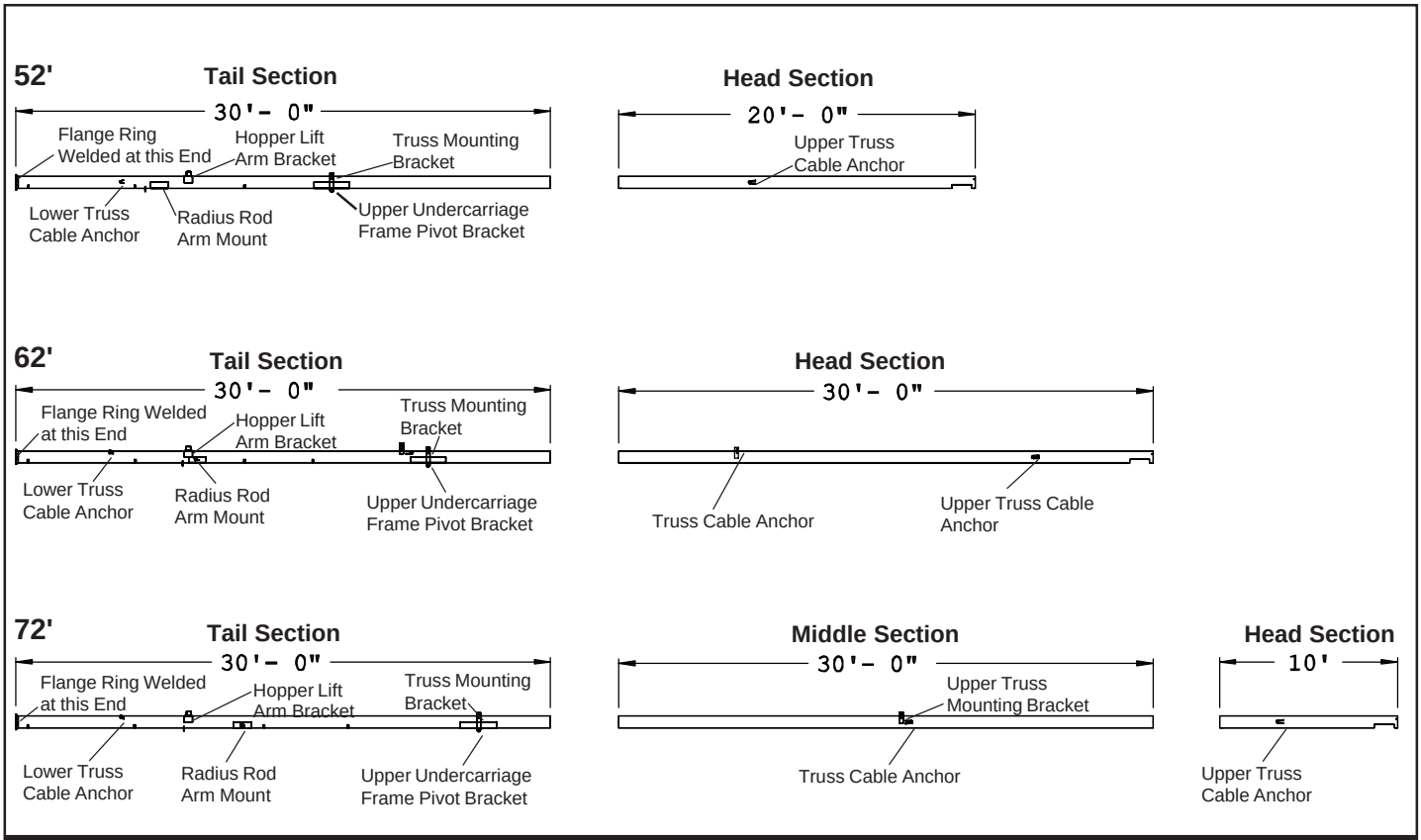


FIGURE 1

2. ASSEMBLE FLIGHT AND AUGER TUBE SECTIONS

A. Slide the connecting bands onto the end of the auger housing tubes of the sections to be assembled.

NOTE

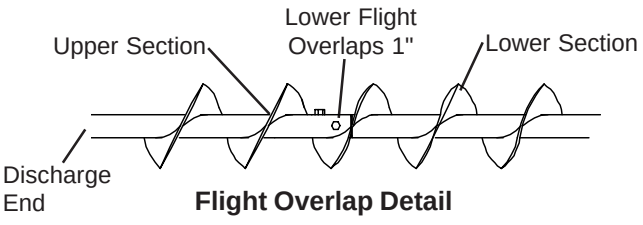
For the next step, use the bolts and locknuts included in the separately packaged flight connecting bolt kit.

B. Bolt the sections of the upper auger flighting to the next flight section, using two (2) yellow zinc hex head cap screws (Grade 8) and stover type locknuts. Refer to the chart below for the correct bolt size. The lower section of the flighting will overlap the upper section of the flighting approximately one inch on the side of the discharge end. For easier assembly, coat the connecting stubs with anti-seize lubricant or grease. (See Figure 2)

C. For 72' models, bolt the middle section flight to the lower section flight the same way the upper section flight was bolted to the middle section flight. Continue to bolt remaining flighting together.

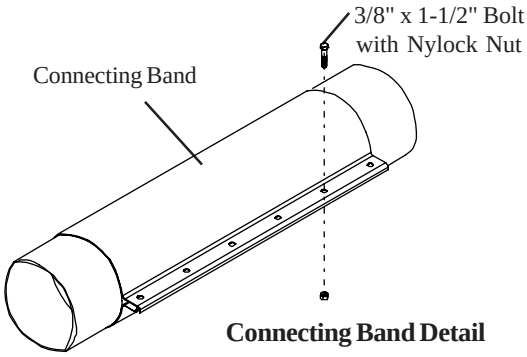
D. Tightly slide together the upper section and lower section of the auger tubes. Approximately half of the band should be on each tube. (See Figure 3)

Model	Bolt Size
8"	7/16" x 3" Long (Grade 8)
10"	1/2" x 3-1/2" Long (Grade 8)



Flight Overlap Detail

FIGURE 2



Connecting Band Detail

FIGURE 3

3. ASSEMBLE INLET HOPPER (See Figure 4)

A. Install the rubber washer onto the top shaft of the gearbox.

B. Position the adapter plate over the gearbox output shaft.

C. Use 3/8" x 3/4" hex head cap screws and lockwashers to attach the gearbox to the mounting angle. **DO NOT** tighten the cap screws at this time.

D. Set the gearbox into place in the end of the inlet hopper.

E. Use 3/8" x 1" carriage bolts with nylon locknuts to fasten the adapter plate and mounting angles to the hopper end, but **DO NOT** tighten the bolts at this time. (NOTE: Install bolts from inside of hopper to outside)

F. Install the gearbox vent plug as described on PNEG-832, the ***Gearbox Assembly Instruction*** sheet included in the vent plug bag.

G. Slide the auger flighting over the gearbox shaft and install two (2) bolts and nuts as described in chart *Gearbox to Bottom Flight*.

Gearbox to Bottom Flight	
Model	**Parts Required**
8"	7/16" x 3" Long (Grade 8) Hex Head Capscrews
	Stover Locknuts
10"	1/2" x 3-1/2" Long (Grade 8) Hex Head Capscrews
	Stover Locknuts

H. Use the following parts to fasten the inlet hopper to the lower auger flange. **Be sure to place the nuts on outside, then tighten.**

Inlet Hopper to Lower Auger Flange	
Model	**Parts Required**
8"	Eight (8) 3/8" x 1" Long (Grade 5) Hex Head Capscrews
	Flat Washers
	Nylon Locknuts
10"	Fifteen (15) 3/8" x 1" Long (Grade 5) Hex Head Capscrews
	Nylon Locknuts

I. Use a pry bar and block to lift the gearbox so that the rubber washer is tight between the gearbox and the inlet hopper. **Tighten all the gearbox mounting bolts.**

J. Use 5/16" nylon locknuts to install the zerk access and clean-out covers to the hopper. Make sure the covers are snug, but loose enough to rotate them in order to open them.

K. Use 5/16" wing nuts to hold the covers closed.

Inlet Hopper

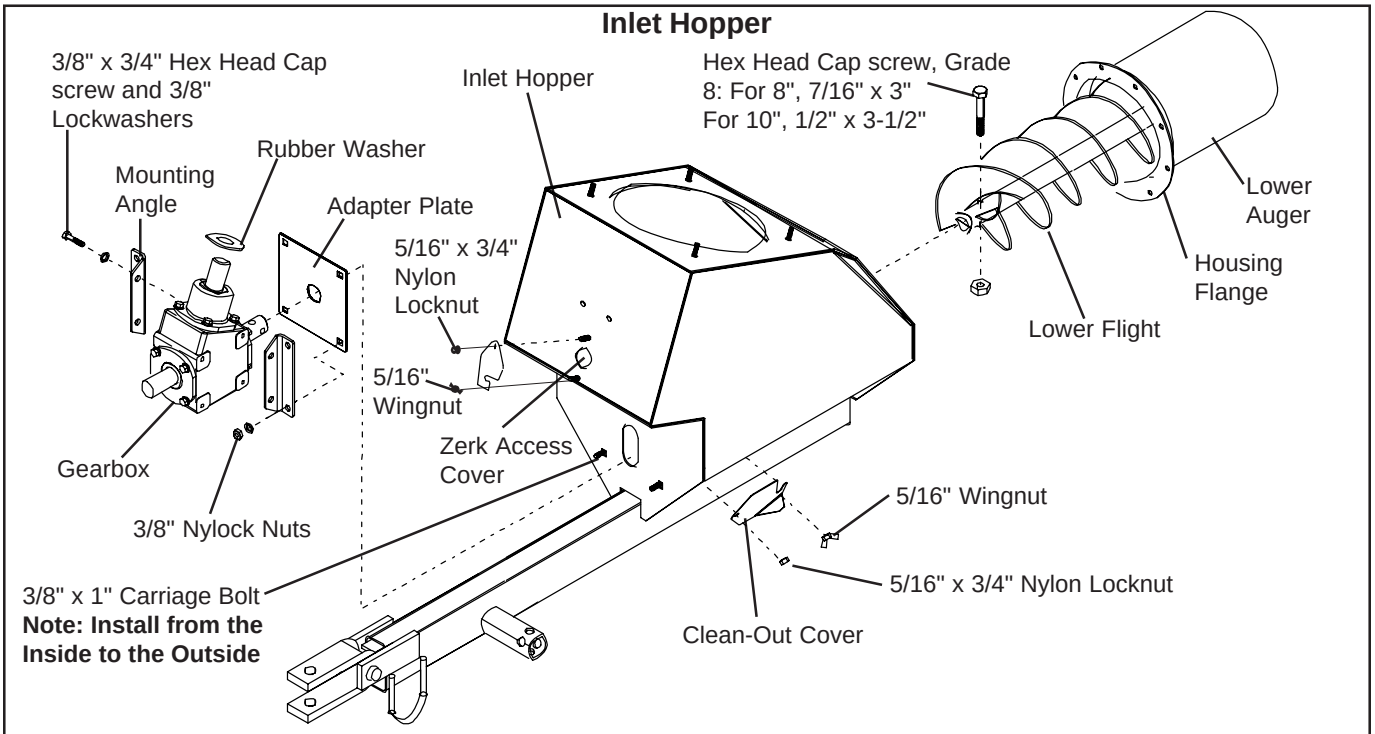


FIGURE 4

4. ASSEMBLE HEAD PLATE AND BEARING (See Figure 5)

A. Use the following parts to bolt the 2-hole flange bearing to the head plate:

Flange Bearing to Head Plate	
Model	**Parts Required**
8"	Two (2) 7/16" x 1-1/4" Long Hex Head Capscrews (Grade 5) Plated Bolts
	Two (2) Nylon Locknuts
10"	Two (2) 1/2" x 1-1/2" Long Hex Head Capscrews (Grade 5) Plated Bolts
	Two (2) Nylon Locknuts

B. Bolt the head stub to the head flight using the following hardware:

Model	Bolt Size
8"	7/16" x 3" Long (Grade 8)
10"	1/2" x 3-1/2" Long (Grade 8)

C. Slide the head plate with the bearing onto the head stub in the head flight, then into the head auger housing.

D. Fasten the blow-off cap chain to the auger using the side bolt that fastens the head plate to the auger housing. (See Figure 6 on next page.)

F. Slide the locking collar over the shaft and lock on the bearing. Tighten the setscrew.

Head Plate to Auger Housing	
Model	**Parts Required**
8"	Three (3) 5/16" x 3/4" Hex Head Capscrews (Grade 5) Plated Bolts
	Three (3) Nylon Locknuts
10"	Four (4) 3/8" x 1" Hex Head Capscrews (Grade 5) Plated Bolts
	Four (4) Nylon Locknuts

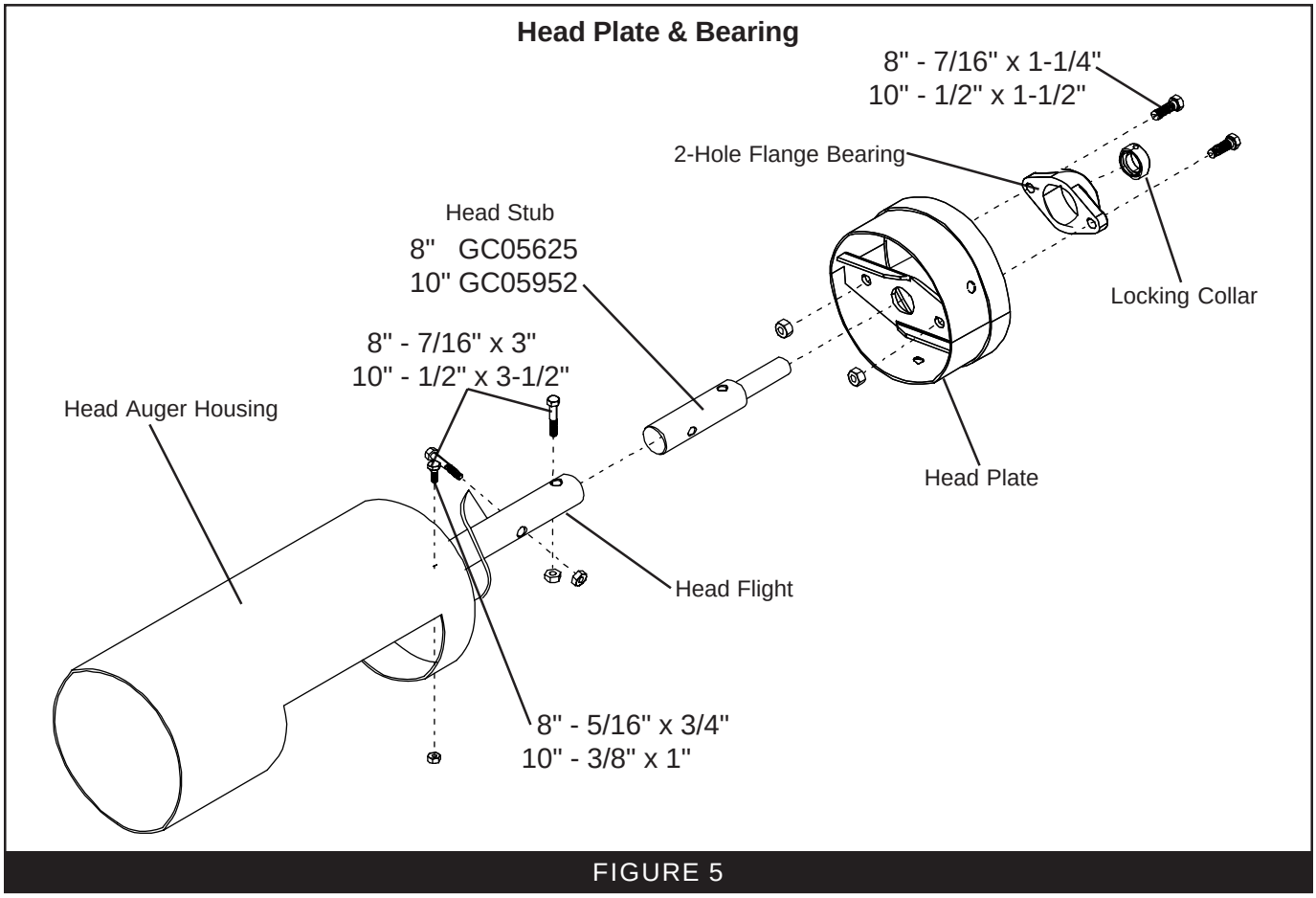


FIGURE 5

5. ASSEMBLE BLOW-OFF CAP (See Figure 6)

A. Slip one of the two legs of a 1/8" x 1" long cotter pin through a closed link at the end of the chain.

B. Insert the cotter pin into the hole in the cap.

C. Spread the legs of the cotter pin to secure the chain to the cap. (See Figure 7)

D. Slide the cap over the end of the auger tube. Make sure the cap is snug, but loose enough to slide off the end of the tube if discharge becomes plugged.

E. Push the cap off to ensure a snug fit, then reinstall it. You should be able to tap the cap off using your hand.

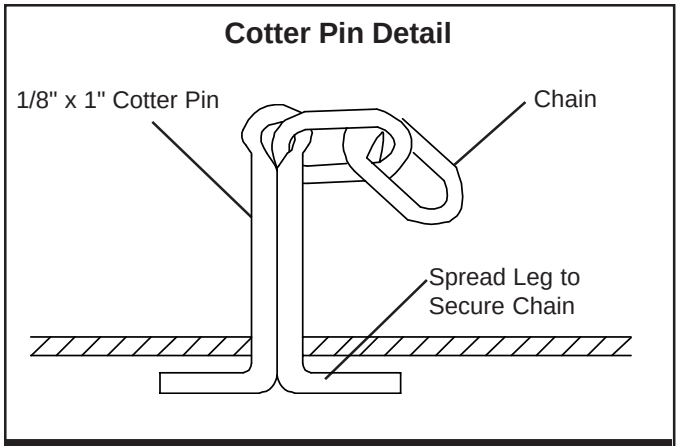


FIGURE 7

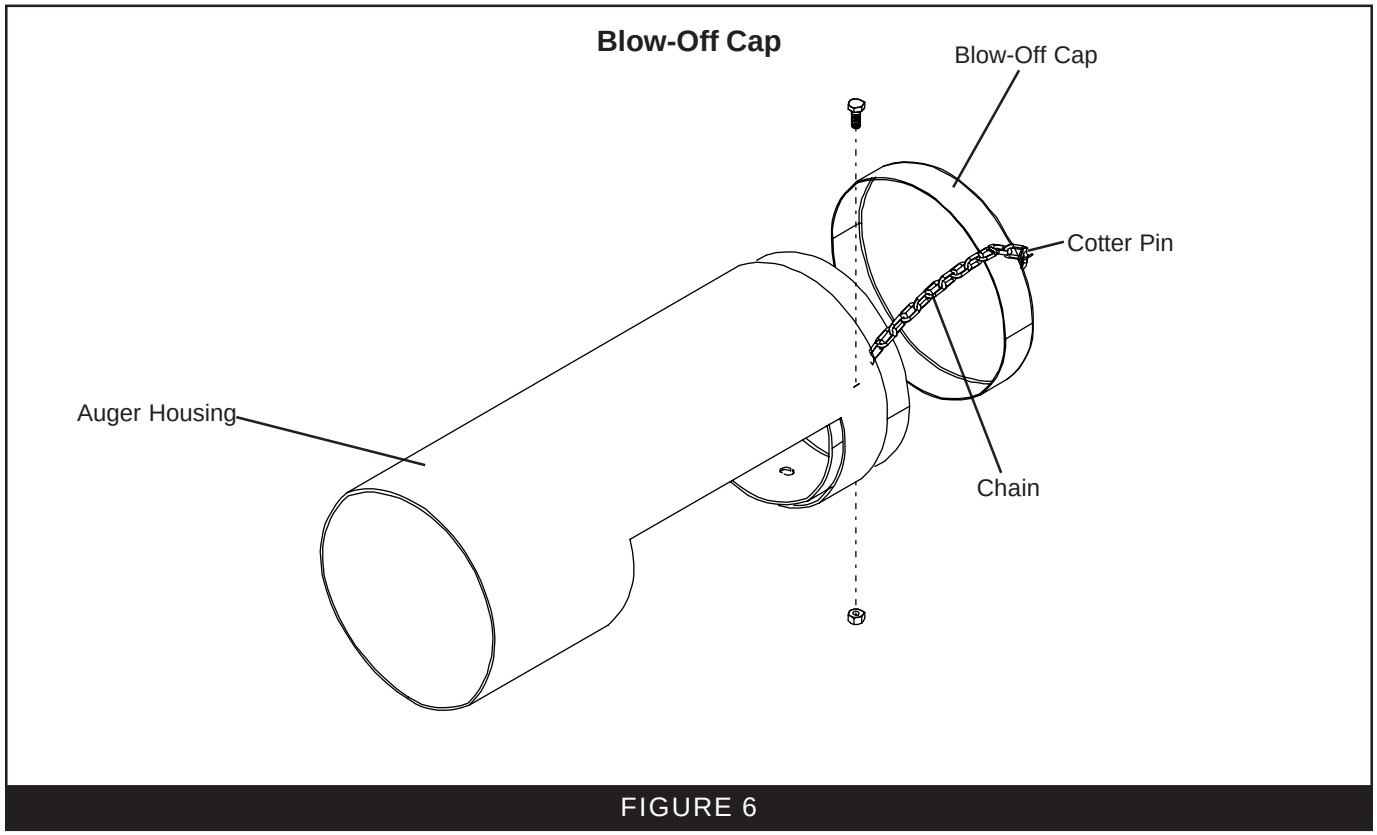


FIGURE 6

6. ASSEMBLE TRUSS—52’ AUGER

A. Refer to the Figure 8 on the next page when assembling the truss.

B. Locate the truss mount welded on the auger tube.

C. Use two (2) 1/2" x 1-1/2" long (Grade 5) hex head cap screws and nylon locknuts to loosely bolt the truss sides to the truss brackets.

D. Use two (2) 3/8" x 1-1/4" long (Grade 5) hex head cap screws and nylon locknuts to bolt the truss cross brace between the truss sides.

E. Tighten all hardware.

F. Attach the two (2) 5/16" x 34' 6" cables to the upper cable anchors at the discharge end of the tube by using two (2) 5/16" cable clamps on each cable. **Allow one foot of overlap on the cables, and thread the cables from the outside to the inside.**

G. Secure the u-bolt portion of the clamp against the loose end of the cable.

H. Run the cables over the truss, then toward the intake end of the auger.

I. Use 3/8" cable clamps to attach the cables to the truss side. (See Detail 8A)

NOTE **DO NOT tighten the 3/8" cable clamps at this time.**

J. Use a 5/8" flat washer and two (2) 5/8" hex nuts to install the 5/8" eyebolts through the anchors at the intake end. (See Detail 8B)

K. Use two (2) 5/16" cable clamps to attach the cables to the eyebolts. (See Detail 8B)

L. Secure the u-bolt portion of the clamp against the loose end of the cable.

M. Use a hoist to lift the discharge end 2’. This allows for drop.

NOTE **DO NOT overtighten the cables.**

N. Use the eyebolts to tighten the cables to remove any slack. The cables should be reasonably snug, and both cables should be equally tightened.

O. Look down from one end of the tube to the other end, making sure all sections are aligned.

P. Tighten the 3/8" cable clamps on the truss that were assembled in Step 6-I. make any necessary adjustments after setting the auger on the undercarriage.

Truss Cable to Upper Truss Detail

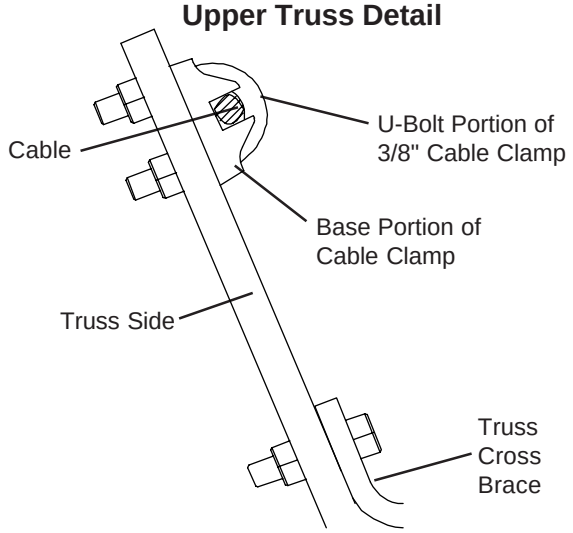


FIGURE 8A

Lower Cable Anchor Detail

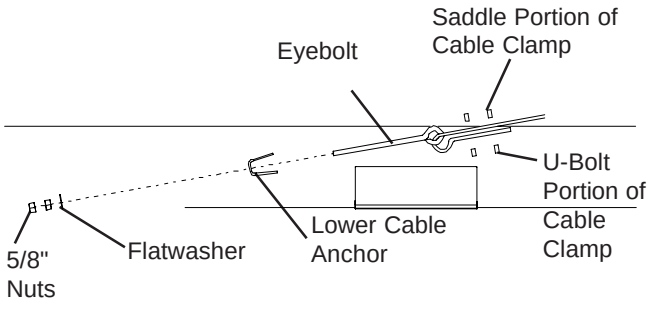


FIGURE 8B

52' Truss Assembly

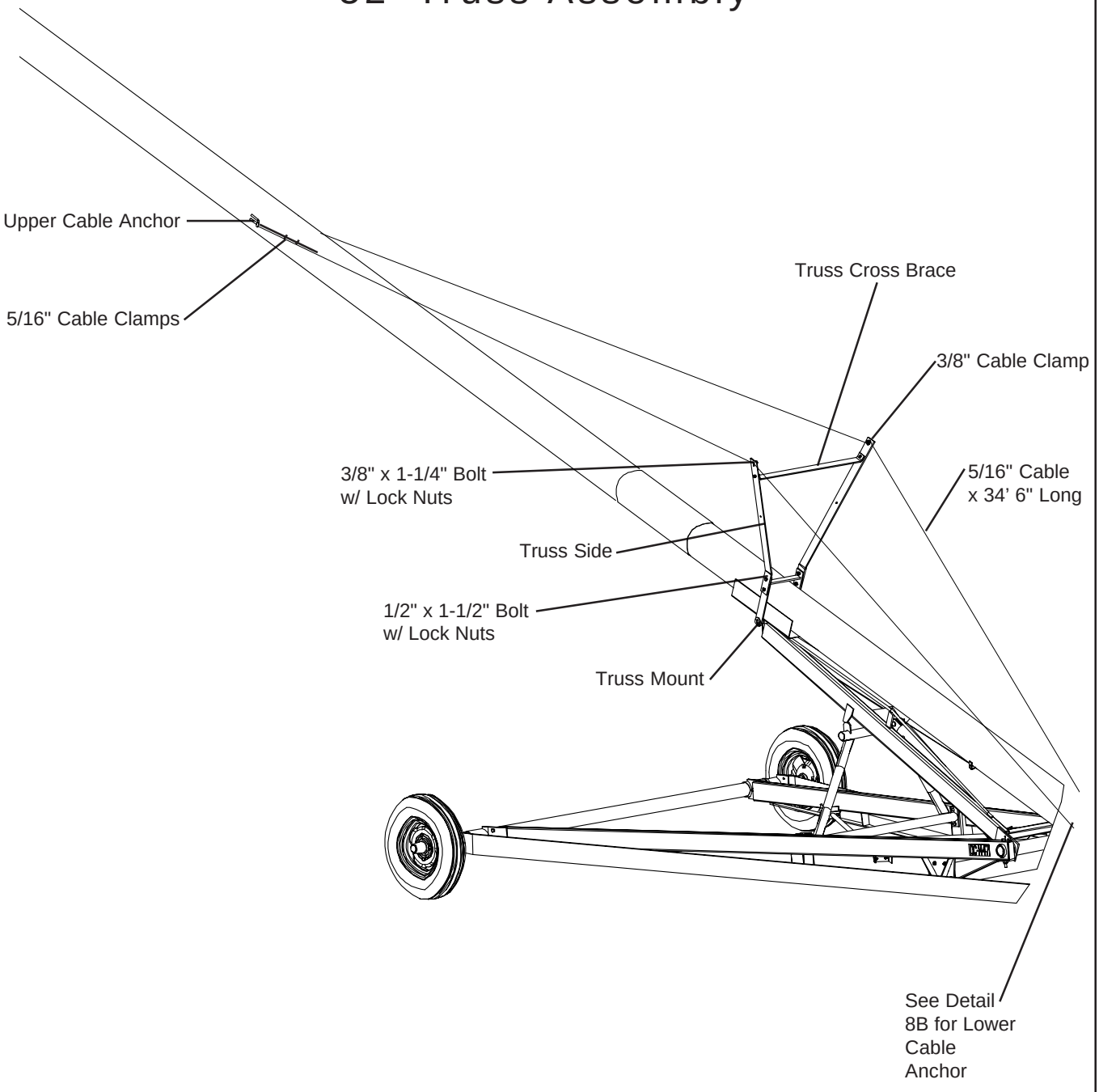


FIGURE 8

7. ASSEMBLE UPPER AND LOWER TRUSS — 62' & 72' AUGERS

A. Refer to the Figures 9-13 on the following pages when assembling the upper and lower trusses.

B. Locate the truss brackets welded on the auger tube.

C. Use two (2) 1/2" x 1-1/2" long (Grade 5) hex head cap screws and nylon locknuts per each truss side to loosely bolt the truss sides to the truss brackets.

D. Use two (2) 3/8" x 1-1/4" long (Grade 5) hex head cap screws and nylon locknuts per each cross brace to bolt the truss cross braces between the truss sides. *(NOTE: The 72' Trusses have two (2) cross braces.)*

E. Tighten all hardware.

F. Install two (2) 5/8" eyebolts through anchors at the undercarriage mount using a flat washer and two (2) 5/8" hex nuts. Also, install two (2) 5/8" eyebolts through anchors located near the intake end. (See Figure 11)

G. Attach the 5/16" x 30'-6" (62') or 5/16" x 34'6" (72') long cable to the cable anchors with two (2) 5/16" cable clamps on each cable. The cable anchors are located at the base of the upper truss bracket. **Allow one foot of overlap on the cables, and thread the cables from the outside to the inside.** (See Figure 12 & 13)

H. Secure the u-bolt portion of the clamp against the loose end of the cable.

I. Attach the 5/16" x 50'-6" (62') or 5/16" x 59' (72') long cable to the cable anchors with two (2) 5/16" cable clamps on each cable. The cable anchors are located near the discharge opening. **Allow one foot of overlap on the cables, and thread the cables from the outside to the inside.** (See Figure 12 & 13)

J. Secure the u-bolt portion of the clamp against the loose end of the cable.

K. Run the longer cables over the upper truss. Then run both cables over the lower truss and continue toward the intake end. (See Figure 12 & 13)

62' & 72' Lower Truss Cable Detail

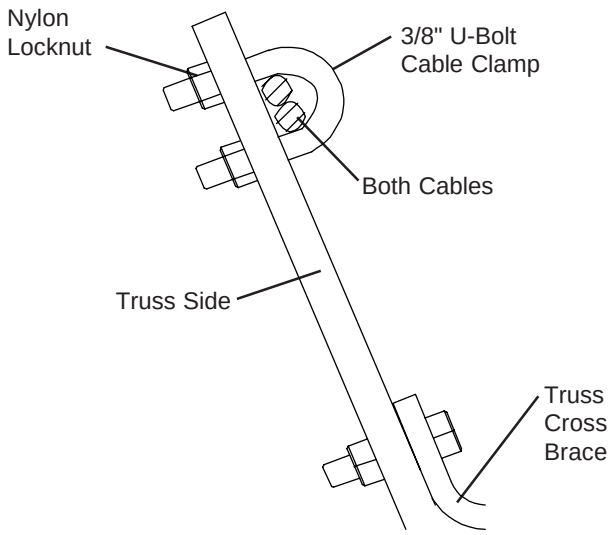


FIGURE 9

62' & 72' Upper Truss Cable Detail

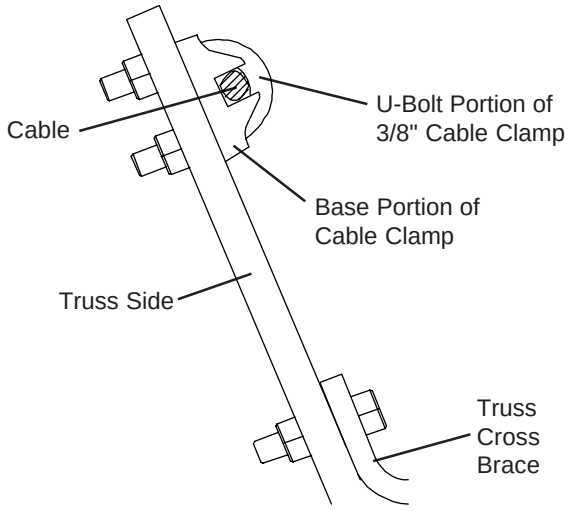


FIGURE 10

7. ASSEMBLE UPPER AND LOWER TRUSS — 62' & 72' AUGERS, CONT.

L. Attach the 5/16" x 50'-6" (62') or 5/16" x 59' (72') cables to the upper truss sides using 3/8" cable clamps.

M. Attach both the upper and lower cables to the lower truss sides using (2) 3/8" u-bolts and nylon locknuts. (See Figure 9)

NOTE **DO NOT tighten the 3/8" cable clamps at this time.**

N. Attach the 30' 6" cables to the 5/8" eyebolts (located at the lower undercarriage mount) using two (2) 5/16" cable clamps. **Allow one foot of overlap on the cables, and thread the cables from the outside to the inside.** (See Figure 11)

NOTE **DO NOT tighten the 3/8" u-bolts at this time.**

O. Secure the u-bolt portion of the clamp against the loose end of the cable.

P. Attach the 50' 6" cable to the 5/8" eyebolts (located near the intake end) using two (2) 5/16" cable clamps. **Allow one foot of overlap on the cables, and thread the cables from the outside to the inside.** (See Figure 11)

Q. Secure the u-bolt portion of the clamp against the loose end

R. Use a hoist to lift the discharge end 2'. This allows for the drop in the cable.

S. Use the eyebolts to tighten the cables to remove any slack. The cables should be reasonably snug, and both cables should be equally tightened.

T. Look down from one end of the tube to the other end, making sure all sections are aligned.

U. Tighten the 3/8" cable clamps on the upper truss that were assembled in Step 7-M and the 3/8" u-bolts on the lower truss from Step 7-N. Make further adjustments after you set the auger on the undercarriage.

Lower Cable Anchor Detail

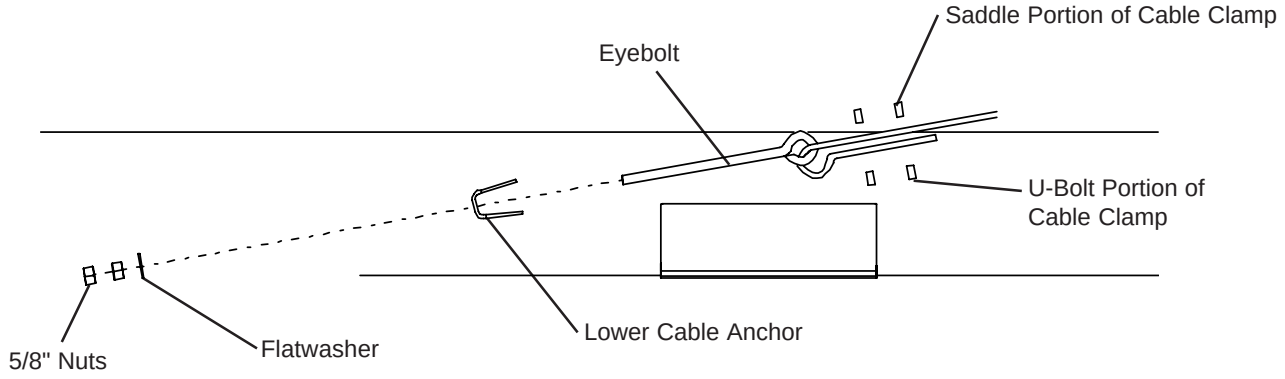


FIGURE 11

62' Truss Assembly

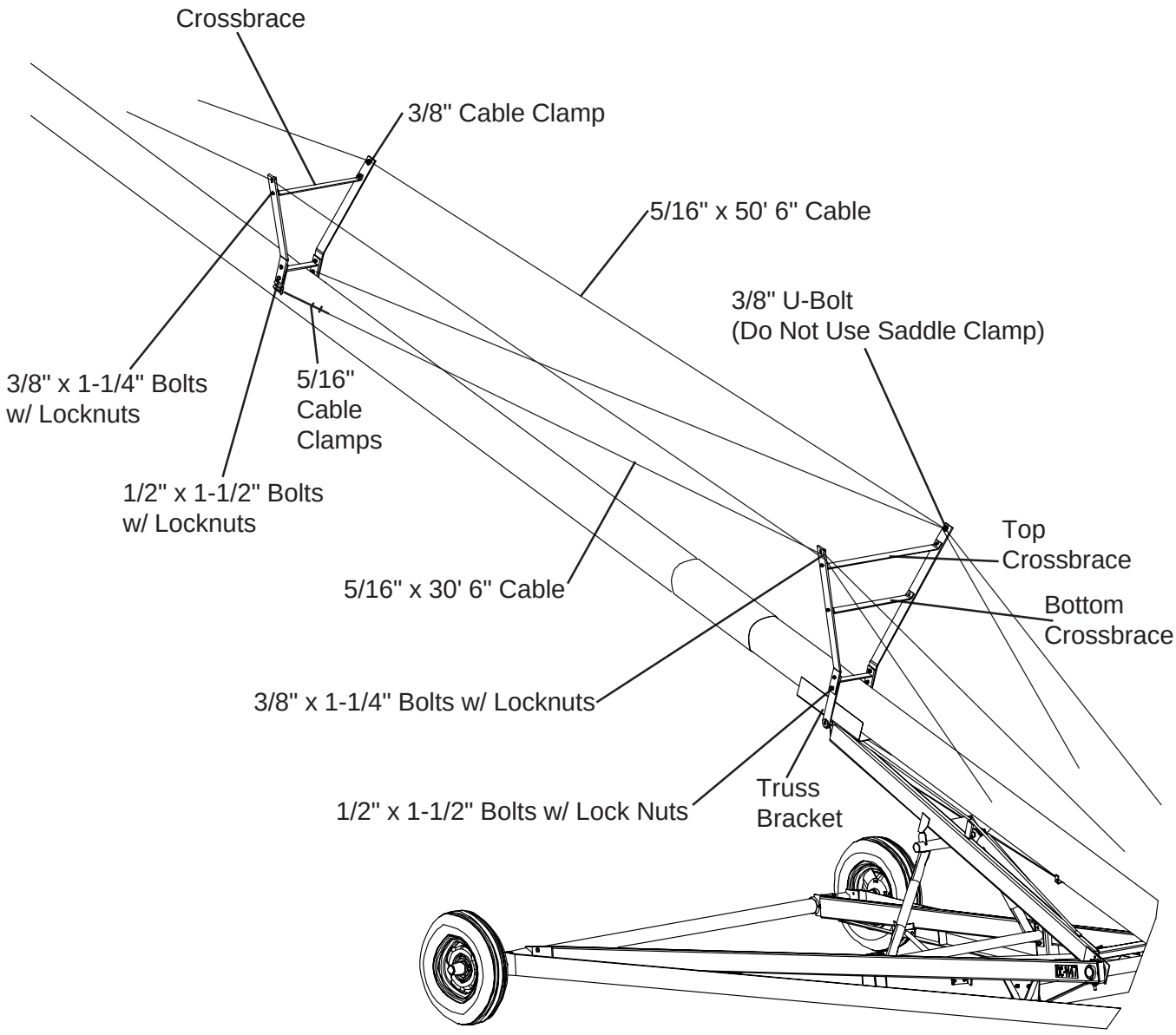


FIGURE 12

72' Truss Assembly

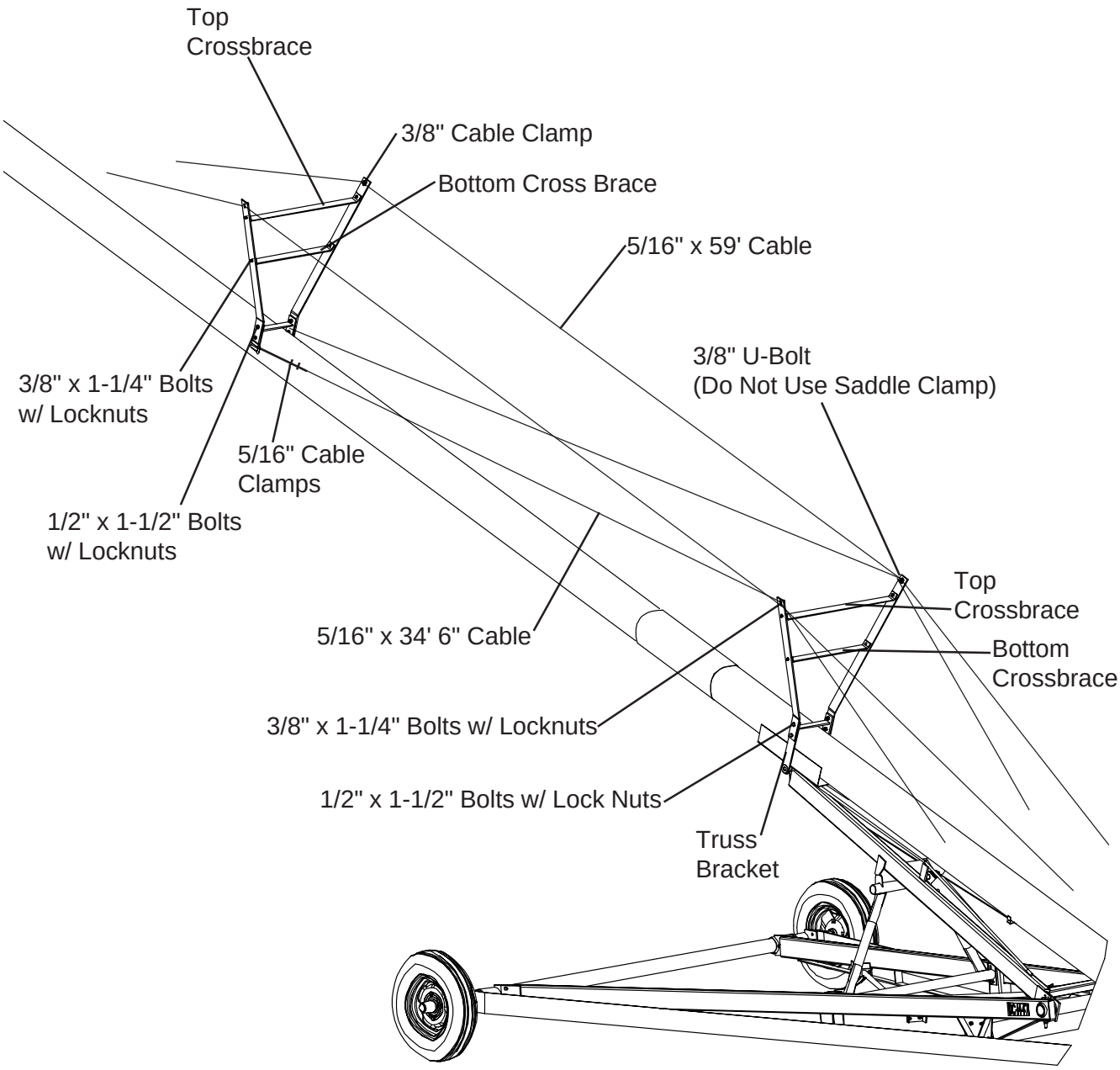


FIGURE 13

8. ASSEMBLE UNDERCARRIAGE—52' AUGER

A. Fold the upper and lower frame assembly together so the upper frame is inside the lower frame members.

B. Secure the upper undercarriage frame to the lower undercarriage frame using eight (8) 1/2" x 1-1/2" long (Grade 5) hex head cap screws with nylon locknuts. Refer to Figure 14.

NOTE

The mounting ears of the upper undercarriage frame are to be located on the outside of the lower undercarriage frame.

52" Auger Undercarriage

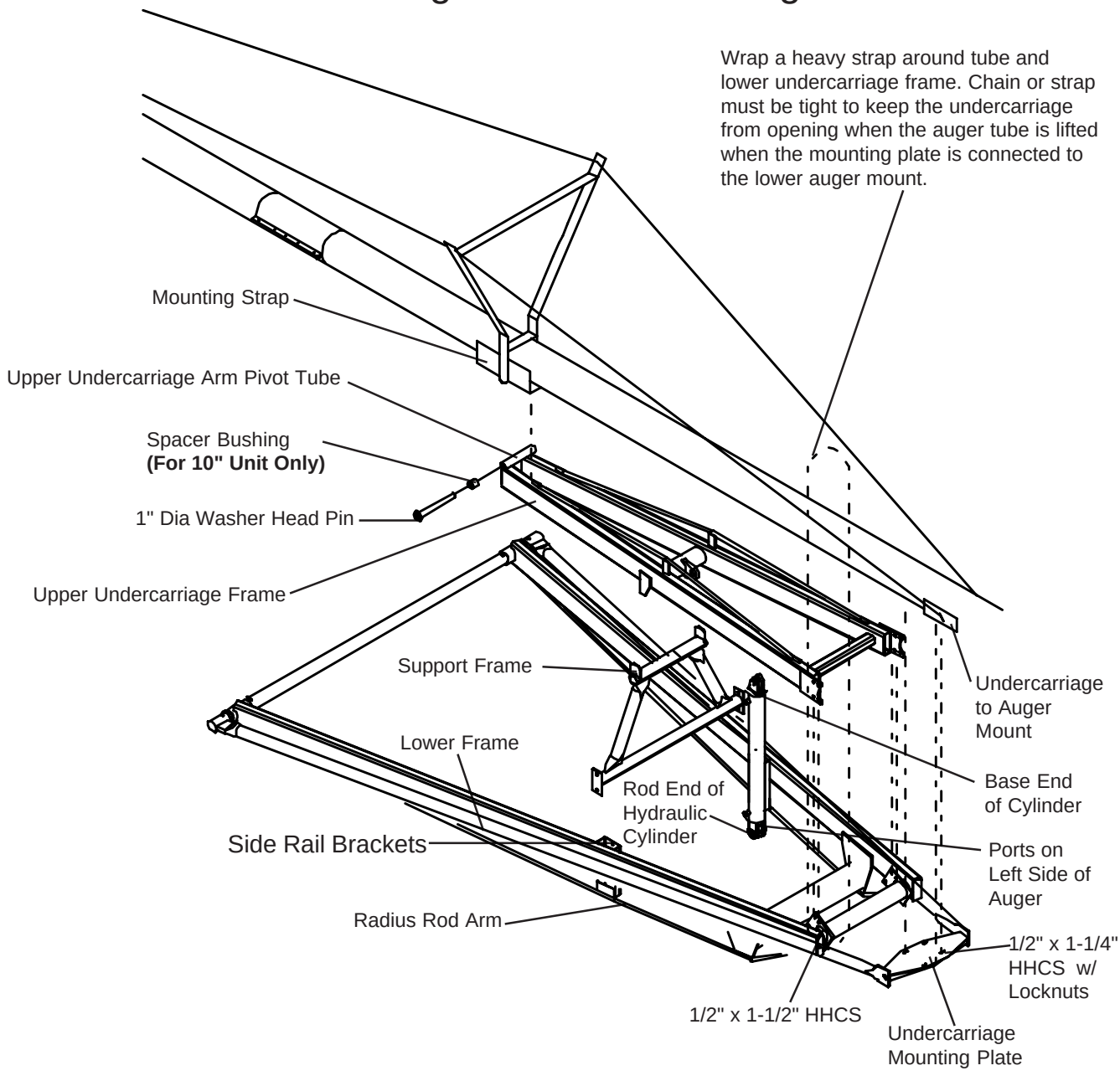


FIGURE 14

8. ASSEMBLE UNDERCARRIAGE—52’ AUGER

C. Slide the hub and spindle assembly into the undercarriage axle and secure it with the following hardware. (See Figure 15)

Hub and Spindle Assembly Parts	
Model	**Parts Required**
52'	1/2" x 3-1/4" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts
62'	1/2" x 4-1/2" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts
72'	1/2" x 4-1/2" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts

D. Secure the tire and rim to the hub using lug bolts: (See Figure 15)

- For 52’ and 62’—Use four (4) lug bolts
- For 72’—Use five (5) lug nuts

E. Secure the upper undercarriage arm pivot tube to the auger housing using the following hardware: (See Figure 16)

- 1" diameter washer head pin
- Flat washer
- 3/16" x 1-1/2" cotter pin

F. Wrap a chain or heavy strap around the auger tube and lower undercarriage frame, where the upper frame and the lower frame pivot (See Figure 17 below). **Make sure the chain or strap is tight.** This prevents the undercarriage from opening when the tube is raised to connect the undercarriage mounting plate to the lower arm mount.

G. With the sling/chain completely around the auger tube, then use a hoist to lift the auger assembly high enough to line up the lower undercarriage mounting plate with the lower auger mount. (See 17 & 14)

H. Use four (4) 1/2" x 1-1/4" long (Grade 5) hex head cap screws with nylon locknuts to bolt the lower undercarriage mounting plate to the auger housing.

I. Use four (4) 1/2" x 1-1/4" long (Grade 5) hex head cap screws and nylon locknuts to bolt the support frame to the side rail brackets on lower undercarriage frame. (See Figure 14)

Hub and Spindle Assembly for 52’

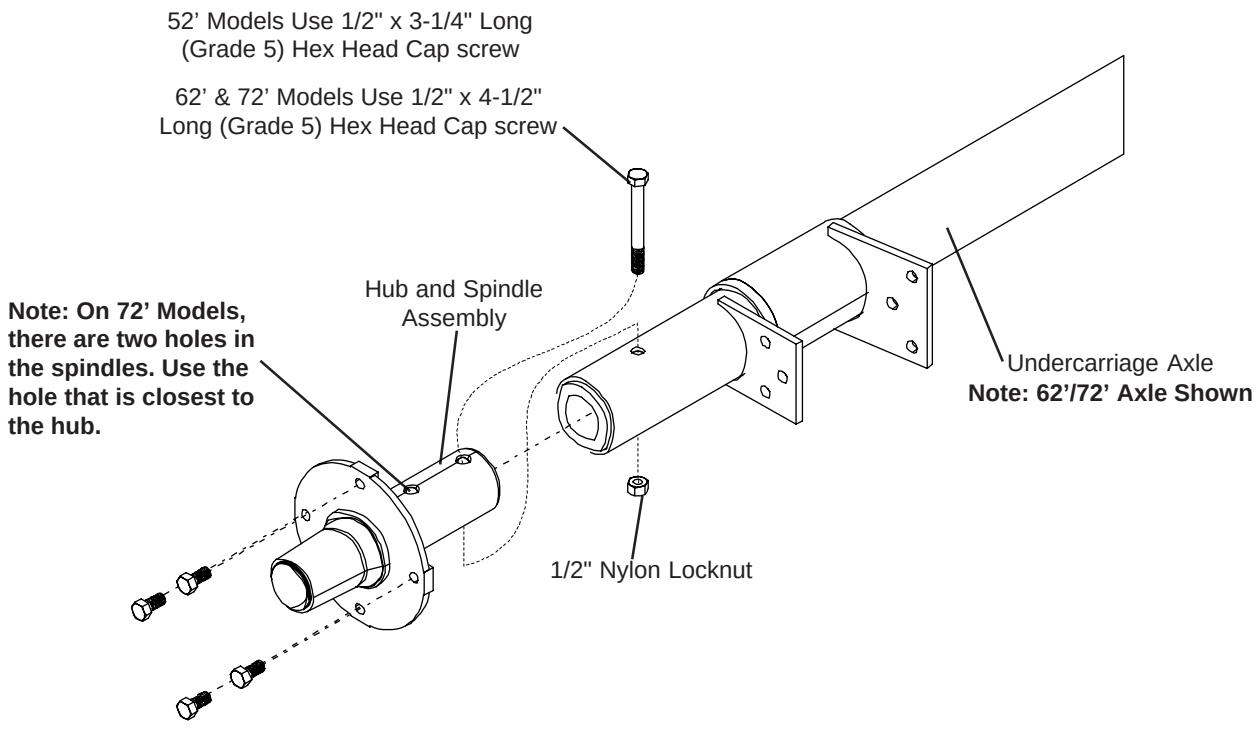


FIGURE 15

8. ASSEMBLE UNDERCARRIAGE—52' AUGER (CONT.)

NOTE **IMPORTANT: On 10" models, spacer bushings are required between the upper undercarriage arm pivot tube and the mounting straps on the auger housing. Refer to Figure 16 below.**

J. Verify that all undercarriage bolts and fasteners are tight and secure.

K. Verify that all parts are assembled correctly so far.

L. Slowly lower the auger and release the hoist.

M. Attach the 4" bore x 24" stroke hydraulic cylinder to the upper undercarriage frame using the mounting pin and the keeper clip that were packed in the box with the cylinder.

CAUTION **Be sure to remove the chain or strap holding the undercarriage frame to the auger.**

⚠CAUTION **You must attach the base end of the hydraulic cylinder to the mount on the upper undercarriage frame. You must attach the rod end of the hydraulic cylinder to the mount on the lower undercarriage frame. Make sure the hydraulic cylinder ports are facing the left side of the auger as you view it from the intake end.**

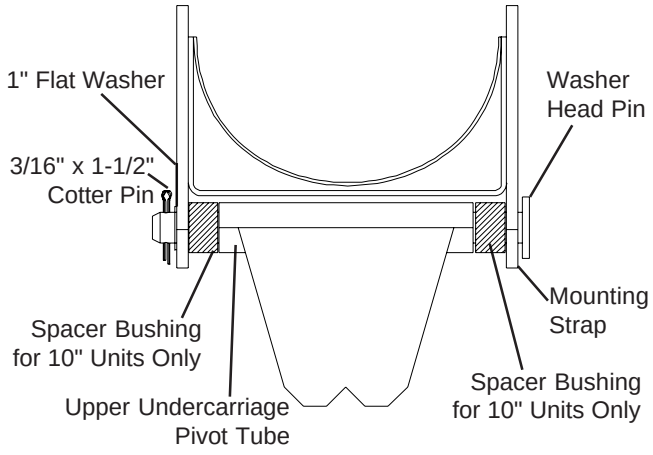


FIGURE 16

⚠WARNING **DO NOT lift the entire weight of the auger from the extreme end. Use a sling to help with lifting.**

DO NOT lift from the truss or by the truss cables.

⚠WARNING **The hydraulic cylinder supplied with the auger has a restrictor installed in the port at the base end of the cylinder. This restrictor limits the speed at which the auger is raised or lowered. ONLY USE THE HYDRAULIC CYLINDER PROVIDED WITH THE AUGER. DO NOT use a cylinder that does not have the proper restrictor.**

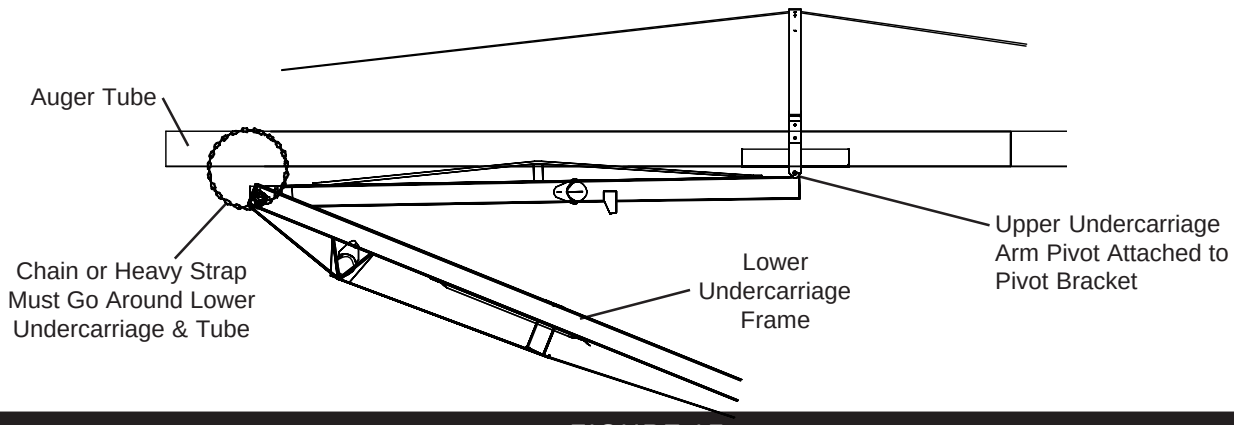


FIGURE 17

9. ASSEMBLE UNDERCARRIAGE—62’ AND 72’ AUGERS (See Figure 18)

A. Use four (4) 1/2" x 1-1/4" long (Grade 5) hex head cap screws with nylon locknuts to bolt the undercarriage mounting plate to the auger housing. **Note: On 10" x 62'/72' models, the undercarriage mounting plate will be attached to the radius rods first. See Step “E” below.**

B. Fold the upper and lower frame assembly together so that the upper frame is inside the lower frame members.

C. Secure the upper undercarriage frame to the lower undercarriage frame using eight (8) 1/2" x 1-1/2" long (Grade 5) hex head cap screws with nylon locknuts. Refer to Figure 18 on page #33.

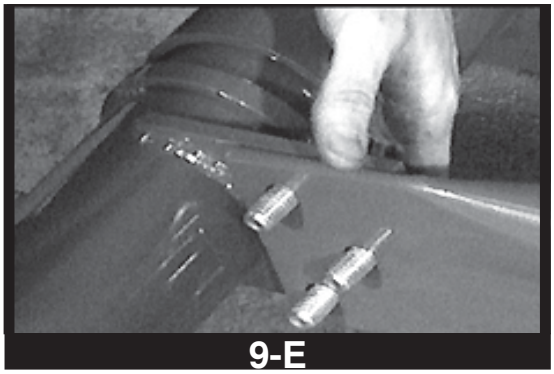
NOTE

IMPORTANT: The mounting ears of the upper undercarriage frame are located on the outside of the lower undercarriage frame mounting plate.

D. Bolt the lower frame to the mounting plate on the axle pivot collars, positioning the collars to the inside of the frame. Use three (3) 1/2" x 1-1/2" long (Grade 5) hex head cap screws and nylon locknuts to attach each arm to the mounting plate.

E. Attach the radius rod arms to the mounting plate on the axle. Use three (3) 1/2" x 1-1/2" long (Grade 5) hex head cap screws and nylon locknuts to attach each arm, as shown in Picture 9-E. **NOTE: On 10" x 62'/72' models, attach the cross braces between the radius rods using (8) 3/8" x 1-1/4" long (Grade 5) HHCS with nylon locknuts for each cross brace. Attach the under carriage mounting plate between the ends of the radius rods using (2) 3/4" x 2-1/2" long (Grade 5) HHCS, (2) flatwashers, (2) bushings and (2) nylon locknuts. (See Figure 18.)**

F. Slide the hub and spindle assembly into the undercarriage axle and secure it with the following hardware. **NOTE:** The hubs, bearings, and spindles are assembled at the factory. They are pressure packed with grease during assembly. (See Figure 19)



9-E

Hub and Spindle Assembly Parts	
Model	**Parts Required**
52'	1/2" x 3-1/4" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts
62'	1/2" x 4-1/2" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts
72'	1/2" x 4-1/2" Long (Grade 5) Hex Head Capscrew
	1/2" Nylon Locknuts

G. Secure the tire and rim to the hub using lug nuts:

- For 52’ and 62’—Use four (4) lug nuts.
- For 72’—Use five (5) lug nuts

H. Attach the upper undercarriage arm pivot tube to the auger housing using a 1" diameter washer head pin, flat washer and a 3/16" x 1-1/2" cotter pin. (See Figure 18 & 20)

NOTE

IMPORTANT: On 10" models, spacer bushings are required between the upper undercarriage arm pivot tube and the mounting straps on the auger housing. Refer to Figures 18 & 20.

I. Wrap a chain or heavy strap around the auger tube and lower undercarriage frame, where the upper frame and the lower frame pivot (see drawing above). **Make sure the chain or strap is tight.** This prevents the undercarriage from opening when the tube is raised to connect the radius rods to the lower mounting plate on the auger tube. On 10" x 62'/72' models, the mounting plate will be attached to the auger housing.

9. ASSEMBLE UNDERCARRIAGE—62’ AND 72’ AUGERS (CONT.)

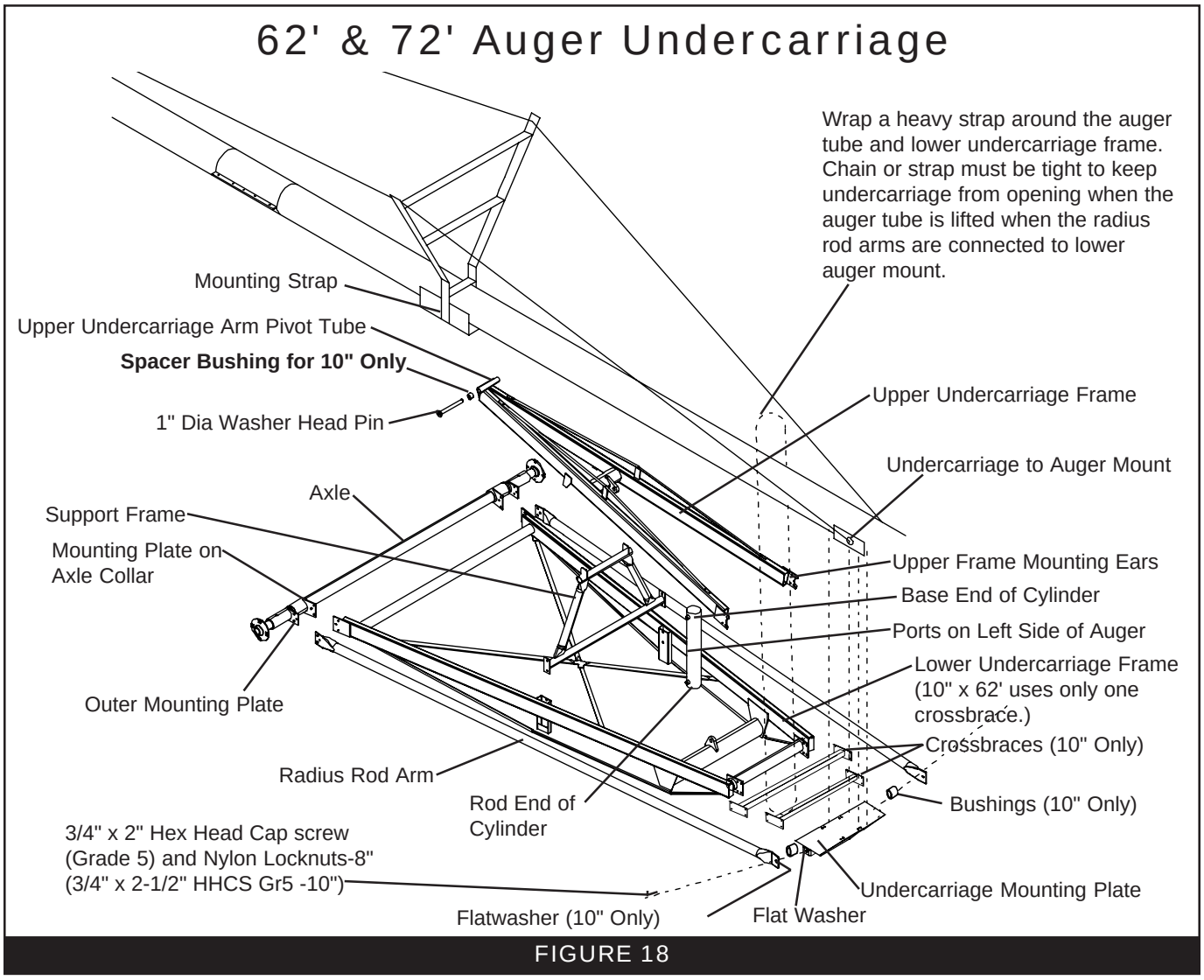


FIGURE 18

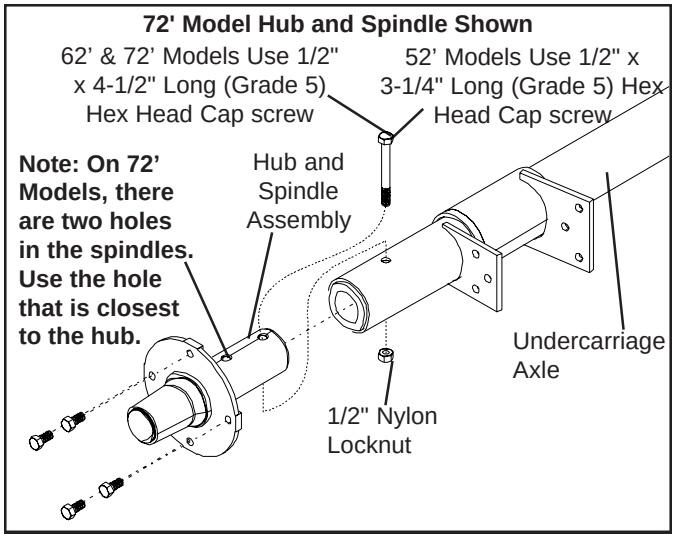


FIGURE 19

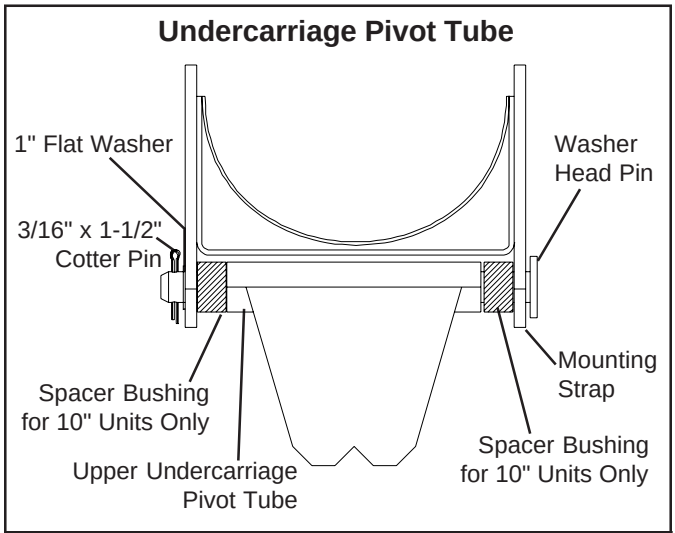


FIGURE 20

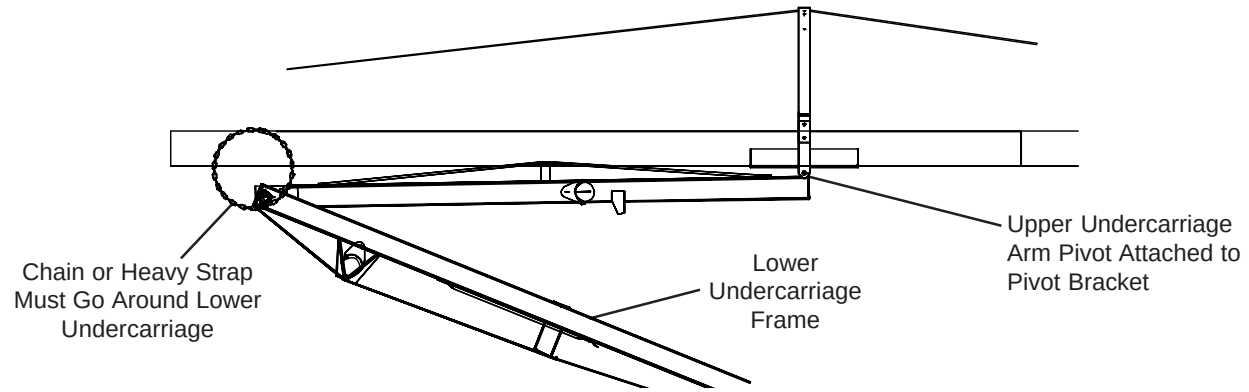


FIGURE 21

J. Use a hoist to lift the auger assembly high enough to line up the radius rod arms with the lower auger undercarriage mounting plate. **NOTE: On 10" x 62' & 72' models, line up the holes in the undercarriage mounting plate with the holes in the auger housing.**

⚠WARNING **Be sure to lift the auger at a point near the center using a chain hoist or another safe method. DO NOT lift the weight of the auger from the extreme end. DO NOT lift from the truss or by the truss cables.**

the radius rod arms using two (2) 3/4" x 2" long (Grade 5) hex head cap screws, flat washers, and nylon locknuts. **NOTE: On 10" x 62' & 72' models, attach the undercarriage mounting plate to the auger housing using (4) 1/2" x 1-1/4" long (Gr5) HHCS with Nylon locknuts.**

NOTE **Place the flat washer between the outside of the mount and the lower radius rod arm. Fully tighten, then loosen 1/4 turn. (All models except 10" x 62' & 72')**

L. Use four (4) 1/2" x 1-1/4" long (Grade 5) hex head cap screws and nylon locknuts to bolt the support stand to the side tubes on the lower frame.

M. Verify that all undercarriage bolts and fasteners are tight and secure.

N. Verify that all parts are assembled correctly so far.

O. Slowly lower the auger and release the hoist.

CAUTION **Be sure to remove the chain or strap holding the undercarriage frame to the auger.**

P. Attach the 4" bore x 36" stroke hydraulic cylinder to the upper undercarriage frame using the mounting pin and the keeper clip that were packed in the box with the cylinder.

⚠CAUTION

You must attach the base end of the cylinder to the mount on the upper undercarriage frame. You must attach the rod end of the cylinder to the mount on the lower undercarriage frame. Make sure the cylinder ports are facing the left side of the auger as you view it from the intake end.

The cylinder supplied with the 8" and 10"x 52'/62' augers have a restrictor installed in the port at the base end of the cylinder. This restrictor limits the speed at which the auger is raised or lowered. ONLY USE THE CYLINDER PROVIDED WITH THE AUGER. DO NOT use a cylinder that does not have the proper restrictor. The cylinder supplied with the 10" x 72" auger requires an in-line restrictor which must be installed at the port at the base end of the cylinder. This restrictor must be installed with the flow direction arrow pointing toward the cylinder port.

11. ASSEMBLE HYDRAULIC HOSE (See Figure 22 & 23)

ON 8" and 10" x 52'/62'

A. On 8" and 10" x 52'/62', thread the heavy duty 90° street elbow into the upper cylinder port, which is located at the base end of the cylinder. On the 10" x 72" auger, thread the 90° elbow of the restrictor valve assembly into the upper cylinder part.

B. Tighten the street elbow or the elbow of the restrictor valve assembly, leaving it parallel with the auger tube and pointed toward the inlet end.

NOTE

In the next step, you must leave a loop of hose to account for the increased distance between the clamp and the cylinder port when the auger is raised. For 8" and 10" x 52' augers, use a 4'-0" loop of hose between the first clamp and the cylinder port. For 8" and 10" x 62' and 72' augers, use a 5'-0" loop of hose between the first clamp and the cylinder port.

C. Fasten the swivel end of the hydraulic hose to the street elbow or restrictor valve, then tighten.

D. Starting at the end of the hose that is attached to the cylinder, fasten the hydraulic hose to the tube housing. Use a mounting clamp and 5/16" x 3/4" long (Grade 5) hex head cap screws with lockwashers.

⚠CAUTION

Check and insure that the flow direction arrow on the in-line restrictor valve is pointing toward the cylinder part. Otherwise the cylinder will not function properly.

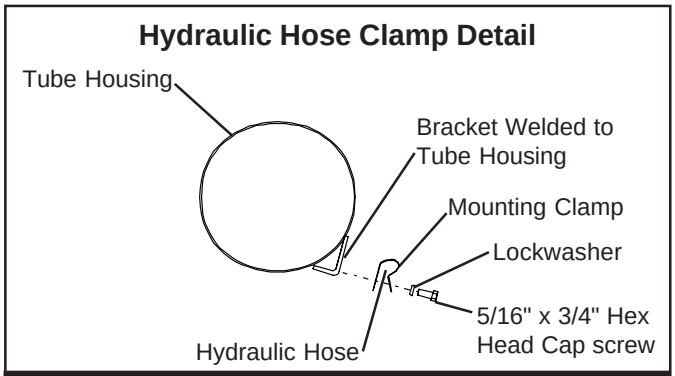


FIGURE 22

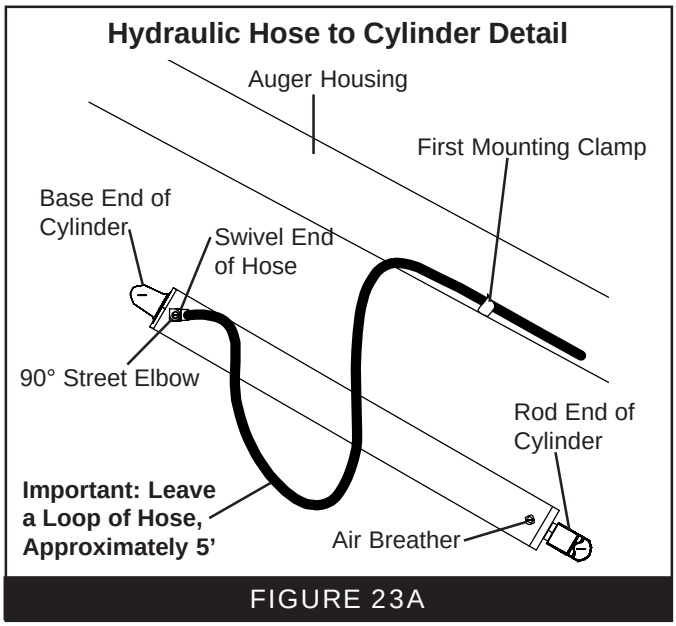


FIGURE 23A

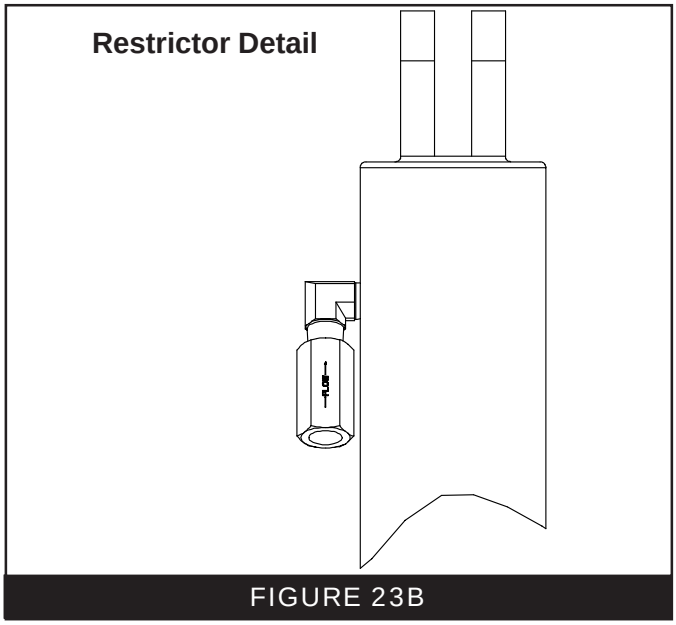


FIGURE 23B

12. ASSEMBLE HYDRAULIC SHUT-OFF VALVE

A. Thread the female end of the shut-off valve onto the end of the hose, as shown below. Make sure the arrow on the end of the valve points toward the auger, away from the tractor.

B. Make sure that all fittings and connections are tight.

Hydraulic Hose Assembly		
Auger Length	**Hydraulic Hose Length**	**No. of Clamps**
52'	24' 6"	3
62'	31' 6"	4
72'	31' 6"	4

⚠WARNING

NEVER connect or disconnect hydraulic parts when there is pressure within the system. Hydraulic systems are highly pressurized. Hydraulic oil that escapes, even through invisible pinhole-sized leaks, can penetrate body tissues and cause SERIOUS INJURY.

Look for leaks using a piece of wood or cardboard. NEVER use your hands or other parts of your body.

When reassembling, be certain that ALL connections are tight. If you are injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not received at once.

Hydraulic Shut Off Valve

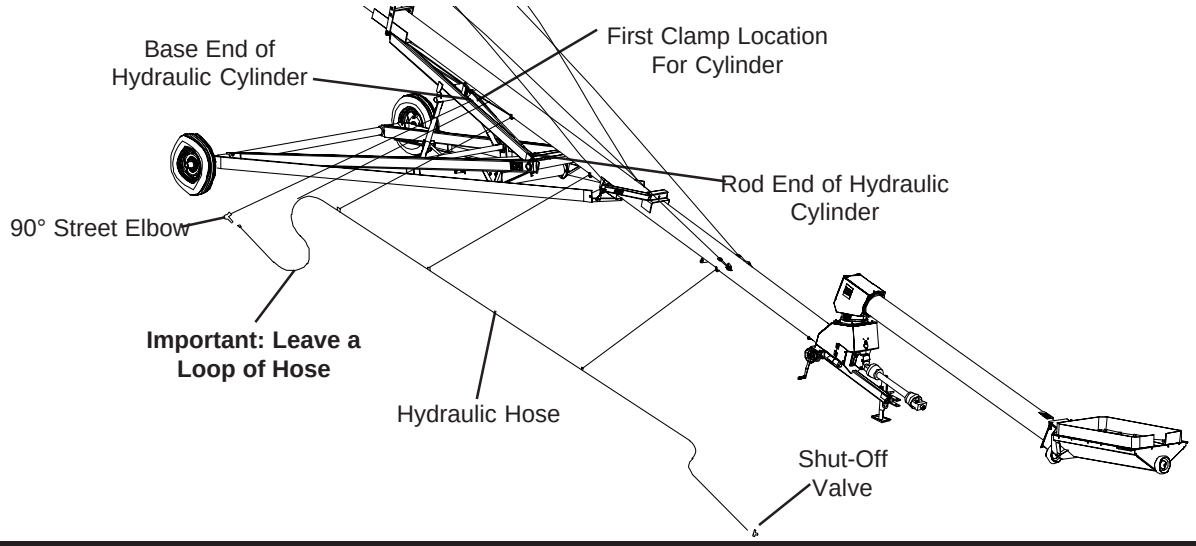


FIGURE 24

13. ASSEMBLE FLEXIBLE SWING-OUT HOPPER AND INCLINE TUBE (See Figure 26)

A. Apply grease to the wheel shafts of the flexible swing-out hopper.

B. Attach the hopper wheels to the flexible swing-out hopper wheel shafts using three (3) 5/8" flat washers and one (1) 3/16" x 1-1/2" cotter pin for each wheel. Note: One (1) to two (2) washers should be used as spacers between the hopper and the wheel. Use one (1) washer between the wheel and the cotter pin.

C. Use the following hardware to bolt the incline tail stub into the incline flight: (See Figure 25)
   - Four (4) rubber sleeves
   - Two (2) hex head (Grade 5) cap screws: For **8" models**, use 3/8" x 3" long cap screws. For **10" models**, use 7/16" x 3-1/2" long cap screws.
   - Four (4) flat washers

NOTE **When tightening nylon locknuts, make sure they are firmly secured against the rubber sleeves, but not so tight that they lay against the flight tube. Leave a gap of approximately 1/16".**

D. Attach the u-joint to the incline tail stub using one (1) hex head cap screw and nylon locknut. For **8" models**, use a 5/16" x 2-1/2" long (Grade 5) hex head cap screw. For **10" models**, use a 3/8" x 3" long (Grade 5) hex head cap screw.

Flight Connections

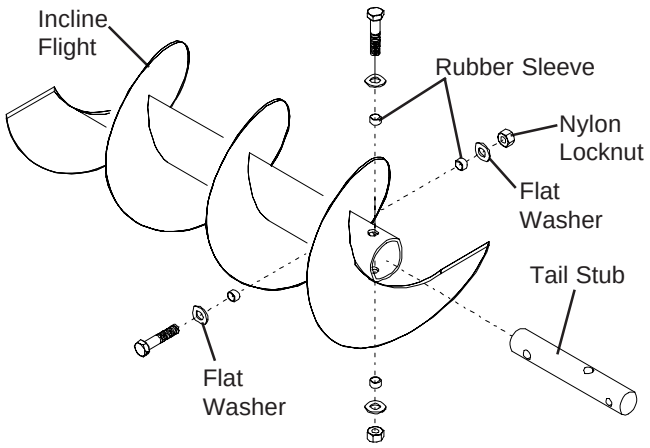


FIGURE 25

E. Attach the u-joint to the bearing stub in the flexible swing-out hopper using one (1) hex head cap screw and nylon locknut. For **8" models**, use a 5/16" x 2-1/2" long (Grade 5) hex head cap screw. For **10" models**, use a 3/8" x 3" long (Grade 5) hex head cap screw. Note: Loosen the hanger bearing hardware for later adjustment.

13. ASSEMBLE FLEXIBLE SWING-OUT HOPPER AND INCLINE TUBE (CONT.)

F. Attach the lower end of the incline tube to the front of the flexible swing-out hopper using the following hardware:

- Two (2) 1/2" x 1-1/4" long (Grade 5) hex head cap screws
- Four (4) Flat washers
- Nylon locknuts

G. Install the bolt heads onto the inside but **DO NOT** tighten completely because the coupler box must be allowed to pivot.

H. Center hanger bearing on bearing shaft between hopper flight and u-joint, then tighten.

I. Fasten the hinged cover to the front of the flexible swing-out hopper using two (2) 5/16" x 3/4" long (Grade 5) hex head cap screws, flat washers, and nylon locknuts.

J. Install the cover strap over the lid onto the 3/8" stub, which is welded to the box on the lower end of the incline tube. Use 3/8" nylon locknuts to hold the straps on the stud.

NOTE

DO NOT tighten the locknuts down. The hinged cover must be able to slide under the strap when the incline tube is tilted at different angles.

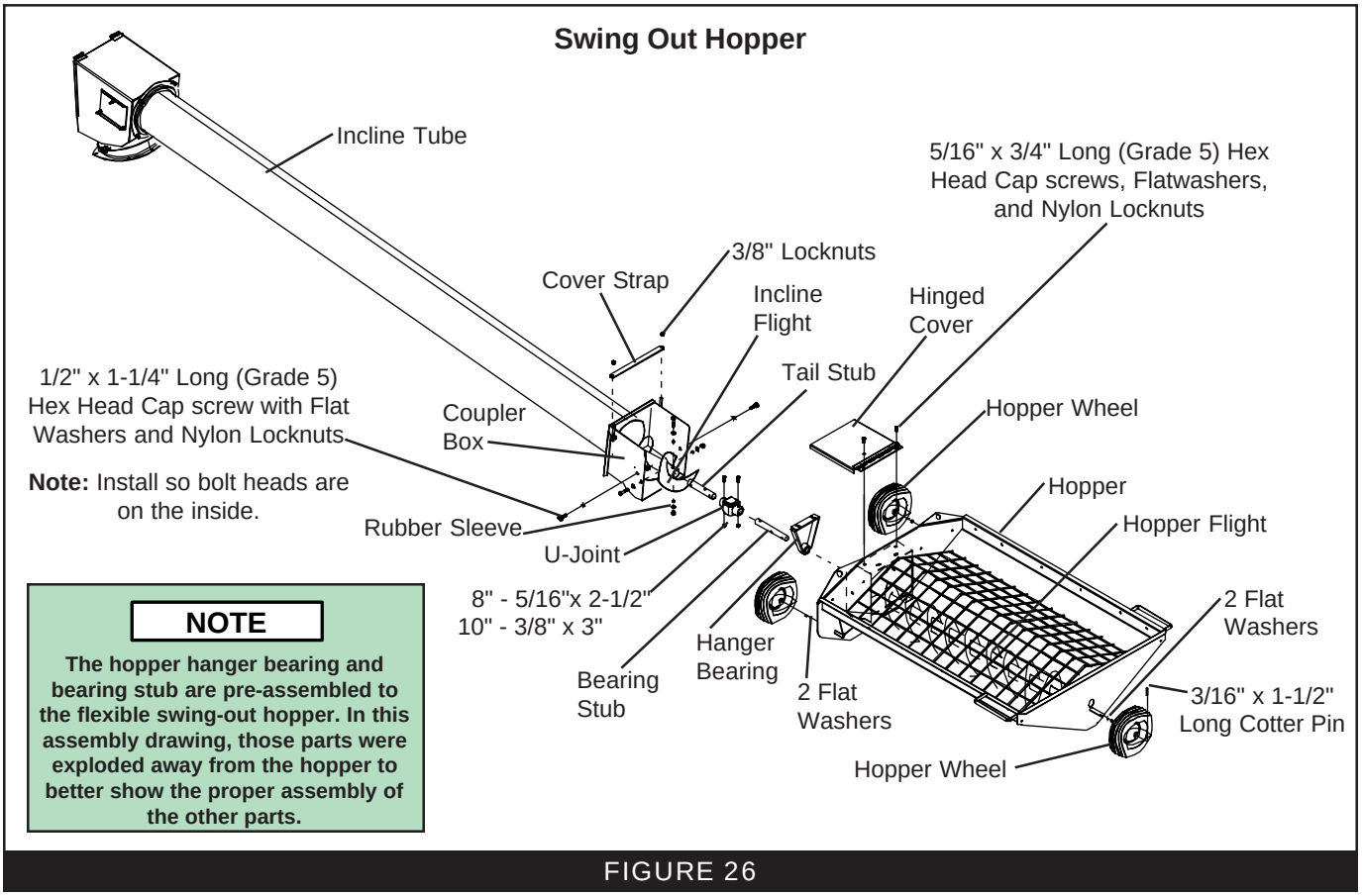


FIGURE 26

14. ASSEMBLE FLEXIBLE SWING-OUT HOPPER RUBBER BELTING (See figure 27 & 27A)

A. Place the rubber belting into the inside of the flexible swing-out hopper.

B. Loosely attach the rubber belting using ten (10) attachment clips and two (2) 1/4" x 1" long hex head cap screws and nylon locknuts for each clip. The points of the clips should point up and the bolt heads should be inside the hopper. Use the bolt holes positioned around the upper edge of the hopper as a guide.

C. Position the belting inside the clips with the belting edge resting on the bolts. As shown in Figure 27 & 27A, the belting should not cover the output end of the hopper. Keep the belting end within one (1) inch of the clip end.

D. Position the belting evenly around the hopper and through the corners.

E. Tighten the bolts and nuts so that the clip points draw into the belting and the smooth edge of the clips is in contact with the belting.

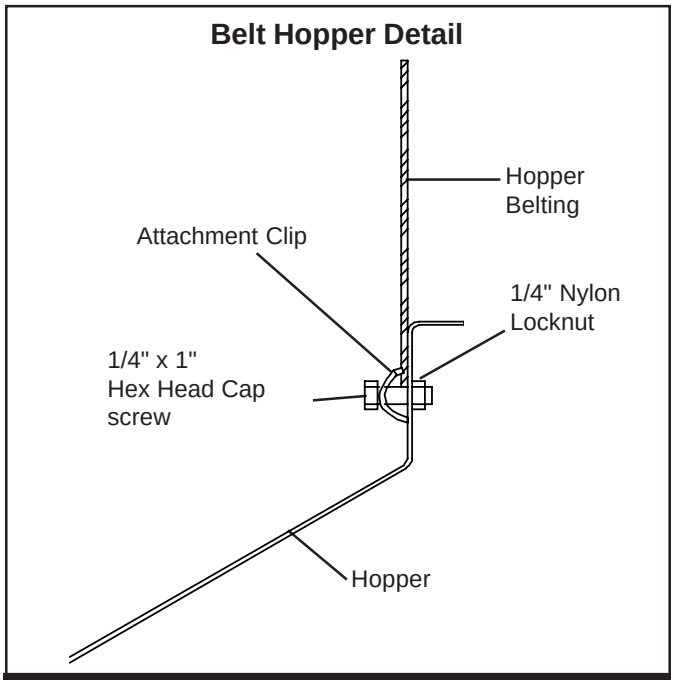


FIGURE 27A

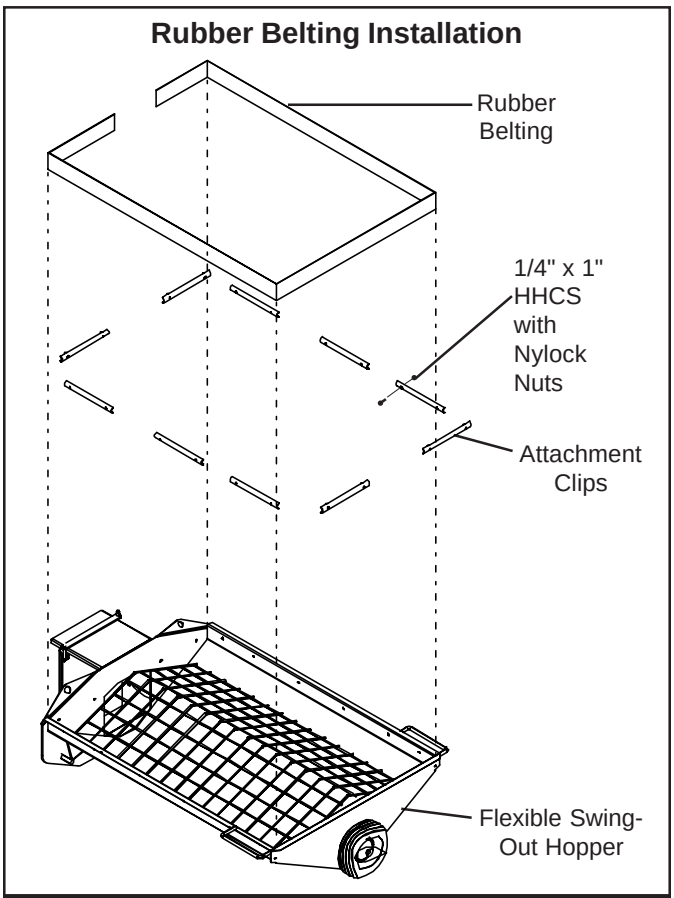


FIGURE 27

15. OPTIONAL LOW PROFILE HOPPER ASSEMBLY INSTRUCTIONS (See Figure 28)

A. Install the hopper wheels to the hopper using four (4) 5/8" x 9-3/4" long clevis pins and four (4) 1-1/4" cotter pins. Install the hopper wheels so the front wheels are tilted in towards the incline tube and the rear wheels are tilted away from the hopper chain guard. Basically, you want to tilt your wheels so they follow the arc made when you move the hopper. (See detail 28B)

NOTE **There are two installation heights for the hopper wheels. For the shortest hopper profile, use the upper set of holes. Also use the holes to angel the wheels by using opposite holes.**

B. Fasten the CV- Joint to the incline tail stub using one 3/8" x 3" long (grade 5) HHCS and stover nut.

C. Connect the CV-Joint to the power shaft in the swing-out hopper using one (1) 3/8" x 3" long (grade 5) HHCS and stover nut.

D. Fasten the lower end of the incline tube to the front of the swing away hopper. Use two 1/2" x 1-1/2" long (grade 5) HHCS, flat washers, and nylon locknuts.

NOTE **Install bolt heads onto the inside and DO NOT tighten completely. The coupler box must be able to pivot.**

E. Bolt hopper lid to the front of the swing out hopper using three (3) 5/16" x 3/4" long (grade 5) HHCS flat washers, and nylon locknuts.

F. Install lid strap onto 3/8" stubs welded onto lower end of incline tube. Hold the straps on the stud with 3/8" nylon locknuts.

NOTE **Do NOT tighten the nuts down. The lid straps must be allowed to slide when the incline tube is tilted at different angles.**

G. **Low Profile Swing-Out Hopper Rubber Belting Assembly (See Figure 28)**

1. Install the rubber belting into the inside of the swing out hopper. Use ten (10) long and four (4) short attachment clips to install the belting. Two (2) 1/4" x 1" long hex head capscrews and nylon locknuts are used for each clip. Loosely attach each clip with grip teeth of clips up and with bolt heads inside the hopper. Use bolt holes positioned around upper edge of hopper.

2. Set the belting inside the clips with the belting edge resting on the bolts. (See Figure 28A) The belting does not go completely across the output end of the hopper. The belting is notched to accommodate the center guard support at the rear of the hopper. Begin installing the belting at this point and work each way toward the hopper discharge. Keep the belting end within one inch of the clip end. Position the belting evenly around the hopper and through the corners.

3. Tighten the bolts and nuts to where the clip points draw into the belting and the smooth edge of the clips is in contact with the belting.

Belt Hopper Detail

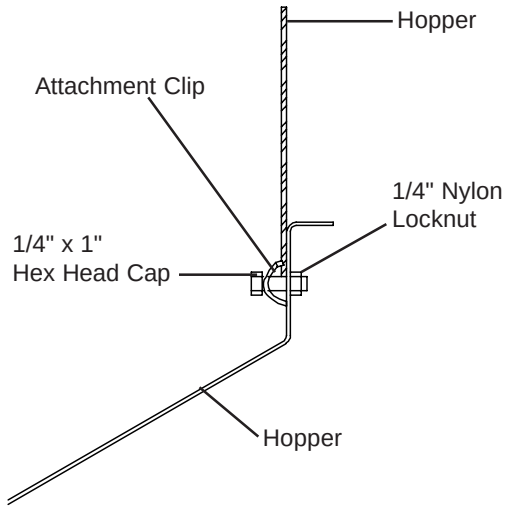


FIGURE 28A

Low Profile Hopper - 10" Only

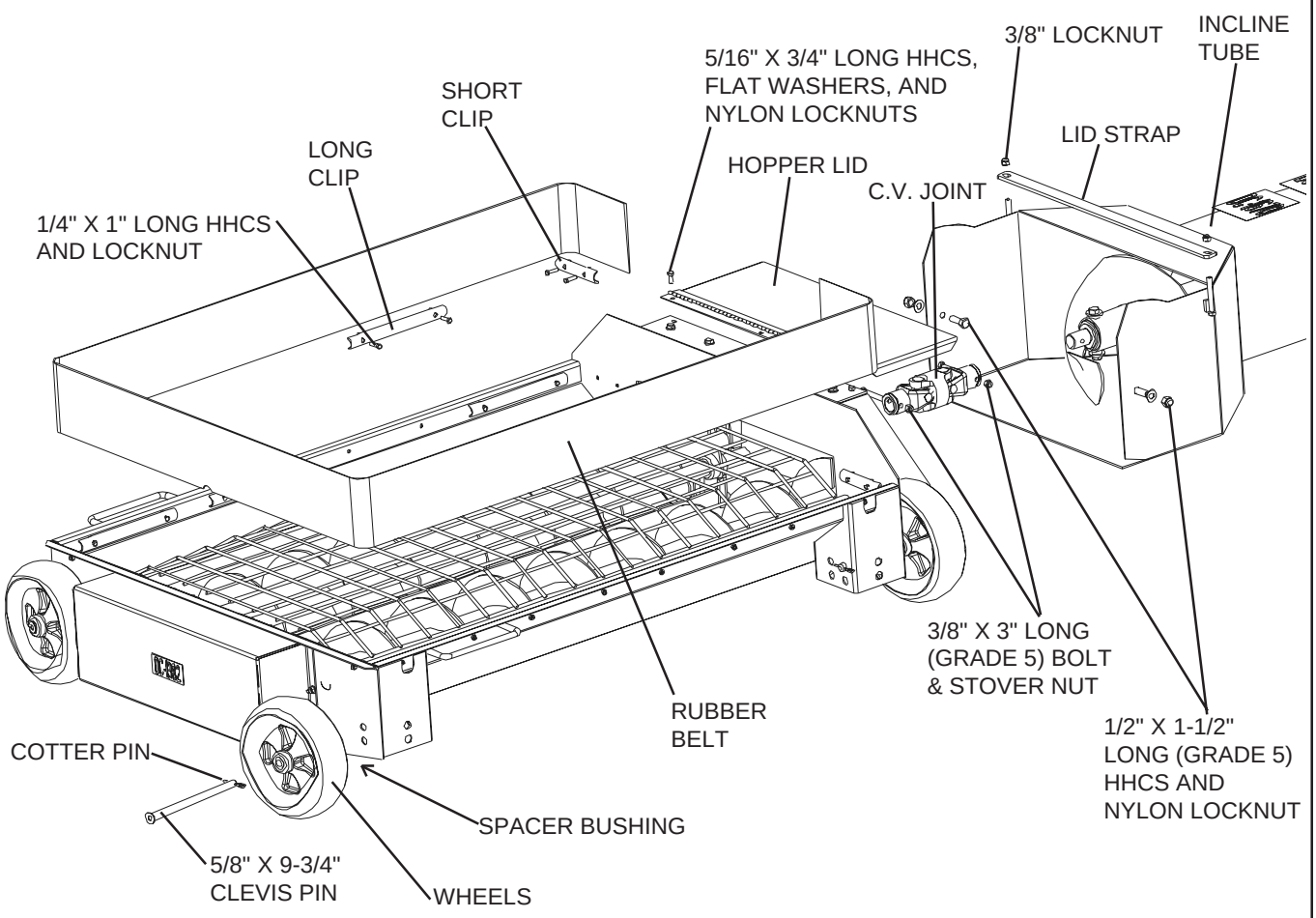


FIGURE 28

Angle Hopper Wheels

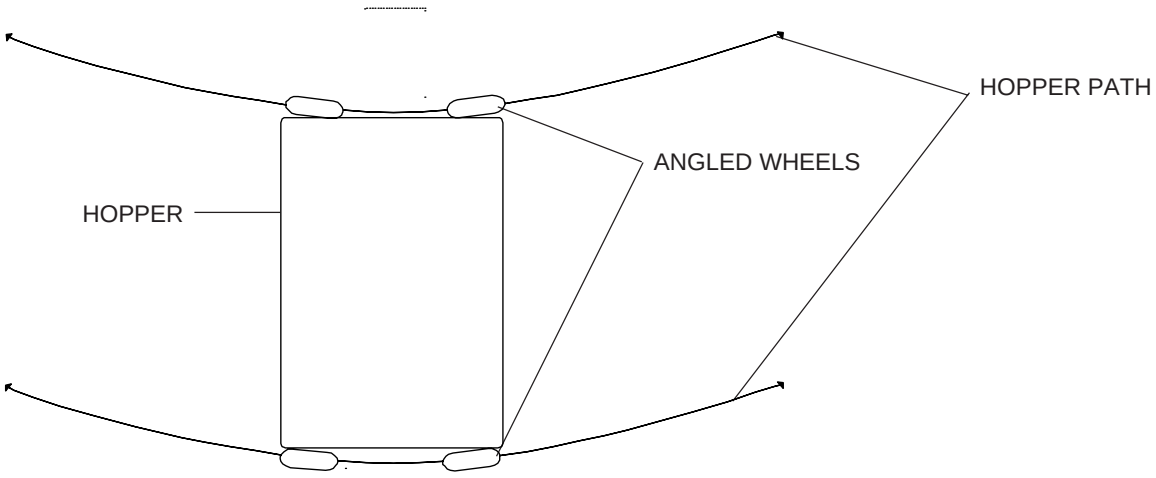


FIGURE 28B

15. ASSEMBLE PTO DRIVELINE, SHIELD, AND JACK (See Figure 29)

A. Attach the PTO driveline to the gearbox input shaft using a 1/4" x 1-1/2" drive key.

CAUTION

The PTO driveline is equipped with a shear bolt at the tractor connection. This bolt protects the auger from damage if the auger becomes plugged or burdened by high loads.

You must use the correct replacement bolt of the proper size and strength to ensure that the shear device will protect the auger and operator. Refer to the Maintenance section for the recommended size and strength.

Extra shear bolts are supplied with the auger and are stored in the operator's manual container located on the main auger inlet hopper.

CAUTION

Do not engage the PTO unless the PTO driveline shields turn freely on the shaft.

B. Carefully slide the PTO driveline onto the input shaft until the setscrew sits on the flat portion of the gearbox input shaft. Refer to Figure 30 on page #43.

NOTE

DO NOT extend the input shaft beyond the inside of the yoke. This ensures that the setscrews in the PTO driveline yoke are properly engaged on the input shaft.

PTO Driveline, PTO Shield, and Jack Installation

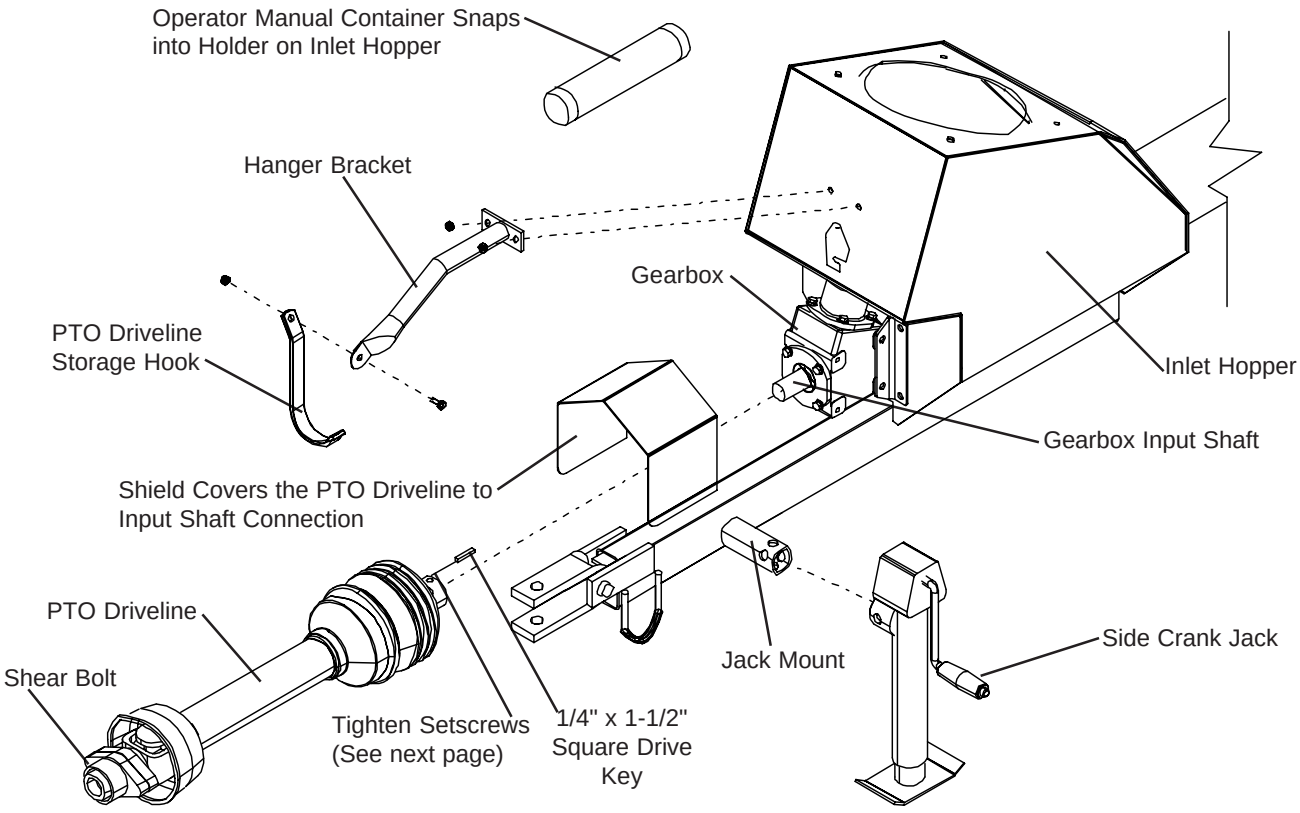


FIGURE 29

15. ASSEMBLE PTO DRIVELINE, SHIELD, AND JACK (Cont.)

C. Use four (4) 3/8" x 3/4" long (Grade 5) thumb head bolts to bolt the shield to the gearbox .

D. Use two (2) 3/8" x 1" long (Grade 5) hex head cap screws and nylon locknuts to attach the hanger bracket to the front of the hopper.

E. Attach the support hook to the hanger bracket with a 3/8" x 1-1/4" long (Grade 5) hex head cap screw and nylon locknut.

F. Place the PTO driveline into storage position—tilt the PTO driveline up and swing the support hook under the driveline to support the weight of the driveline. Storage position is shown below.

NOTE **The PTO driveline should be placed in the storage position any time it is not attached to the tractor.**

G. Attach the jack to the jack mount on the hitch tube.

H. Secure the jack with the attached pin.

Input Shaft into Yoke

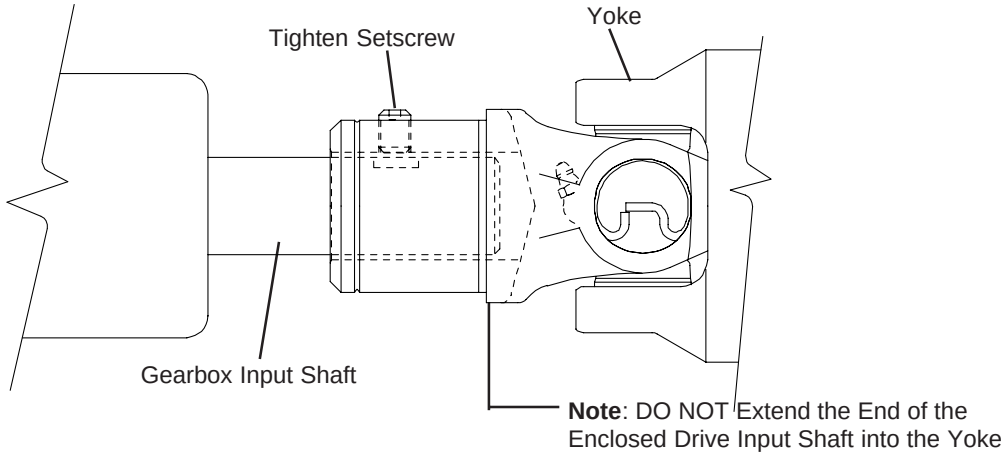


FIGURE 30

PTO Driveline in Storage Position

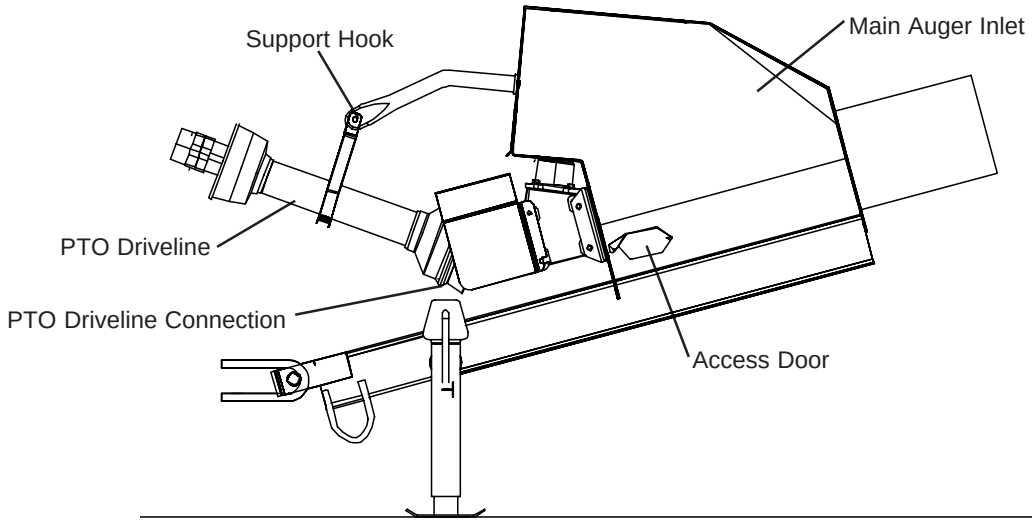


FIGURE 31

16. ASSEMBLE INCLINE TUBE TO MAIN INLET HOPPER (See Figure 32)

A. Attach the u-joint assembly with the solid shaft to the lower inlet hopper gearbox using a 1/4" woodruff key, a 5/16" x 2-1/2" long hex head cap screw, and a 5/16" side depress locknut.

B. Attach the u-joint assembly with the tubing to the upper spout gearbox. Use a 1/4" woodruff key, a 5/16" x 2-1/2" long hex head cap screw, and a 5/16" side depress locknut.

NOTE **Use emery cloth as needed to clean the inside of the u-joints, the key-seats, and the 1/4" woodruff key. This helps ensure proper fit.**

C. Use a sling to lift the downspout end of the incline tube assembly and position it directly over the opening in the main inlet hopper.

D. Carefully align and lower the downspout u-joint tube with the main inlet hopper's u-joint shaft.

NOTE **Apply a thin coat of anti-seize or grease to the u-joint shaft to aid in installation.**

E. Completely lower the u-joint tube until the spout flange sits flat on top of the main inlet hopper.

F. Install the spout flange to the top of the main inlet hopper using four (4) 2" O.D. flat washers and 3/8" nylon locknuts. The incline tube spout should rotate on the top of the main inlet hopper.

Incline Tube to Main Inlet Hopper

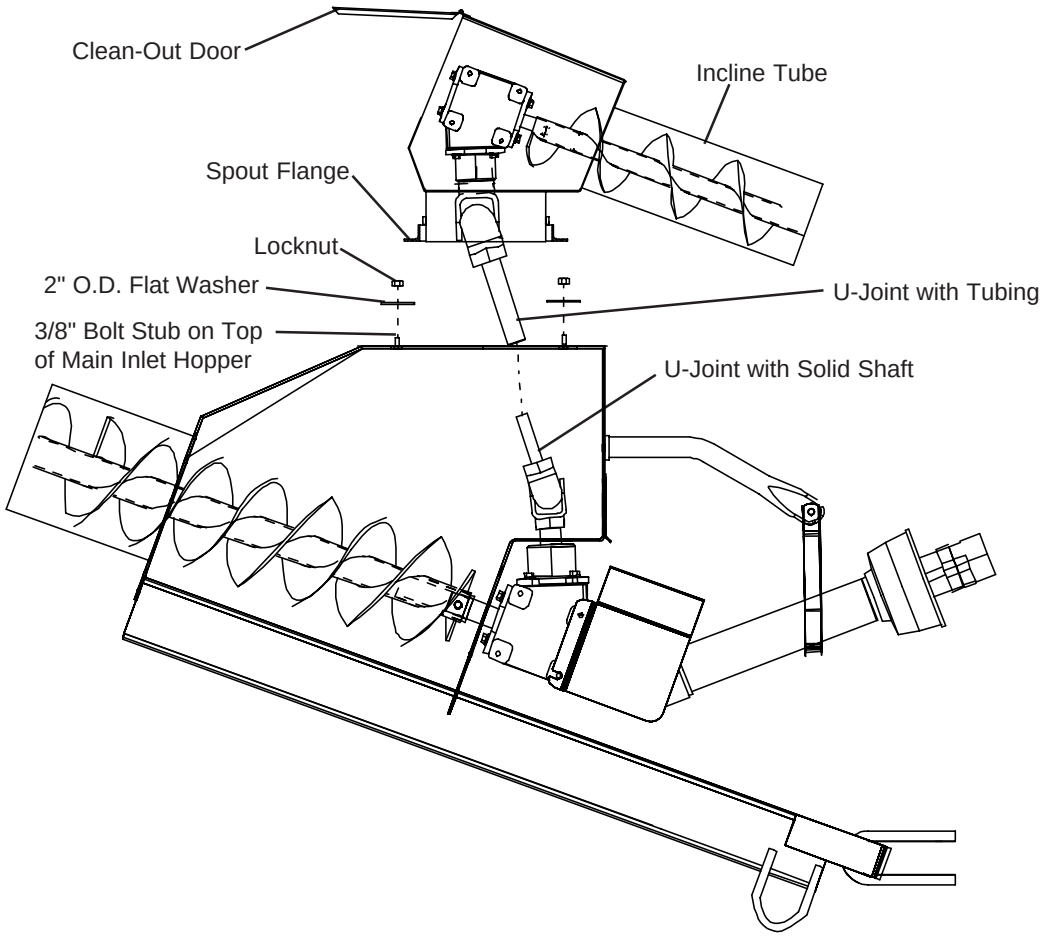


FIGURE 32

17. ASSEMBLE FLEXIBLE SWING-OUT HOPPER LIFT ARM, CABLE, AND WINCH

NOTE **You can store the flexible swing-out hopper on either the right or left side of the auger.**

A. Determine from which side of the auger you want to raise the flexible swing-out hopper.

B. On that side of the auger, position the lift arm in the mounting tube.

C. Use a 1/2" diameter washer head pin and cotter pin to secure the lift arm to the mounting tube.

D. Hook the clevis plates over the clevis anchor on the underside of the auger housing on the side the hopper will be stored.

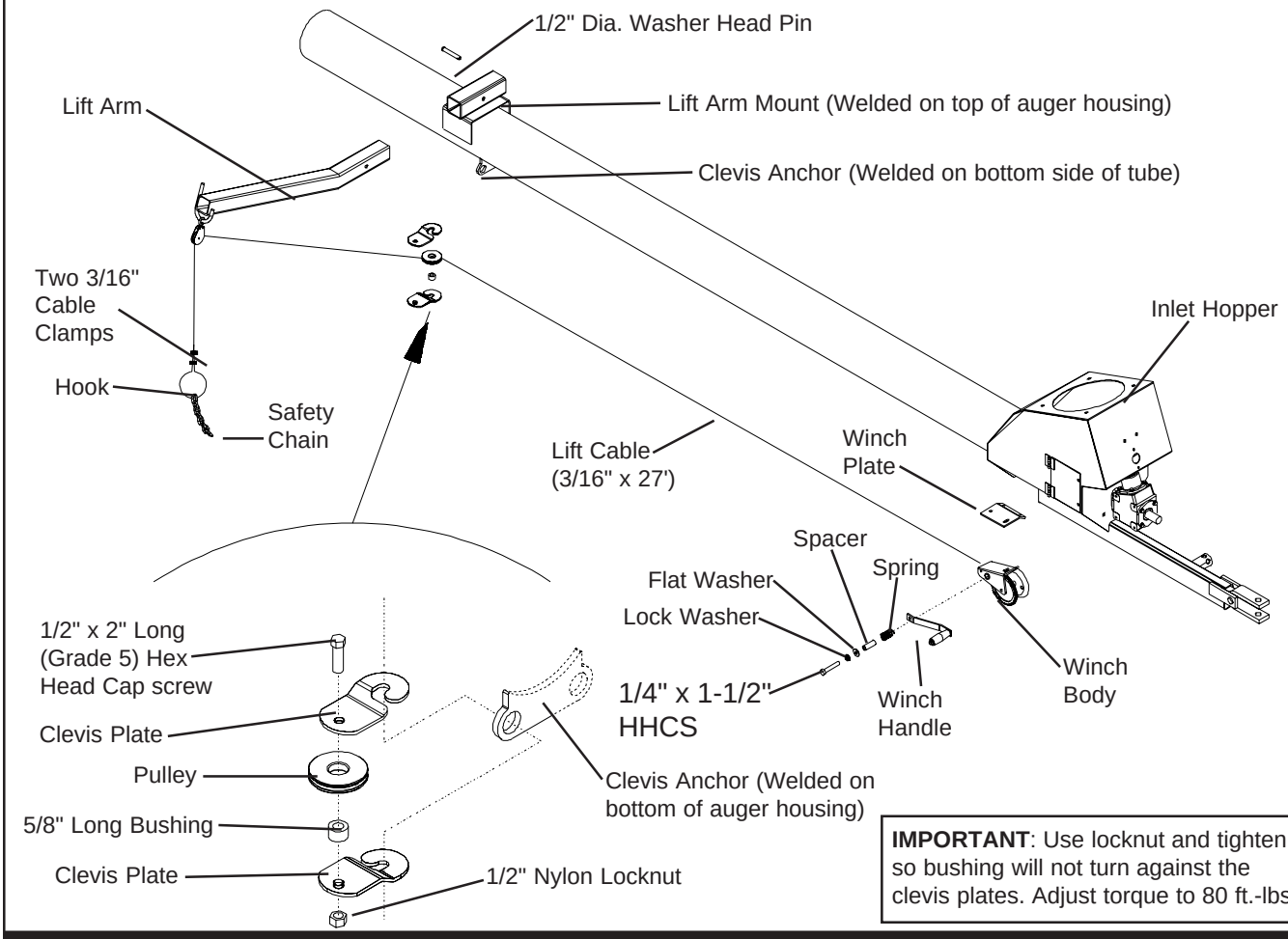
E. Tighten the bushing and cable pulley between the clevis plates using a 1/2" x 2" long (Grade 5) hex head cap screw and nylon locknut. Refer to the Figure 33.

F. Make sure that the locknut is tightened securely and that the clevis plates are secured through the clevis anchor and cannot come off.

G. Fasten the winch plate to the inlet hopper using two (2) 3/8" x 1-1/4" long hex head cap screws and nylon locknuts.

H. Mount the winch body to the winch plate using two (3) 3/8" x 1" long bolts with flat washers and nylon locknuts. Refer to the Figure 33. Position a flat washer on both sides of the winch plate in the slotted area.

Swing-Out Arm Lift Assembly



IMPORTANT: Use locknut and tighten so bushing will not turn against the clevis plates. Adjust torque to 80 ft.-lbs.

FIGURE 33

17. ASSEMBLE FLEXIBLE SWING-OUT HOPPER LIFT ARM, CABLE, AND WINCH (CONT.)

I. Thread the handle onto the winch pinion shaft. (See Figure 33 on page #45.)

J. Secure the handle to the winch using a hex head capscrew, lockwasher, flatwasher, spacer, & spring supplied with the winch.

K. Attach the 3/16" lift cable to the winch drum. Position the cable to wrap under the winch drum when the handle is turned in a clockwise direction. See the Figure 34.

L. From the inside of the drum, thread the cable through one round hole in the drum side until it extends 1" past the two square holes.

M. Clamp the cable to the outside of the drum with the cable keeper using two (2) 3/16" x 3/4" carriage bolts, lockwashers, and nuts. Make sure the carriage bolt heads are on the inside of the drum.

⚠WARNING **The cable keeper alone will not hold the weight of the hopper, so NEVER let the cable all the way out.**

Always keep a minimum of three (3) turns of cable on the winch drum. This will ensure that when the flexible swing-out hopper is fully lowered, there is enough cable to raise it.

If there are not three (3) turns of cable around the winch drum when the flexible swing-out hopper is fully-lowered, replace the cable with a longer cable.

N. Thread the lift cable from the winch through the pulley and clevis, under the auger, then through the swivel pulley on the end of the lift arm.

O. Attach the cable hook to the lift cable using two (2) 3/16" cable clamps.

P. Secure the u-bolt clamp against the loose end of the cable and attach the safety chain.

Winch Cable Installation

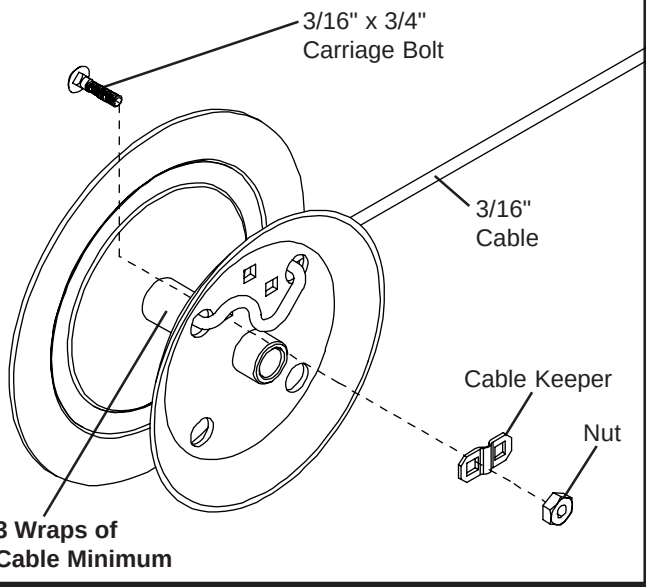


FIGURE 34

⚠WARNING **Do not attach the lift cable directly to the safety chain.**

Q. You may store the swing-out hopper on the right or left side of the main auger. Once you have assembled the auger's lift arm, cable, and winch, you can move the hopper to the opposite side by following these steps:

1. Remove the 1/2" diameter retaining pin, then slide the lift arm out of the mounting tube.

2. Disassemble the clevis plates and pulley from the anchor on the underside of the auger housing.

3. Rotate the lift arm to the opposite side of the auger housing.

4. Arrange the cables so that they are not crossed.

5. Reassemble the clevis plates and pulley to the anchor on the underside of the auger housing.

6. Install the lift arm into the mounting tube from the other side of the auger tube.

7. Ensure that the cable was not tangled as you switched sides.

17. ASSEMBLE FLEXIBLE SWING-OUT HOPPER LIFT ARM, CABLE, AND WINCH (CONT.)

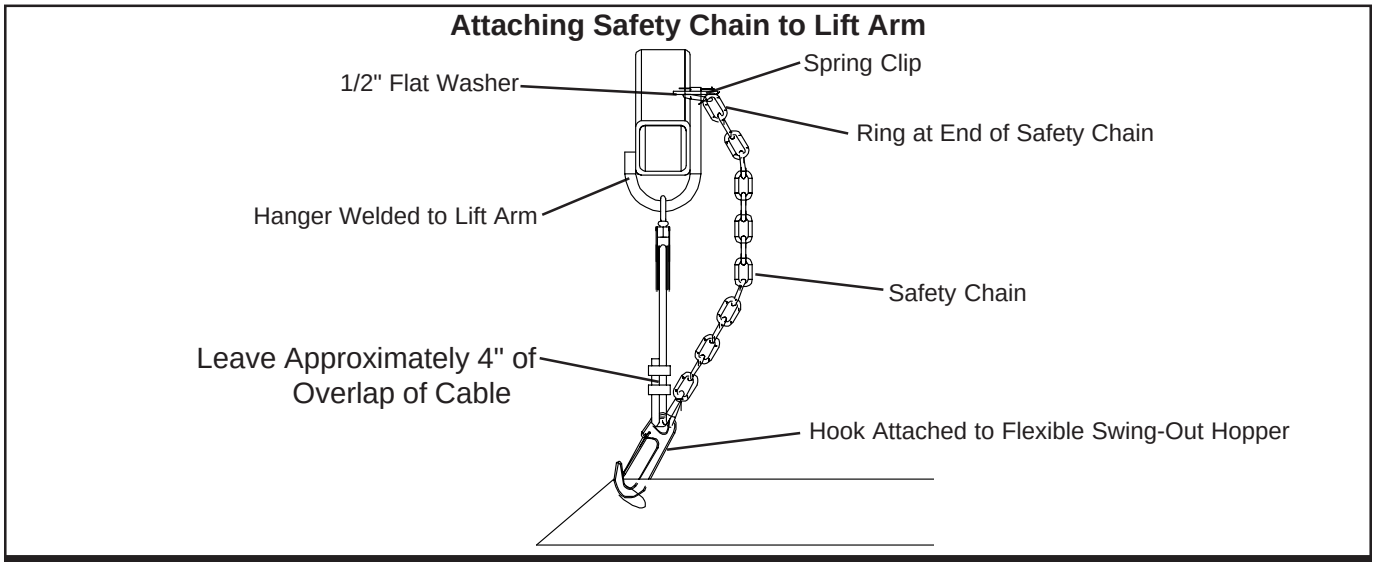


FIGURE 35

18. ATTACH OPERATOR'S MANUAL

A. Locate the operator's manual holder on the bottom side of the inlet hopper. See the Figure 29 on page #42.

B. Snap the operator's manual container into place.

19. RECHECK ASSEMBLY BEFORE DELIVERY AND USE

A. It is important to ensure the assembly of the SAW auger before using it for the first time. Make sure that all applicable assembly steps in this manual have been followed.

To the Dealer

All applicable assembly steps included in this manual must be followed for the assembly of the auger to be complete. Before delivering the auger to the owner, check the following:

1. Ensure that all safety shields and devices are installed properly.

2. Make sure that all safety decals are clean and readable. Replace any that are missing, damaged, or painted over. Refer to the first page of the Parts section for a list of the decals required for the auger and an illustration showing where the decals should be placed.

3. Ensure that all bolts and fasteners are tightened and secured properly.

4. Make sure that the Operator's Manual container (with Operator's Manual inside) is installed in its holder on the main auger inlet hopper. Refer to Figure 29 on page #42 for the location of the container.

Deliver this ***Assembly and Operator's Manual*** to the owner when you deliver the auger.

To the Owner

1. Read this manual. Check the assembly instructions to determine that the auger is assembled correctly.

2. Familiarize yourself with the safety decals on the auger. If you ever need to replace a safety decal, you can contact your dealer, distributor or the factory.

3. Check all safety shields and devices for proper installation, and make any necessary adjustments.

4. Check all the bolts and fasteners to ensure they are tight and secure.

1. DESIGNATE WORK AREA

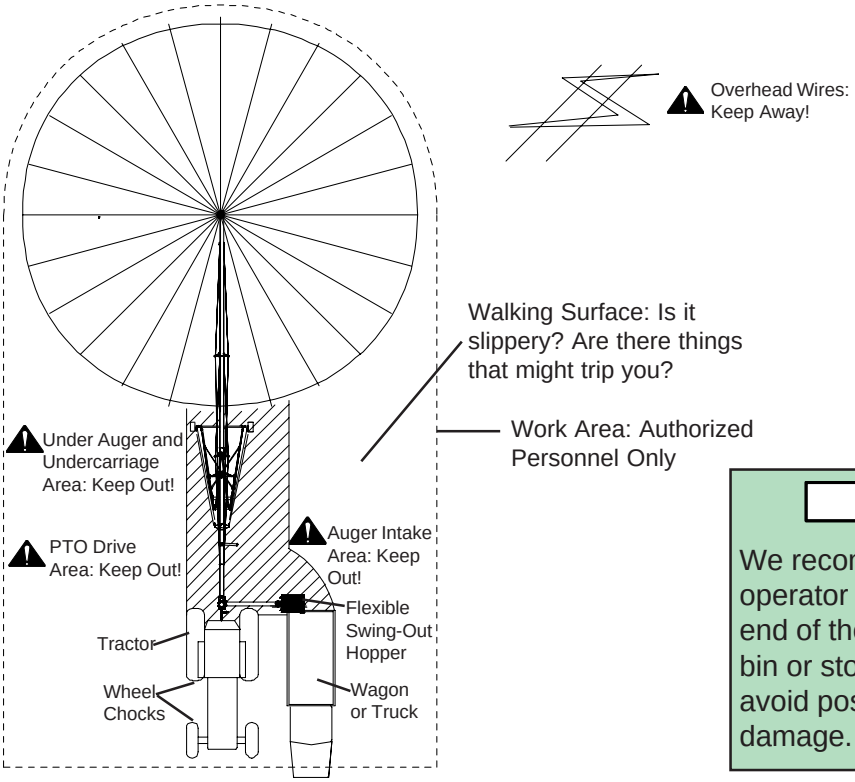
A. Before starting the auger, establish the designated work areas. Figure 36 below shows where boundaries should be established.

B. Mark off the designated work areas using colored nylon or plastic rope as portable barriers.

RULES FOR SAFE WORK AREA

Under no circumstances should persons not involved in the operation of the auger be allowed to trespass into the designated work area. It is the duty of ALL operators to ensure that children and/or other persons stay out of the work areas. Should anyone not involved in the operation trespass into the work area or into a hazard area, the operator should immediately shutdown the auger.

It is the responsibility of ALL operators to ensure that the work area has secure footing, and is clean and free of debris and tools that might cause accidental tripping or falling. The operator is also responsible for keeping the work area clean and orderly during operation of the auger.



NOTE

We recommend that the operator tie the discharge end of the auger to the bin or storage structure to avoid possible wind damage.

FIGURE 36

3. ADJUST TRACTOR DRAWBAR

A. Adjust the drawbar so there is 14" from the end of the tractor PTO output shaft to the center of the hitch pin. Refer to Figure 37 below.

CAUTION **If the distance from the end of the tractor PTO to the hitch pin is shorter than 14", the auger should NOT be raised. The PTO driveline may bottom out as it compresses, causing damage to the PTO driveline, auger hopper assembly, or tractor PTO.**

Adjust Tractor Drawbar

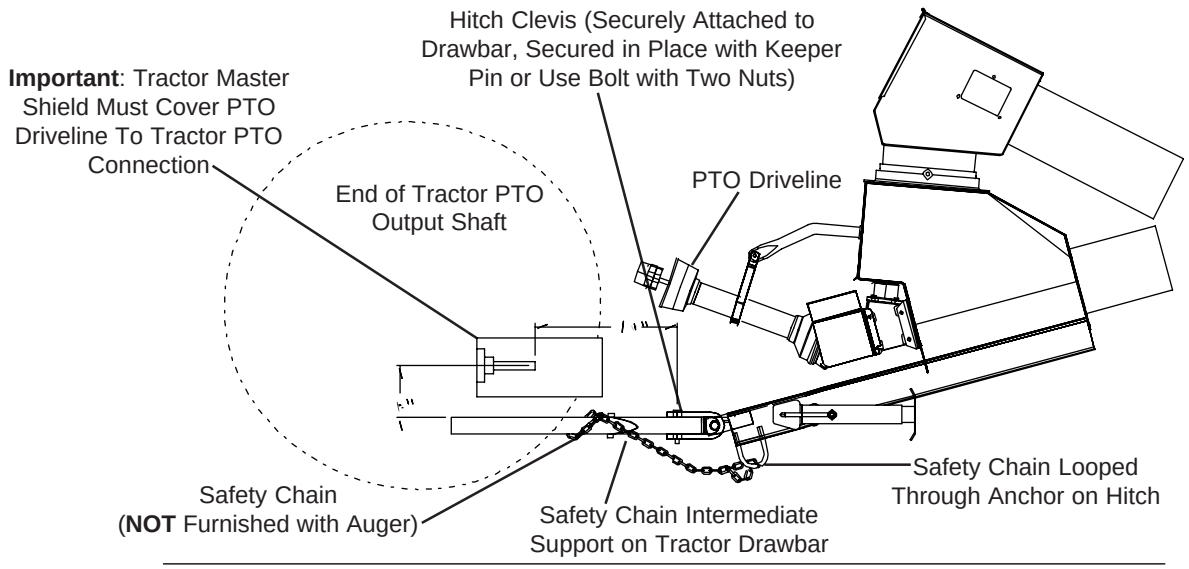


FIGURE 37

2. INSPECT THE AUGER

A. After your new auger is delivered and assembly is complete, and before each use, you must inspect the auger.

B. Be sure that ALL guards listed in the assembly instructions are in place, secured, and functional.

C. Be sure that the shields on the PTO rotate easily.

D. Check ALL safety decals. Replace any that are worn, missing, or illegible. A list of decals found on the auger is included in the front of this manual. You may obtain decals from your dealer or order direct from the factory.

E. Check the hopper winch and cable to ensure they are secure and operational.

F. Ensure that ALL fasteners are tight.

G. Check the hydraulic hose and fittings to ensure they are tight and are not leaking hydraulic oil.

H. Check the oil level in ALL gearboxes. The ***Maintenance*** section of this manual gives oil level recommendations.

I. Make sure that the clean out door is shut. It is located in the bottom of the inlet hopper.

J. Ensure that the inspection covers are in place.

4. HITCH AUGER TO TRACTOR

⚠WARNING **Empty the machine before moving it to prevent upending.**

⚠WARNING **NEVER stand between the tractor and the auger when hitching unless ALL controls are in neutral and the brakes are locked.**

A. Lift the auger intake with the jack to the height of the tractor drawbar. NEVER raise the intake end higher than necessary to attach to a towing vehicle because weight transfers rapidly to the head end when the intake is raised.

B. Attach the hitch clevis to the tractor drawbar using either the hitch pin and keeper, or a bolt with two (2) nuts. Refer to the Figure 37.

C. Route the hitch safety chain through the loop anchor welded to the hitch tube, then fasten the chain to the tractor drawbar no more than 6" from the hitch pin.

⚠WARNING

A safety chain (auxiliary attachment system) is required on public roads to retain the connection between towing and towed machines in case the primary attachment system separates. Safety chain not furnished with auger.

D. Connect the hydraulic hose to the tractor.

E. Make sure the hydraulic shut-off valve is closed.

F. Retract the jack and rotate it 90° into transport position.

G. **DO NOT** attach the PTO driveline to the tractor at this time. It will be attached during placement of the auger, as described on Page #52.

CAUTION **Before retracting or folding the jack, the hitch clevis should be secured to the drawbar to prevent the hitch from falling to the ground.**

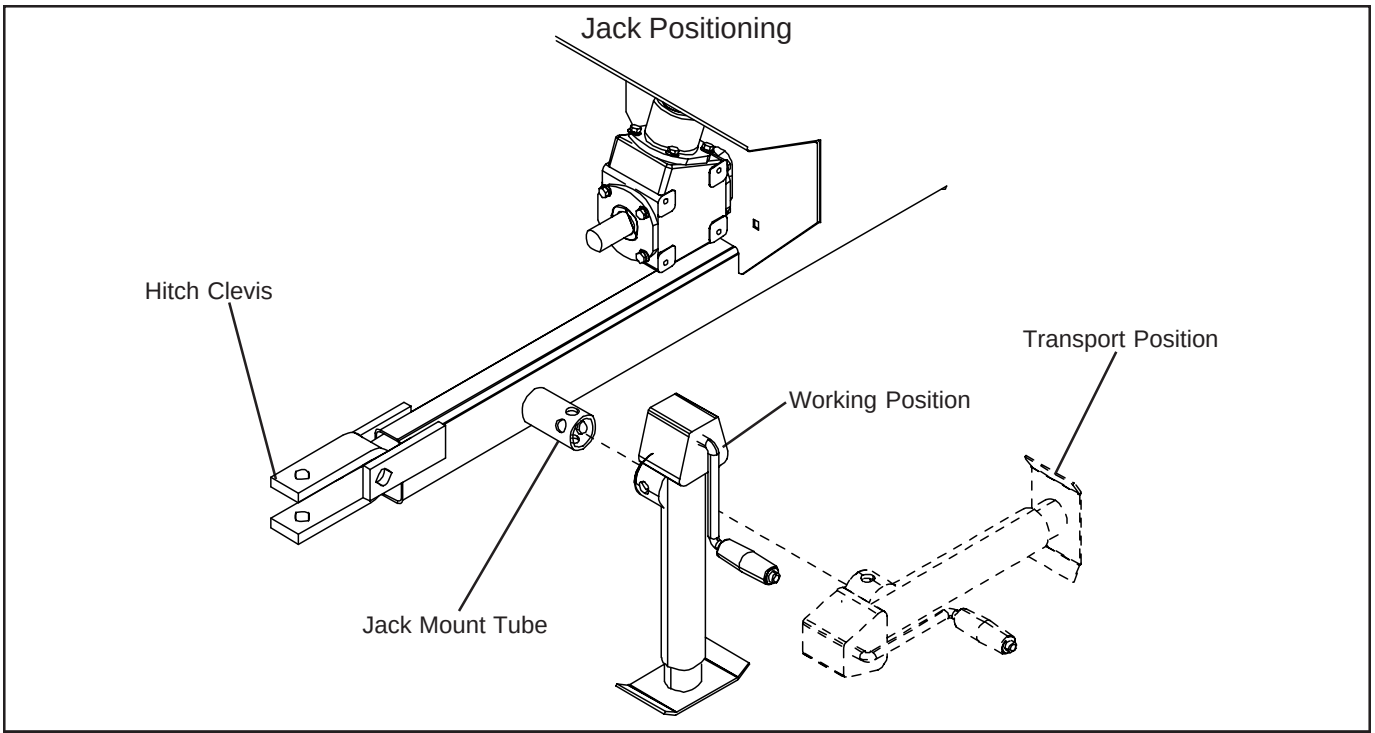


FIGURE 38

5. TRANSPORT THE AUGER

A. Before moving your portable auger, carefully consider the route you will follow to the designated work area. A route plan should be considered beforehand to avoid dangerous obstacles and loss of time

B. If you have marked off the designated work area using colored nylon or plastic rope as portable barriers, be sure to allow room for the tractor and auger to pass through.

C. Move the auger with a tractor to and from the work area. If you need to move the auger over greater distances, use a pickup truck or other suitable vehicle.

D. Follow these recommendations when transporting the auger:

1. Always transport the auger in the full-down position, as shown below. The flexible swing-out hopper must be raised and set in the transport position. Make sure the handle on the winch is locked. This will prevent lowering of the hopper during transport.

2. Make sure the hydraulic shut-off valve is closed.

3. Make sure the hitch is secured to the tractor.

4. Make sure the jack is stored in transport position or hitch adjustment position. **Be sure to fasten the alternate safety chain.**

5. Make sure the flexible swing-out hopper safety chain is hooked over the hanger on the lift arm. (See ***Raise the Flexible Swing-Out Hopper into Transport Position*** on Pages #59-60.)

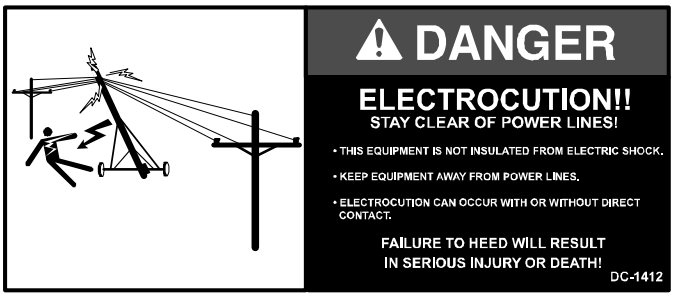
Transport Height						
Auger Size	8" x 52'	8" x 62'	8" x 72'	10" x 52'	10" x 62'	10" x 72'
Transport Height	11'-11"	12'-8"	13'-10"	12'-1"	12'-10"	14'-0"

NOTE

IMPORTANT: Transport heights are estimated based on the auger being attached to a towing vehicle with a drawbar height of 1' 6".

NOTE

IMPORTANT: Be careful making turns and AVOID SHARP TURNS. It is possible for the flexible swing-out hopper to hit the tractor wheels or fenders.



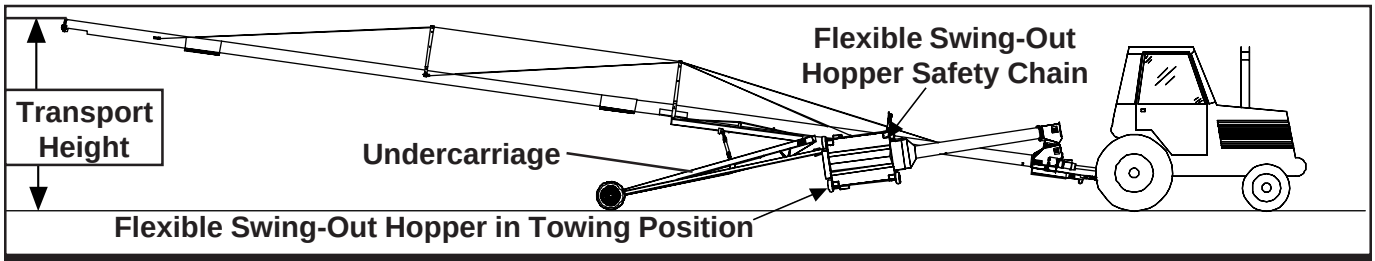


FIGURE 39

DANGER: Watch for overhead obstructions and electrical wires. Failure to do so may result in electrocution. Before you begin transport, lower the auger well below the level of power lines. Maintain at least ten (10) feet of clearance. The chart above gives the recommended height of each portable auger in the lowered transport position. Refer to the chart to determine at what height you should transport your auger.

NEVER allow persons to stand under or ride on the auger during transport. Do not transport the auger at speeds in excess of 20 M.P.H.. Comply with state and local regulations governing marking towing vehicles and maximum width. Observe safe driving and operation practices.

6. PLACING THE AUGER IN WORK AREA

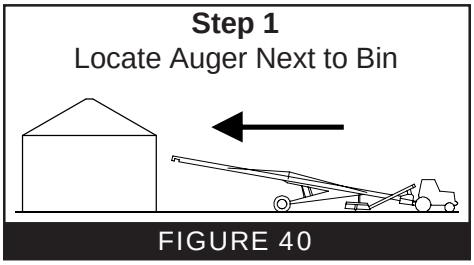


FIGURE 40

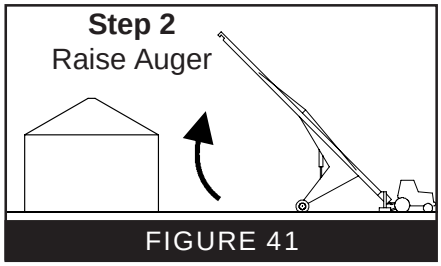


FIGURE 41

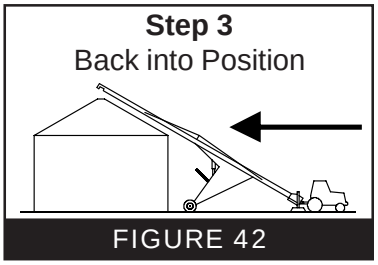


FIGURE 42

A. Placing the Auger—Use a towing vehicle to move the auger into its working position within the designated work area. Placing the auger consists of three (3) steps:

1. Locating the auger next to the bin.
2. Raising the auger.
3. Backing the auger into position.

Locate Auger

A. Locate the discharge end of the auger as close as possible to the bin or other structure.

B. When moving the auger toward the working position, leave adequate room so the flexible swing-out hopper can be deployed. Also allow room for a convenient path for the loaded vehicle to reach the flexible swing-out hopper.

⚠DANGER **Make sure everyone is clear of the work area when moving the auger. To prevent the auger from tipping over while backing, avoid rolling over any obstructions. Also avoid moving the auger at right angles to a slope. If the auger is to rest on a slope, approach the bin uphill.**

Be certain that the entire area above the auger and in the line of travel is clear of overhead obstructions and electrical wires. Failure to do so may result in electrocution. Maintain at least ten (10) feet of clearance.

Electrocution can occur without direct contact.

C. Position the auger so the tractor and auger will be in a straight line during grain conveying operation.

1. Place the auger on a level surface. The wheels must be allowed to roll freely while the auger is being raised. Be sure there are no obstructions in the area.

2. Open the hydraulic shut-off valve.

3. Check the flexible swing-out hopper to ensure it is in transport position.

4. Attach the PTO driveline to the tractor by completing these steps:

   a. Slide the driveline end onto the tractor PTO output shaft.
   b. Compress the spring keeper on the PTO driveline and continue to slide it onto the tractor PTO output shaft until the keeper sets in the groove on the tractor PTO output shaft.
   c. The spring keeper returns to its original position and the PTO driveline locks onto the tractor PTO output shaft.

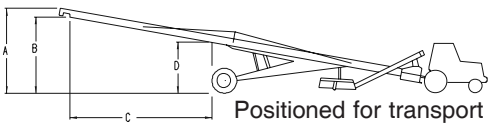
D. **DO NOT** engage the PTO when the flexible swing-out hopper is in transport position.

CAUTION **Avoid making turns while moving the auger when the PTO driveline is attached to the tractor. Maneuvering with the PTO driveline attached results in driveline damage that is not covered by the warranty.**

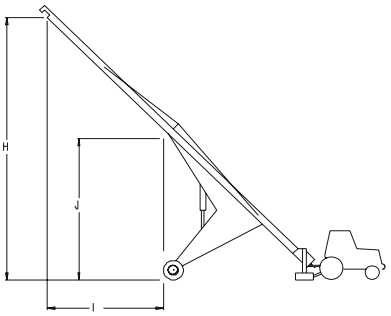
Make sure the tractor is exactly in line with the auger while the PTO is operating.

8", 10", & 12" DIRECT DRIVE SWING AWAY TRANSPORT AUGERS

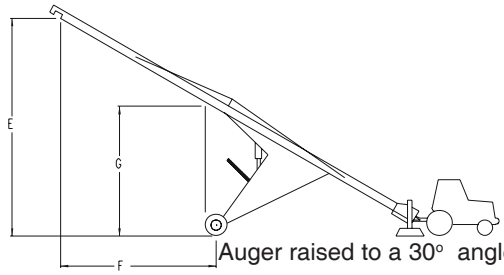
Operating Heights and General Dimensions



Positioned for transport



Auger raised to maximum height.



Auger raised to a 30° angle.

Overall Tread Width

8" - 10"
52' - 8' 8"
62' - 10' 4"
72' - 11' 2"

	A	B	C	D	E	F	G	H	I	J
Auger Size	Overall Height During Transport	Discharge Height	Closest Point to Bin Transport Position	Free Clearance at Transport Position	Discharge Height at 30°	Closest Point to Bin at 30°	Free Clearance at 30°	Discharge Height Maximum Position	Closest Point to Bin Maximum Position	Free Clearance at Maximum Position
8" x 52'	11' 11"	11' 0"	26' 10"	6' 1"	27' 10"	23' 0"	14' 6"	39' 0"	18' 1"	20' 6"
8" x 62'	12' 8"	11' 9"	31' 7"	6' 7"	33' 0"	27' 6"	16' 11"	45' 0"	22' 4"	23' 5"
8" x 72'	13' 10"	12' 11"	36' 6"	7' 4"	37' 8"	31' 7"	19' 5"	52' 8"	25' 0"	27' 8"
10" x 52'	12' 1"	10' 11"	26' 6"	6' 1"	27' 8"	22' 8"	14' 6"	38' 9"	17' 10"	20' 6"
10" x 62'	12' 10"	11' 8"	31' 3"	6' 7"	32' 10"	27' 2"	16' 11"	44' 10"	22' 1"	23' 5"
10" x 72'	14' 0"	12' 10"	36' 2"	7' 4"	37' 6"	31' 3"	19' 5"	52' 6"	24' 9"	27' 8"

6. PLACING THE AUGER IN WORK AREA (CONT.)

Raise Auger

A. Raise the auger only high enough to allow minimum clearance above the bin.

Back Into Position

A. Slowly back the auger with the tractor so that the discharge end of the auger is positioned over the bin or grain storage structure. **DO NOT** back the auger by hand.

B. Lower the auger until the discharge spout or auger discharge is directly over the bin hole opening.*

NOTE

If you discharge grain into a grain spreader, maintain at least twelve (12) inches of space between the auger discharge and the spreader. The discharge end will lower as the auger fills with grain during operation.

C. Place the tractor in “Park," set the brake, and chock the wheels by placing a board or cement block in front and behind the wheels.

D. Close the hydraulic shut-off valve to prevent the auger from inadvertently lowering or raising.

E. We recommend tying the discharge end of the auger to the bin or grain storage structure to prevent possible wind damage. Remember to untie the auger before attempting to move it.

F. **DO NOT** increase the height of the auger by placing the wheels on blocks, lumber, or by other means.

7. DEPLOY FLEXIBLE SWING-OUT HOPPER

A. Firmly grasp the winch handle and release the ratchet lock on the winch. Slowly turn the handle counterclockwise to lower the hopper.

⚠CAUTION

Maintain control of the winch handle at ALL times. If the handle is released, the load will drop. Be sure to ALWAYS reset the ratchet lock after letting out the cable.

B. When the hopper reaches the ground, unhook the cable from the hopper. Hang the cable hook on a section of the auger housing to get it out of your way.

C. Carefully swing the hopper out to an operating position.

NOTE

IMPORTANT: Do not engage the PTO unless the hopper is in operating position. Do not move the flexible swing-out hopper while the auger is in operation.

D. If the auger is equipped with an optional side drive kit, refer to the flexible swing-out hopper instructions provided with the optional side drive kit.

Deploy Swing-Out Hopper

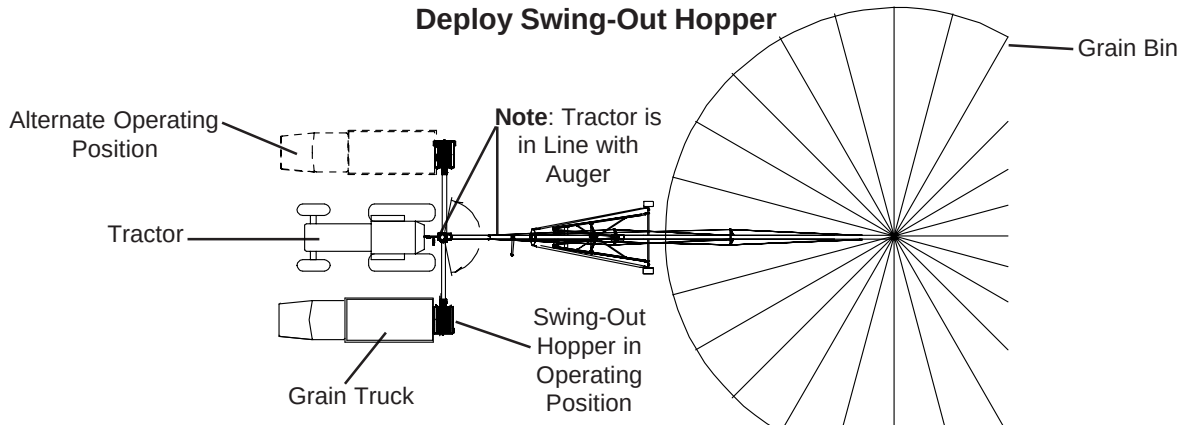


FIGURE 43

1. OPERATION RECOMMENDATIONS

A. One person must be in a position to monitor the operation of the auger at ALL times. That person should visually inspect the auger before and during operation and be alert to any unusual vibrations, noises, and the loosening of any fasteners.

B. For smoother start-ups, keep the auger from operating totally filled. This will also help ensure efficient operation.

C. To avoid excessive wear, do not operate the auger empty for any length of time.

D. You must “break-in" a screw conveyor when it is new and at the beginning of each season. Refer to Step 2 for instructions.

E. Only use an Agricultural Tractor with 540 RPM Power Take-Off (PTO).

F. To avoid damage and excessive wear of the 8" and 10" augers:

- Do not operate the auger at speeds in excess of 540 RPM.
- Do not operate the auger at speeds below 450 RPM.

G. During operation, ensure the tractor is in line with the auger.

⚠ DANGER

Be certain to close ALL the clean-out doors and inspection doors in the main auger hopper before operating the auger.

The operator should not add power before viewing the entire work area and checking that ALL personnel are clear of the designated work areas.

The operator should be alert to any unusual vibrations or noises that might indicate a need for service or repair during the initial start-up and break-in period.

The operator should regulate the grain flow into the main auger by controlling the amount of grain fed to the swing-out hopper. Avoid plugging the main auger by overfeeding the hopper.

Be certain that ALL safety shields and devices remain in place during operation.

Ensure that hands, feet, and clothing are kept away from moving parts.

Stop the engine and lockout the power source whenever the equipment must be serviced or adjusted.

2. START-UP AND BREAK-IN

A. Any auger that is new or has sat idle for a season needs to go through a “break-in" period.

B. Before you start the tractor, be sure the PTO driveline is securely attached to the auger and the tractor. Make sure the flexible swing-out hopper is in working position.

C. Be sure that power to the PTO is **OFF**.

⚠CAUTION **Be certain that the shaft shield rotates freely on the shaft before engaging the PTO driveline.**

D. Turn on the tractor.

E. Engage the PTO (by turning the switch to **ON**, engaging the lever, or whatever means necessary) at a slow RPM to minimize shock loads.

F. Do not allow the auger flighting to “load up" at low speed. If this occurs, high torque must be used to turn the auger flighting, and this can damage the auger.

G. Run the auger at partial capacity until several hundred bushels of grain have been augered and the flighting assembly and tube are polished.

CAUTION **Do not stop or start the auger under load because the auger has a tendency to “freeze up," especially if the flight and tube have not become well polished.**

H. When the screw and tube are polished and smooth, slowly work up to the recommended speed and run the auger at full speed.

CAUTION **You will minimize shock loads by engaging the PTO at a slow RPM, then increasing the RPM to the recommended speed.**

1. NORMAL SHUTDOWN

A. Make sure that the flexible swing-out hopper and auger are empty before shutting down the unit.

B. Slow down the RPM.

C. Turn off the tractor.

D. Before the operator leaves the work area, the power source should be locked out, as described on below.

⚠WARNING **Precaution should be made to prevent anyone from operating the auger when the operator is absent from the work area. The operator must stop the auger and turn off the power source any time he/she must leave the work area, or service/adjust the auger.**

2. INTERMITTENT OPERATION SHUTDOWN

A. During intermittent operations such as batch drying, give careful consideration to the size of auger to use. Using a larger diameter auger and reducing its load level is far better than subjecting a smaller diameter auger to high loads. An auger that is kept from absolute filling will start-up easier and convey more efficiently.

CAUTION **Do not stop and restart the auger when it is fully loaded. This may damage the auger.**

3. EMERGENCY SHUTDOWN

A. If you have to immediately shutdown the auger under load, **be sure to disconnect and lockout the power source**.

B. Remove as much grain from the hoppers and auger that you can before restarting. Use the clean-out door in the bottom of the main auger inlet hopper.

C. **Never** attempt to restart the auger when it is full.

D. When as much grain as possible has been cleared from the hoppers and the auger, reconnect the power source and clear the remaining grain gradually.

CAUTION **Starting the auger under load may result in damage to the auger. Such damage is considered abuse of the equipment.**

4. LOCKOUT

A. To lockout the auger, stop the auger and turn off the power supply.

B. Remove the ignition key or coil wire from the power source. If this is not possible, remove the PTO driveline from the work area.

C. The operator should lockout the SAW auger in the following situations:

- Anytime the operator leaves the work area, such as after shutdown.
- Anytime the operator services or adjusts the auger.

5. RELOCATE THE AUGER

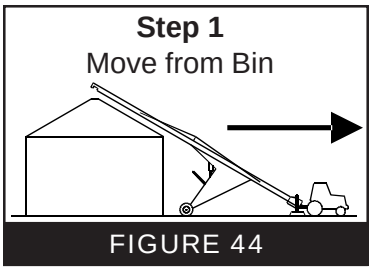


FIGURE 44

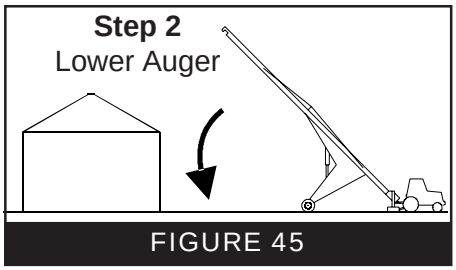


FIGURE 45

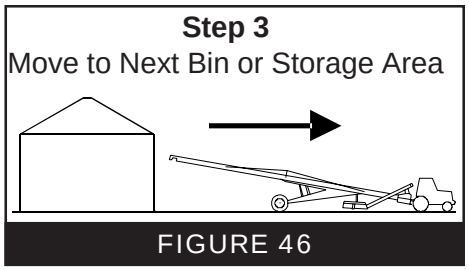


FIGURE 46

A. After you complete conveying grain, you should move the auger away from the bin and lower it. The auger can then be moved to a different bin for more conveying or cleaned and stored.

B. Relocating the auger consists of three (3) steps:

   1. Move the auger away from bin or storage area.
   2. Lower the auger.
   3. Move the auger to next bin or storage area.

Move Auger from Bin

NOTE **On augers equipped with side drive kits, first hitch the tractor to the drawbar and connect the hydraulic lift hose to the tractor.**

A. Empty the auger and clean up the work area.

B. Raise the flexible swing-out hopper before lowering the main auger. (Refer to ***Raising Flexible Swing-Out Hopper into Transport Position*** on page #60 for more information.)

C. Untie any anchors and remove all supports.

D. Open the hydraulic shut-off valve.

E. Remove the wheel chocks.

F. Raise the auger so that the discharge spout is clear of the bin opening.

G. Slowly move the auger away from the bin.

CAUTION **When moving the auger, do not make turns while the PTO driveline is attached to the tractor. Maneuvering with the PTO driveline attached will result in damage to the driveline that is not covered by the warranty.**

Lower the Auger

A. Lower the auger immediately after moving the auger away from the bin or storage structure.

⚠CAUTION **You should lower the auger even if you are relocating it a short distance away, such as to another bin in the immediate area.**

B. Disconnect the PTO driveline and place it in storage position. Support the PTO driveline with a storage hook, as shown in Figure 48 on page #61.

Move Auger to Next Bin or Storage Area

A. Carefully move the auger to the next bin or storage area.

B. It is recommended that the auger be stored in the full down position.

C. Thoroughly inspect the auger as described in the ***Inspect the Auger*** section on page 49.

6. UNHITCH THE AUGER

⚠CAUTION **If you must disconnect the tractor from the auger in the raised position, tie the discharge end of the auger to the bin or storage structure to prevent wind damage.**

A. Make sure the hydraulic shut-off valve is closed.

B. Relieve the tractor internal hydraulic pressure. (Refer to the tractor's operations manual for specific instructions.)

C. Disconnect the hydraulic hose from the tractor.

D. Chock the auger wheels to prevent the auger from rolling.

E. Place the jack into the lifting position and remove the hitch weight from the tractor drawbar. Be certain the jack pin is properly set to prevent the jack from rotating on the mount.

F. Remove the safety chain and hitch pin.

G. Disconnect the tractor from the auger.

H. Open the clean-out door in the bottom of the main inlet hopper to clean out excess grain and allow water to drain during storage.

⚠WARNING **NEVER raise the intake end of the auger higher than is necessary to attach to a towing vehicle. When the intake end is raised, weight rapidly transfers to the intake end.**

Never stand between the tractor and the auger when hitching unless all controls are in neutral and the brakes are locked.

7. RAISE FLEXIBLE SWING-OUT HOPPER INTO TRANSPORT POSITION

A. Ensure that all grain has discharged from the auger.

B. Disengage the PTO.

C. Lockout the power sources.

D. Swing the hopper to the side of the main auger.

E. Release the ratchet lever on the winch and release enough cable to attach the cable hook to the front of the hopper.

F. Attach the hook to a hole in the front plate of the hopper, as shown on the next page. Use the hole farthest from the auger tube. This ensures that when the hopper is raised, it will rotate and face toward the auger.

G. Engage the winch ratchet by flipping the winch ratchet lever into the down position. A clicking noise will sound as the handle is turned.

H. Turn the winch handle clockwise to raise the hopper.

I. Raise the hopper until the safety hook is within a few inches of the lift arm pulley.

J. Place the safety chain ring over the hanger welded to the lift arm, and secure it with a spring clip.

CAUTION **Pay attention to the cable as it winds into the winch drum. Make sure it winds on the drum evenly and does not build up on one side.**

7. RAISE FLEXIBLE SWING-OUT HOPPER INTO TRANSPORT POSITION (CONT.)

⚠CAUTION **Be sure to keep your hands away from the winch drum while operating it.**

Flexible Swing-Out Hopper in Transport Position

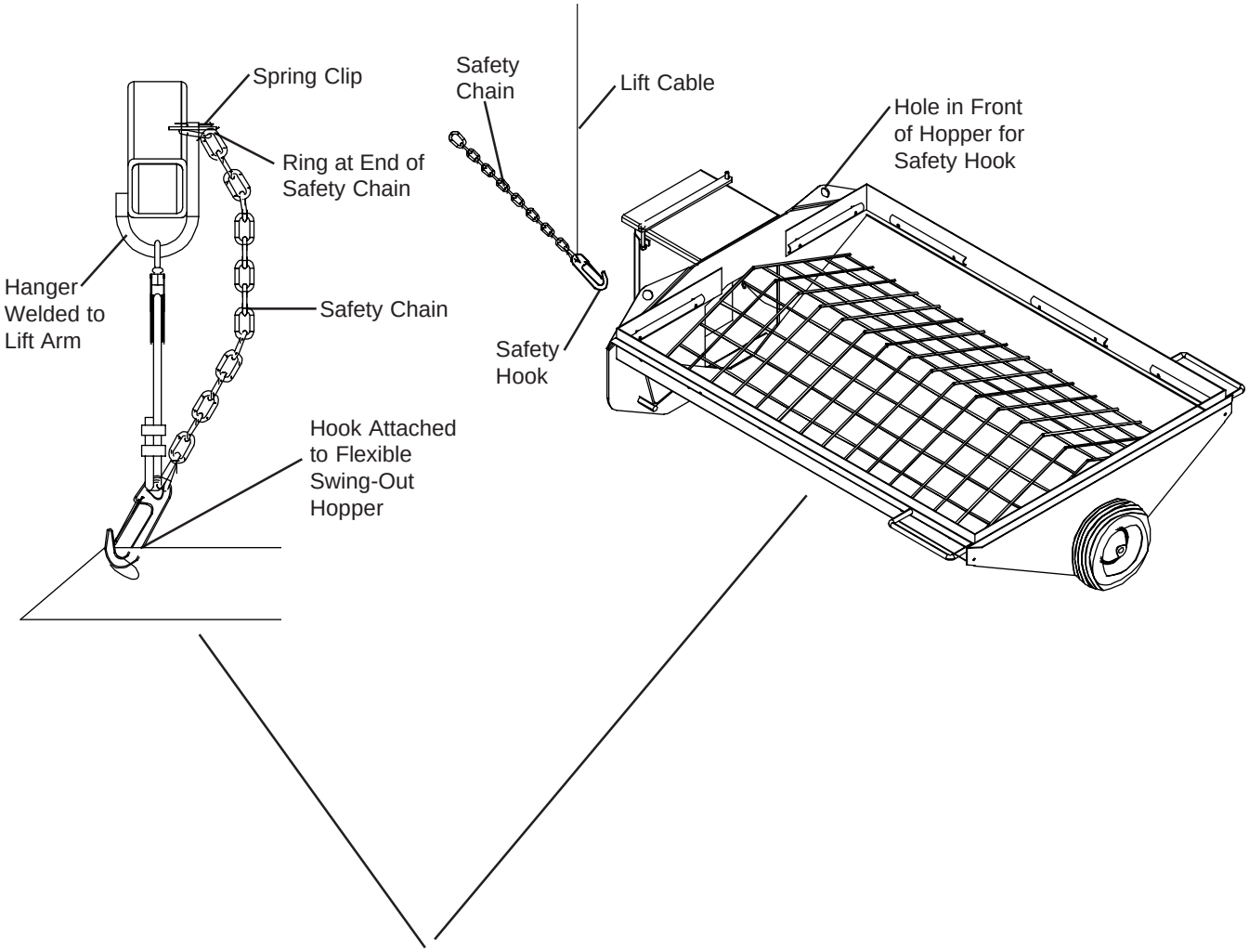


FIGURE 47

8. STORE PTO DRIVELINE

A. Place the PTO driveline in storage position when it is not attached to the tractor.

B. Tilt the PTO driveline up and position the support hook under the driveline to support the weight of the driveline.

PTO Driveline in Storage Position

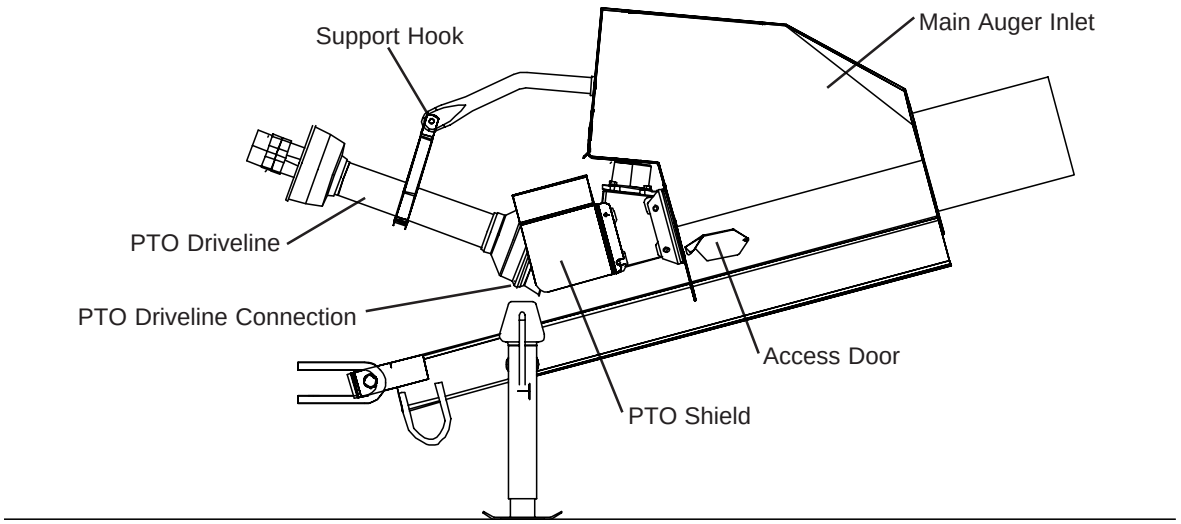


FIGURE 48

1. LUBRICATION GUIDELINES

A. Check and service the auger frequently to ensure economical and efficient operation of your auger. Maintaining regular and correct lubrication is key to proper maintenance. Infrequent or incorrect lubrication can result in reduced efficiency, excessive wear, and needless downtime.

B. Refer to the drawing below to identify the parts that need lubrication and the lubrication frequency.

⚠DANGER **NEVER perform maintenance on the auger unless all safety shields and devices are in place. Replace any that are damaged or lost. Do not clean, adjust, or lubricate any part of a machine that is in operation.**

Lubrication Locations

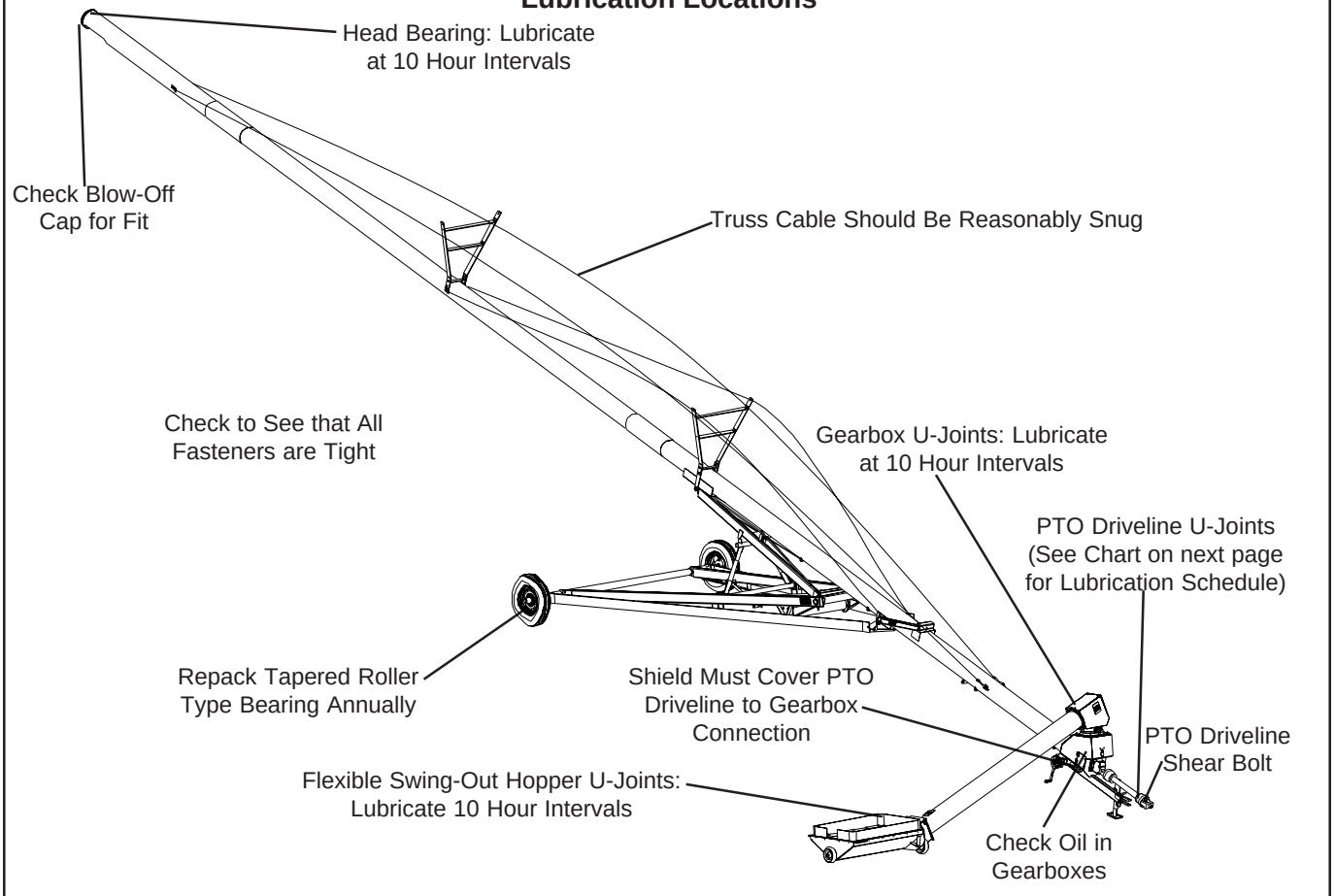


FIGURE 49

2. RATCHET TYPE WINCH LUBRICATION

A. Use a ratchet type winch to lift the flexible swing-out hopper into transport position.

B. Ratchet type winches require the following maintenance:
   1. All gears must be covered by a film of grease at all times.
   2. The nut holding the handle assembly must be tight.
   3. The two (2) bushings found at the end of the drum shaft, the ratchet pawl, and the bushing at the ends of the pinion shaft should be wet with oil.
   4. The teeth of the ratchet lock should be sharp, and not worn, so that they can hold the load.

3. **PTO DRIVELINE U-JOINT LUBRICATION**

A. You must lubricate five (5) fittings on the PTO driveline. The drawing below identifies the location of the fittings.

NOTE **To lubricate the U-joint on the auger end, loosen the four (4) bolts holding the PTO driveline shield to the gearbox, then rotate the shield up.**

B. To lubricate the auger end of the PTO driveline, you need to rotate up the shaft shield. Refer Figure 48 on page 60 for the location of the shield.

C. Apply the first lubrication after the initial start-up and after 16–24 hours of operation, then follow this schedule:

Constant Angle Lube Recommendations		
Interval	**Location**	**Amount**
4 hrs.	U-Joint Cross & Bearings	1 pump
8 hrs.	Telescoping Members	4-8 pumps
4 hrs.	CV Ball & Socket	1-2 pumps

D. Use a good quality lithium soap base E.P. grease meeting the N.L.G.I. # 2 specifications and containing no more than 1% molybdenum disulfide to lubricate all fittings. (Example: Shell super duty or equivalent)

E. You may substitute an E.P grease meeting the N.L.G.I. # 2 specifications and containing 3% molybdenum disulfide in the telescoping, and CV ball and socket members ONLY. (Example: Mobil Oil Company, “Mobil Grease CMP"; Shell Oil Company, “Retinax AM"; Texaco, “Molytex EP # 0 and # 2")

F. Be sure to return the shaft shield.

4. PTO DRIVELINE REPLACEMENT PARTS

A. To ensure optimal performance from your auger, any parts for replacement should be replaced with parts of the same type and size. Do not modify or alter any of the auger components, such as using a part that exceeds the maximum recommended operating length of PTO driveline.

B. When lubricating PTO driveline replacement parts, refer to the chart on the previous page to determine the amount of lubrication and the recommended intervals.

CAUTION **PTO driveline replacement parts do not come lubricated. Lubricate them at the time of assembly.**

5. PTO DRIVELINE SHEAR BOLT

A. The PTO driveline shear bolt is located at the tractor connection. The shear bolt protects the auger from damage if the auger is subjected to high loads or becomes plugged.

B. Use a replacement bolt of the proper size and strength to ensure that the shear device will protect the auger and operator. Refer to the chart below for the correct size and strength.

PTO Driveline Shear Bolt			
Auger Size	**Shear Bolt Size**	**Shear Bolt Grade**	**Replacement Shear Bolt Part No.**
8" dia.	3/8" - 16 x 1" long	Grade 2	GK1584
10" dia.	3/8" - 16 x 1" long	Grade 5	GK3099

C. Extra shear bolts are supplied with the auger. They are stored in the operator’s manual container located on the main auger inlet hopper.

PTO Lubrication Locations

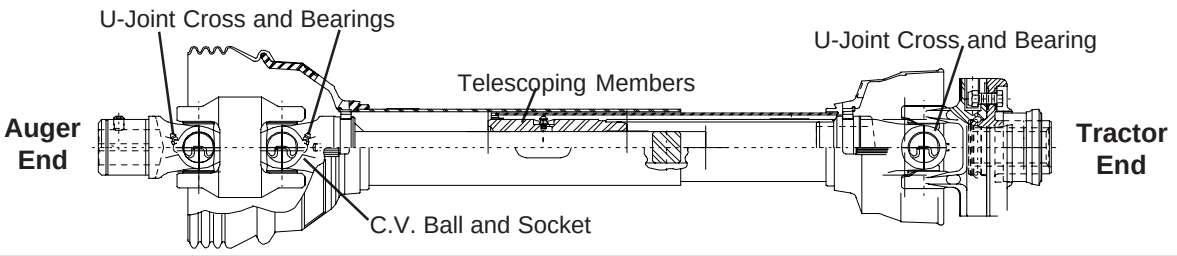


FIGURE 50

6. GEARBOX LUBRICATION

A. The drawing below identifies the two (2) gearboxes that require lubrication, the incline tube gearbox (upper) and the inlet hopper gearbox (lower).

NOTE

The incline tube gearbox (upper gearbox) and the inlet hopper gearbox (lower gearbox) are connected by two (2) u-joints, the upper and lower u-joint.

CAUTION

Oil dissipates under working conditions. Be sure to frequently check the oil in the gearboxes and maintain the proper level.

B. The type of oil you should use for the gearboxes depends on operating temperatures:

- For normal operating temperatures between 40°—120°F, use non-foaming, multipurpose gear oil, SAE 85W-90 weight.
- For temperatures below 40°F, use SAE 80 weight oil.
- For all operating temperatures from below 40°F to 120°F, SAE 80W-90 weight may also be used.

NOTE

Use commercial grade oil that is available for automotive differentials. If you are running the auger in severe applications, such as running the auger 24 hours a day, extreme pressure additives may be of value.

C. Lubricate the gearboxes every 10 hours of operation as described below:

Upper Gearbox

1. Lift the access door.
2. Remove the plug in the side of the gearbox.
3. Check to see if the oil is up to the plug level. If it is not, refill using the oil described in step B.

Lower Gearbox

1. Remove the plug in the side of the gearbox.
2. Check to see if the oil is up to the plug level. If it is not, refill using the oil described in step B.
3. Grease the top bearing in the quill with 1 pump of synthetic lithium NLGI Grade 1-1/2 high temp. extreme pressure grease (mobilith SHC 460 or equivalent). (Use 4 pumps when oil in gearbox is changed.)

⚠WARNING **Be sure to close the access doors after checking the oil level. NEVER operate the unit with the access doors open.**

CAUTION **NEVER add more oil than is recommended in Step 6-C. Adding too much oil may damage the seals or force the oil out through the vented plug.**

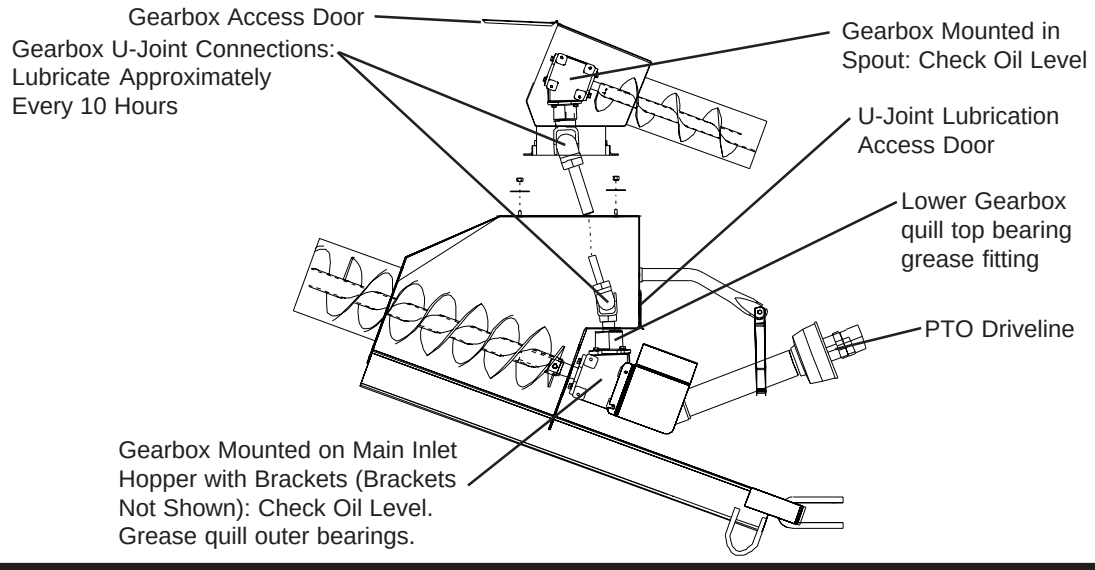


FIGURE 51

7. GEARBOX U-JOINT LUBRICATION

A. See Figure 51 on the previous page identifies the two (2) gearbox u-joints that require lubrication. Lubricate these every ten (10) hours using a SAE multipurpose type grease. Use a grease gun with a rubber hose tip.

Positioning the Auger and Hopper for Lubrication

Rotate the auger so the zerk is facing the opening or in an accessible position.

Although the zerk can be reached with the flexible swing-out hopper in any position, we recommend positioning the hopper on the ground close to the tractor or front. This turns the open side of the u-joint with the zerk toward the open end door. If the hopper is hanging on the auger, you must access the zerk from the back where it is not visible and engage it by feel.

Upper Gearbox U-Joint

1. Open the large hinged door located on the head of the inclined auger.

2. Lubricate the grease zerk if necessary.

Lower Gearbox U-Joint

1. Open the small access door on the front of the hopper.

2. Lubricate the grease zerk if necessary.

B. Be sure to close the pop-open and access doors when lubrication is complete.

9. UNDERCARRIAGE AXLE SPINDLE BEARINGS LUBRICATION

A. All 8" and 10" augers come with tapered roller type bearings.

B. Repack and adjust the bearings annually or as needed, depending on usage.

C. Be careful when dismantling the wheel bearing assemblies.

D. First remove the dust cap by forcing out the edges.

E. Remove the cotter pin, slotted nut, and flat washer.

F. Use care to remove the hub and bearings from the spindle.

G. Examine each part for wear or damage and replace with new ones as needed.

H. Use care to remove the hub and bearings from the spindle.

I. When reassembling the hub, repack both bearing cones with grease and fill the hub cavity 1/3 full.

J. Place the inner bearing assemblies into the hub.

K. Press the seal into the hub.

L. Reinstall the hub on the spindle, being careful to not damage the lip of the grease seal.

M. Insert the outer bearing assembly into the hub.

N. Replace the flat washer and slotted nut.

O. Tighten the slotted nut to seal the bearings until the hub binds as you rotate the hub.

P. Back off the slotted nut to the next slot and insert a new cotter pin. The cotter pin should measure 5/32" wide x 1-1/4" long.

Q. Securely fasten the dust cap.

8. FLEXIBLE SWING-OUT HOPPER FLIGHT U-JOINT LUBRICATION

A. A u-joint connects the hopper and the inclined flight at the hopper elbow. Lubricate the flight u-joint at approximately ten (10) hour intervals using SAE multipurpose type grease.

B. To lubricate the u-joint, first remove the cover strap.

C. Raise the hinged cover.

D. Lubricate the grease zerk if necessary.

E. Close the cover and replace the cover strap before operating the unit.

⚠WARNING **The hinge cover must be closed and the strap properly installed before operating the unit.**

CAUTION **For Low Profile Hopper CV Joints: Lubricate every 8 hours.**

Swing Out Hopper U-Joint Lubrication

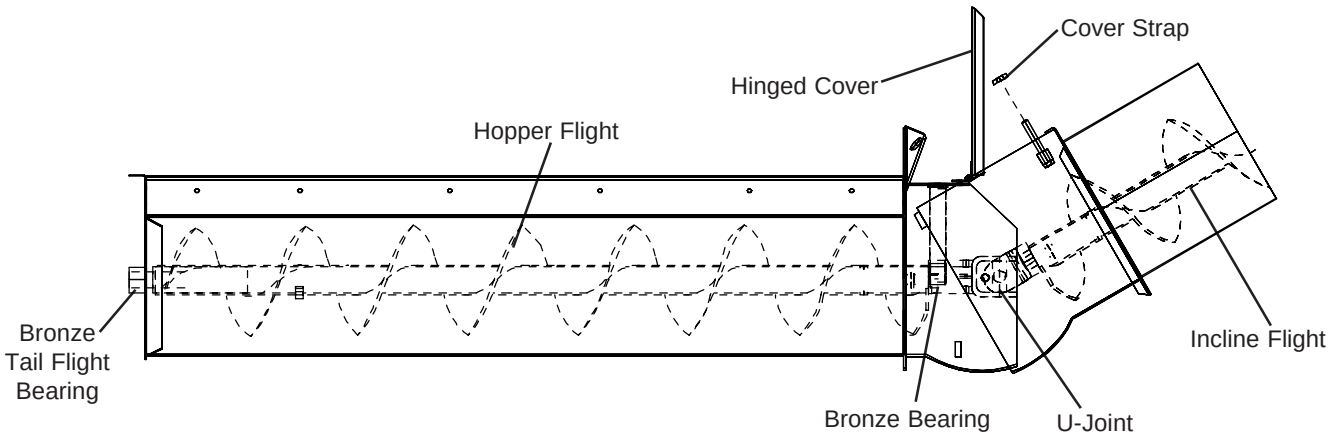


FIGURE 52

10. HYDRAULIC CYLINDER LUBRICATION

A. An air breather is housed in the rod end port of the hydraulic cylinder.

B. Check to see if oil is leaking from the air breather. If so, the rod seals are damaged or leaking.

C. Remove the old rod seals and replace with new ones.

11. HYDRAULIC HOSE LUBRICATION

A. Be certain that ALL the hydraulic fittings and hoses are tight and not leaking oil.

B. Replace fittings that are leaking.

C. Replace any hydraulic hose that may be cut or damaged.

⚠WARNING

NEVER connect or disconnect hydraulic parts when there is pressure within the system. Hydraulic systems are highly pressurized. Hydraulic oil that escapes, even through invisible pinhole-sized leaks, can penetrate body tissues and cause SERIOUS INJURY.

Look for leaks using a piece of wood or cardboard. NEVER use your hands or other parts of your body.

When reassembling, be certain that ALL connections are tight. If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not received at once.

12. MAIN AUGER HEAD BEARING MAINTENANCE

A. The main auger head bearing is a self-aligning, sealed ball bearing. It requires lubrication daily during operation.

B. Remove the blow-off cap to work with the head bearing, then proceed with lubrication.

C. Although no adjustment needs to be made to the bearing, ensure that it is firmly fastened.

D. Be certain that the setscrews in the lock collar are tight against the shaft, securing the lock collar firmly to the shaft.

13. BRONZE FLIGHT BEARINGS MAINTENANCE

A. Bronze with graphite flight bearings support the flexible swing-out hopper flight. The bearings require no lubrication.

B. If the bronze bearing spins inside the retainer, replace it with a new one.

C. Remove the old bronze bearing and press in the new one.

14. BLOW-OFF CAP MAINTENANCE

A. Remove the blow-off cap and reinstall it before using the auger each season.

B. The cap should fit snugly, but you should still be able to slide it off the end of the tube if the discharge becomes plugged.

NOTE **It should be possible to tap the cap off by hand.**

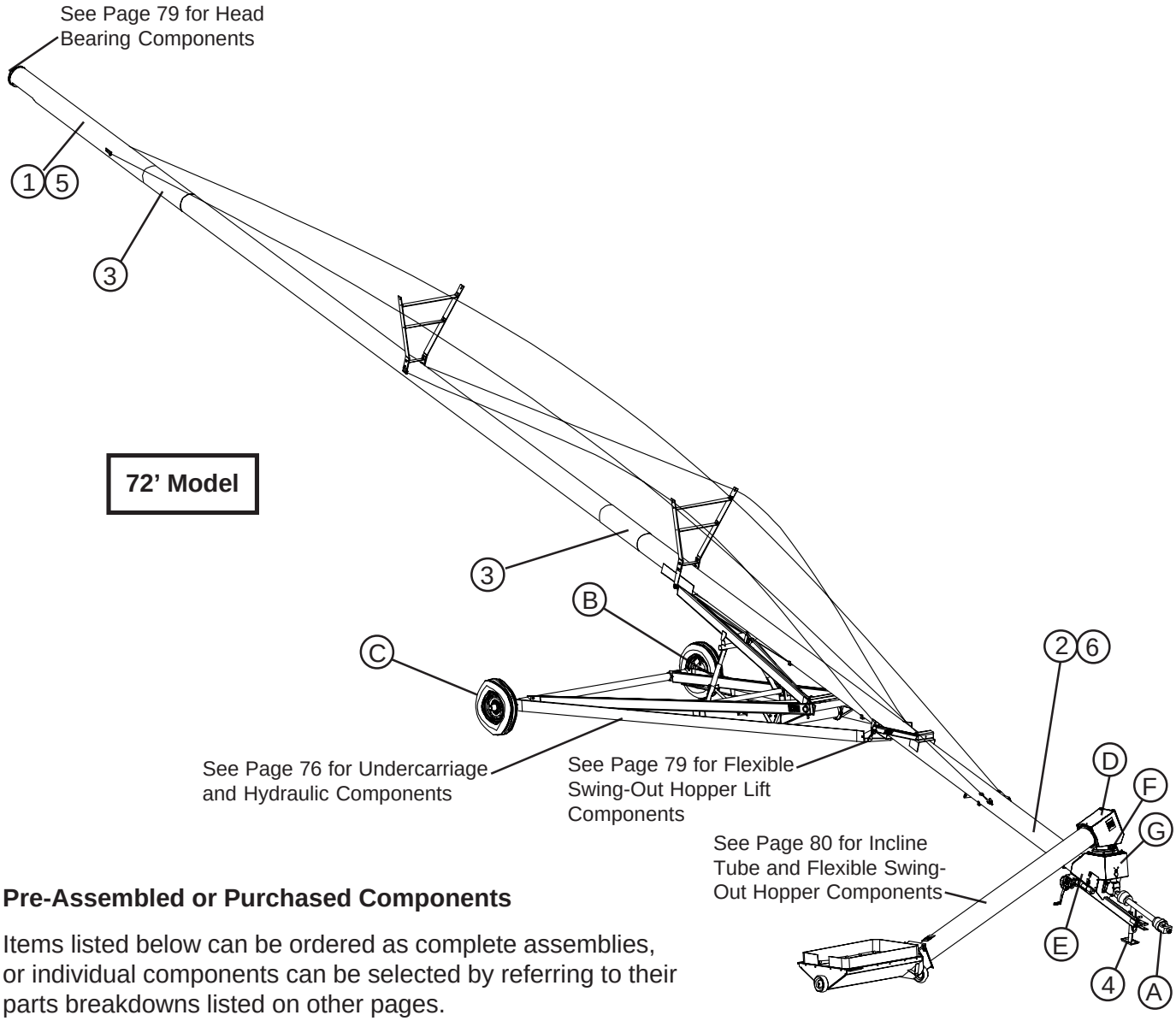
TROUBLESHOOTING

Problem	Possible Cause	Solution
1. THE AUGER IS VIBRATING.	A. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.	A1. It may be necessary to remove the flighting for inspection.
2. CAPACITY IS TOO LOW.	A. There may not be enough grain reaching the auger.	A1. Make sure the intake has not bridged over, restricting flow. The flighting at the intake should be covered with grain for maximum capacity.
	B. The auger is moving too slowly.	B1. Check the auger speed. Low capacity will result from speeds slower than recommended.
3. THE AUGER PLUGS.	A. The auger may be "jamming" because too much grain is reaching the auger.	A1. Decrease the amount of grain the auger is gathering.
	B. The grain may be wet.	B1. If wet grain or other hard-to-move material is being augered, reduce the amount of grain being fed into the swing-out hopper.
	C. The auger may be jammed with foreign material.	C1. Remove any foreign material in the auger.
	D. The discharge end may be plugged.	D1. Unplug any plugs at the discharge end of the auger.

Problem	Possible Cause	Solution
4. THE AUGER IS LOWERING	A. There may be a leak in the hydraulic fittings, hose or connections.	A1. Replace damaged hydraulic fittings, hoses, and connections.
	B. The hydraulic shut-off valve may be open.	B1. Close the hydraulic shut-off valve.
5. AUGER WILL NOT RAISE OR LOWER.	A. The hydraulic shut-off valve may not be open.	A1. Open the hydraulic shut-off valve.
	B. The hydraulic coupler may be incorrectly attached to the tractor.	B1. Make sure the hydraulic coupler is correctly mounted.
	C. The tractor reservoir may be low on oil or empty.	C1. Refill the reservoir with oil.
	D. The tractor pressure may be too low.	D1. Increase the tractor RPM.
6. DRIVELINE SHEAR BOLT SHEARS FREQUENTLY.	A. Grain may be flowing too quickly into the ground hopper.	A1. Reduce the flow rate of grain into the ground hopper.
	B. The discharge of grain from the main auger may be restricted.	B1. Inspect auger intake and discharge areas for damage.

PARTS

MAIN AUGER COMPONENTS



Pre-Assembled or Purchased Components

Items listed below can be ordered as complete assemblies, or individual components can be selected by referring to their parts breakdowns listed on other pages.

Main Auger Components			
Ref #	**8" Part #**	**10" Part #**	**Description**
A	GK1371	GK1371	PTO Driveline Assembly (See pages 84-85 for parts breakdown)
B	GK1527	GK1527	Hydraulic Cylinder—4" x 24" Stroke for 52' (See page 87 for parts breakdown)
B	GK1528	GK1528	Hydraulic Cylinder—4" x 36" Stroke for 62' and 72' (See page 87 for parts breakdown)
C	GK1193	GK1193	Spindle & Hub Assembly 4-Bolt—52' and 62'
C	GK1194	GK1194	Spindle & Hub Assembly 5-Bolt—72'
D	GK1197	GK1197	Upper Gearbox (See page 89 for parts breakdown)
E	GK1195	GK1196	Lower Gearbox Assembly (See page 91 for parts breakdown)
F	GK1202	GK1202	U-Joint Assembly (See page 92 for parts breakdown)
G	N/A	N/A	Main Inlet Hopper (See page 77 for components)

AUGER HOUSING AND CONNECTING COMPONENTS

AUGER HOUSING SECTIONS

Auger housings vary depending on the model and options selected.

Galvanized Augers

Main auger housing consist of 14 GA. galvanized tubing. Components that are welded to the main auger housing are painted silver.

- 8" Models—Standard 14 GA. housing only
- 10" Models—Standard 14 GA. housing or Heavy Duty 12 GA. housing

Galvanized Auger Housing

Ref. #	8" Part # Standard Duty 14 ga.	10" Part # Standard Duty 14 ga.	10" Part # Heavy Duty 12 ga.	Description
1	GK1477	GK1479	GK3139	Auger Housing (Top) for 52' (20'-0" long)
	GK1465	GK1470	GK3140	Auger Housing (Top) for 62' (30'-0" long)
	GK1467	GK1472	GK3141	Auger Housing (Top) for 72' (10'-0" long)
1	GK1468	GK1473	GK3138	Auger Housing (Middle) for 72' (30'-0" long)
2	GK1478	GK1480	GK3135	Auger Housing (Bottom) for 52' (30'-0" long)
	GK1466	GK1471	GK3136	Auger Housing (Bottom) for 62' (30'-0" long)
	GK1469	GK1474	GK3137	Auger Housing (Bottom) for 72' (30'-0" long)

Miscellaneous Components

Ref. #	Part #	Description
3	GK1015	Connecting Band for All 8" Augers
	GK1883	Connecting Band for All 10" Augers
4	GK1379	Jack Assembly—Side Crank (See page 75 for parts breakdown)

Galvanized Auger Housing with Internal Bearings

Ref. #	8" Part #	10" Part #	10" 12 Ga. Part #	Description
1	*N/A*	GK3967	*N/A*	Auger Housing (Top) for 52' (20' Long)
	GK4495	GK3925	*N/A*	Auger Housing (Top) for 62' (30' Long)
	GK1467	GK1472	GK3141	Auger Housing (Top) for 72' (10' Long)
2	GK4497	GK4504	GK5617	Auger Housing (Middle) for 72' (30' Long)
3	*N/A*	GK3654	*N/A*	Auger Housing (Bottom) for 52' (30' Long)
	GK4494	GK3924	*N/A*	Auger Housing (Bottom) for 62' (30' Long)
	GK4496	GK4505	GK5618	Auger Housing (Bottom) for 72' (30' Long)

Internal Bearing Flighting Sections

Ref. #	Part #	Description	8" 52'	8" 62'	8" 72'	10" 52'	10" 62'	10" 72'
5	GK3754	Flight (Top) 8" (10' 8-1/4" Long)	1	1	1			
	GK3623	Flight (Top) 10" (10' 8-1/4" Long)				1	1	1
5 OR 6	GK3736	Flight (Middle) 8" (9' 9-3/4" Long)	3	4	5			
	GK3706	Flight (Middle) 10" (9' 9-3/4" Long)				3	4	5
6	GK3757	Flight (Bottom) 8" (10' 7" Long)	1	1	1			
	GK3625	Flight (Bottom) 10" (10' 7" Long)				1	1	1

Miscellaneous Internal Bearing Components

Ref. #	Part #	Description
3	GK4052	8" Connecting Band with Bearing Slot
	GK3923	10" Connecting Band with Bearing Slot
N/S	GK4193	8" Connecting Band Conver Plate
	GK4185	10" Connecting Band Cover Plate
N/S	GK1263	8" Hanger Bearing with Hardware
	GK1293	10" Hanger Bearing with Hardware
N/S	GK1192	8" Replacment Bronze Bushing
	GK1303	10" Replacement Bronze Bushing
N/S	GK1736	8" Connecting Stub
	GK1951	10" Connecting Stub

FLIGHTING SECTIONS

8" Flight Sections

Flight sections vary depending on the model and flight options selected.

Standard Duty Flight

A 3/16" (.1875) thick flighting on 1.90" O.D. tubing is standard duty flighting.

Heavy Duty Flight

A 1/4" (.250) thick flighting on 1.90" O.D. tubing is heavy duty flighting.

8" Auger Flight Section
(Standard—3/16" Thick Flight on 1.90" O.D. Tubing)
(Heavy—1/4" Thick Flight on 1.90" O.D. Tubing)

Ref. #	Standard Duty Part #	Heavy Duty Part #	Description	Quantity 52'	62'	72'
5	GK2539	GK3114	Flight (Top) for 8" x 52' (21'-2-3/8" long)	1		
	GK2140	GK3115	Flight (Top) for 8" x 62' (16'-2-3/8" long)		1	
	GK2540	GK3116	Flight (Top) for 8" x 72' (11'-2" long)			1
5 and 6	GK1384	GK3113	Flight (Middle) for 8" (15' long)	1	2	3
6	GK1297	GK3112	Flight (Bottom) for 8" x 52', 62' and 72' (15'-2" long)	1	1	1

10" Flight Sections

Flight sections vary depending on the model and flight options selected.

Standard Duty Flight

A 3/16" (.1875) thick flighting on 2-3/8" O.D. tubing is standard duty flighting.

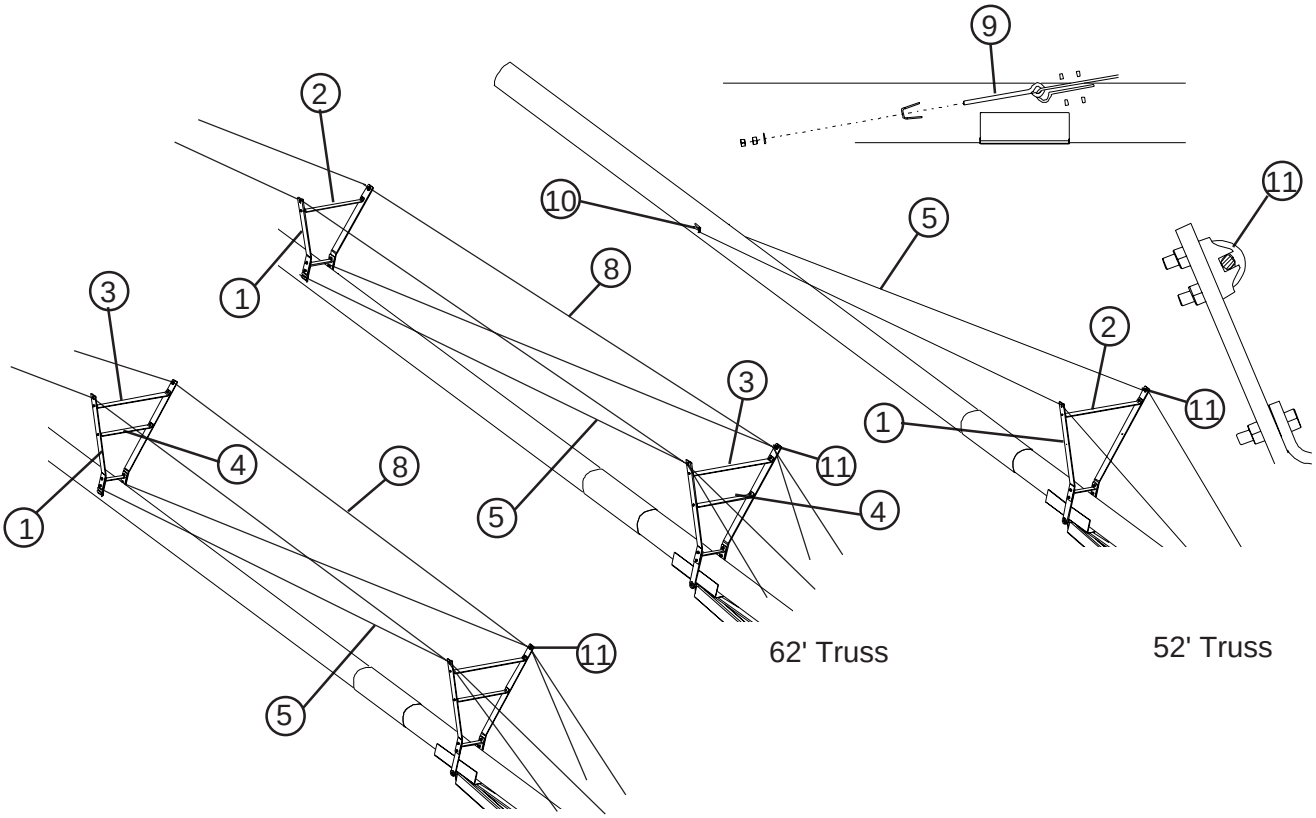
Heavy Duty Flight

A 1/4" (.250) thick flighting on 2-3/8" O.D. tubing is heavy duty flighting.

10" Auger Flight Section
(Standard—3/16" Thick Flight on 2 3/8" O.D. Tubing)
(Heavy—1/4" Thick Flight on 2 3/8" O.D. Tubing)

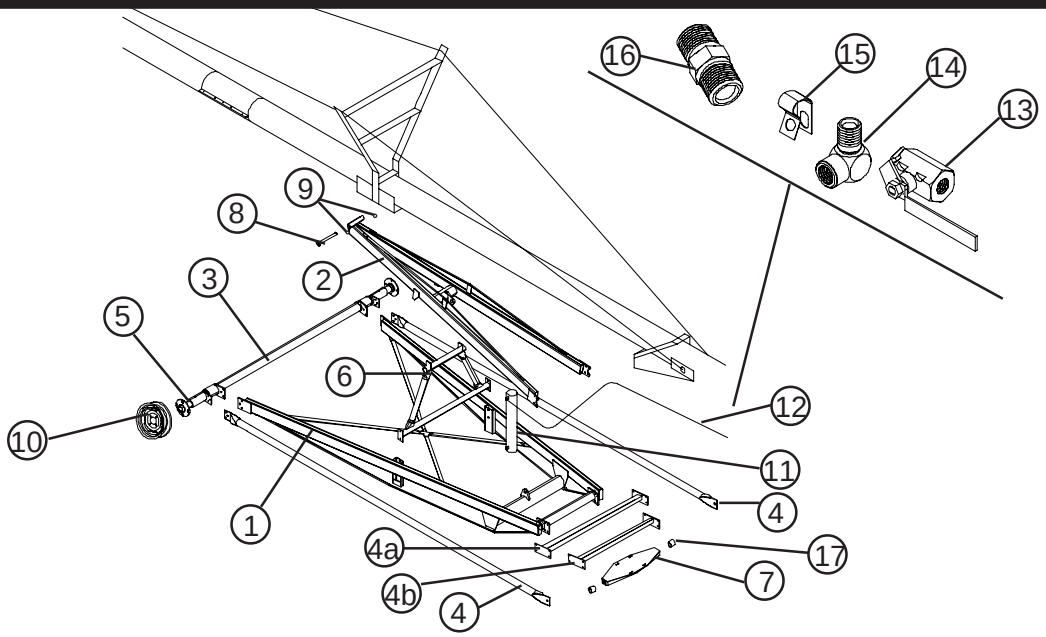
Ref. #	Standard Duty Part #	Heavy Duty Part #	Description	Quantity 52'	62'	72'
5	GK3079	GK3121	Flight (Top) for 10" x 52' (21'- 2-3/8" long)	1		
	GK3080	GK3122	Flight (Top) for 10" x 62' (16'- 2-3/8" long)		1	
	GK3081	GK3123	Flight (Top) for 10" x 72' (11'-2" long)			1
5 or 6	GK2142	GK3120	Flight (Middle) for 10" (15' long)	1	2	3
6	GK2141	GK3119	Flight (Bottom) for 10" x 52', 62' and 72' (15'-2" long)	1	1	1

TRUSS COMPONENTS



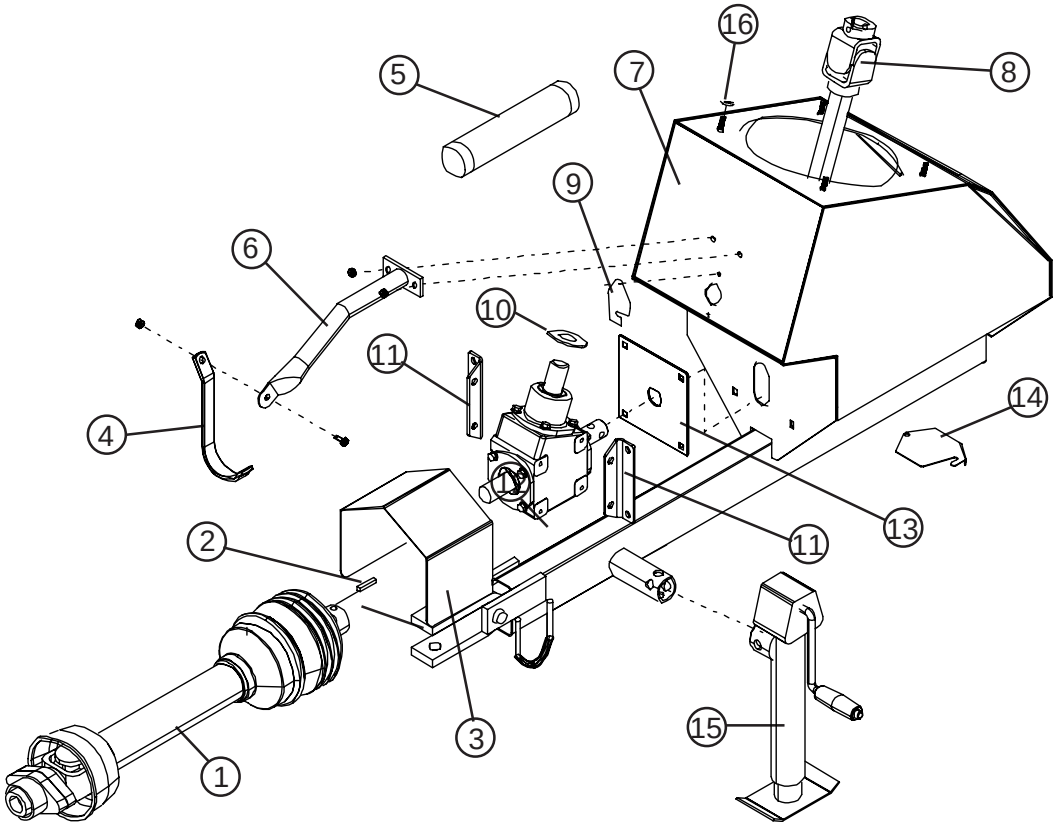
Truss Components		
Ref. #	**Part #**	**Description**
1	GK1555	Truss Side for 52' & Upper Truss on 62' (8" & 10") (32" Long)
	GK1373	Truss Side for 72' & Lower Truss on 62' (8" & 10") (43-1/2" Long)
2	GK1554	Truss Crossbrace for 52' & Upper Truss on 62' (8" & 10") (26-5/8" Long)
3	GK6474	Truss Crossbrace for 72' & Lower Truss on 62' - 8" (33-1/4" Long)
	GK1374	Truss Crossbrace for 72' & Lower Truss on 62' - 10" (35-1/2" Long)
4	GK1375	Bottom Truss Crossbrace for 72' & Lower Truss on 62' - 8" (23-1/2" Long)
	GK1376	Bottom Truss Crossbrace for 72' & Lower Truss on 62' -10" (25" Long)
5	GK1198	Truss Cable for 52' and Lower Truss Cable for 72' (8" & 10") (5/16" x 34' 6" Long)
6	GK2593	Upper Truss Cable for 62' (8" & 10") (5/16" x 50' 6" Long)
7	GK3100	Lower Truss Cable for 62' (8" & 10") (5/16" x 30' 6" Long)
8	GK1200	Upper Truss Cable for 72' (8" & 10") (5/16" x 59' Long)
9	GK3107	5/8" dia. Eyebolt, 13" Long
10	GK2760	5/16" Cable Clamp
11	GK2759	3/8" Cable Clamp
	S-8254	3/8" dia U-Bolt for 62' and 72' Lower Truss

HYDRAULIC UNDERCARRIAGE COMPONENTS



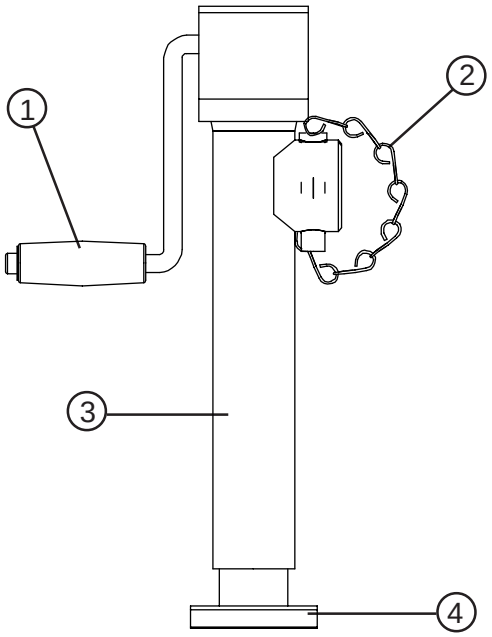
Undercarriage and Hydraulic Lift Components		
Ref. #	**Part #**	**Description**
1	GK1369	Undercarriage Frame for 8" x 52' and 10" x 52'(with Axle and Lower Arms)
	GK7136	Undercarriage Frame for 8" x 62' and 10" x 62' Undercarriage Lower Frame
	GK6851	Undercarriage Lower Frame for 8" & 10" x 72'
2	GK1529	Upper Lift Arm Frame for 8" x 52' and 10" x 52'
	GK1541	Upper Lift Arm Frame for 8" x 62' and 10" x 62'
	GK1541	Upper Lift Arm Frame for 8" x 72' and 10" x 72'
3	GK1524	Axle for 8" x 62' and 10" x 62' (111" Long)
	GK1518	Axle for 8" x 72' and 10" x 72' (120" Long)
4	GK1520	Radius Rods for 8" x 62'
	GK1519	Radius Rods for 8" x 72'
	GK6224	Radius Rods for 10" x 62' w/ GK6691 Cross Brace
	GK6697	Radius Rods for 10" x 72' w/ GK6691 & GK6692 cross braces.
4a	GK6691	Lower Cross Brace for 62' and 72'
4b	GK6692	Upper Cross Brace for 72'
5	GK1193	Spindle & Hub Assembly for 4-Bolt for 8" x 52'-62' and 10" x 52'-62' (See Page 89 for parts breakdown)
	GK1194	Spindle & Hub Assembly for 5-Bolt for 8" x 72' and 10" x 72' (See Page 89 for parts breakdown)
6	GK1368	Undercarriage Support Stand for 8" x 52' and 10" x 52'
	GK1538	Undercarriage Support Stand for 8" x 62', 8" x 72', 10" x 62', and 10" x 72'
7	GK1540	Undercarriage Mounting Plate for 52'
	GK6694	Undercarriage Mounting Plate for 62' and 72'
8	GK1569	Undercarriage Upper Frame Mounting Pin for 8" (1" x 10" Long)
	GK1553	Undercarriage Upper Frame Mounting Pin for 10" (1" x 12-1/4" Long)
9	GK1525	Upper Frame Mounting Bushing for 10" Only
10	GK1176	Wheel Rim for 52' and 62'—15" x 4.5 KB 4-Bolt
	GK1177	Wheel Rim for 72'—15" x 6 LB 5-Bolt
11	GK1527	Hydraulic Cylinder for 52'—4" x 24" Stroke
	GK1528	Hydraulic Cylinder for 8"-62' / 72', and 10"-62'—4" x 36" Stroke
	GK7374	Hydraulic Cylinder NO orifice in inlet port for 10" - 72' — 4" x 36" Stroke
12	GK1385	Hydraulic Hose for 8" x 52' and 10" x 52' (24'-6" Long)
	GK1386	Hydraulic Hose for 8" x 62'-72' and 10" x 62'-72' (31'-6" Long)
13	GK1533	Shut-Off Valve
14	GK1336	90° Street Elbow 1/2" Pipe for all 8" and 10" 52' / 62"
15	GK1315	Hydraulic Hose Mounting Clamp
16	GK3197	Pipe Nipple
17	GK6695	Bushing: 1.25" OD X .750" ID X .625" Long for 62' and 72'
18	GK7383	Restrictor valve assembly
18a	GK7316	Restrictor valve, inline, .062 orifice
18b	GK6613	90° elbow 1/2 NPTF

MAIN INLET COMPONENTS



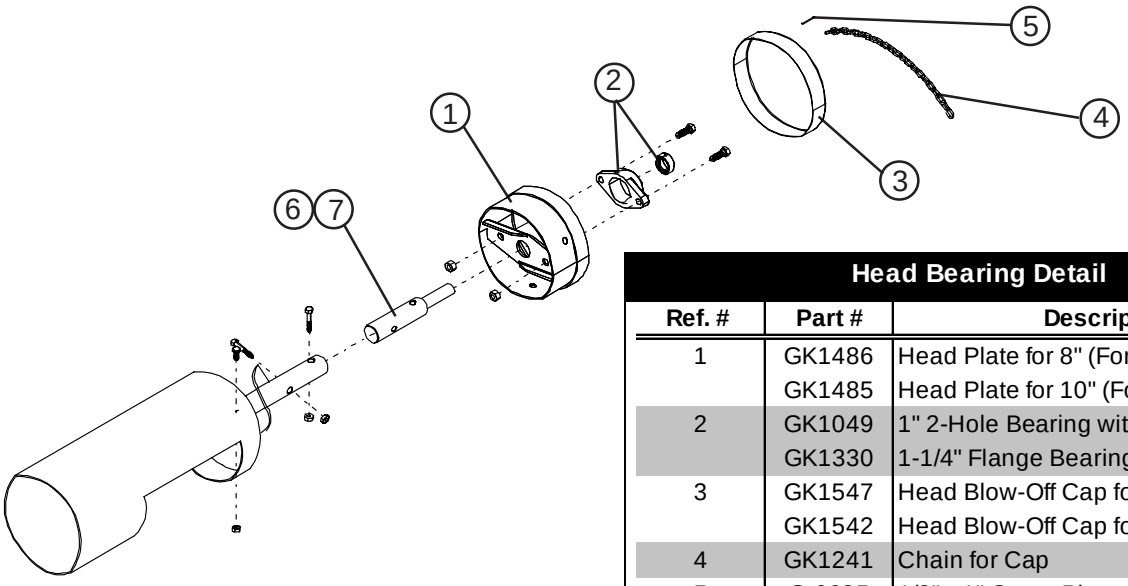
Main Auger Inlet Hopper Components		
Ref. #	**Part #**	**Description**
1	GK1371	PTO Drive Assembly for 8" x 52', 62', & 72' and 10" x 52', 62', & 72' (See Page 84 for parts breakdown)
2	S-9169	1/4" x 1-1/2" Square Key
3	GK1476	Shield
4	GK1363	PTO Driveline Storage Hook
5	GK1523	Manual Canister
6	GK1377	PTO Driveline Bracket
7	GK1463	8" Inlet Hopper
7	GK1464	10" Inlet Hopper
8	GK1202	U-Joint Assembly (See Page 92 for parts breakdown)
9	GK1475	Grease Zerk Access Cover
10	S-8243	Rubber Washer
11	GK1460	Gearbox Mounting Angle
12	GK1195	8" Lower Gearbox Assembly (See Page 91 for parts breakdown)
12	GK1196	10" Lower Gearbox Assembly (See Page 91 for parts breakdown)
13	GK1461	8" Cover Plate
13	GK1462	10" Cover Plate
14	GK1530	Clean-Out Cover
15	GK1379	Jack Assembly (See Page 78 for parts breakdown)
16	GK1532	3/8" Washer 2" O.D. x 13/32" I.D.

JACK ASSEMBLY COMPONENTS



Jack Assembly (Side Crank Model)		
Ref. #	**Description**	**Part #**
--	Complete Jack Assembly	GK1379
1	Handle Kit	GK3293
2	Pin and Chain	GK3294
--	Bearing Kit	GK3296
--	Gear Kit	GK3295
3	Outer Tube	N/A
4	Inner Tube with Foot	N/A

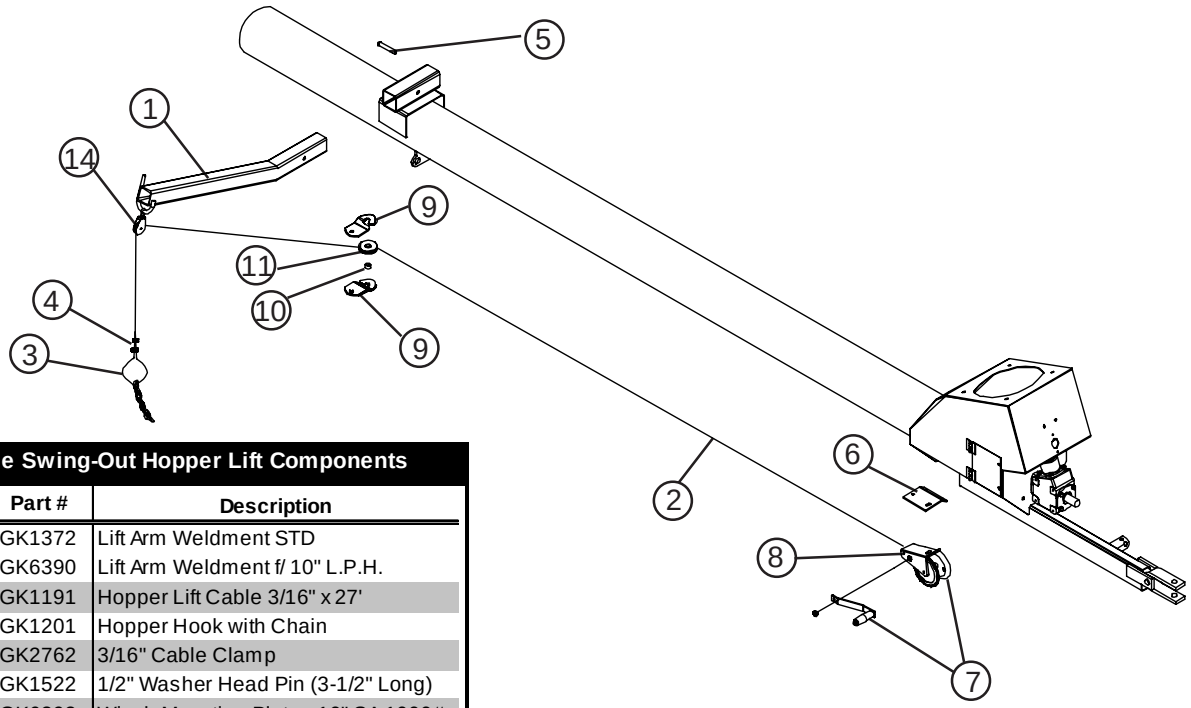
HEAD BEARING COMPONENTS



Head Bearing Detail

Ref. #	Part #	Description
1	GK1486	Head Plate for 8" (For 1" Bearing)
	GK1485	Head Plate for 10" (For 1-1/4" Bearing)
2	GK1049	1" 2-Hole Bearing with Lock Collar
	GK1330	1-1/4" Flange Bearing with Lock Collar
3	GK1547	Head Blow-Off Cap for 8"
	GK1542	Head Blow-Off Cap for 10"
4	GK1241	Chain for Cap
5	S-6635	1/8" x 1" Cotter Pin
6	GC05625	8" Head Stub Bolt In
7	GC05952	10" Head Stub Bolt In

SWING OUT HOPPER LIFT COMPONENTS



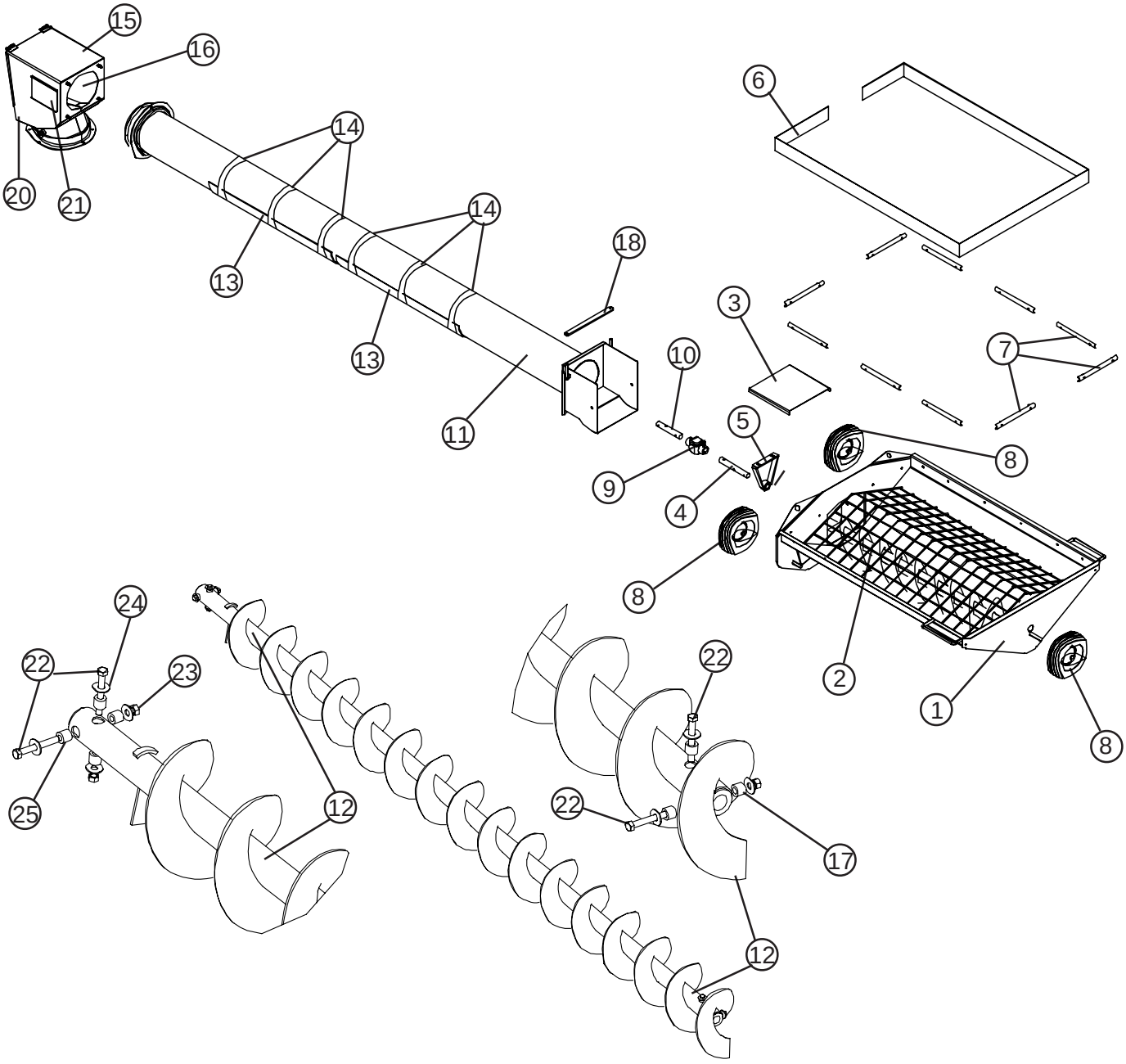
Flexible Swing-Out Hopper Lift Components

Ref. #	Part #	Description
1	GK1372	Lift Arm Weldment STD
	GK6390	Lift Arm Weldment f/ 10" L.P.H.
2	GK1191	Hopper Lift Cable 3/16" x 27'
3	GK1201	Hopper Hook with Chain
4	GK2762	3/16" Cable Clamp
5	GK1522	1/2" Washer Head Pin (3-1/2" Long)
6	GK6392	Winch Mounting Plate - 10" SA 1000#
7	FLX-4519	Shelby 1200# Winch with Handle
8	GK1382	Cable to Winch Keeper
9	GK1545	Pulley Clevis Plate
10	GK1544	Pulley Bushing (1" O.D.)
11	GK1543	Cable Pulley 3" O.D. x 1" I.D.
12	GK1567	Winch Handle: #1000-2500
13	GK1562	Winch Assemlby: 1000# Friction Disc
14	GC04276	Pulley: Swivel Hook for Lift Arm

FLEXIBLE SWING OUT HOPPER COMPONENTS

Flexable Swing-Out Hopper Components		
Ref. #	**Part #**	**Description**
1	GK1490	Flexible Swing-Out Hopper Weldment for 8" w/ GK1070 Bushing
	GK1491	Flexible Swing-Out Hopper Weldment for 10" w/ GK1192 Bushing
2	GK6484	Hopper Flight Weldment with Tail Stub for 8" (3/16" Ga. Flighting)
	GK6485	Hopper Flight Weldment with Tail Stub for 8" (1/4" Ga. Flighting)
	GK6487	Hopper Flight Weldment with Tail Stub for 10" (3/16" Ga. Flighting)
	GK6488	Hopper Flight Weldment with Tail Stub for 10" (1/4" Ga. Flighting)
3	GK1360	Lid with Hinge for 8"
	GK1361	Lid with Hinge for 10"
4	GK1560	Bearing Stub for 8" (1" x 7-1/4" Long)
	GK1487	Bearing Stub for 10" (1-1/4" x 8" Long)
5	GK1357	Bearing Hanger Weldment with Bearing for 8" (1" Bore) w/ GK1070 Bushing
	GK1359	Bearing Hanger Weldment with Bearing for 10" (1-1/4" Bore) w/ GK1192 Bushing
6	GK1362	Rubber Mat
7	GK1482	Rubber Mat Strap
8	GK1526	Hopper Wheel
9	GK1266	U-Joint for 8" (1" Bore x 5" Long) (07E)
	GK1483	U-Joint for 10" (1-1/4" Bore x 5" Long) (6N)
10	GK1559	Incline Flight Tail Stub for 8" (1" x 6" Long)
	GK1484	Incline Flight Tail Stub for 10" (1-1/4" x 5-3/4" Long)
11	GK1364	Incline Tube Weldment for 8" Standard
	GK1365	Incline Tube Weldment for 8" with Corn Screen
	GK1366	Incline Tube Weldment for 10" Standard
	GK1367	Incline Tube Weldment for 10" with Corn Screen
12	GK6476	Incline Flight Weldment for 8" (3/16" Flighting)
	GK6477	Incline Flight Weldment for 8" (1/4" Flighting)
	GK6480	Incline Flight Weldment for 10" (3/16" Flighting)
	GK6482	Incline Flight Weldment for 10" (1/4" Flighting)
	GK6479	10" Incline Flight Assembly w/ UHMW Bushings & Hardware - 3/16"
	GK6481	10" Incline Flight Assembly w/ UHMW Bushings & Hardware - 1/4"
13	GK1564	Corn Screen Cover for 8"
	GK1556	Corn Screen Cover for 10"
14	GK1565	Cover Band for 8"
	GK1557	Cover Band for 10"
15	GK1488	Swivel Spout Weldment for 8"
	GK1489	Swivel Spout Weldment for 10"
16	GK11971	Upper Gearbox (See Page 90 for parts breakdown)
17	GK1534	Rubber Sleeve for 8"
	GK1535	Rubber Sleeve for 10"
18	GK2265	Cover Strap for 8"
	GK1358	Cover Strap for 10"
19	GK1550	Incline Flight to Tail Stub—Stub Bolt Kit for 8"
	GK1536	Incline Flight to Tail Stub—Stub Bolt Kit for 10"
20	GK1571	Snap Fastener for Door
21	GC04870	Access Cover Plate

FLEXIBLE SWING OUT HOPPER COMPONENTS

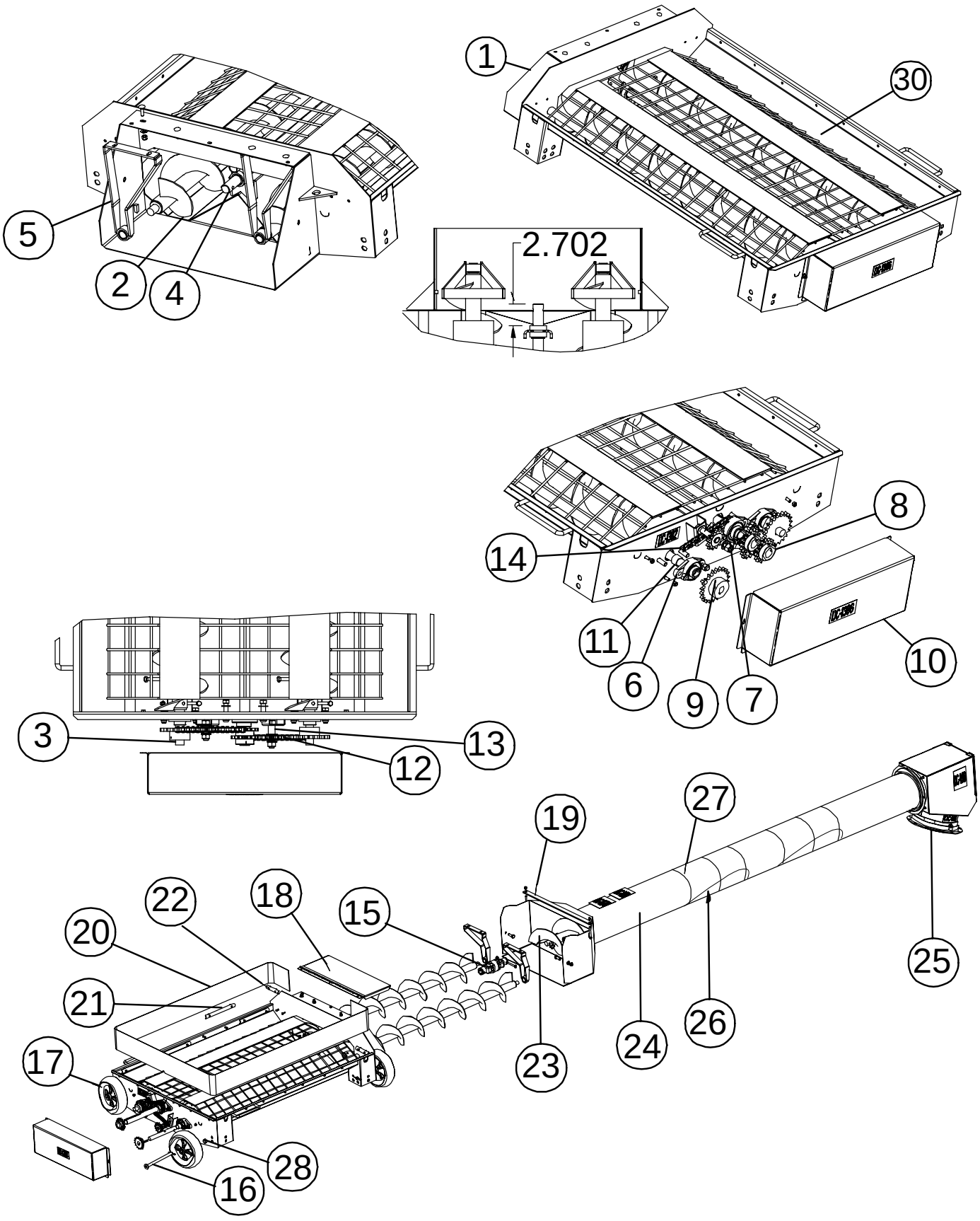


Connecting Components 8" Standard Flight Mounted on 1.90" O.D. Tubing 10" Standard and Heavy Flighting Mounted on 2 3/8" O.D. Tubing			
Ref. #	8" Part #	10" Part #	Description
22	S-8316	--	Connecting Bolt 7/16"-14 x 3" HHCS Zinc YDP Gr 8 (8" Upper)
	S-7249	--	Connecting Bolt 3/8"-16 x 3 " HHCS Zinc YDP Gr 5 (8" Lower)
	--	S-9185	Connecting Bolt 7/16"-14 x 3-1/2 " HHCS Zinc YDP Gr 8 (10")
23	S-8317	S-8317	7/16"-14 ZN GrC Stover Type Locknut (10") & (8" Upper)
	S-8251	--	3/8"-16 ZN GrC Stover Type Locknut (8" Bottom)
24	S-248	--	3/8" Flat Washer - USS Zinc GR2 (8" Bottom)
	--	S-8320	7/16" Flat Washer - USS Zinc (10")
25	--	GK5657	UMHW Bushing - 10" Only

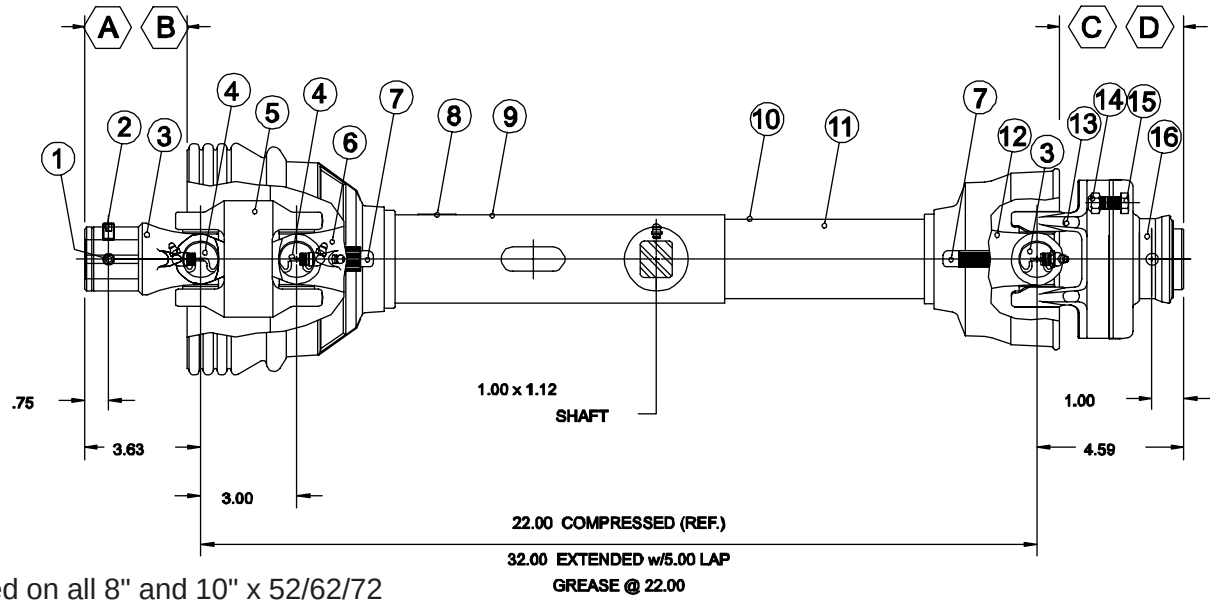
10" LOW PROFILE SWING OUT HOPPER COMPONENTS

10" Low Profile Hopper Components		
Ref. #	**Part #**	**Descripion**
1	GK5813	Swing Away Hopper with Bushing
2	GK5811	Flight 7" O.D. x 7 Ga.
	GK5825	Flight 7" O.D. x 1/4".
3	GK5820	1" x 9" Intake Shaft
4	GK5812	1.25" x 57" Drive Shaft
5	GK5810	Hanger Bearing w/ GK1070 Bushing
6	GK1049	2 Hole Flange Bearing w/ 1" Bore & Lock Collar
7	GK1330	2 Hole Flange Bearing w/ 1.25" Bore & Lock Collar
8	GK1021	15 Tooth Sprocket 1.25" Bore
9	GK1110	22 Tooth Sprocket 1.00" Bore # 50 w/ Keyway
10	GK5821	Chain Guard
11	GK5900	Spacer Bushing 1.25" x .083" x .875"
12	GK1701	13 Tooth Idler Sprocket #50 x 5/8" Bore
14	GK6393	# 50 Roller Chain
13	GK5965	Spacer Bushing .843" x .109" x 1.00"
15	GK5819	CV U-Joint 1.25" x 8.875"
16	GK5857	Clevis Pin 5/8" x 9-3/4"
17	GK5817	Wheel 10" Dia. X 3.25" Wide
18	GK5815	Hopper Lid Weldment
19	GK5814	Lid Strap
20	GK5822	.125" x 6" x 161" Rubber Mat
21	GK1482	9.875" Rubber Mat Strap
22	GK5824	4.875" Rubber Mat Strap
23	GK6479	Incline Flight 10" Incline Flight Assembly 7 Ga.
	GK6481	10" Incline Flight Assembly 1/4"
24	GK6166	Incline Tube 10" Incline Tube
	GK6167	10" Incline Tube w/ Corn Screen
25	GK1489	10" Swivel Spout Assembly
26	GK1556	10" Corn Screens
27	GK1557	10" Cover Bands
28	GK6394	Wheel Spacer Bushing

LOW PROFILE SWING OUT HOPPER COMPONENTS



PTO DRIVELINE MAIN AUGER COMPONENTS



Used on all 8" and 10" x 52/62/72
Complete Part No: GK1371
U-Joint Type: 14E
Auger End 1 1/4" Bore with 1/4" Keyseat
Tractor End 1 3/8" - 6B Spline
Cat. 3 - 50° CV

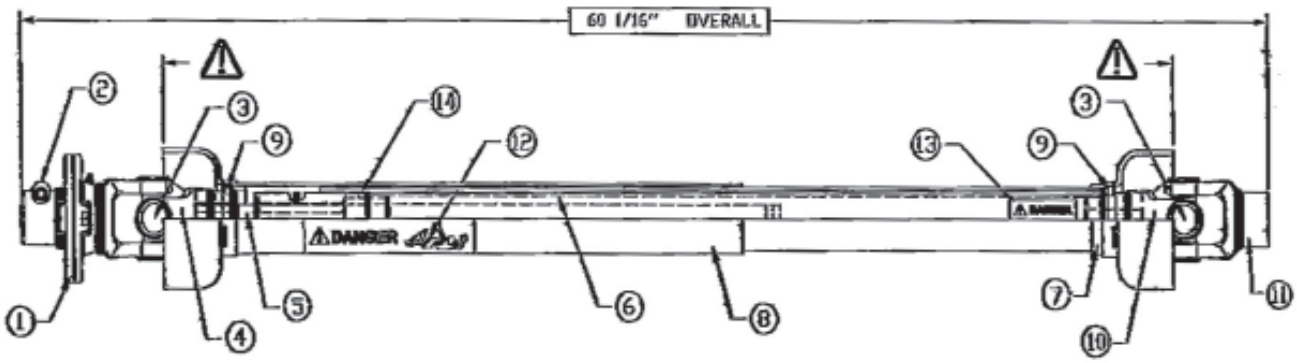
PTO Driveline for 8" and 10" SAW Augers

Ref. #	Part #	Description
A	GK3291	Joint and Shaft Half Assembly with Guard
C	GK3292	Joint and Tube Half Assembly with Guard
1	GK2655	Set Screw, 3/8"-16 x .38 Lg. Knurled Cup Point, Socket Head
2	GK3289	Set Screw, 3/8"-16 x .50 Lg. Knurled Cup Point, Socket Head
3	GK2660	Yoke
4	GK2653	14E Cross and Bearing Kit
5	GK2661	50° CV Center Housing Cat 3
6	GK2683	Yoke and Shaft
7	GK2662	Nylon Repair Kit
8	GK2658	Outer Safety Sign
9	GK2686	Outer Guard
10	GK2681	Inner Guard
11	GK2659	Inner Safety Sign
12	GK3262	Yoke, Tube, and Slip Sleeve
13	GK2666	Ball Shear Assembly
14	S-4663	Locknut, 3/8"-16
15	S-7520	3/8" - 16 x 1" Grade 2 Bolt for 8" Units
	S-7469	3/8" - 16 x 1" Grade 5 Bolt for 10" Units
16	GK2665	Spring-Lok Repair Kit

NOTE

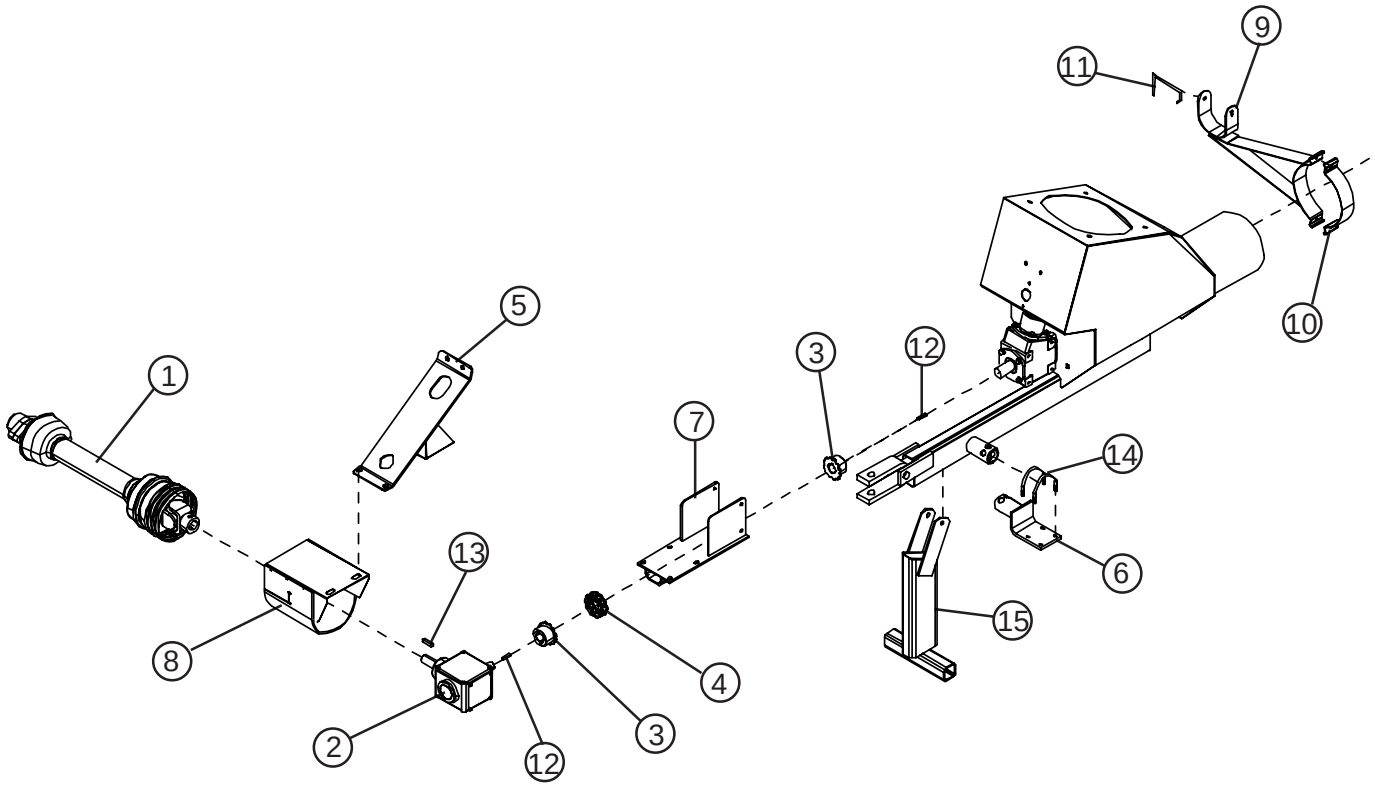
Shear Bolt Replacement Kit No. GK1584 for 8" SAW includes six (6) 3/8" - 16 x 1" long Grade 2 hex head bolts and locknuts. Shear Bolt Replacement Kit No. GK3099 for 10" SAW includes six (6) 3/8" - 16 x 1" long Grade 5 hex head bolts and locknuts.

SIDE DRIVE PTO COMPONENTS (GK3176)



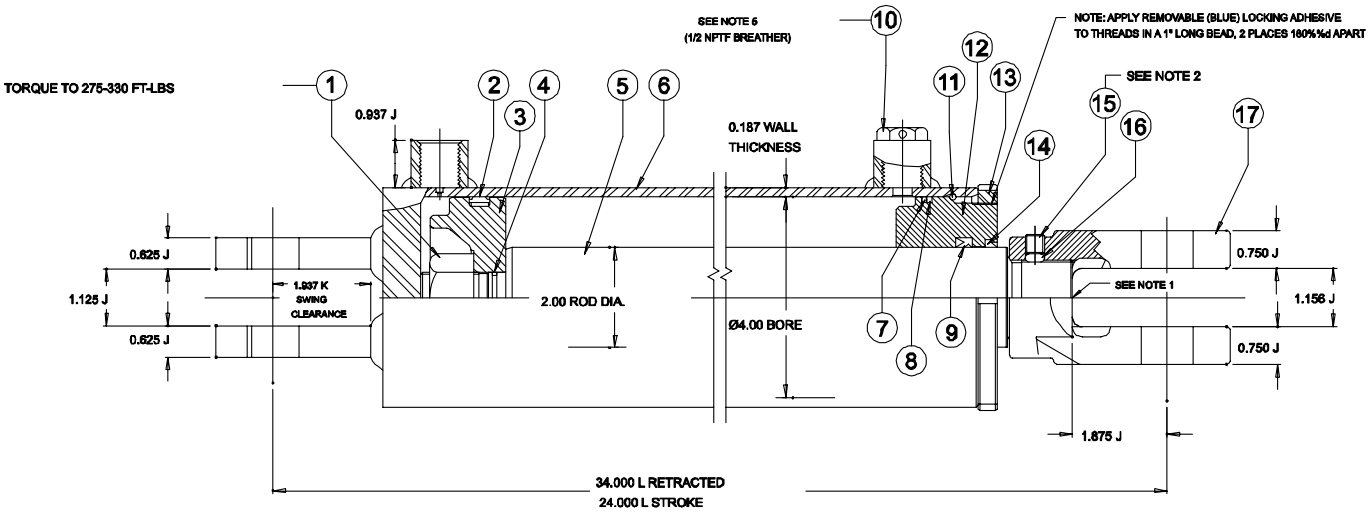
GK3176 - Side PTO Drive		
Ref. #	**Part #**	**Description**
1	GK3176	PTO: 60"L-1.50"B; 35N PIN STOP
2	GK5834	PTO: 1-3/8 X 6 SPLINE PIN SNAP HITCH SHEAR YOKE
3	GK5835	PTO: 1-3/8 X 6 SPLINE PIN SNAP HITCH YOKE PIN KIT
4	GK7148	PTO: CROSS REPAIR KIT COMPLETE (35E)
5	GK5837	PTO: BAR WELD YOKE FOR 1-3/16 SQUARE SHAFT
6	GK5838	PTO: 1-3/16 SQUARE SHAFT 28" LONG
7	GK5839	PTO: TORQUE TUBE 2-1/8 OD X 1-7/8 ID X 35-1/4 LONG
8	GK5840	PTO: 2-11/16" INNER PLASTIC SHIELD 37-5/8" LONG
9	GK5841	PTO: 3" OUTER PLASTIC SHIELD 24-5/16" LONG
10	GK5842	PTO: BEARING SHIELD KIT
11	GK5848	PTO: TORQUE TUBE WELD YOKE
12	GK5843	PTO: 1-1/2" RND BORE IMPLEMENT YOKE
13	GK5844	PTO: DANGER LABEL FOR OUTSIDE SHIELD
14	GK5845	PTO: DANGER LABEL FOR INSIDE SHIELD
15	GK5846	PTO: 1-3/16" SQUARE PINSTOP SLIP SLEEVE
N/S	GK5847	PTO: SHEAR BOLT KIT 3/8-16 X 1-1/4 GR5 (6) AND LOCKNUTS

SIDE DRIVE KIT COMPONENTS



Side Drive Kit		
Ref. #	**Part #**	**Description**
1	GK3176	Pin Stop Type PTO Driveline (See Page 82 for Parts Breakdown)
2	GK3191	Gearbox with 1-1/2" Input Shaft
3	GK3192	Flex Coupler Half 1-1/4" Bore
4	GK1887	Flex Coupler Connecting Chain
5	GK1493	Support Strap
6	GK1494	Jack Mount Bracket
7	GK1492	Gearbox Mount
8	GK1570	Shield for PTO Driveline to Gearbox Connection
9	GK1516	PTO Driveline Support for 8" Model
	GK1517	PTO Driveline Support for 10" Model
10	GK1055	2" Wide Half Band for PTO Driveline Support for 8" Model
	GK1057	2" Wide Half Band for PTO Driveline Support for 10" Model
11	GK3246	Retaining Pin for PTO Driveline Support
12	S-8382	Square Drive Key - 1/4" x 1-1 /4 " Long
13	S-4516	Square Drive Key - 3/8" x 1-1/2" Long
14	S-8381	3/8" U-Bolt 3"wide x 2"Long
15	GK1378	Support Stand

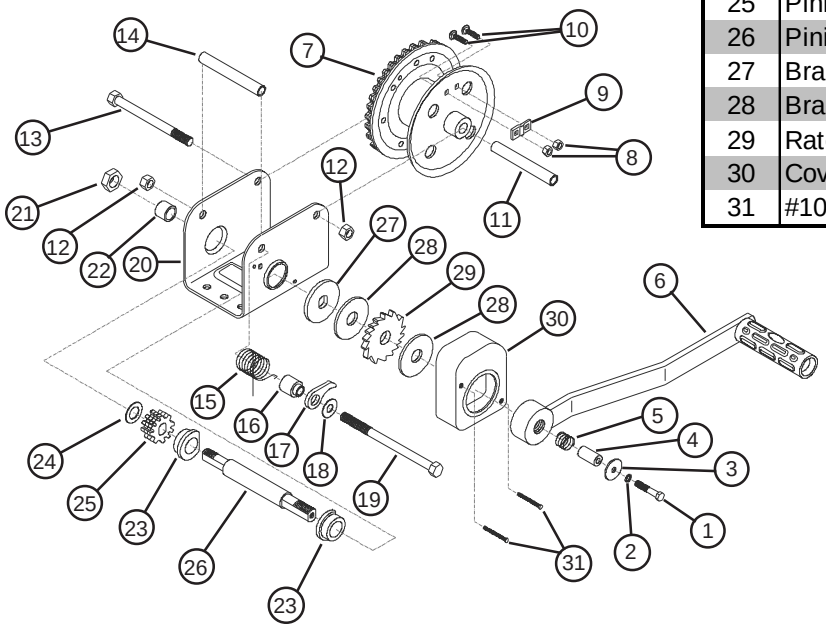
HYDRAULIC CYLINDER COMPONENTS



Hydraulic Cylinder Components				
Ref #	Complete GK1527: 4" Bore x 24" Stroke. Used on 8" x 52'	Complete GK1528: 4" Bore x 36" Stroke for 8" x 62'/72' & 10" x 62'	Complete GK7374: 4" Bore x 36" Stroke Used on 10" x 72'	Description
1	GK6213	GK6213	GK6213	Lock Nut
2	GK6356	GK6356	GK6356	O-Ring Seal
3	GK6211	GK6211	GK6211	Piston Rod 4" O.D.
4	GK6357	GK6357	GK6357	Small O-Ring
5	GK6208	GK6222	GK6208	Piston Rod 2" DX
6	GK6207	GK6221	GK7403	Cylinder 4" I.D.
7	GK6355	GK6355	GK6355	Large O-Ring
8	GK6358	GK6358	GK6358	Backup Washer
9	GK6360	GK6360	GK6360	Backup Washer
10	GK6216	GK6216	GK6216	Breather Plug 1/2" NPT
11	GK6214	GK6214	GK6214	Cylinder: Ret Ring Rod Int 4"
12	GK6210	GK6210	GK6210	Cylinder Guide 4" I.D. x 2"
13	GK6219	GK6219	GK6219	Spanner Nut 3/4" x 4-1/2" O.D.
14	GK6359	GK6359	GK6359	Piston Rod Washer
15	GK6220	GK6220	GK6220	Set Screw 3/8" - 16 x 3/4"
16	GK6212	GK6212	GK6212	Plug: Nylon
17	GK6209	GK6209	GK6209	Clevis Rod 1-1/2" - 12 UNF
N/S	GK1531	GK1531	GK1531	Clevis Pin & Clip
N/S	GK6217	GK6217	GK6217	Plug Steel Pipe, 1/2" HS
N/S	GK6218	GK6218	GK6218	Cylinder
N/S	GK3323	GK3323	GK3323	Seal Kit 4" Bore

WINCH BRAKE TYPE 1000# COMPONENTS (GK1562)

Winch Assembly			
Ref #	**Description**	**Qty.**	**Part Number**
1	1/4" - 20 x 1-1/2" Bolt	1	GK6256
2	1/4" Lockwasher	1	
3	1/4" Flat Washer	1	
4	Handle Spacer	1	
5	Spring	1	
6	Handle Spacer	1	GK1567
7	Real Assembly	1	GK6231**
8	#10-24 Hex Nut	2	GK6232
9	Cable keeper	1	S-7635
10	#10-24 x 5/8" Carriage bolt	2	
11	Front Frame Spacer	1	GK6235**
12	3/8" Lockwasher	2	GK6236*
13	3/8" x 1/2" Reel Bolt	1	GK6237*
14	Back Frame Spacer	1	GK6238**
15	Pawl Spacer	1	GK6239**
16	Pawl Spacer	1	GK6240**
17	Pawl	1	GK6241**
18	3/8" Flat Washer	1	GK6242*
19	3/8" x 5-1/2" Pawl Bolt	1	GK6243*
20	Frame	1	GK6244**
21	9/16" - 16 Locknut	1	GK6245*
22	Bearing	1	GK6246**
23	3/4" I.D. Bushing	2	GK6247**
24	9/16" Flat Washer	1	GK6248*
25	Pinion Gear	3	GK6249**
26	Pinion Shaft	1	GK6250**
27	Brake Backup Plate	1	GK6251**
28	Brake Pad	2	GK6252**
29	Ratchet	1	GK6253**
30	Cover	1	GK6254**
31	#10-32 x 1-1/2" Cover Screw	2	GK6255*

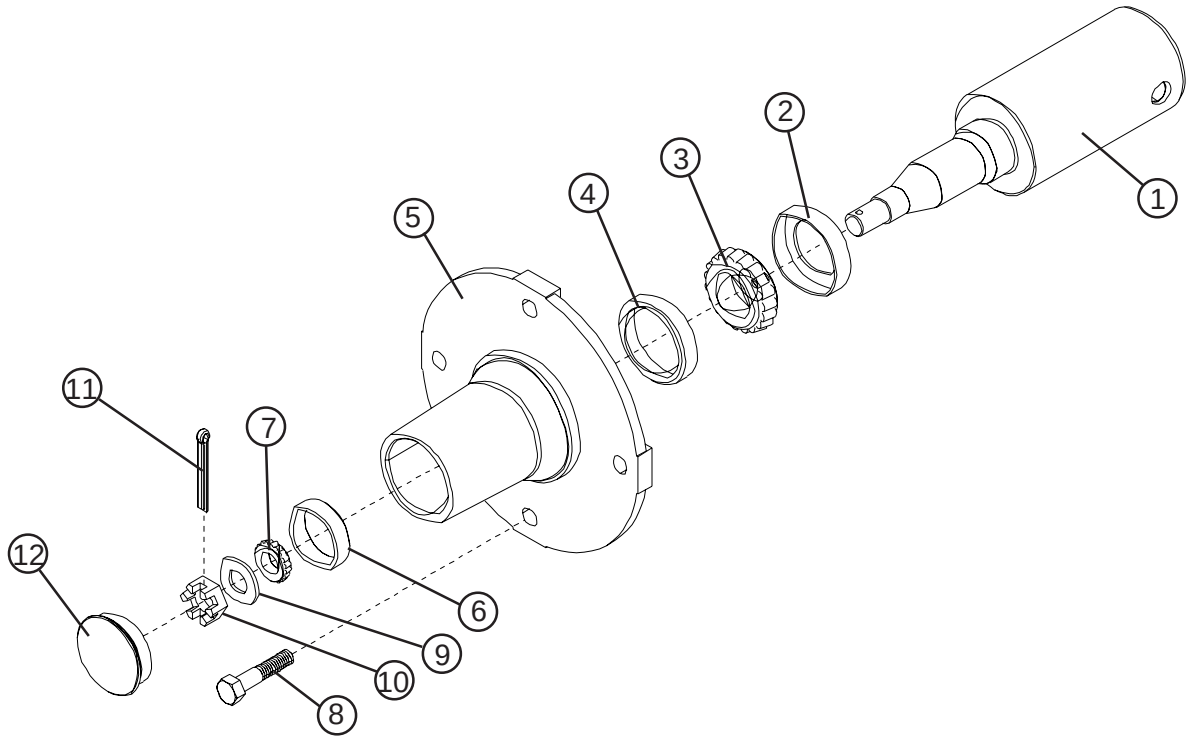


NOTE

*** Indicates standard hardware items - purchase locally.**

**** These items are not available as separate parts because of the precision assembly required. If these parts require placement, a new winch must be purchased.**

SPINDLE & HUB COMPONENTS

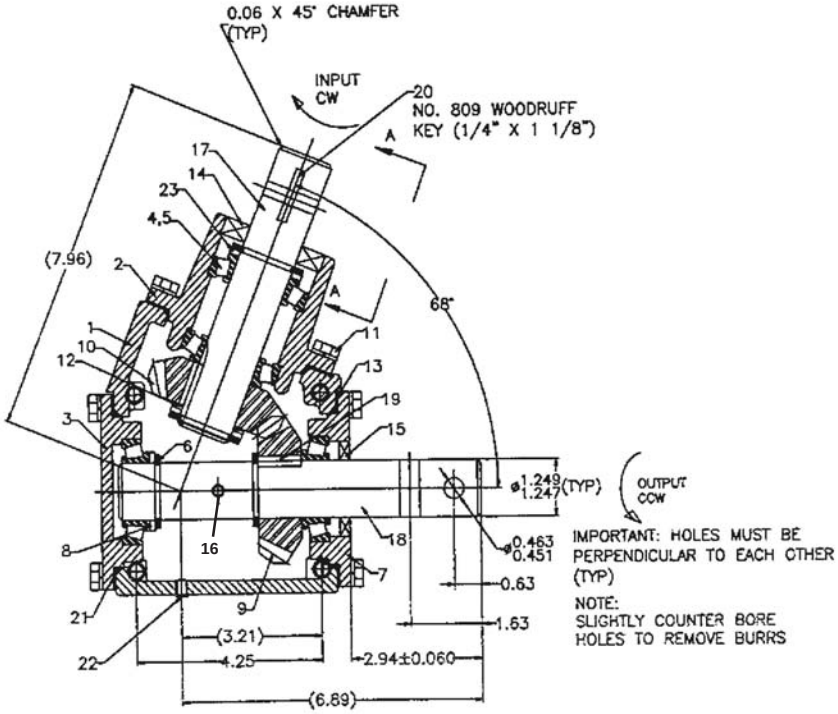


Spindle and Hub Assemblies			
Ref. #	Description	4-Bolt (2-1/16" x 10") For 8" x 52'-62' & 10" x 52'-62'	5-Bolt (2-3/8" x 14") For 8" x 72' & 10" x 72'
	Spindle and Hub Assembly	GK1193	GK1194
1	Spindle	GK1511	GK1513
2	Grease Seal	GK2703	GK2425
3	Inner Cone (Mfr Number)	GK2700 (LM67048)	GK2709 (LM48548)
4	Inner Cup (Mfr Number)	GK2711 (LM67010)	GK2710 (LM48510)
5	Hub	GK1572**	GK1548*
6	Outer Cup (Mfr Number)	GK2712 (LM11910)	GK2711 (LM67010)
7	Outer Cone (Mfr Number)	GK2701 (LM11949)	GK2700 (LM67048)
8	Lug Bolt	GK2708	--
8	Lug Nut	--	GK2698
9	Washer	GK2704	GK2433
10	Slotted Hex Nut	GK2702	GK2714
11	Cotter Pin	GK4477 (5/32" x 1-1/4")	GK2713 (5/32" x 1-3/4")
12	Hub Cap	GK1551	GK1558

*** Furnished with Cups and Lug Nuts**

**** Furnished with Cups Only**

UPPER GEAR BOX COMPONENTS (GK11971)



Upper Gearbox
Complete Part Number GK11971

Upper Gearbox Mounted in Incline Tube Spout

Used on 8" and 10" Gear Drive SAW Auger

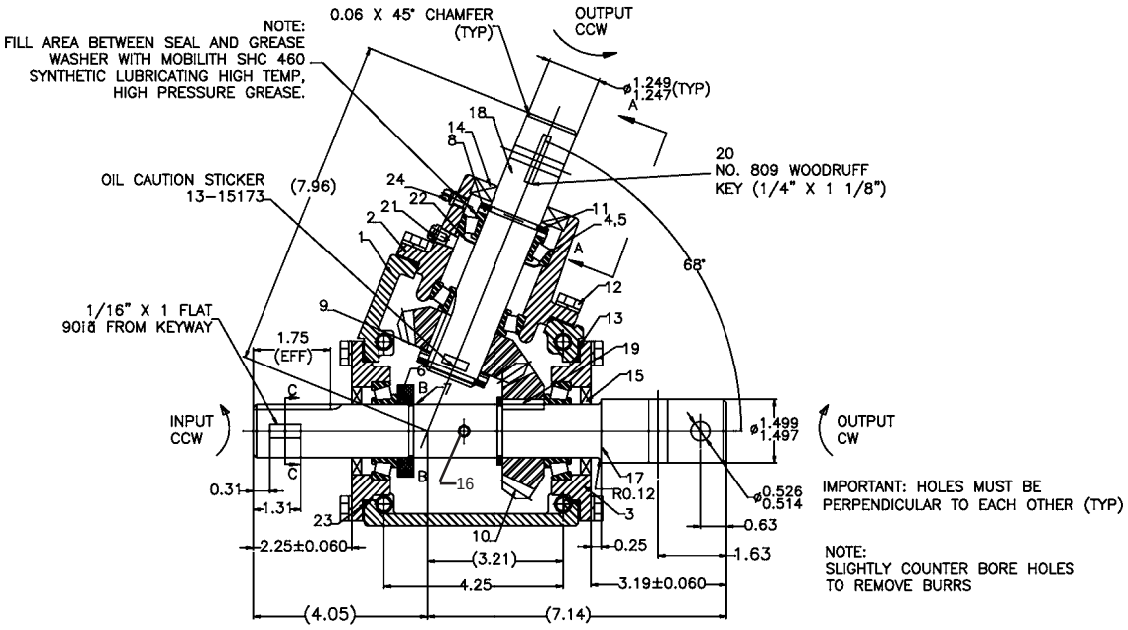
Specifications:
Ratio 1 to 1
1 1/4" Dia. Input Shaft

1 1/4" Dia. Output Shaft

GK11971 - Upper Gearbox

Ref. #	Part #	Description
1	GK7360	Case
2	GK7367	Quill
3	GK6056	End Cap
4	GK2700	Bearing Cone (LM67048)
5	GK2711	Bearing Cup (LM67010)
6	GK6058	Snap Ring
7	GK6127	End Cap
8	GK6057	Spacer
9	GK6131	Gear, 68° Cut, 20 Teeth
10	GK6128	Gear, 68° Cut, 17 Teeth
11	GK6039	5/16" Lockwasher
11	GK6038	5/16" UNC x 3/4" Capscrew
12	GK6059	Shim .007" x 1.25" I.D.
13	GK6061	Shim .05
13	GK6061	Shim .0075
13	GK6061	Shim .20
14	GK6062	Seal
15	GK6063	Seal
16	GK5454	Pipe Plug 1/4 NPT
17	GK6129	Output Shaft
18	GK6130	Input Shaft
19	GK5474	1/4" Square Key
20	S-8240	Woodruff Key 1/4" x 1-1/8"
21	GK7530	O-Ring 71mm x 1.8mm
22	GK2697	Vent Plug
23	GK7531	Spacer

LOWER GEARBOX COMPONENTS



Lower Gearbox
Complete Part No. GK11951 (8" Model)
Complete Part No. GK11961 (10" Model)

Lower Gearbox Mounted on Main Inlet Hopper

Used on 8" and 10" Gear Drive SAW Auger

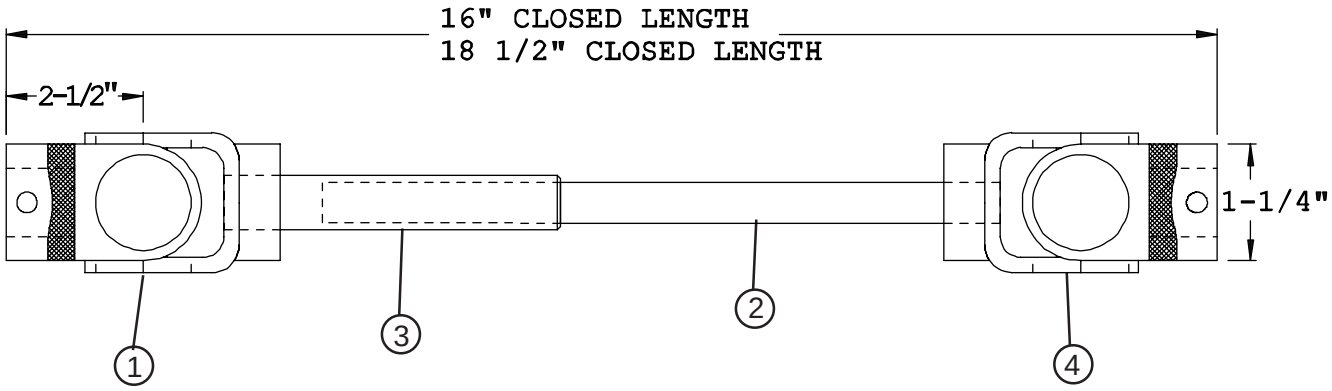
Specifications:
Ratio: 1 to 1
1-1/4" Dia. Output Shaft for 8" SAW Auger

1-1/4" to 1-1/2": Dia. Output Shaft for 10" SAW Auger

1-1/4" Dia. Output Shaft

GK11951 & GK11961 - Lower Gearbox		
Ref. #	**Part#**	**Description**
1	GK6054	Case
2	GK7361	Quill
3	GK6056	End Cap
4	GK2700	Bearing Cone (LM67048)
5	GK2711	Bearing Cup (LM67010)
6	GK6057	Spacer
7	GK6058	Snap Ring
8	GK6066	Spacer
9	GK6059	Shim .007" x 1.25" ID
10	GK6060	Gear, 68 Deg Cut, 19 Teeth
11	GK4502	Grease Washer
12	GK6038	5/16" UNC x 3/4" Capscrew
13	GK6061	Shims
14	GK3217	Seal
15	GK3218	Seal
16	GK5454	1/4"-18 NPT Level Plug
17	GK6064 GK6074	Input Shaft GK11951 Input Shaft GK11961
18	GK6065	Output Shaft
19	GK5474	1/4" Square Key
20	S-8240	1/4" x 1-1/8" Woodruff Key
21	GK2697	Vent Plug: 1/8"-27 NPT PRI - 5lbs.
22	GK6401	Grease Zerk, M6
23	GK7530	O-Ring 71mm x 1.8mm
24	GK7368	Grease Zerk, M6

U-JOINT COMPONENTS



U-Joint Assembly		
Ref. #	**Description**	**Part #**
--	U-Joint Complete Assembly	GK1202
1	U-Joint Repair Kit	GK3297
2	Half Assembly with Square Shaft	GK7509
3	Half Assembly with Square Tube	GK7508
4	End, U-Joint Repair	N/A
--	Decal - Inside Warning Label	N/A

WARRANTY

THE COMPANY WARRANTS ALL PRODUCTS MANUFACTURED TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP UNDER NORMAL USAGE AND CONDITIONS FOR A PERIOD OF TWELVE (12) MONTHS AFTER RETAIL SALE TO THE ORIGINAL END USER OF SUCH PRODUCTS. OUR ONLY OBLIGATION IS, AND PURCHASER'S SOLE REMEDY SHALL BE TO REPAIR OR REPLACE, AT THE COMPANY'S OPTION AND EXPENSE, PRODUCTS THAT, IN THE MANUFACTURERS SOLE JUDGEMENT, CONTAIN A MATERIAL DEFECT DUE TO MATERIALS OR WORKMANSHIP. ALL DELIVERY AND SHIPMENT CHARGES TO AND FROM THE FACTORY WILL BE PURCHASER'S RESPONSIBILITY. EXPENSES INCURRED BY OR ON BEHALF OF THE PURCHASER WITHOUT PRIOR WRITTEN AUTHORIZATION FROM AN AUTHORIZED EMPLOYEE OF THE COMPANY SHALL BE THE SOLE RESPONSIBILITY OF THE PURCHASER.

EXCEPT FOR THE ABOVE EXPRESS LIMITED WARRANTIES, THE COMPANY MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH (i) PRODUCT MANUFACTURED OR SOLD BY THE COMPANY OR (ii) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF THE COMPANY REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCT OR PRODUCTS.

IN NO EVENT SHALL THE COMPANY BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOSS OF ANTICIPATED PROFITS OR BENEFITS. PURCHASER'S SOLE AND EXCLUSIVE REMEDY SHALL BE LIMITED TO THAT STATED ABOVE, WHICH SHALL NOT EXCEED THE AMOUNT PAID FOR THE PRODUCT PURCHASED. THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER. WE SHALL HAVE NO OBLIGATION OR RESPONSIBILITY FOR ANY REPRESENTATIVE OR WARRANTIES MADE BY OR ON BEHALF OF ANY DEALER, AGENT OR DISTRIBUTOR OF THE COMPANY.

THE COMPANY ASSUMES NO RESPONSIBILITY FOR FIELD MODIFICATIONS. MODIFICATIONS TO THE PRODUCT NOT SPECIFICALLY COVERED BY THE CONTENTS OF THIS MANUAL WILL NULLIFY ANY PRODUCT WARRANTY THAT MIGHT HAVE BEEN OTHERWISE AVAILABLE. THE USE OF OUR EQUIPMENT TO HANDLE MATERIALS OTHER THAN FREE FLOWING, NONABRASIVE AND DRY MATERIALS, AS INTENDED, WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.

THE FOREGOING WARRANTY SHALL NOT COVER PRODUCTS OR PARTS WHICH HAVE BEEN DAMAGED BY NEGLIGENT USE, MISUSE, ALTERATION, OR ACCIDENT. ANY NEGLIGENT USE, MISUSE, ALTERATION, OR DAMAGE DUE TO ACCIDENT, AS DETERMINED BY A COMPANY REPRESENTATIVE, MAY VOID THE WARRANTY. THIS WARRANTY COVERS ONLY PRODUCTS MANUFACTURED BY THE COMPANY. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED. WE RESERVES THE RIGHT TO MAKE DESIGN OR SPECIFICATION CHANGES AT ANY TIME, BEARING NO RESPONSIBILITY TO MAKE SIMILAR DESIGN OR SPECIFICATION CHANGES ON PREVIOUSLY SOLD MERCHANDISE.

PRIOR TO INSTALLATION, PURCHASER HAS THE RESPONSIBILITY TO RESEARCH AND COMPLY WITH ALL FEDERAL, STATE, AND LOCAL CODES WHICH MAY APPLY TO THE LOCATION AND INSTALLATION.

This Equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installation occurs.

GRAIN KING

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