

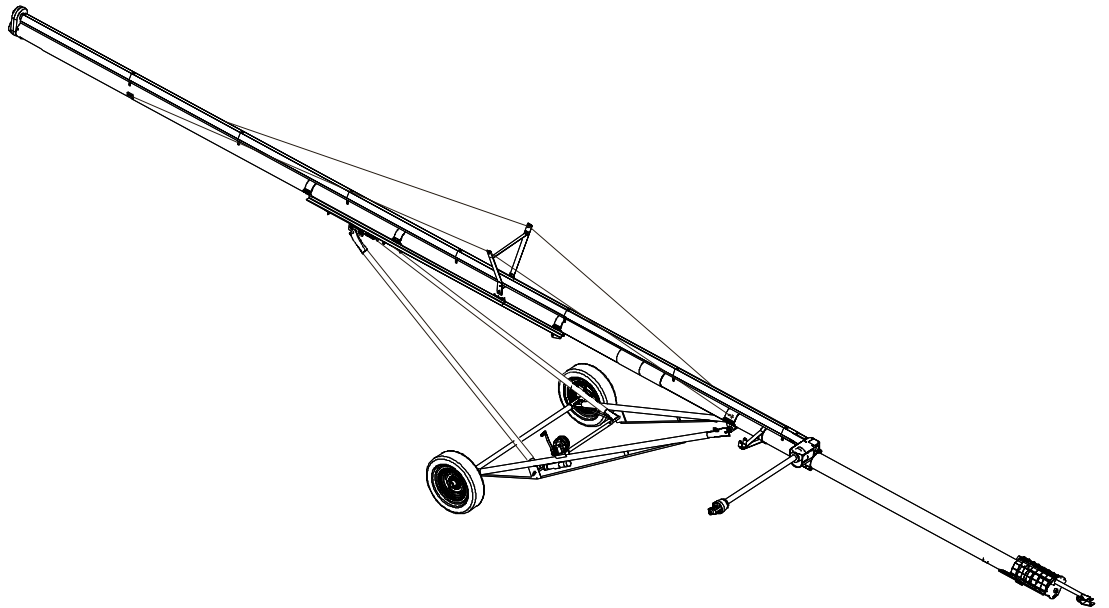
PNEG-1053

5-30-06

10" Top-End Drive Transport Auger

10" Top-End Drive Transport Auger

Assembly & Operation Manual



PNEG-1053
5-30-06



PNEG-1053

Table of Contents

Personnel operating or working around this equipment should read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment. Any misuse of the equipment may void the warranty.

| | |
|-------------------------------------|----|
| Table of Contents | 3 |
| Safety Guidelines | 5 |
| <i>SAFETY</i> 1 st | 4 |
| Decals | 11 |
| Introduction | 15 |
| Assembly | 17 |
| Start-up | 53 |
| Operation | 58 |
| Shutdown | 60 |
| Maintenance | 63 |
| Troubleshooting | 67 |
| Parts List | 69 |
| Warranty | |

***SAFETY* 1st**

Replace missing guards and shields
FREE OF CHARGE!

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

One of the most important aspects of our engineering is **SAFETY 1st** design throughout all product lines. 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 a main goal 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 us at:

The GSI Group
PO Box 20
1004 E. Illinois Street
Assumption, IL 62510
Ph: 217-226-4421

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 its 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**

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

 **WARNING**

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

 **CAUTION**

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

CAUTION

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

NOTE

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

Safety Instructions

Our 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.

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.

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.

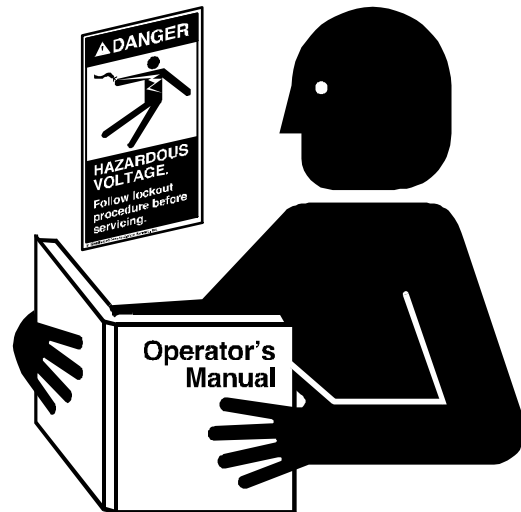
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and safety signs on your machine. 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 children and other unqualified personnel out of the working area at ALL times

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.



Read and Understand Manual.

STAY CLEAR OF ROTATING PARTS

Entanglement in rotating augers or drive shafts 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.



Rotating Auger

OPERATE EQUIPMENT PROPERLY

- Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH**. **NEVER** allow untrained personnel to operate this equipment.
- **NEVER** work alone.
- 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.
- Make sure **ALL** equipment is locked in position before operating.
- **NEVER** start equipment until **ALL** persons are clear of the work area.
- Always keep all shields and guards in place during operation.
- Keep hands and feet away from the auger intake and other moving parts.
- **NEVER** attempt to assist machinery operation or to remove trash from equipment while in operation.
- Be sure all operators are adequately rested and prepared to perform all functions of operating this equipment.
- **NEVER** allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.
- Make sure someone is nearby who is aware of the proper shutdown sequence in the event of an accident or emergency.
- In the event of an accident or emergency, shut down the power source.
- **ALWAYS** think before acting. **NEVER** act impulsively around the equipment.
- **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.
- Use ample overhead lighting after sunset to light the work area.
- Keep area around intake free of obstacles such as electrical cords, blocks, etc. that might trip workers.
- **NEVER** drive, stand or walk under the equipment.
- Use caution not to hit the auger when positioning the load.
- **ALWAYS** lockout **ALL** power to the equipment when finished loading or unloading a bin.



**Operate
Equipment
Safely**

Safety

KEEP HANDS AWAY FROM MOVING PARTS

DO NOT put hand or arm in hopper. Rotating auger can crush and dismember.

DO NOT put any kind of tool inside hopper to try and clear debris while the auger is running. Damage to the equipment will result.

ALWAYS turn off and lock out all power sources before servicing equipment.

Rotating Auger



INSTALL & OPERATE ELECTRICAL EQUIPMENT PROPERLY

To avoid serious injury or death, stay away from unit and make sure everyone is clear of all augers before starting or operating the unit.

All electrical connections should be made by a qualified electrician and must meet the standards set by the National Electric Code and all local and state codes.

Disconnect and lock out all power sources before installing wires/cables or servicing equipment.

Do not operate electric motor equipped units until motors are properly grounded.

Disconnect power on electrical driven units before resetting motor overloads.

Do not repetitively stop and start the drive in order to free a plugged condition. Jogging the drive in this type of condition can damage the equipment.

Electric Shock Hazard.

PRACTICE SAFE MAINTENANCE

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet, and clothing from rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any build up grease, oil, or debris.

Maintain Equipment and Work Area.



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.

Crush Hazard.

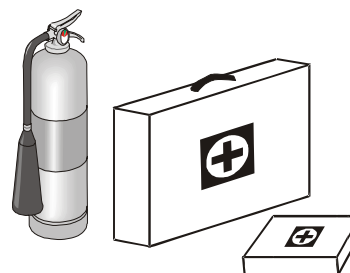


PREPARE FOR EMERGENCIES

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.



Keep Emergency Equipment Quickly Accessible.

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 prevent breathing potentially toxic fumes and dust.

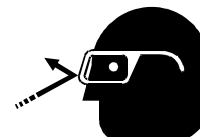
Wear hard hat and steel toe boots to help protect your head and toes from falling debris.

Remove all jewelry.

Tuck in any loose or dangling shoe strings.

Long hair should be tied up and back.

Eye Protection



Gloves



Steel Toe Boots



Respirator



Hard Hat



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 instructions 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 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. Sub part 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 people 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.

| <i>Date</i> | <i>Employees Name (printed)</i> | <i>Employees Signature</i> |
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Safety Decals

The Safety Decals listed below are included with the auger. Pages 12-14 shows the locations of the decals on the auger.

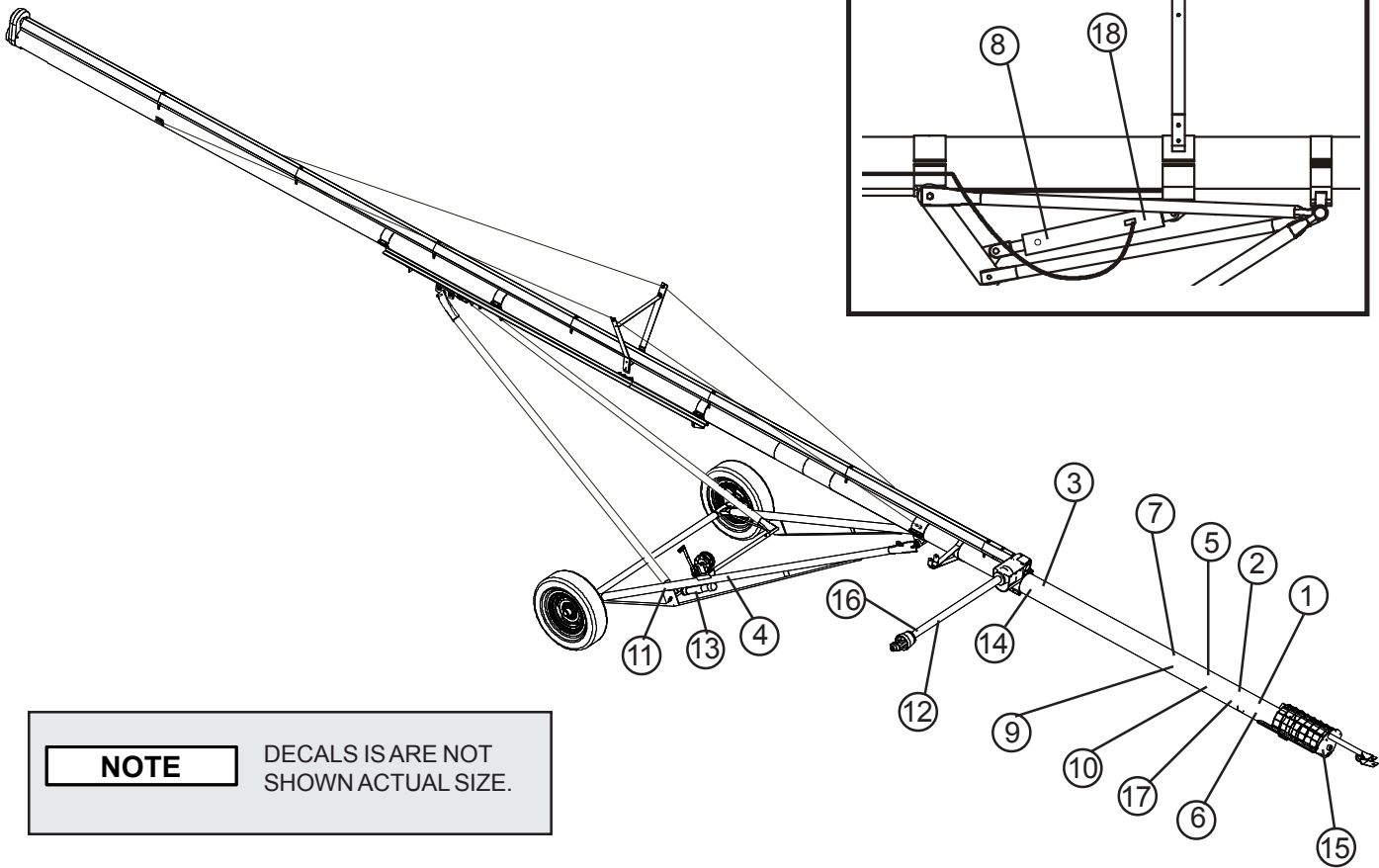
Inspect all decals and replace any that are illegible, worn, or missing. Contact your dealer or the factory to order replacement decals.

Contact :
 Grain King
 1004 East Illinois Street
 Assumption, Illinois 62510 USA
 Ph. (217) 226-4401

See pages 12 thru 14 for illustrations of decals corresponding to reference numbers.

| 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 | 2 | 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) | 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-1414 | 1 | Notice—PTO Driveline Guidelines —(On Front of Inlet Hopper) | 7" x 5-1/4" |
| 15 | DC-1411 | 1 | Danger—Shear Point (On Front of Inlet Hopper) | 4-1/2" x 2-1/16" |
| 16 | DC-1413 | 1 | Grease Here —(On Front of Inlet Hopper) | 2" x 1" |
| 17 | DC-1449 | 1 | Warning - Hitch | 4-1/2" x 2-1/16" |
| 18 | DC-1873 | 1 | Caution - Crush Hazard | 4" x 1-3/4" |

Safety Decals



NOTE DECALS IS 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.

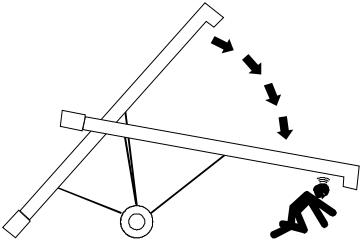
- NEVER RELEASE THE WINCH HANDLE UNTIL THE LOCK IS SECURELY IN PLACE.
- NEVER RELEASE WINCH LOCK BEFORE MANUALLY SECURING WINCH HANDLE WHEN LOWERING HOPPER.
- NEVER LEAVE HOPPER ON THE GROUND WHEN RAISING OR LOWERING THE AUGER. DOING SO COULD DAMAGE THE HOPPER WHEELS.

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



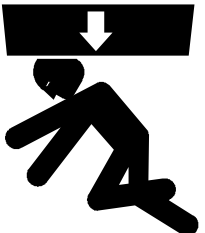
! DANGER

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— 1st

SAFETY

ORDER SAFETY COMPONENTS FREE OF CHARGE!

- GUARDS • SHIELDS
- SAFETY DECALS • OWNER/OPERATOR MANUALS

CONTACT GRAIN KING
(217) 226-4421

At Grain King, safety is NO ACCIDENT!

DC-1418

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

Safety Decals

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

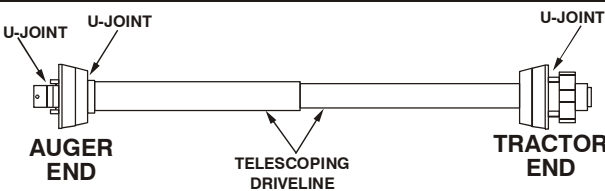
MANUAL
INSIDE

DC-1425

14

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 DAMAGE TO THE PTO DRIVELINE.
- THIS IS CONSIDERED A MISUSE OF THE EQUIPMENT. ANY MISUSE OF THE EQUIPMENT MAY VOID THE WARRANTY.



DC-1414

15



⚠ 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

16

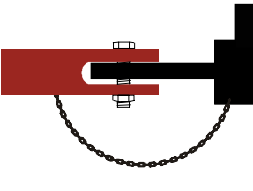
GREASE



HERE

DC-1413

17



⚠ 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

18



⚠ CAUTION

CRUSH HAZARD

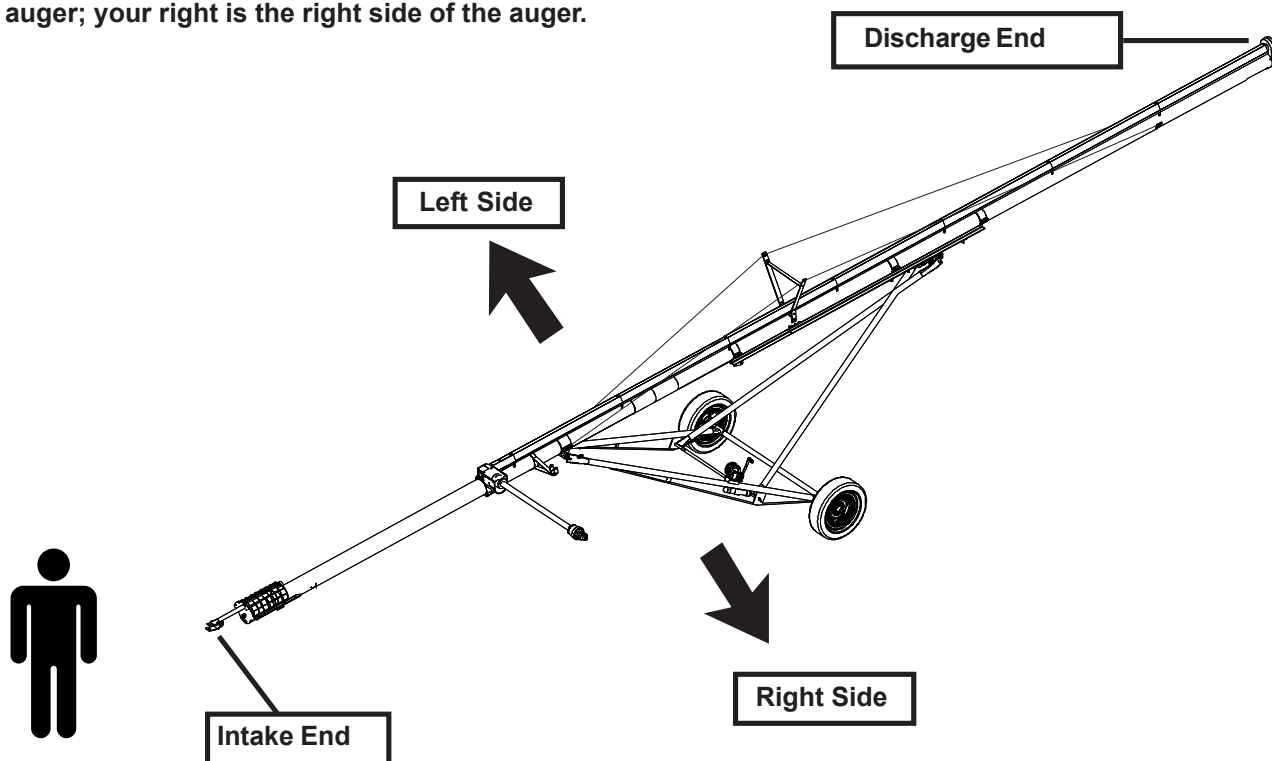
In-line restrictor valve must be installed prior to placing hydraulic cylinder into use.

See Assembly & Operation Manual.

Failure to heed may result in serious injury.

DC-1873

For the purpose of this manual, if standing at the intake end of the auger, your left is the left side of the auger; your right is the right side of the auger.



1. General Information.

- A. The company 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 Top-End Drive 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 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.

Introduction

3. Tractor Requirements

A. The Top-End Drive Transport Auger was designed for use with a tractor meeting the following requirements:

- 540 RPM Power Take Off (PTO)
- Adjustable Drawbar
- One (1) hydraulic control circuit for lifting the main auger, if equipped with hydraulic lift. Minimum pressure of 1800 to 2000 PSI.

4. PTO Driveline.

A. 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.

B. 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.

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

5. Main Auger Drive Information.

▲ DANGER

Stop the engine or electric motor 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.

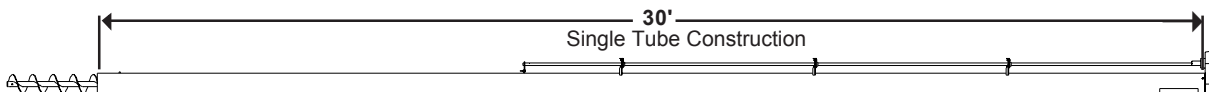
Be certain to close ALL the clean-out doors and inspection doors in the main auger hopper before operating the auger.

Hydraulic & Manual Lift Auger Assembly

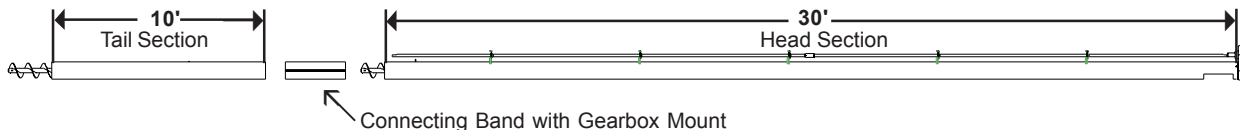
1. Auger Housing Layouts for both Hydraulic and Manual Lift Augers

- 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 assembly in the approximate positions shown in the diagram below.

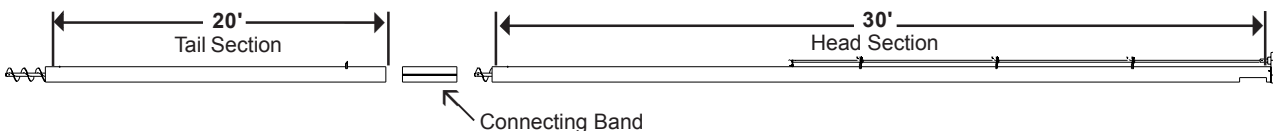
31' MODEL



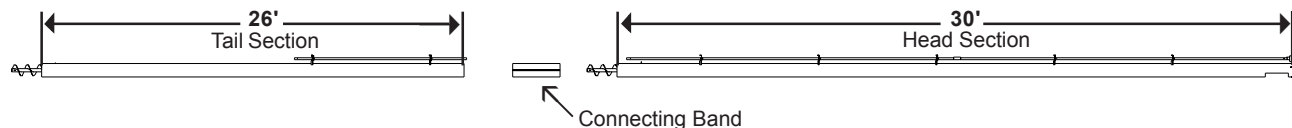
41' MODEL



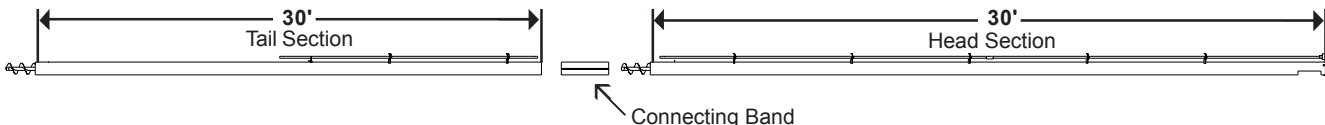
51' MODEL



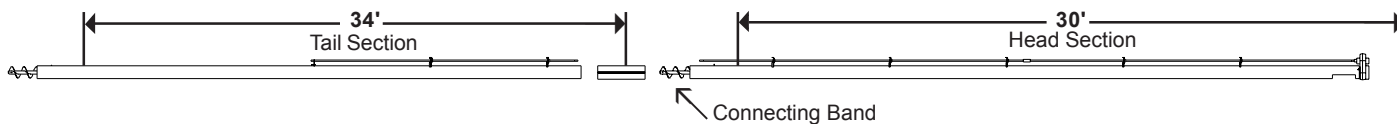
57' MODEL



61' MODEL



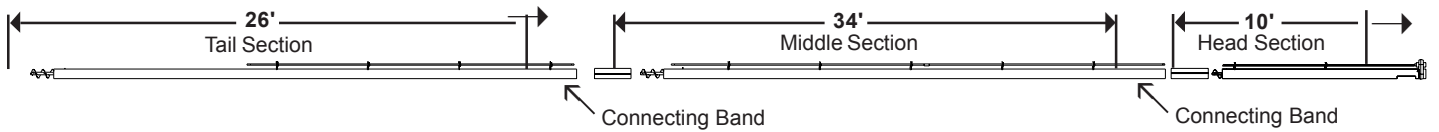
65' MODEL



Hydraulic & Manual Lift Auger Assembly

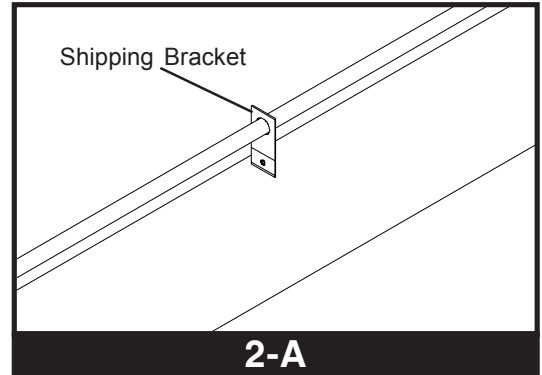
1. Auger Housing Layouts for both Hydraulic and Manual Lift Augers (cont.)

71' MODEL



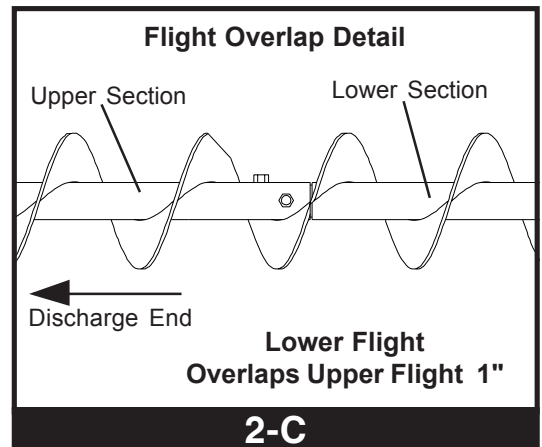
2. Flight and Housing Section Assembly

- Remove the shipping bracket from the drive shaft. See figure 2-A for location of the shipping bracket.
- Slide the connecting bands onto the end of the auger housing tubes of the sections to be assembled.
(31' Not Applicable)



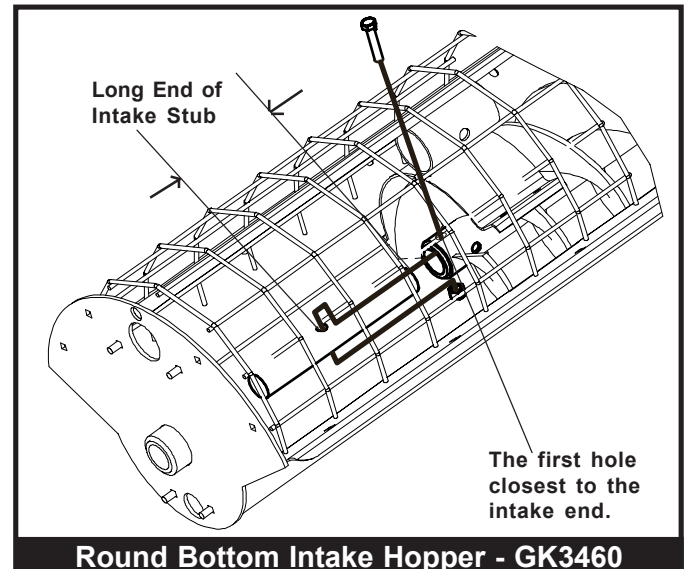
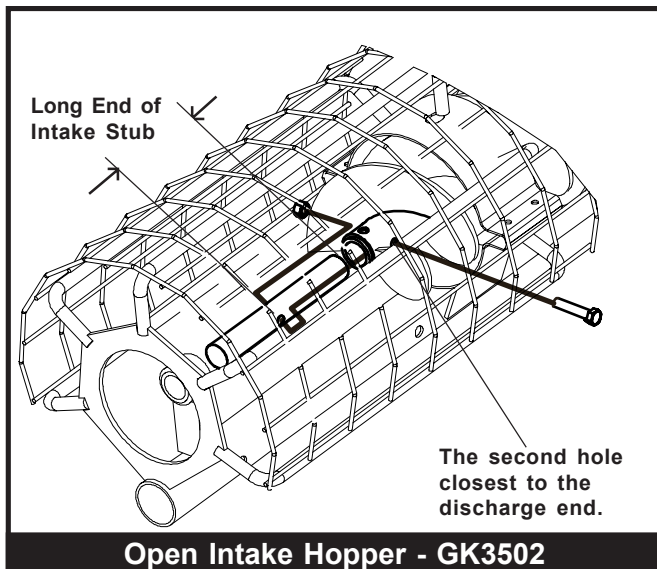
For the next step, use the bolts and stover nuts included with flight.

- Bolt the sections of the upper auger flighting to the next flight section, using two (2) 1/2" x 3" bolts (Grade 8) and stover nuts. The lower section of the flighting will overlap the upper section of the flighting approximately one inch on the side facing the discharge end. For easier assembly, coat the connecting stubs with anti-seize, lubricant or grease. *(31' Not Applicable)*
- Insert the stub shaft into the intake end of the flighting. Secure using one (1) 1/2" x 3" bolt and locknut.



NOTE

The end of the intake stub with the longest distance between the hole and the end shall be inserted into the flighting. Use the first hole, closest to the intake end for the round bottom intake guard (GK3460). Use the second hole, farthest from the discharge end, for the open bottom intake guard (GK3502).



2. Flight and Housing Section Assembly (cont.) (31' Not Applicable)

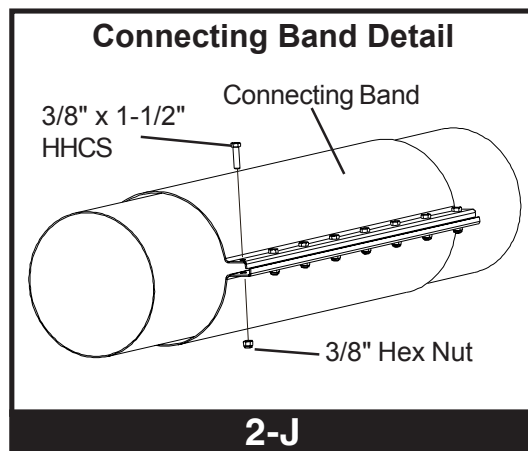
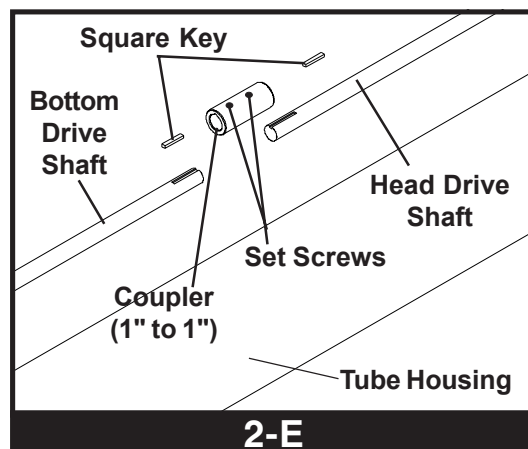
- E. As you slide the head section and bottom section of auger housings together, connect the head and bottom sections of the drive shaft together. (See Fig. 2-E)
- F. Insert one (1) 1/4" x 2" key onto the keyway located on the head drive shaft.

NOTE Coat drive shaft ends with anti-seize lubricant before installing the coupler.

- G. Place a 1" to 1" coupler onto the head drive shaft with key in place.
- H. Place one (1) 1/4" x 2" key into keyway of bottom the drive shaft.
- I. Insert the bottom drive shaft with key in place into the 1" to 1" coupler. Tighten the set screws located over the keys.

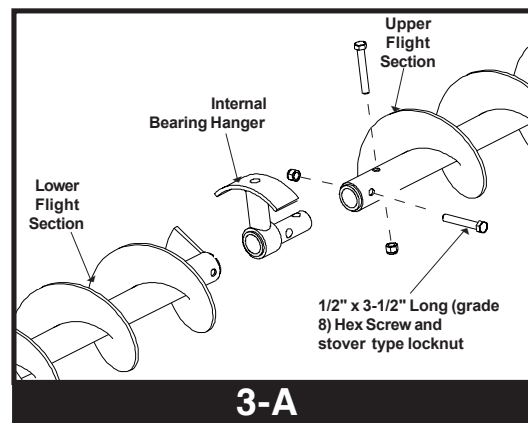
NOTE The drive shaft(s) may need to be repositioned to allow the coupler to fit.

- J. After the sections are connected, position the connecting band(s) equally over the connected tubes. Secure the connecting band with eight (8) 3/8" x 1-1/2" (grade 5) hex bolts and nuts. (See Fig. 2-J)



3. Flight and Housing Assembly for Augers with Optional Internal Flight Bearings

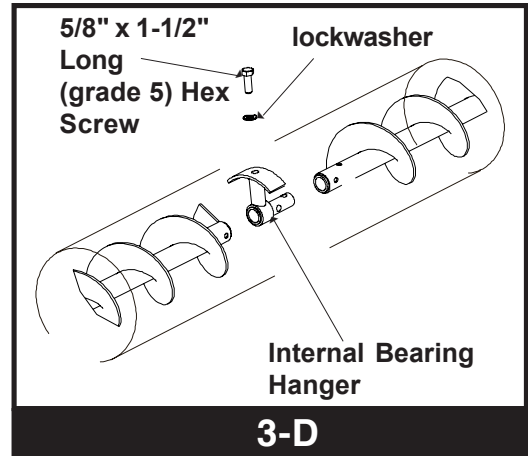
- A. The internal bearing connecting band should be placed onto the lower end of the head (and Lower Middle for 71') auger section. Do NOT tighten bolts yet.
- B. The internal bearing hanger should be placed over the end of the flight connecting stub on the upper auger section. Next, slide the flight section out of the lower or middle auger housing section. Connect the lower and head flight sections together. (For 71' augers connect the tail section to the middle and the middle section to the head flight.) Fasten together using two (2) 1/2" x 3-1/2" long (grade 8) hex head capscrews and stover type locknuts. (See Fig. 3-A.)
- C. Slide the auger housing sections together so the tube ends are butted against each other to make a tight seam. Position the connecting band so it covers both housing sections equally. This should put the seam of the auger housings in the middle of the connecting band. Tighten the connecting band down by using eight (8) 3/8" x 1-1/2" long (grade 5) hex head capscrews and nylon locknuts. (See Fig. 2-J)



Hydraulic & Manual Lift Auger Assembly

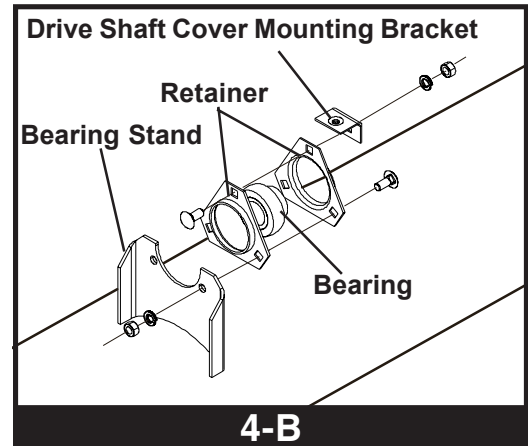
D. Attach the internal bearing hangers to the auger housing.

1. Detach the bands that are over the bearing access area.
2. Grab the internal bearing hanger stem through the bearing access area and rotate the bearing until it lines up with the 3/4" hole on the top of the auger housing. (See Fig. 3-D)
3. Line up the holes in the bearing hanger and auger housing, and fasten them together using a 5/8" x 1-1/2" long (grade 5) hex head capscrew and lockwasher. Before tightening, be sure the bearing is centered between the ends of the auger flighting by looking through the bearing hanger access hole.



4. Assemble the Drive Shaft Extensions.

- A. Bolt the bearings onto the bearing stand, which will be either be welded on or banded-on depending on the auger size.
- B. Attach each bearing with two (2) retainers and one (1) drive shaft cover mounting bracket. (See Fig. 4-B)
- C. Slide the drive shaft extension through the bearing located on the bearing stand.
- D. Insert one (1) 1/4" x 2" key into the keyway located on the drive shaft.



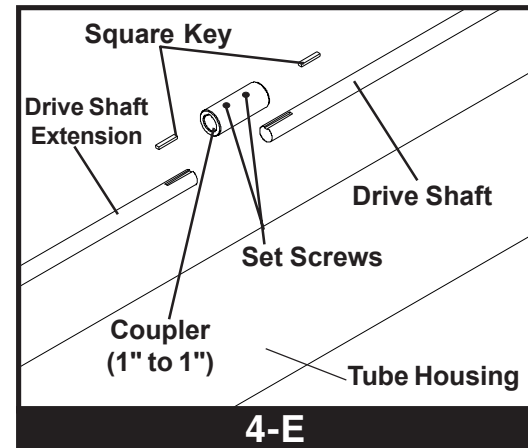
NOTE

Coat the drive shaft ends with anti-seize before installing the coupler.

- E. Place a 1" to 1" coupler onto the existing drive shaft. (See Fig. 4-E)
- F. Place one (1) 1/4" x 2" key into the drive shaft extension keyway.
- G. Insert the drive shaft extension into the 1" to 1" coupler. Tighten the set screws located over the keys.

NOTE

Install truss mounting band per 14B. Page 26 and 26A page 41 before installing drive shafts on 61', 65', and 71' augers.

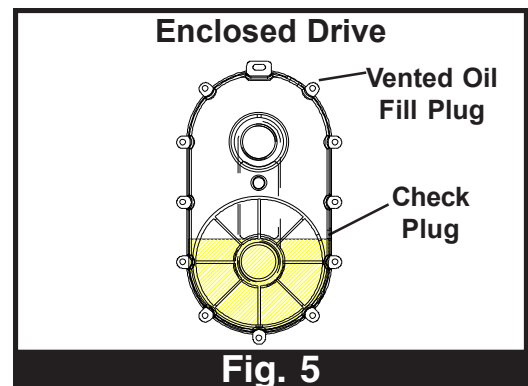


5. Enclosed Drive Preparation (See Fig. 5)

- A. Unscrew the vented oil plug on top of the enclosed drive & check plug on the side.
- B. Fill with non-foaming multi-purpose gear oil per page 65 to the bottom of the check plug and replace the oil plugs.

NOTE

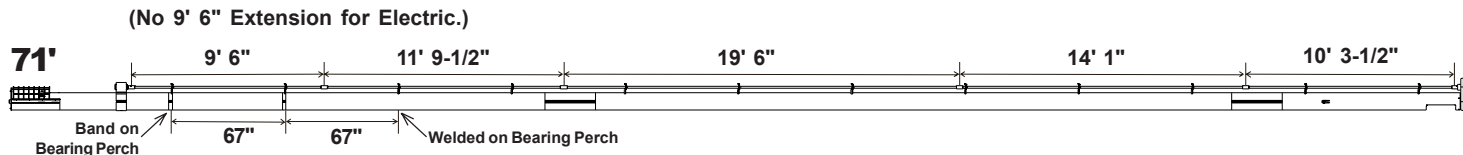
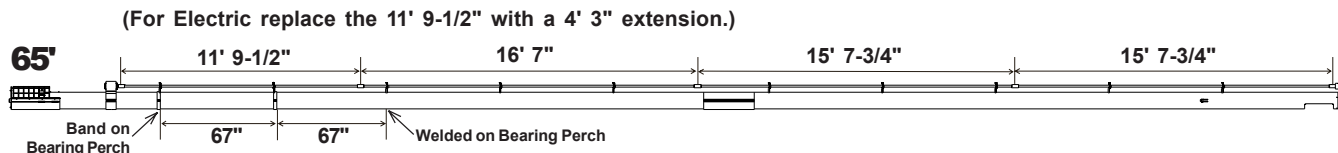
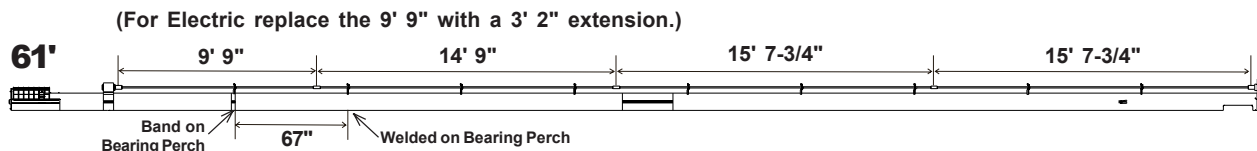
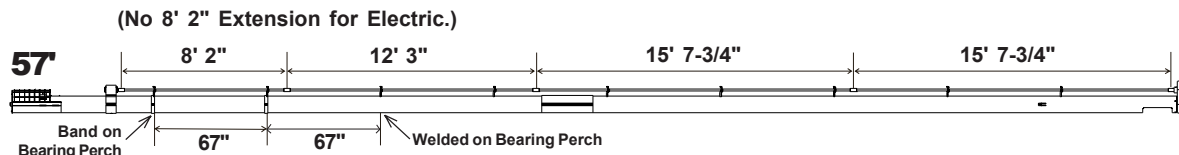
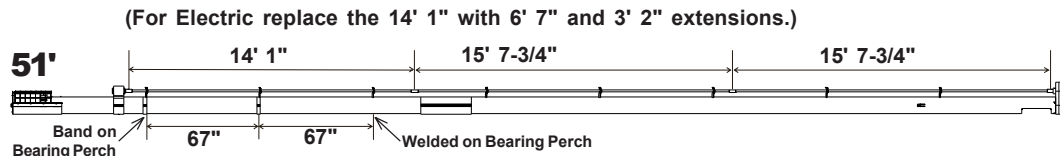
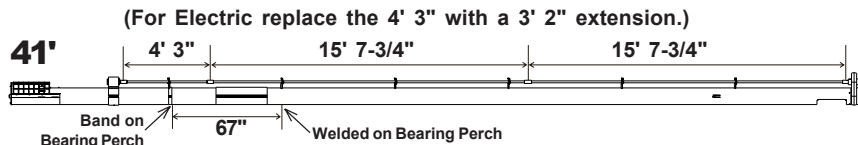
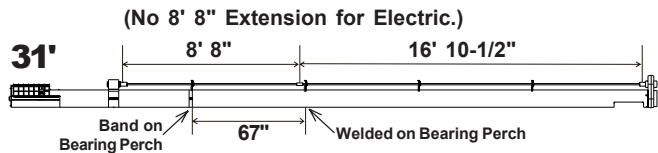
Do not over fill. Too much oil will cause pressure build up and may damage the seals.



Hydraulic & Manual Lift Auger Assembly

6. Driveline Layout for both Hydraulic and Manual Lift Augers (PTO Layout Shown)

A. The following diagrams show the locations of the drive shafts and drive extensions.



Hydraulic & Manual Lift Auger Assembly

7. Assemble the Gearbox for PTO Driven Top Drives

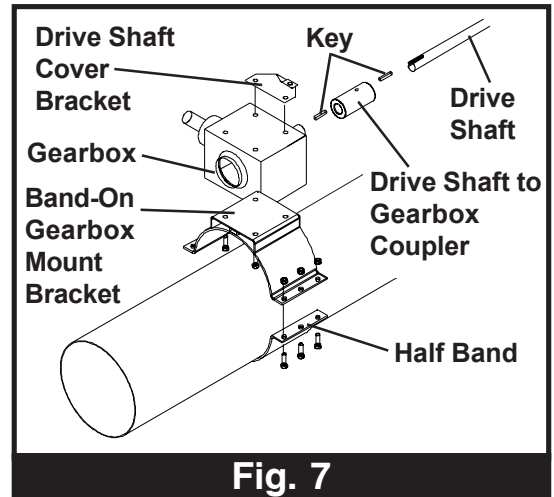
CAUTION

The gearbox is shipped dry! Fill with lubricant before use. (See step #8 Below.)

Install the gearbox to the mounting bracket with the vented plug on the top side of the gearbox so air pressure may be released.

NOTE

P.T.O. Drives can be operated from the right or left hand side of the auger. All illustrations show gearbox in left hand drive position. To change the drive for a right hand drive, turn the gearbox over and bolt the other side to the gearbox mount. The vent plug in the gearbox must be switched out with the standard plug on the bottom. So the vent plug always stays on the top side of the gearbox when mounted. Install the PTO driveline support on the other side of the auger housing.



- A. Attach the gearbox to the gearbox mounting bracket halfband using four (4) 3/8" x 3/4" bolts, flatwashers, and locknuts. (See Fig. 7)

NOTE

The gearbox mounting bracket is located below the drive shaft. The exact position is determined by the gearbox connection. Tighten the gearbox mount completely after the gearbox is attached to the drive shaft.

- B. Attach the gearbox mounting bracket halfband loosely. Secure it with six (6) 3/8" x 1-1/2" bolts and locknuts.
- C. Insert one (1) 1/4" x 1-1/2" key into the keyway located on the drive shaft and slide a 1-1/4" to 1" coupler onto the drive shaft.
- D. Place one (1) 1/4" x 1-1/2" key into the keyway on the drive shaft on gearbox and insert shaft with key into the 1-1/4" to 1" coupler.
- E. Attach the Drive Shaft Cover Bracket to the Gearbox using two (2) 3/8" x 3/4" bolts with lockwashers.
- F. Tighten the halfbands.

8. Gearbox Lubrication

- A. Remove the vented fill plug from the top of the gearbox and the check plug from the side.
- B. Fill the gearbox to the check plug opening with the recommended lubricant. For temperatures between 40° F and 120° F use non-foaming multi purpose gear oil SAE 85W90. Below 40° F use SAE 80. SAE 80W90 may also be used for all operating temperatures.
- C. Replace the plugs.

CAUTION

Do NOT overfill the gearbox! Too much oil will cause pressure build up, which may damage the seals.

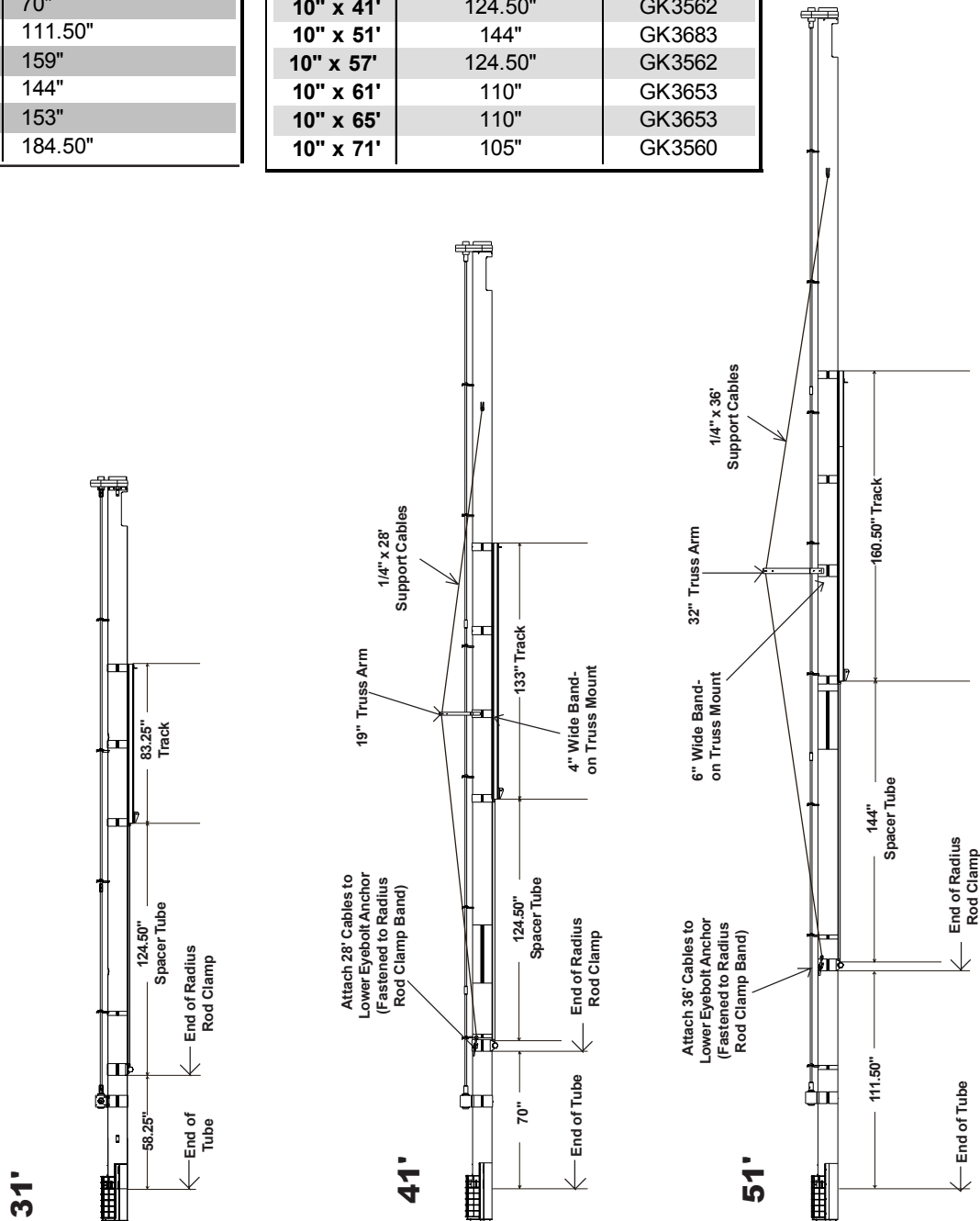
9. Track and Truss Layout for Manual Lift Augers

⚠️ WARNING

The location of components that band to the auger tube is critical for proper operation of the undercarriage system. If the auger components you have do not match the lengths specified in these instructions or you cannot position the components where instructions specify due to interference with other items mounted on the auger tube, contact your dealer or the factory immediately. **DO NOT** modify or substitute other components in an effort to complete the assembly of the auger. Failure to properly assemble the auger can result in serious injury or death.

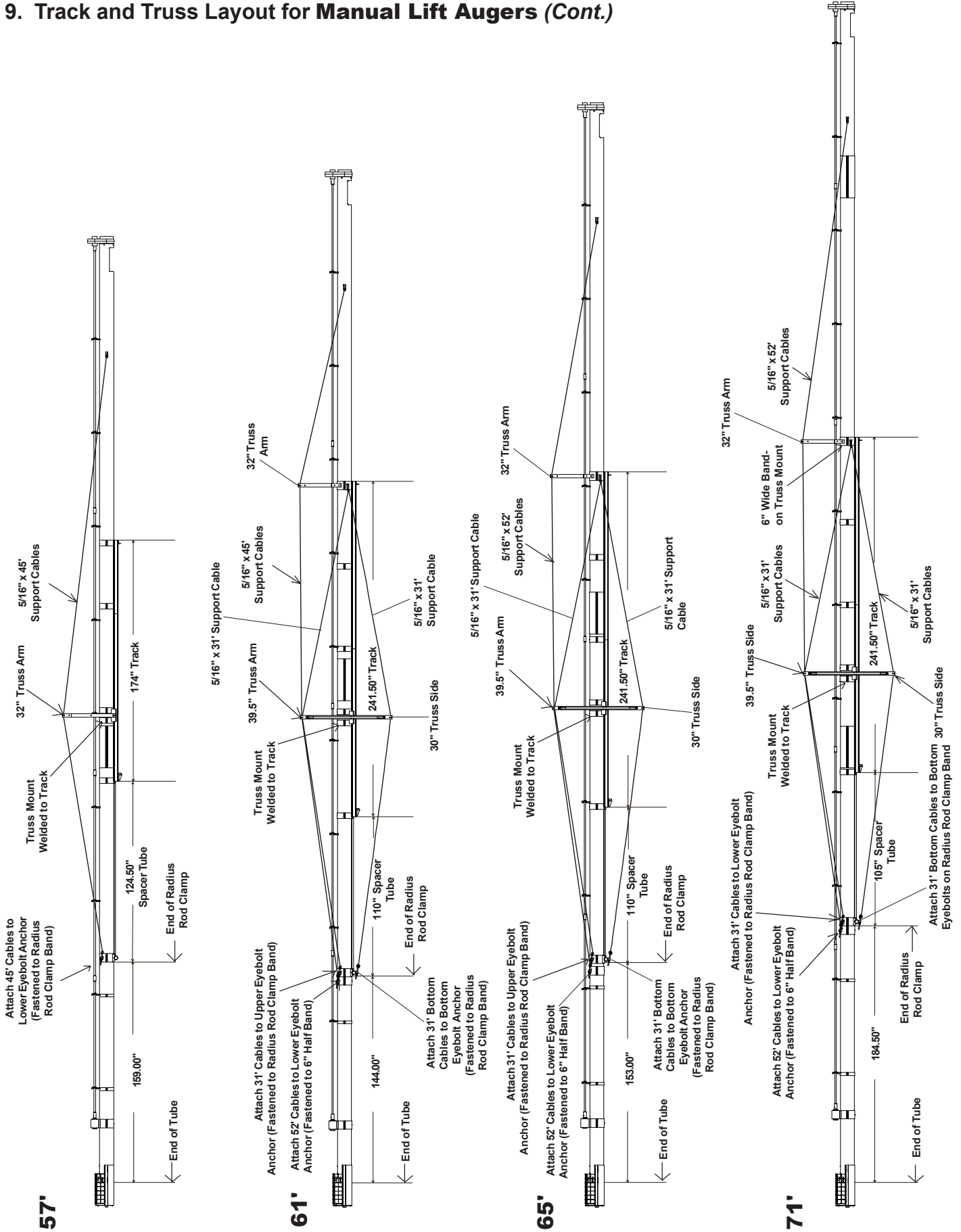
| Radius Rod Chart | | |
|--------------------|------|----------------------------------|
| | Size | End of Radius Rod to End of Tube |
| Manual Lift | 31' | 58.25" |
| | 41' | 70" |
| | 51' | 111.50" |
| | 57' | 159" |
| | 61' | 144" |
| | 65' | 153" |
| | 71' | 184.50" |

| Spacer Tube Lengths | | |
|---------------------|------------------|-------------|
| Auger Size | Spacer Tube Size | Part Number |
| 10" x 31' | 124.50" | GK3562 |
| 10" x 41' | 124.50" | GK3562 |
| 10" x 51' | 144" | GK3683 |
| 10" x 57' | 124.50" | GK3562 |
| 10" x 61' | 110" | GK3653 |
| 10" x 65' | 110" | GK3653 |
| 10" x 71' | 105" | GK3560 |



Manual Lift Auger Assembly

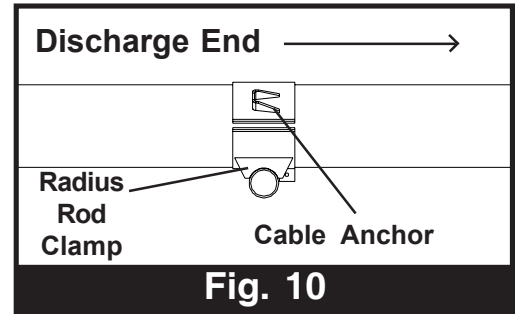
9. Track and Truss Layout for Manual Lift Augers (Cont.)



10. Assembling the Radius Rod Clamp for Manual Lift Augers

NOTE Make sure the Radius Rod Clamp is directly under the Drive Shaft.

- A. For proper placement of the radius rod clamp band(s), measure from the intake end of the tube to the corresponding measurement(s) on page 23 & 24 for your size model. Fasten the radius rod clamp band to the auger using a heavy duty halfband and six (6) 3/8" x 1-1/2" long hex head capscrews and nylon locknuts. The radius rod clamps will have eyebolt anchors welded to them. The eyebolt anchor ends **MUST** point toward the discharge end of the auger. (See Fig. 10)



11. Installing the Spacer Tube (Refer to pages 13-14)

- A. Insert the spacer tube into the collar on the radius rod clamp band. Secure the lower spacer tube end to the radius rod clamp using a 5/16" x 1-3/4" hex head capscrew and nylon locknut.

12. Installing the Track

- A. Position the track under the tube housing close to the position indicated in the drawings on page 13-14 for your size auger. Loosely attach track to tube by bolting the halfbands to the track using four (4) 3/8" x 1-1/2" (grade 5) hex head capscrews and nylon locknuts per each halfband. **(Each size auger has a different number of heavy duty halfbands. Be sure to use the appropriate gauge of halfbands to assemble the track to the tube.)** Make sure the track can slide freely along the tube for final positioning.
- B. Slide the track towards the spacer tube until the spacer tube is seated into the receiver on the track. Fasten the spacer tube to the track using a 5/16" x 1-3/4" bolt and nylon locknut.
- C. **Make sure the spacer tube and track are aligned down the center along the bottom side of the tube housing.** Go back and tighten the 3/8" x 1-1/2" bolts on the halfbands.

13. Install the Intake Assembly. Two Types - (Round Bottom and Open Bottom Intake Hopper)

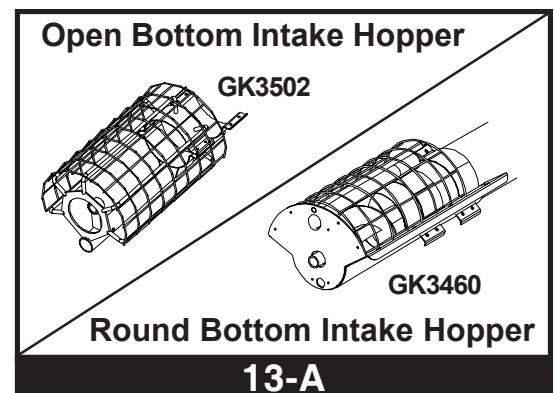
NOTE If using GK3460, insert the intake guard halfbands prior to installation.

NOTE The top halfband, for mounting the intake guard assembly, should be positioned to the discharge side (above) of the 3/8" key that is welded to the auger housing.

NOTE Position the front side of the halfband closest to the intake end of the auger flush with the end of the auger housing.

- A. Attach the intake guard at the intake end of the auger housing.
- B. While sliding the intake guard on the auger housing, guide the intake stub shaft through the bearing. (See Fig. 13-A)
- C. Secure the intake guard to the auger housing using a top halfband. Use (4) 5/16" x 1-3/4" bolts, flatwashers and nuts.

NOTE Do Not slide the intake guard on so far that the auger flight is in contact with the bearing. Leave 3/8"-1/2" clearance.



Manual Lift Auger Assembly

14. Truss Assembly for Manual Lift Undercarriage

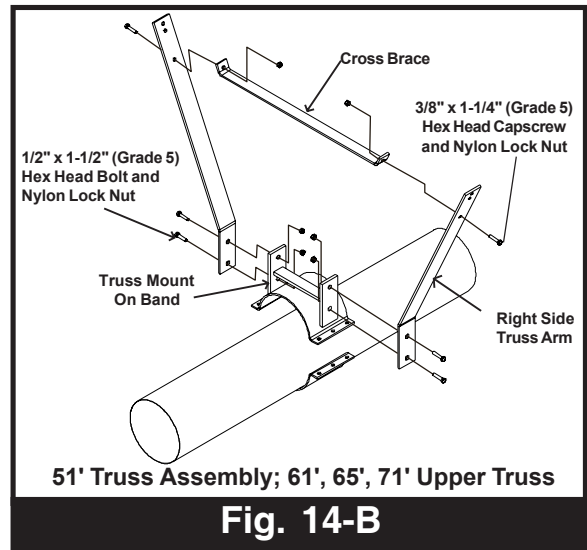
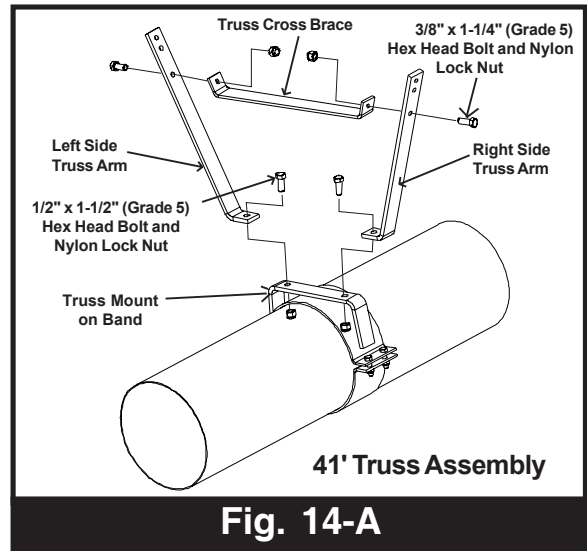
(If you have a 31' Top Drive skip this section and go to Section 16 on page 30.)

A. 41' Truss Assembly (See Fig. 14-A)

1. Attach the right side truss arm to the right side of the truss mounting band using a 1/2" x 1-1/2" (grade 5) hex head bolt and nylon locknut. **TIGHTEN BOLTS ONLY FINGER TIGHT AT THIS TIME.**
2. Attach the left side truss arm to the left side of the truss mounting band using a 1/2" x 1-1/2" (grade 5) hex head bolt and nylon locknut. **TIGHTEN BOLTS ONLY FINGER TIGHT AT THIS TIME.**
3. Fasten the truss crossbrace in between the right and left side truss arms using two (2) 3/8 x 1-1/4" (grade 5) hex head bolts and nylon lock nuts.
4. Go back and tighten all bolts and nuts on the truss mount.

B. 51' Truss and 61', 65', & 71' Upper Truss Assemblies. (See Fig. 14-B)

1. Attach right and left side truss arms to the left and right side of the truss mounting band using four (4) 1/2" x 1-1/2" (grade 5) hex head bolts and nylon locknuts. **TIGHTEN BOLTS ONLY FINGER TIGHT AT THIS TIME.**
2. Fasten the truss crossbrace to the left and right side truss arms using two (2) 3/8 x 1-1/4" (grade 5) hex head bolts and nylon locknuts.
3. Go back and tighten all bolts and nuts on the truss mount.



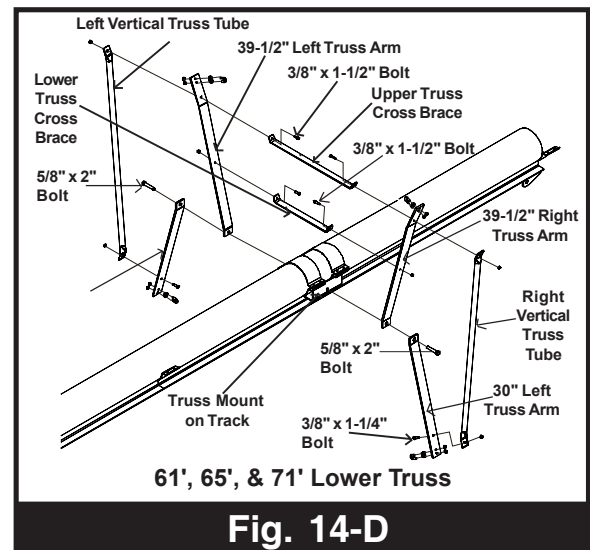
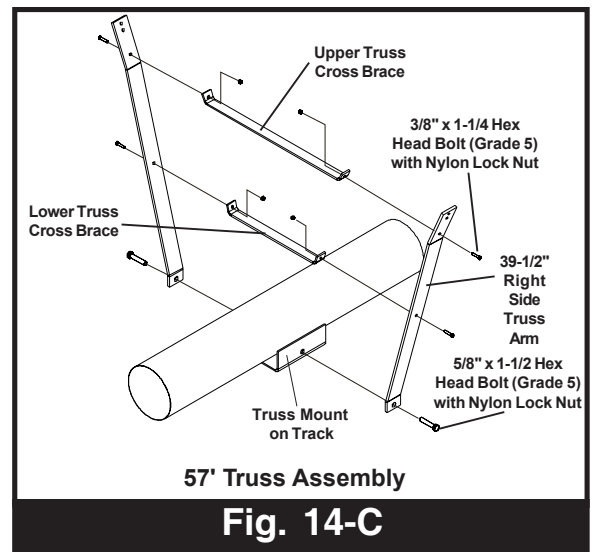
14. Truss Assembly for Manual Lift Undercarriage (cont.)

C. 57' Truss Assembly (See Fig. 14-C)

1. Attach right and left truss arms to the right and left sides of the track using two (2) 5/8" x 1-1/2" hex head bolts (grade 5) with nylon locknut. **TIGHTEN ONLY FINGER TIGHT AT THIS TIME.**
2. Fasten lower and upper truss cross braces in between the right and left side truss arms using four (4) 3/8" x 1-1/4" (grade 5) hex head bolts and nylon locknuts.
3. Go back and tighten all bolts and nuts on the truss mount.

D. 61', 65', & 71' Lower Truss Assembly (See Fig. 14-D)

1. Attach the bottom 39-1/2" and top 30" truss side arms to the truss mount on the track using one 5/8" x 2" (grade 5) hex head bolt capscrew and nylon locknut per side. **TIGHTEN BOLTS ONLY FINGER TIGHT AT THIS TIME. (Make sure the 39-1/2" Arms are installed between the truss mount and the 30" Arms.)**
2. Fasten the lower truss crossbrace to the inside of the two 39-1/2" truss arms using two (2) 3/8" x 1-1/2" hex head bolt and nylon locknuts.
3. Attach the upper truss crossbrace to the inside of the two 39-1/2" truss arms and attach the vertical truss tubes to the outside of the 39-1/2" truss arms using the same two (2) 3/8" x 1-1/2" hex head bolt and nylon locknuts.
4. Attach the other end of the vertical truss tubes to the bottom of the 30" long truss arms using two (2) 3/8" x 1-1/4" hex head bolt and nylon locknuts.
5. Go back and tighten all bolts and nuts on the truss.



Manual Lift Auger Assembly

15. Truss Cable Assembly

NOTE 31' augers have no cables.
41' - 57' have one set of truss cables.
61' - 71' has two sets of upper cables and one set of lower cables.

NOTE Secure the U-Bolts against the loose end of the cable, as shown in figure 15-A.

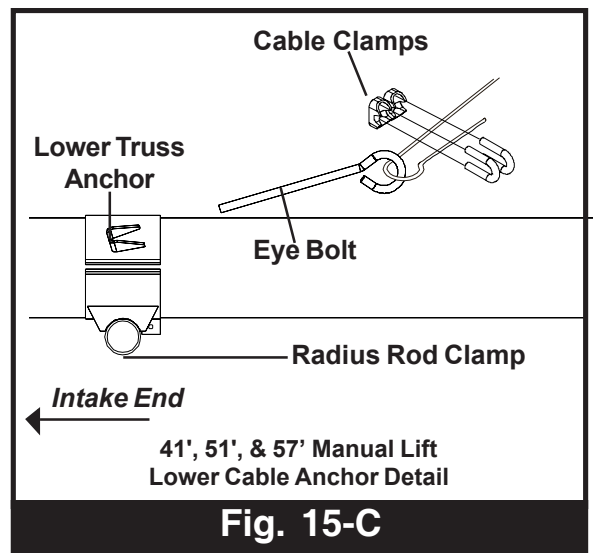
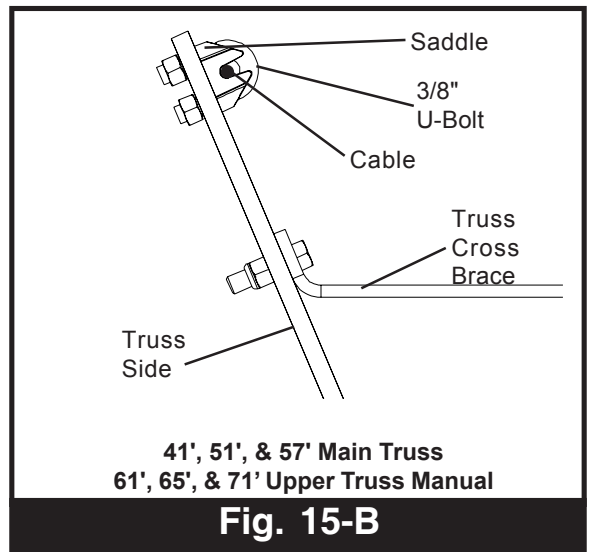
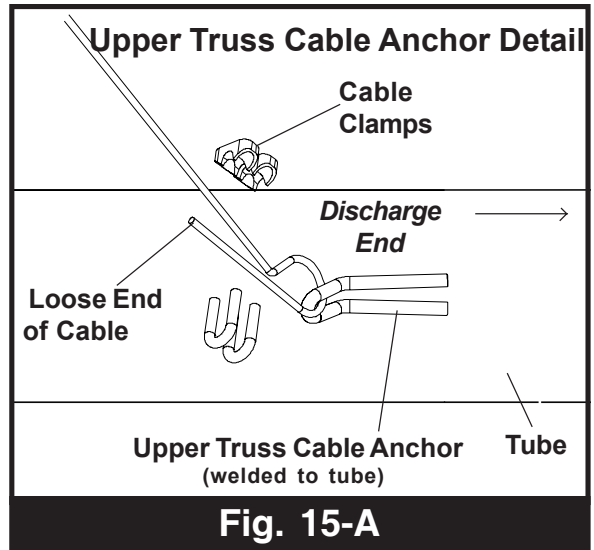
A. Truss Cable Assembly for 41', 51', and 57' Manual Winch Augers

1. Start with the right side of the upper truss cable anchor (located near discharge end) that is welded to the tube. Guide the end of one cable through the cable anchor and attach the loose end of the cable to itself using two (2) cable clamps. (See Fig. 15-A)
2. Run the cables to the top right side of the truss arm and fasten the cable to the truss using a 3/8" cable clamp. DO NOT fully tighten the cable clamps. The cable must be able to slide freely through the clamps when taking up the slack. (See Fig. 15-B.)
3. Run the cable down to the right lower eyebolt anchor located on the lower radius rod clamps. Slide cable through the eyebolt and fasten loose end of cable using two cable clamps for each cable. (See Fig. 15-C.)
4. Repeat steps 1-3 with the left side support cable and using the left side anchors.
5. Screw eyebolts into left and right side eyebolt anchors to tighten cables and remove slack until snug. **TIGHTEN BOTH CABLES SO THEY HAVE THE SAME AMOUNT OF TENSION. DO NOT OVERTIGHTEN.**

NOTE The auger tube should have a slight upward bow when cables are tight.

6. Double check to be sure all sections are straight. Minor adjustments can be made after auger is assembled.
7. Go back and tighten 3/8" cable clamps on the truss arms.

NOTE Support the end of the auger tube while tightening truss cables.



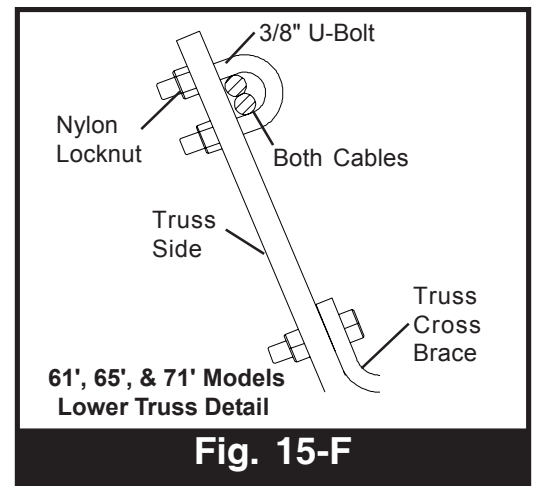
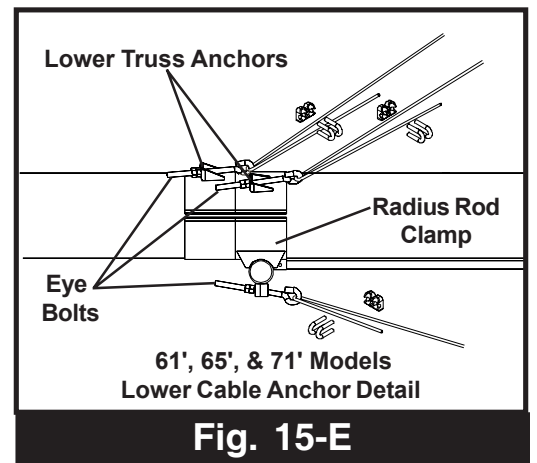
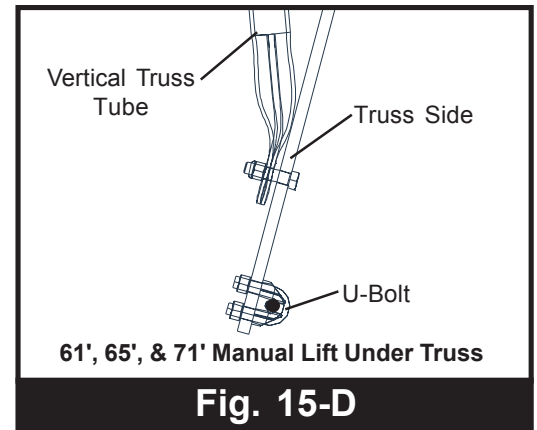
B. Truss Cable Assembly for 61', 65', & 71' Winch Augers

Bottom Cable

1. Start at the two cable anchors located under the 32" truss arm, which are welded to the end of the track. Use one 31' cable per side and loop the cables through the anchors and tightly fasten the loose end of the cable to itself using two (2) 3/8" cable clamps per side. (See fig. 15-A.)
2. Run 31' cables to the right and left sides of 30" Truss arm located on the bottom side of the auger. Fasten cables to bottom 30" truss arms using (2) 3/8" cable clamps. **DO NOT TIGHTEN.** Cable must be allowed to slide freely until adjusted. (See Fig 15-D)
3. Run 31' cables up towards the Radius Rod Clamp. Loop ends of cables through eyebolts and fasten using (4) 5/16" cable clamps, two clamps for each cable. Screw eyebolts into the eyebolt anchors that are located on the bottom of the Radius Rod Clamp. (See Fig. 15-E.)

Top Cables

4. Starting at the right side upper truss cable anchor located near the discharge end. Guide one end of the 52' support cable through the cable anchor and fasten the loose end of cable to itself using two (2) 5/16" cable clamps. (See Fig. 15-A.)
5. Run the cable to the top right side of the 32" truss arm and fasten the cable to the truss using a 3/8" cable clamp. **DO NOT** fully tighten the cable clamp. The cable must be able to slide freely through the clamp when taking up the slack.
6. Run the 52' cable down the auger to the top right side of the 39-1/2" truss arm. Then start connecting the 31' cable.
7. Loop the end of the 31' cable through the right side truss cable anchor located under the 32" truss arm. Fasten cable with (2) 3/8" cable clamps.
8. Gather up both the 52' and 31' cables and run both cables through the 3/8" U-Bolt on the 39-1/2" truss arm and fasten. **DO NOT** fully tighten the cable clamps. The cables must be able to slide freely through the clamp when taking up the slack. (See Fig. 15-F.)
9. Run the 52' cable down the auger towards the bottom 6" halfband. Loop end of cable through an eyebolt and fasten using (2) 3/8" cable clamps. Screw eyebolt into the eyebolt anchor that is welded on the right side of the 6" halfband. (See Fig. 15-E.)
10. Run the 31' cable down the auger to the lower truss anchor which is attached to the radius rod clamp band. Loop end of cables through eyebolt and fasten using (2) 3/8" cable clamps. Screw eyebolt into the eyebolt anchor that is located on the bottom right side of the Radius Rod Clamp. (See Fig. 15-D.)
11. Repeat steps 4-10 for the left side support cables using the left side cable anchors.
12. **USING THE EYEBOLT SCREWS, TIGHTEN ALL CABLES SO THEY HAVE THE SAME AMOUNT OF TENSION. DO NOT OVERTIGHTEN.**
13. Go back and tighten up all cable clamps and U-Bolts.



Manual Lift Auger Assembly

16. Drive Shaft Cover Assembly (Electric and PTO Driven)

There is a special two piece section of the drive shaft cover that installs between the gearbox and the first bearing stand. It telescopes together to vary in length. This telescoping cover consist of a standard piece that telescopes into a special piece of cover with a retaining bottom edge. On 71' Models there are two telescoping covers, one at each end of the driveline.

A. Installing a two-piece drive shaft cover.

1. Center the slots in the covers over the hole in the mounting bracket.
2. Place the 1/4" x 1" O.D. flatwasher over the slot in the cover and drive the self-tapping slotted hex head screw through the hole in the mounting bracket.
3. Tighten the metal screw down to the flat washer and cover. **DO NOT** over tighten and strip out the hole in the mounting bracket.

CAUTION The two (2) piece telescoping cover should overlap at least 6" for proper installation.

B. To install a one-piece drive shaft cover

1. Center the slots in the covers over the hole in the mounting bracket.
2. Place the 1/4" x 1" O.D. flat washer over the slot in the cover, and drive the self tapping slotted hex head screw through the hole in the mounting bracket.
3. Tighten the metal screw down to the flatwasher and metal cover.

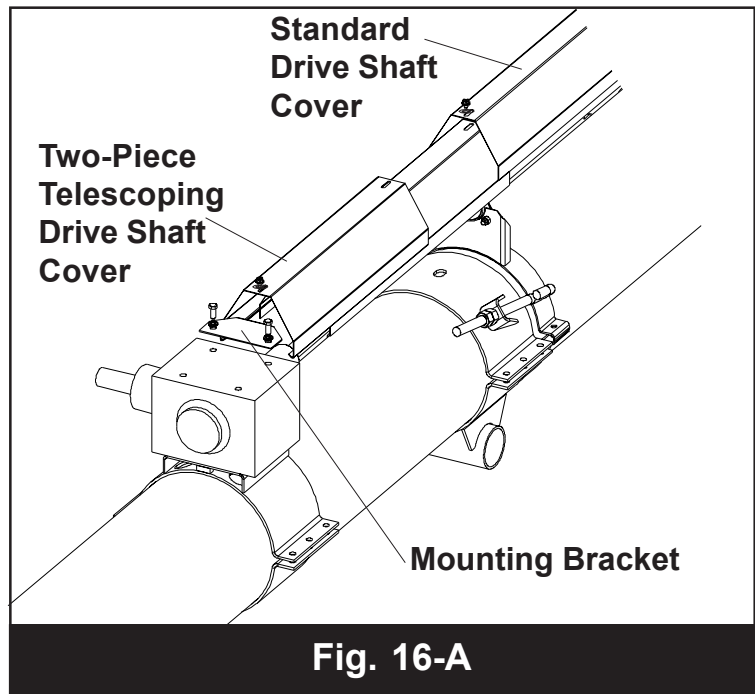
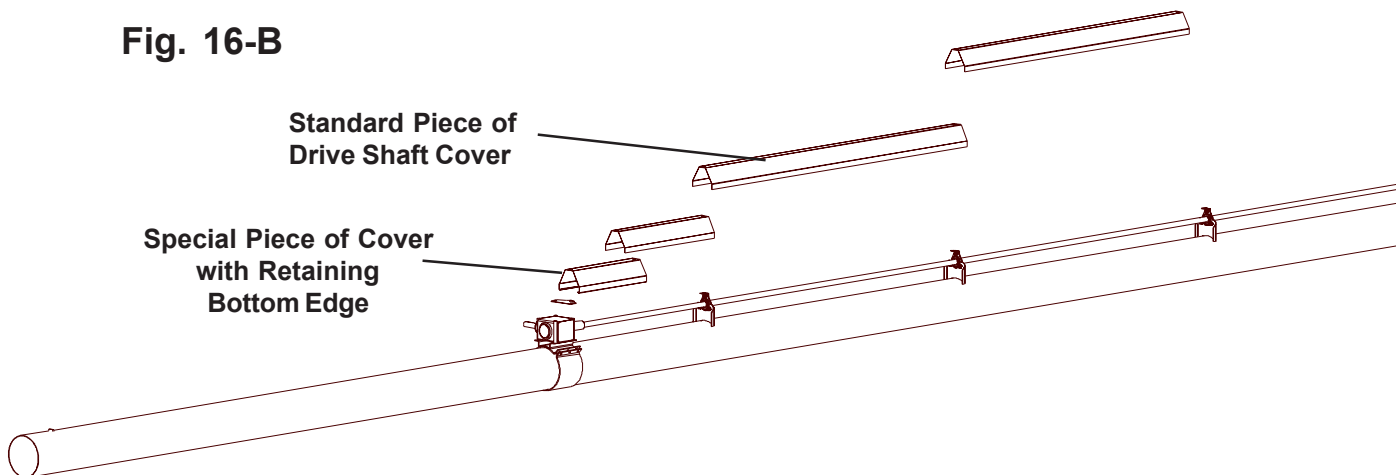


Fig. 16-B



16. Drive Shaft Cover Assembly (cont.)

A. Attach the drive shaft covers to the auger housing. Mount the covers to the drive shaft mounting brackets located along the auger housing.

B. Secure the covers with 1" O.D. flatwashers and slotted self tapping hex head screws.

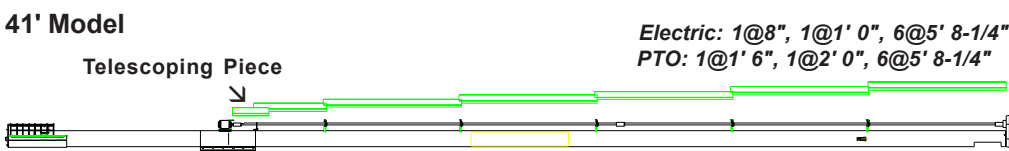
NOTE

Refer to the drawings below to reference the drive shaft covers for the Electric and PTO driven top drives. Begin at the intake end and work your way toward the output end overlapping the covers at each bearing stand. *ELECTRIC DRIVE IS SHOWN*

31' Model



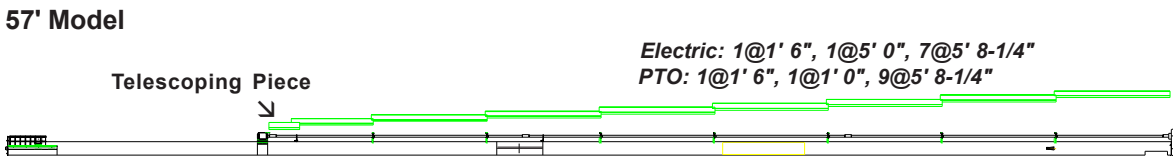
41' Model



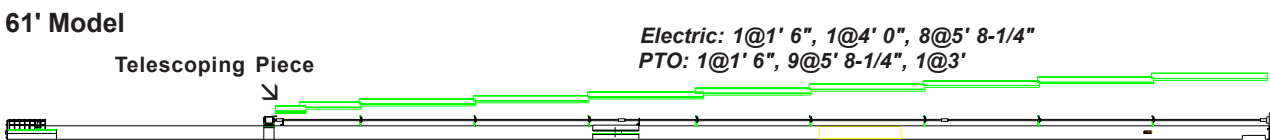
51' Model



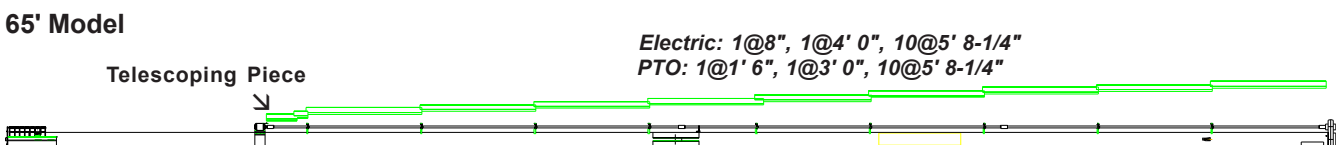
57' Model



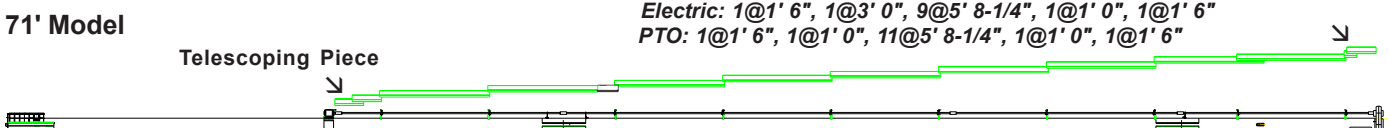
61' Model



65' Model



71' Model



NOTE

DO NOT operate the auger without all drive shaft covers in place.

Manual Lift Auger Assembly

17. Clevis Assembly

A. Discharge End Trolley Cable Pulley and Long Clevis (See Fig. 17-A & 17-B)

- Place the pulley(s), washers, and spacer bushing to the long clevis as shown below and fasten them together using a 1/2" x 3" (grade 5) hex head capscrew making sure the capscrew is installed so the head is on the top side of the clevis when the clevis is assembled onto the auger. Insert the cotter pin into the small hole in the clevis and fasten to the clevis by bending the legs of the cotter pin apart.
- Attach the long clevis to the track by fastening the trolley sides onto the track. (See Fig. 19-B)

NOTE Use the locknuts and tighten so that the bushings will not turn against the clevis. Torque to 80 ft/lbs.

Fig. 17-A - 31' Augers

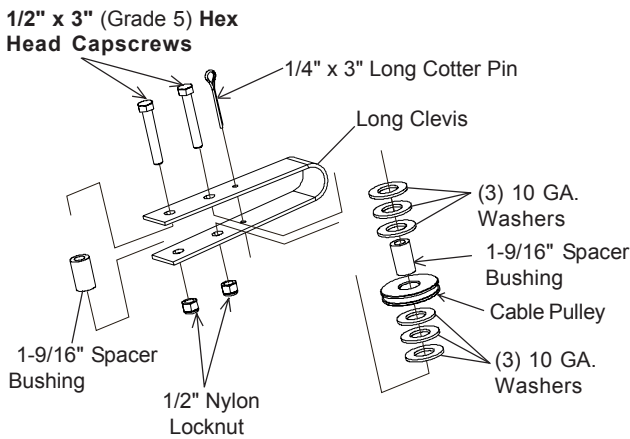
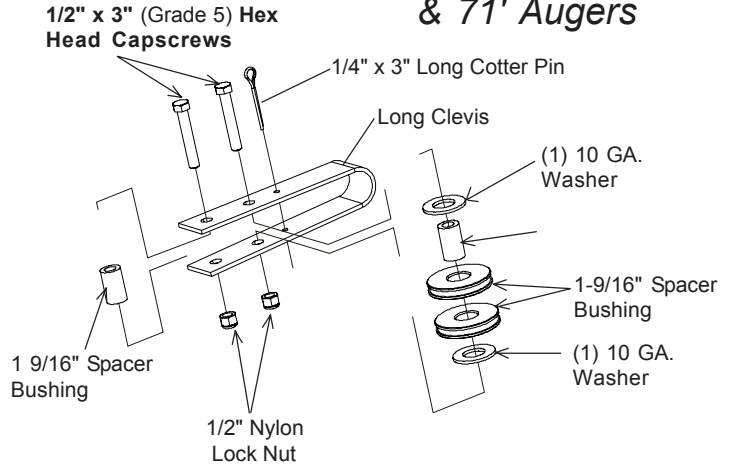


Fig. 17-B - 41', 51', 57', 61', 65', & 71' Augers



B. Intake End Track Cable Pulley and Short Clevis (See Fig. 17-C & 17-D)

- Place the pulley(s), washers, and spacer bushing to the short clevis as shown below. Fasten them together using 1/2" x 3" (grade 5) hex head capscrews making sure the capscrews are installed so the heads are on the top side of the clevis when the clevis is assembled onto the auger. Insert the cotter pin into the small hole in the clevis and fasten to the clevis by bending the legs of the cotter pin apart.
- Attach the short clevis to the track by fastening the 5/8" x 4" bolt through the track and clevis.

Fig. 17-C - 31' Augers

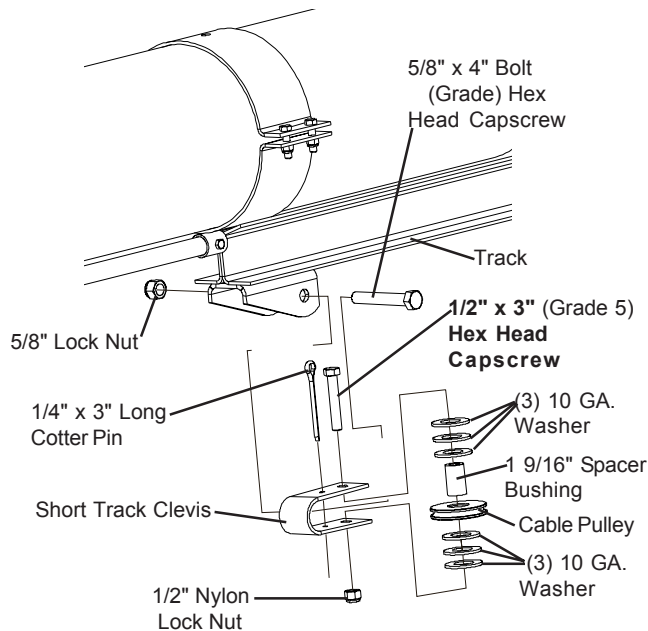
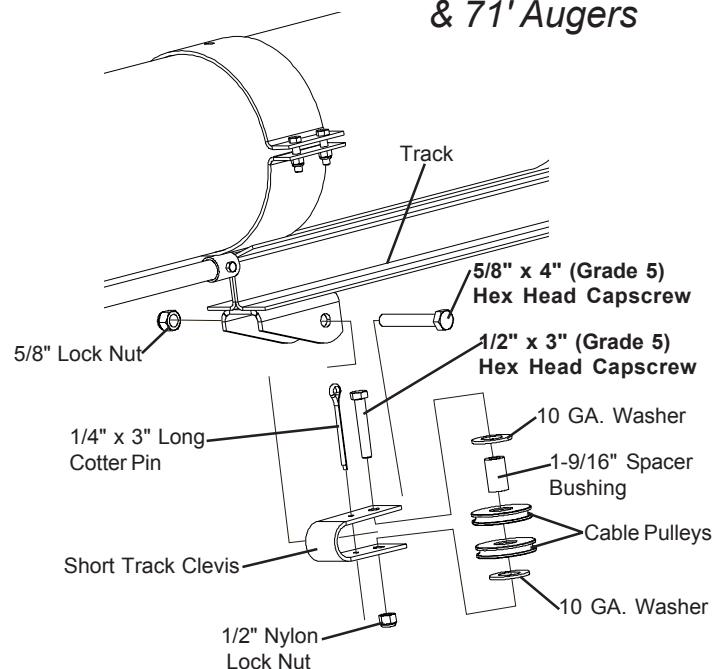


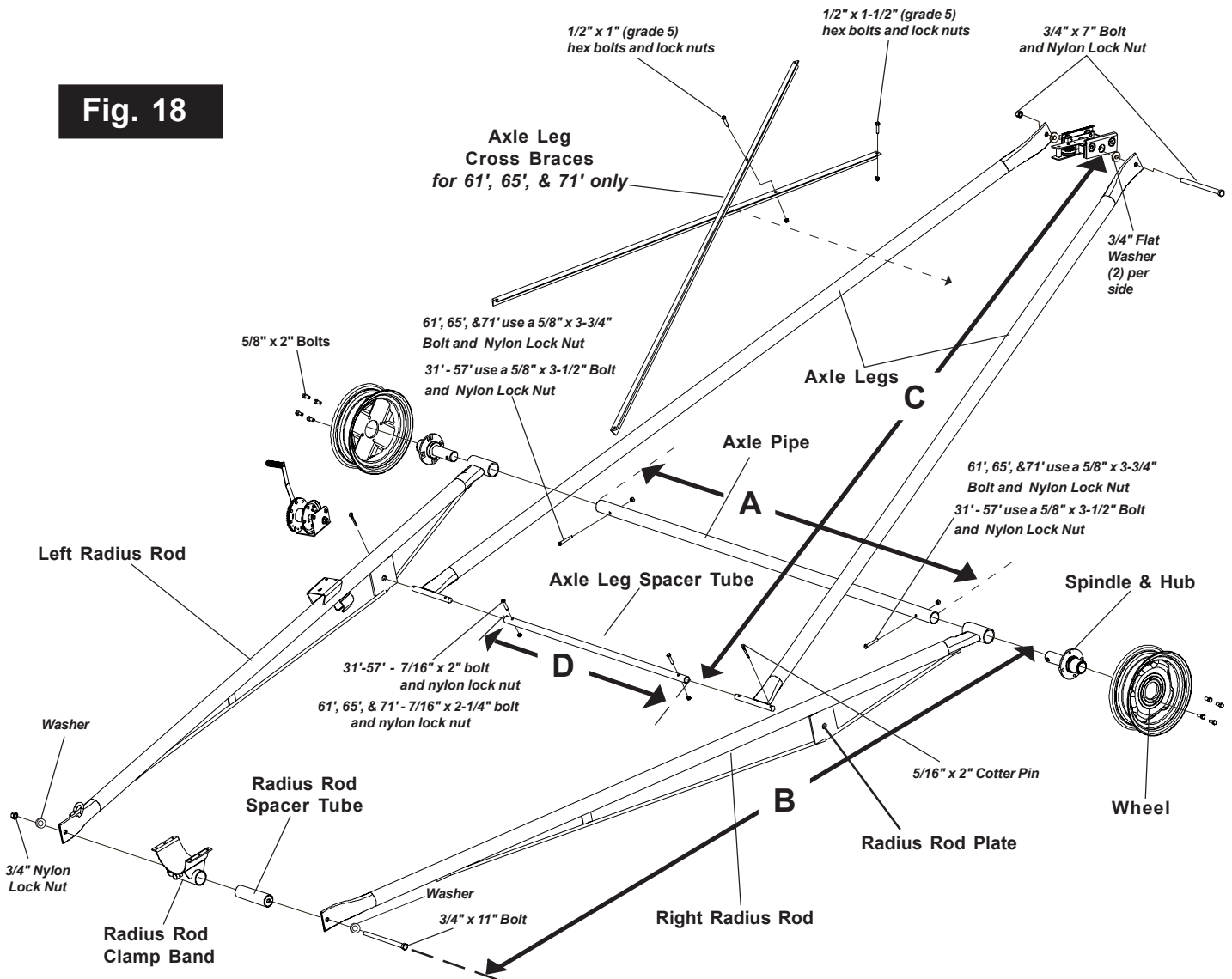
Fig. 17-D - 41', 51', 57', 61', 65', & 71' Augers



18. Manual Lift Undercarriage Assembly.

- Place the left and right radius rod close to positions shown in Fig. 18 below. The flattened ends of the radius rods must be facing towards the intake end of the auger. The left radius rod with the winch mount **MUST** be on the left side, which is your left hand side when standing at the intake end of the auger looking up at the discharge end.
- Bolt the axle leg spacer tube to the bottom of the axle legs using a 7/16" x 2" (grade 5) hex head cap screw for 31' - 57' Augers and a 7/16" x 2-1/4" (grade 5) hex head cap screw on 61' - 71' models. Connect the short shafts on the axle legs into the square on the radius rods. Insert one 1/4" x 2" cotter pin in the end of each short shaft and bend back the legs of the pin to fasten.
- On 61', 65', & 71' augers ONLY**, connect axle leg crossbraces between the axle legs. Secure angles to ears on axle legs with four 1/2" x 1-1/2" long (grade 5) hex head capscrews and nylon locknuts. **DO NOT** fully tighten hardware until the trolley is assembled to the axle legs. Fasten the crossbraces through the middle with a 1/2" x 1" (grade 5) hex head capscrew and nylon locknut. **DO NOT** tighten hardware until later.

Fig. 18



| Manual Lift Models | 31' | 41' | 51' | 57' | 61' | 65' | 71' |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|
| "A" - Axle Pipe Length | 94.50" | 94.50" | 93.00" | 93.00" | 120.00" | 120.00" | 120.00" |
| "B" - Radius Rod Length | 116.00" | 146.00" | 176.50" | 176.50" | 209.25" | 209.25" | 209.25" |
| "C" - Axle Leg Length | 126.50" | 152.00" | 178.00" | 178.00" | 193.00" | 193.00" | 193.00" |
| "D" - Axle Leg Spacer Tube Length | 53.00" | 51.00" | 49.75" | 49.75" | 72.50" | 72.50" | 72.50" |

Manual Lift Auger Assembly

18. Manual Lift Undercarriage Assembly (cont.)

- D. Guide the axle pipe through the pipes on the ends of the short pipes at the end of the radius rods.
- E. Connect the spindle and hub to the Axle Pipe as shown on page 33 and fasten together using two (2) hex head cap screws and nylon locknut.
(See chart at right for the bolt size needed for your size auger.)
- F. Fasten tire and rim to hub with four (4) lug nuts on each side.
- G. When the transport height is correct as described above, the lifting device may be released.

| Auger Size | Bolt Size |
|------------|--------------------|
| 31' - 57' | 5/8" x 3-1/2" Long |
| 61' - 71' | 5/8" x 3-3/4" Long |

19. Manual Track & Tube Housing to Undercarriage

- A. Place strap or chain around the auger tube housing about 1/3 of the way down from the discharge end. Use a lifting device and lift the auger tube about approximately 6' from the ground. Roll the undercarriage into position under the tubing.

NOTE During installation, it may be helpful to hold the trolley in position using a c-clamp.

- B. Assemble trolley, spacer, and long clevis to track. (See Fig. 19-B)
- C. Raise axle legs and bolt the trolley spacer with long clevis and pulley assembly together using a 3/4" x 7" long (grade 5) hex head capscrew, flat washers, and nylon locknut. Make sure washers are placed between spacer bushing and axle legs. (See Fig. 19-B)
- D. Insert the radius rod spacer tube into the radius rod clamp band. Then, insert a 3/4" x 11" long (grade 5) hex head bolt through a flat washer, the right radius rod, and through the spacer tube to the left side. Then through the left radius rod, another flat washer and a nylon locknut. (See Fig. 19-D)
- E. Double check that all undercarriage bolts and fasteners are tight and assembled correctly. (On 61', 65', & 71' augers go back and tighten all the 1/2" hex head capscrews that fasten the angle crossbraces to axle legs.)

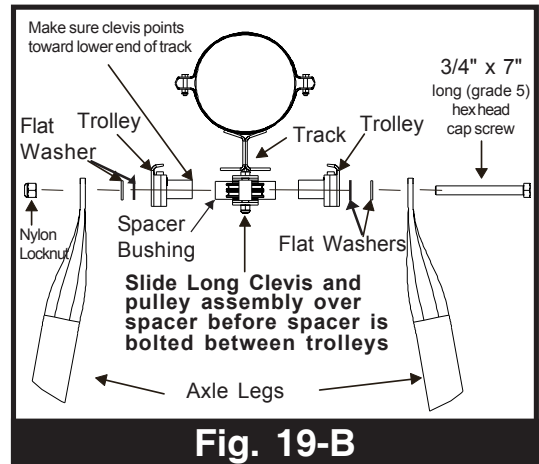


Fig. 19-B

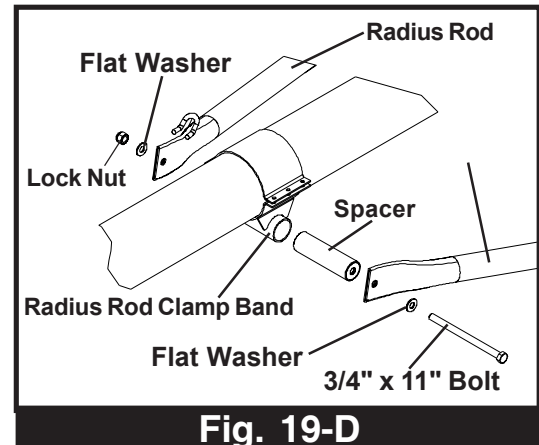


Fig. 19-D

WARNING The trolley must be assembled to the track so it cannot slip off or be removed from the track.

DANGER Before lowering the auger, make sure the intake is on the ground, and the trolley is touching the down stop. Check the transport height of the auger by measuring the distance from the top of the auger's discharge end to the ground. Check your measurement with the chart on page 45. If your measurement doesn't fit into the range on the chart for your size auger go back double check the following:

1. **Location of radius rod clamp and track.** (See page 23-24.)
2. **The length of the undercarriage components.** (See page 33.)
3. **The length of auger tubes.** (See pages 17-18.)
4. **Is the discharge end of the auger tube sagging because the truss cables require tightening?** (See page 28-29.)

If you have double checked all of the above items and your measured discharged height is **NOT** in the range specified in the transport height chart on page 55, call your dealer or the factory immediately. **DO NOT CONTINUE TO ASSEMBLE THE AUGER** and do not release the hoist with the auger in this condition. Failure to do so could result in damage to the auger and/or serious injury to personnel.

20. Winch and Cable Assembly for Manual Lift

A. Bottom Clevis Assembly

1. Hook clevis plates to the anchor on the left radius rod. (See Fig. 20-A)
2. Assemble the two (2) washers, pulley, and bushing in between the clevis plates and fasten together using 1/2" x 2" hex head capscrew and nylon locknut.
3. Double check and make sure the clevis plates are secure and can't slip off.

CAUTION

Use locknut and tighten so bushing will not turn against clevis plates.

B. Winch

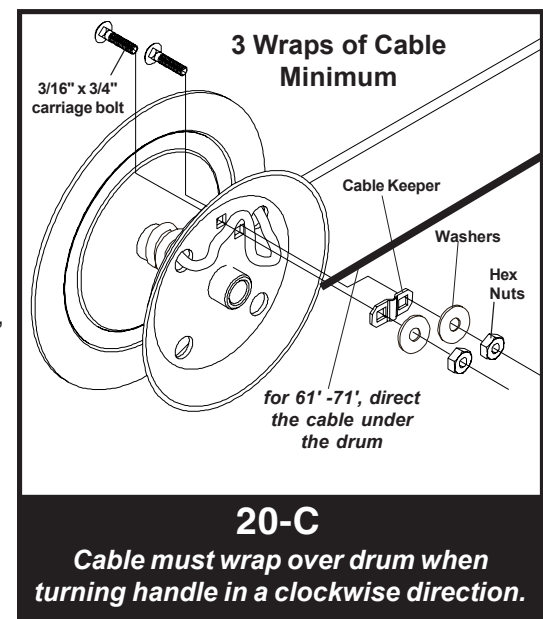
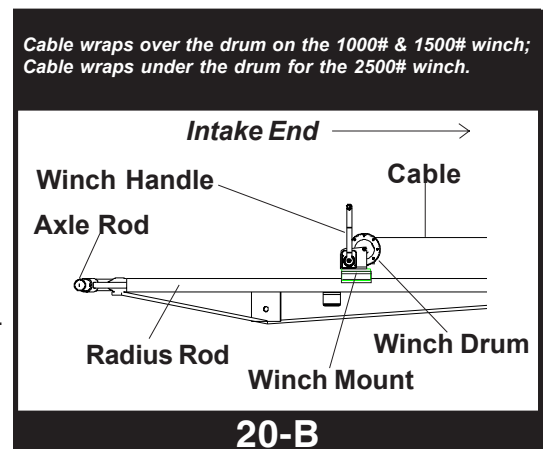
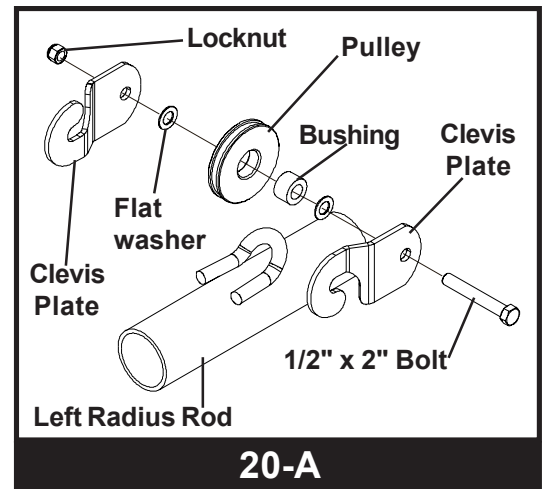
1. To assemble the winch see instructions provided with the winch.
2. Bolt the winch assembly to the mount located on the left radius rod so the winch drum is towards the intake end of the auger. Use three (3) 3/8" x 1" long (grade 5) hex head bolts, flatwashers, and nylon locknuts to attach the winch to the mount. (See Fig. 20-B.)
3. Tighten it with a wrench.

C. Cable

1. Connect the 1/4" lift cable to the winch drum so the cable will wrap **OVER** the winch drum on 31' - 57' size augers and **UNDER** the winch drum on the 61', 65', & 72' size augers when turning the handle in a clockwise direction. (See Fig. 20-C.)
2. From inside of drum, insert the cable out through the round hole in the drum side, until it extends 1" past the two square holes.
3. Clamp the cable to the outside of the drum with the cable keeper, using two (2) 3/16" x 3/4" carriage bolts, lock washers, and nuts. Be sure that the carriage bolt heads are on the inside of the drum.

WARNING

The cable keeper alone will not hold the weight of the auger. There should be enough cable so that when the auger is all the way down, there are at least 3 turns of cable on the winch drum. Never let the cable all the way out. Always keep a minimum of three (3) turns of cable on the winch drum. Cable should never be fully extended. If there are not (3) turns of cable around the winch drum when the auger is fully lowered, then the cable must be replaced with a longer cable.



Manual Lift Auger Assembly

20. Winch and Cable Assembly for Manual Lift Augers (cont.)

D. Cable Assembly for 31' Models (See fig. 20-D)

1. Starting from the winch, extend the loose end of the cable to the pulley that is attached to the clevis anchor on the radius rod. Insert the cable from the lower side of the pulley & wrap around.
2. Extend the cable to the upper clevis mounted to trolley. Insert the cable from the left side, and go around the pulley.
3. Extend the cable from the upper clevis to the bottom clevis located on the bottom of the track located on the bottom of the track.
4. Insert the cable from the right side of the pulley and go around.
5. Extend the cable to the spacer bushing located in the upper clevis on the trolley.
6. Insert cable from the left and wrap the cable around the bushing and secure with two (2) u-bolts and saddles.

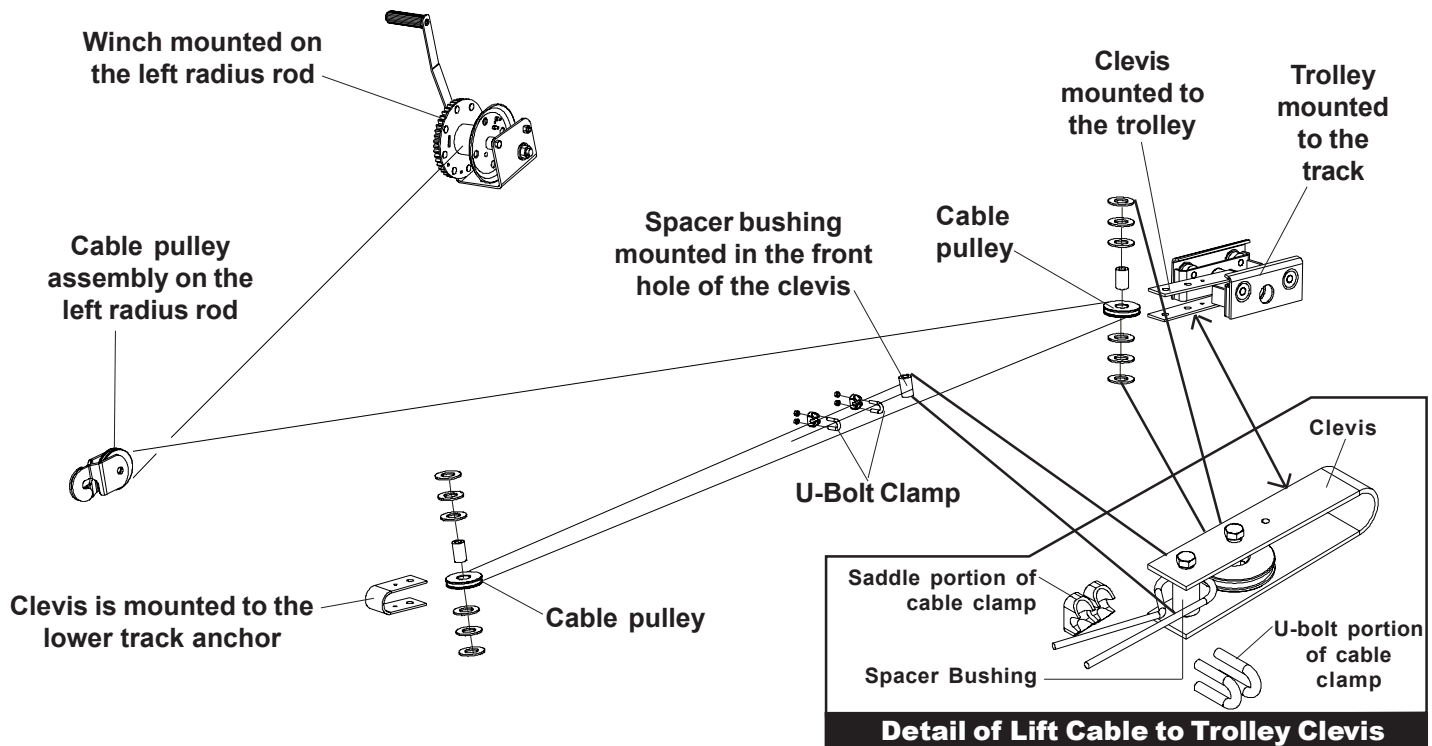
CAUTION

Secure the lift cable to the trolley with two (2) cable clamps, with the clamp U-Bolt against the loose end of the cable.

WARNING

Make sure the cable is located on all cable pulleys BEFORE raising the auger using the winch. Do NOT disassemble pulley(s) from clevis(s) during rigging.

Fig. 20-D - Rigging for 31' Models



20. Winch and Cable Assembly for Manual Lift Augers (cont.)

E. Cable Assembly for 41' - 71' Models (See Fig 20-E)

1. Starting from the winch, extend the loose end of the cable to the pulley that is attached to the clevis anchor on the radius rod. Insert the cable from the lower side of the pulley & wrap around.
2. Extend the cable to the upper clevis mounted to trolley. Insert the cable from the left side, around the top pulley.
3. Extend the cable down to the lower clevis located on the bottom of the track.
4. Insert the cable from the right side, around the top pulley. Then extend cable back up to upper clevis, and from the left side again wrap the cable around the bottom pulley.
5. Extend cable back down to lower clevis and insert cable from the right side, around the bottom pulley.
6. Extend the cable to the spacer bushing located in the upper clevis on the trolley. (See rigging Below)
7. Insert cable from the left and wrap the cable around the bushing. Secure with two (2) u-bolts and saddles.

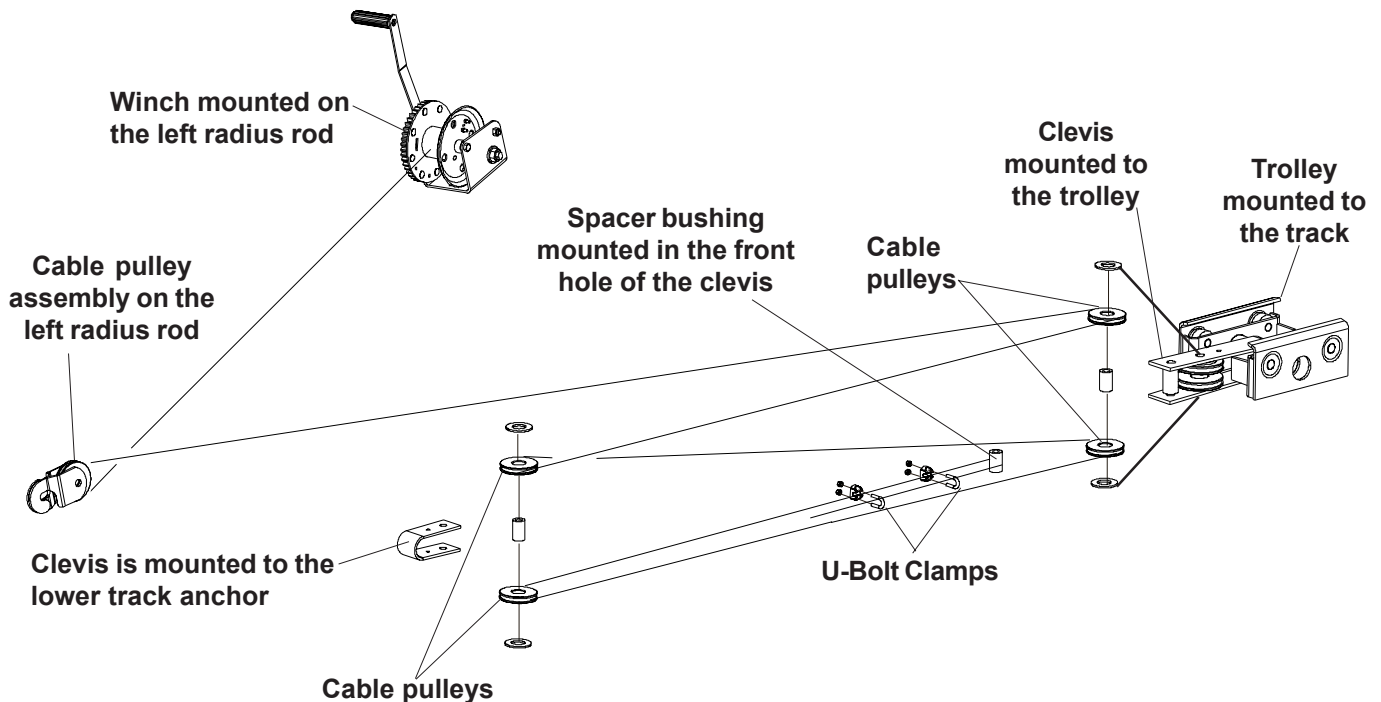


Secure the lift cable to the trolley with two (2) cable clamps, with the clamp U-Bolt against the loose end of the cable.



Make sure the cable is located on all cable pulleys BEFORE raising the auger using the winch. Do NOT disassemble pulley(s) from clevis(s) during rigging.

Fig. 19-E - Rigging for 41', 47', 51', 57', 59', 61', 65', and 71' Models



NOTE

Make sure that the cable is inserted over the top of the pulley and not the bottom.

Skip Hydraulic Section and Go to Page 50 & 51 for PTO and Electric Drive Installation Instructions.

Hydraulic Lift Auger Assembly

21. Track and Truss Layout for Hydraulic Lift Models

▲WARNING

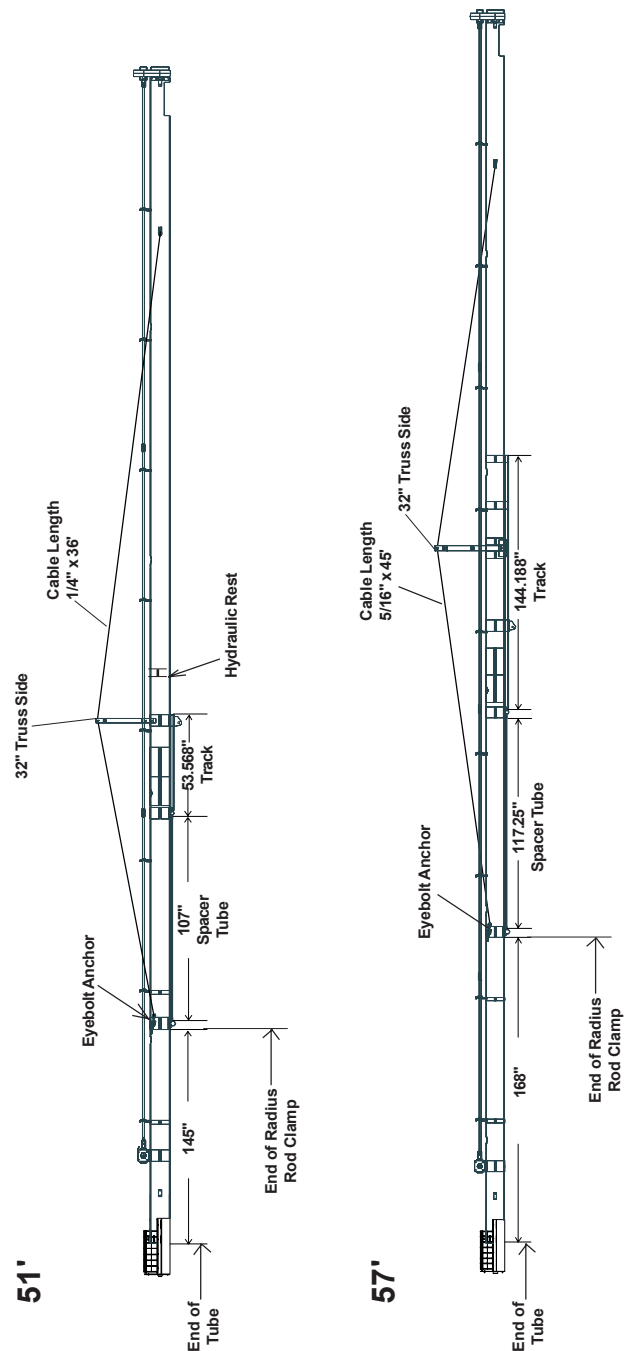
The location of components that band to the auger tube is critical for proper operation of the undercarriage system. If the auger components you have do not match the lengths specified in these instructions or you cannot position the components where instructions specify due to interference with other items mounted on the auger tube, contact your dealer or the factory immediately. DO NOT modify or substitute other components in an effort to complete the assembly of the auger. Failure to properly assemble the auger can result in serious injury or death.

Spacer Tube Lengths

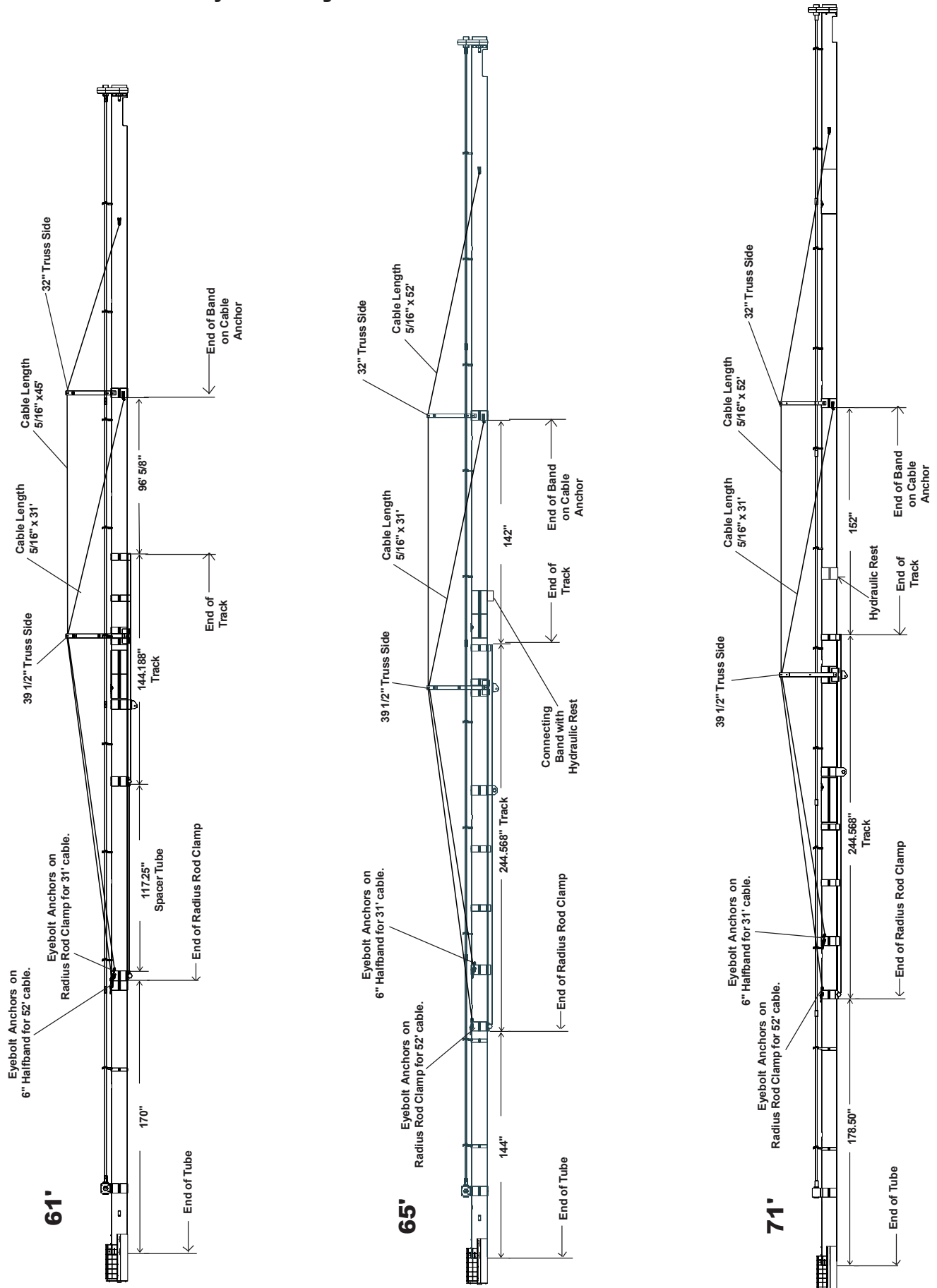
| Auger Size | Spacer Tube Size | Part Number |
|------------|------------------|-------------|
| 10" x 51' | 107" | GK3560 |
| 10" x 57' | 117.25" | GK3561 |
| 10" x 61' | 117.25" | GK3561 |
| 10" x 65' | Does Not Apply | None |
| 10" x 71' | Does Not Apply | None |

Radius Rod Chart

| Hydraulic Lift | Size | End of Radius Rod to End of Tube |
|----------------|---------|----------------------------------|
| | 51' | 145" |
| 57' | 168" | |
| 61' | 170" | |
| 65' | 144" | |
| 71' | 178.50" | |



21. Track and Truss Layout for Hydraulic Lift Models



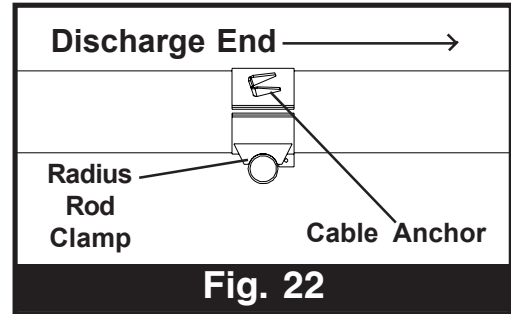
Hydraulic Lift Auger Assembly

22. Assembling the Radius Rod Clamp for Hydraulic Lift Models

NOTE

Make sure the Radius Rod Clamp is directly under the Drive Shaft.

- A. For proper placement of the radius rod clamp band(s), measure from the intake end of the tube to the corresponding measurement(s) for your size model on pages 38-39. Fasten the radius rod clamp band to the auger using a heavy duty halfband and six (6) 3/8" x 1-1/2" long hex head capscrews and nylon locknuts. The Radius Rod Clamps will have eyebolt anchors welded to them. The eyebolt anchor ends **MUST** point toward the discharge end of the auger. (See Fig. 22)



23. Installing the Spacer Tube (Refer to pages 38-39)

- A. Insert the spacer tube into the collar on the radius rod clamp band. Secure the lower spacer tube end to the radius rod clamp using a 5/16" x 1-3/4" hex head capscrew and nylon locknut. **(65' & 71' Augers do not have spacer tubes.)**

24. Installing the Track.

- A. Position the track under the tube housing close to the position indicated in the drawings on page 38-39 for your size auger. Loosely attach track to tube by bolting the halfbands to the track using four (4) 3/8" x 1-1/2" (grade 5) hex head capscrews and nylon locknuts per each halfband. **(Each size auger has a different number of heavy duty halfbands. Be sure to use the appropriate gauge of halfbands to assemble the track to the tube.)** Make sure the track can slide freely along the tube for final positioning.
- B. Slide the track towards the spacer tube until the spacer tube is seated into the receiver on the track. Fasten the spacer tube to the track using a 5/16" x 1-3/4" bolt and nylon locknut.
- C. **Make sure the spacer tube and track are aligned down the center along the bottom side of the tube housing.** Go back and tighten the 3/8" x 1-1/2" bolts on the halfbands.

25. Install the Intake Assembly. Two Types - (Round Bottom and Open Bottom Intake Hoppers)

If using GK3460, insert the intake guard halfbands prior to installation.

NOTE

The upper halfband, for mounting the intake guard assembly, should be positioned to the discharge side of the 3/8" key that is welded to the auger housing.

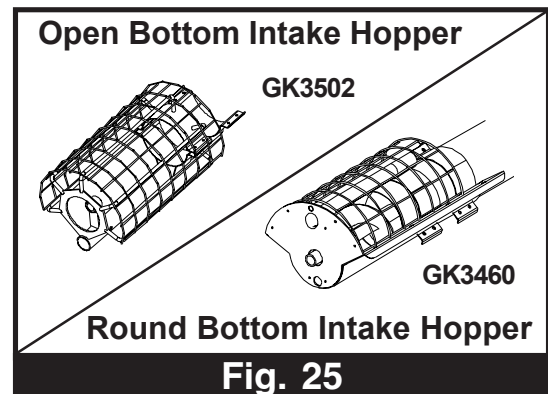
NOTE

Position the front side of the halfband closest to the intake end of the auger flush with the end of the auger housing.

- A. Attach the intake guard at the intake end of the auger housing.
- B. While sliding the intake guard on the auger housing, guide the intake stub shaft through the bearing.
- C. Secure the intake guard to the auger housing using a top halfband. Use (4) 5/16" x 1-3/4" bolts, flatwashers, and nuts.

NOTE

Do Not slide the intake guard on so far that the auger flight is in contact with the bearing. Leave 3/8"-1/2" clearance.

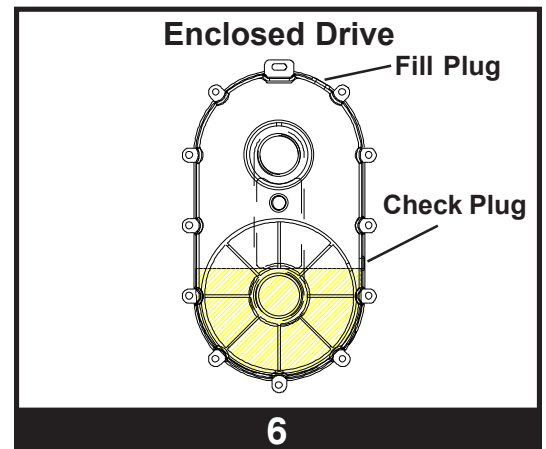


6. Enclosed Drive Lubrication.

The enclosed drive is located at the discharge end of the auger housing and is shipped without oil. Oil is to be added to the unit during field assembly of the auger. Oil will dissipate under normal operating conditions, therefore the oil level should be checked regularly. Add oil until the oil level reaches the check point.

For lubrication in normal operating temperature between 40° F to 120° F, we recommend the use of non-foaming, multipurpose gear oil SAE 90 weight. For temperatures below 40° F, use SAE 80 weight oil*. Use a grade of oil commercially available for automotive differentials. Extra pressure additives may be of value in severe applications.

* SAE80W-90 weight oil may also be used for all operating temperatures.



NOTE

DO NOT add more oil than recommended. Additional oil may damage the seals or be forced out through the vented plug.

7. Gearbox Lubrication

- Remove the vented fill plug from the top of the gearbox and the check plug from the side.
- Fill the gearbox to the check plug opening with the recommended lubricant. For temperatures between 40° F and 120° F use non-foaming multi purpose gear oil SAE 85W90. Below 40° F SAE 80. SAE 80W90 may also be used for all operating temperatures.
- Replace the plugs.

8. Belt Adjustment.

- For drives that are powered by belts, the belt tension will need periodic adjustments.

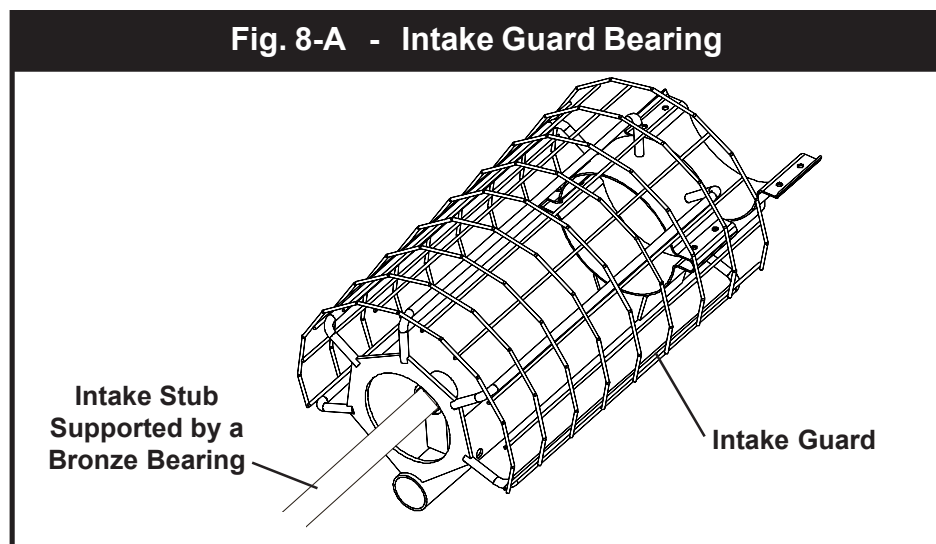
9. Bearings.

All drive shafts are supported by self-aligning, sealed ball bearings, which have been packed at the factory and require no further lubrication. There is no adjustment to be made to the bearings, but check that the retainers are firmly fastened to the bearing stand. Also check that the setscrews in the lock collars are tight against the drive shaft.

WARNING

The Incomplete drive shaft must be shielded with drive shaft covers during operation.

- Every auger has a bronze bearing with a graphite bearing at the intake end. This bearing requires no lubrication. If the wire guard is damaged, contact dealer and replace.



Hydraulic Lift Auger Assembly

27. Cable Assembly for 51' and 57' Augers with Hydraulic Lift Undercarriage (Cont.)

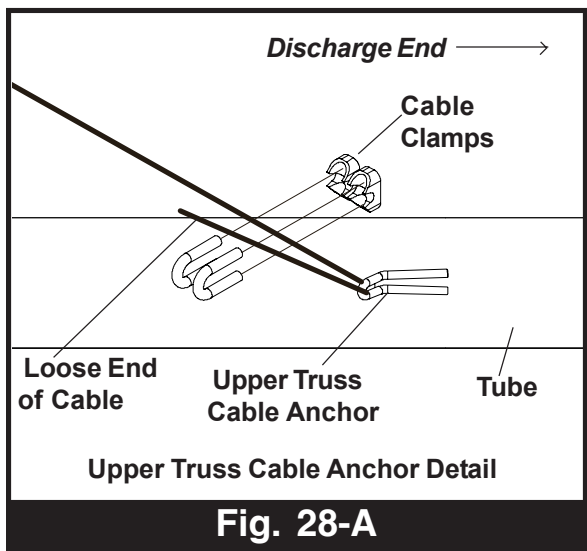
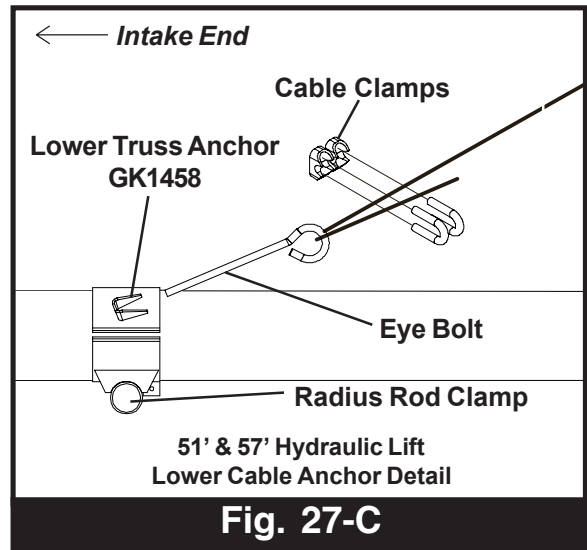
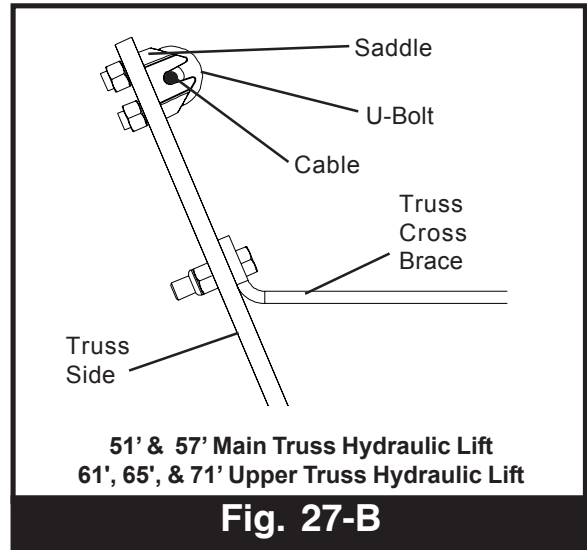
- C. Run the cable down to the right lower eyebolt anchor located on the radius rod clamp band. Slide cable through the eyebolt and fasten loose end of cable using two cable clamps for each cable. (See Fig. 27-C.)
- D. Repeat steps 1-3 with the left side support cable and using the left side anchors.
- E. Screw eyebolts into left and right side eyebolt anchors to tighten cables and remove slack until snug. **TIGHTEN BOTH CABLES SO THEY HAVE THE SAME AMOUNT OF TENSION. DO NOT OVERTIGHTEN.**
- F. Double check to be sure all sections are straight. Minor adjustments can be made after auger is assembled.
- G. Go back and tighten cable clamps on the truss arms.

NOTE Support the end of the auger tube while tightening truss cables.

NOTE The auger tube should have a slight upward bow when cables are tight.

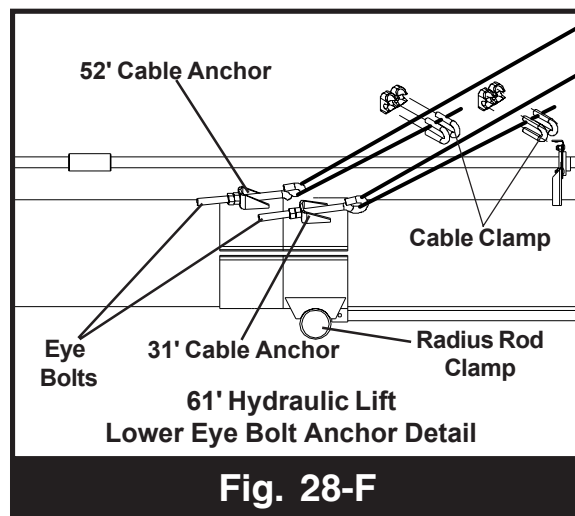
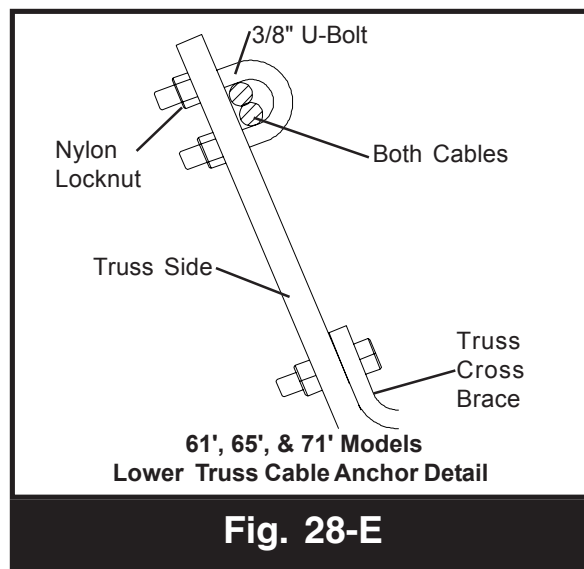
28. Cable Assembly for 61', 65', & 71' Augers with Hydraulic Lift Undercarriage

- A. Starting with the right side upper truss cable anchor that is welded to the tube located near the discharge end, guide one end of the 52' support cable through the cable anchor and fasten the loose end of the cable to itself using two (2) 5/16" cable clamps. (See Fig. 28-A)
- B. Run the cable to the top right side of the 32" truss arm and fasten the cable to the truss using a 3/8" cable clamp. **DO NOT** fully tighten the cable clamps. The cable must be able to slide freely through the clamps when taking up the slack.
- C. Run the 52' cable down the auger to the top right side of the 39-1/2" truss arm. Then start running the 31' cable.
- D. Loop the end of the 31' cable through the right side truss cable anchor located under the 32" truss arm. Fasten cable with (2) 5/16" cable clamps.

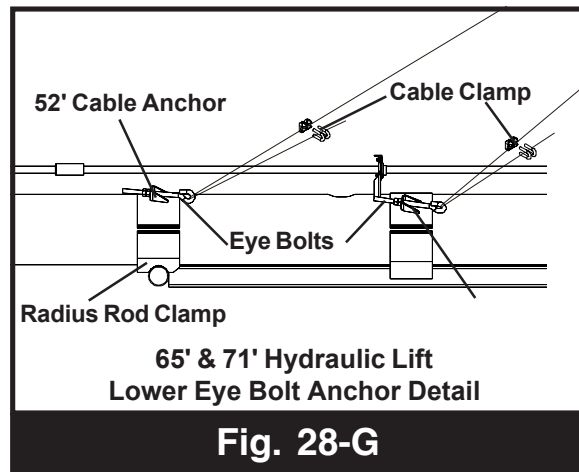


28. Cable Assembly for 61', 65', & 71' Augers with Hydraulic Lift Undercarriage (Cont.)

- E. Gather up both the 52' and 31' cables and run both cables through the 3/8" U-Bolt and fasten. DO NOT fully tighten the cable clamps. The cables must be able to slide freely through the clamp when taking up the slack. (See Fig. 28-E)
- F. Run the 52' cables down the auger towards the bottom 6" halfband for 61' models and to the radius rod clamp on 65' & 71' models. Loop end of cable through an eyebolt and fasten using (2) 5/16" cable clamps. Screw eyebolt into the anchor on the right side. (See Fig. 28-F & 28-G)
- G. Run the 31' cable down the auger to the Radius Rod Clamp on 61' models and to the 6" Halfband on 65' & 71' models. Loop end of cables through eyebolt and fasten using (2) 5/16" cable clamps. Screw eyebolt into the eyebolt anchor that is located on the right side. (See Fig. 26-F & 28-G)
- H. Repeat steps 4-10 for the left side support cable using the left side cable anchors.
- I. USING THE EYEBOLT SCREWS, TIGHTEN ALL CABLES SO THEY HAVE THE SAME AMOUNT OF TENSION. DO NOT OVERTIGHTEN.
- J. Go back and tighten up all cable clamps and U-Bolts.



NOTE The auger tube should have a slight upward bow when cables are tight.



Hydraulic Lift Auger Assembly

29. Assemble the Drive Shaft Covers (Electric and PTO Driven)

There is a special two piece section of the drive shaft cover that installs between the gearbox and the first bearing stand. It telescopes together to vary in length. This telescoping cover consist of a standard piece that telescopes into a special piece of cover with a retaining bottom edge. On 71' Models there are two telescoping covers, one at each end of the driveline.

A. Installing a two-piece drive shaft cover.

1. Center the slots in the covers over the hole in the mounting bracket.
2. Place the 1/4" x 1" O.D. flatwasher over the slot in the cover and drive the self-tapping slotted hex head screw through the hole in the mounting bracket.
3. Tighten the metal screw down to the flat washer and cover. **DO NOT** over tighten and strip out the hole in the mounting bracket.

CAUTION The two (2) piece telescoping cover should overlap at least 6" for proper installation.

B. To install a one-piece drive shaft cover

1. Center the slots in the covers over the hole in the mounting bracket.
2. Place the 1/4" x 1" O.D. flat washer over the slot in the cover, and drive the self tapping slotted hex head screw through the hole in the mounting bracket.
3. Tighten the metal screw down to the flatwasher and metal cover.

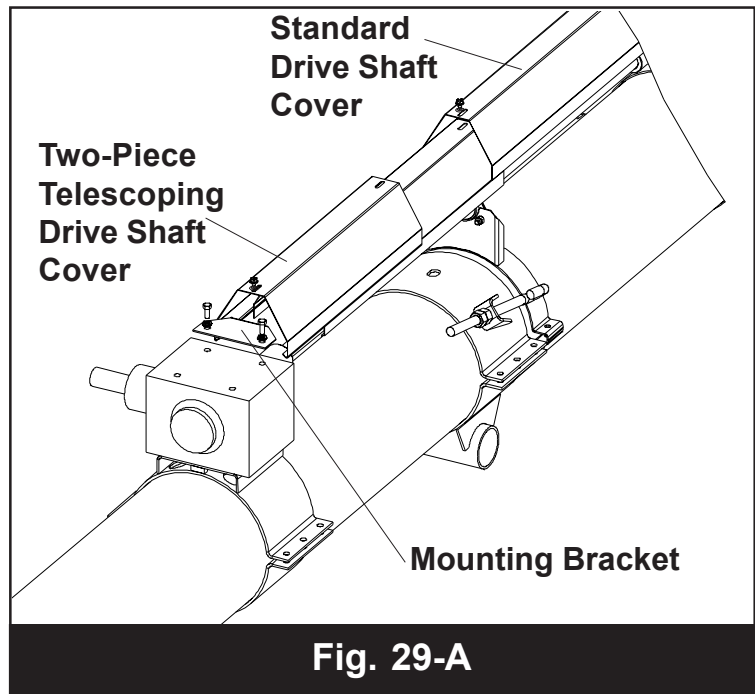
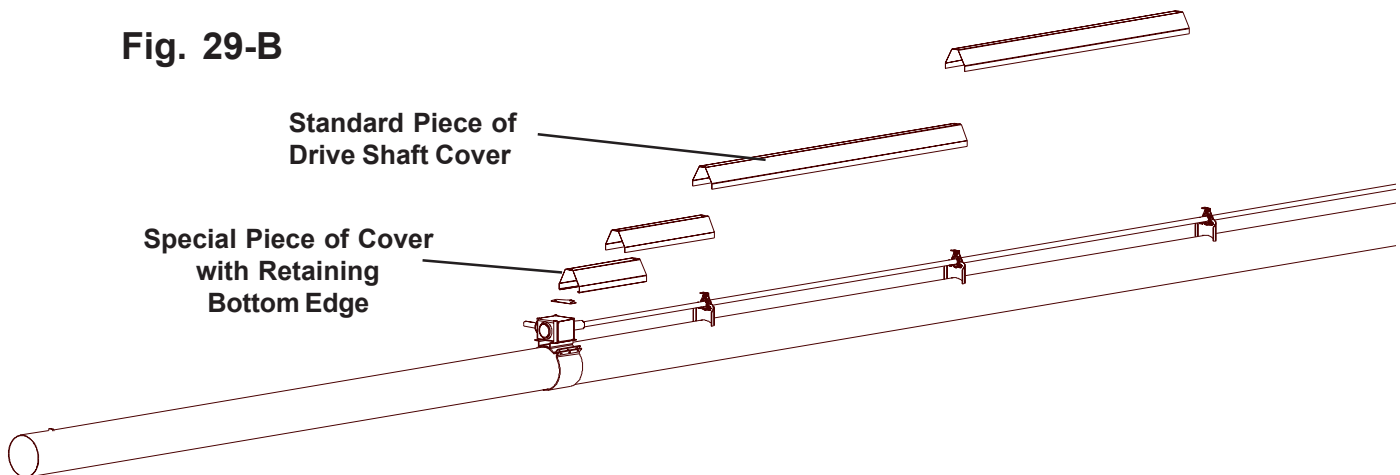


Fig. 29-B



29. Assemble the Drive Shaft Covers. *(Electric and PTO)*

- A. Attach the drive shaft covers to the auger housing. Mount the covers to the drive shaft mounting brackets located along the auger housing.
- B. Secure the covers with 1" O.D. flatwashers and slotted hex head screws.

NOTE

Refer to the drawings below to reference the drive shaft covers for the Electric and PTO driven top drives. Begin at the intake end and work your way toward the output end overlapping the covers at each bearing stand. *ELECTRIC DRIVE IS SHOWN*

51' Model

Telescoping Piece

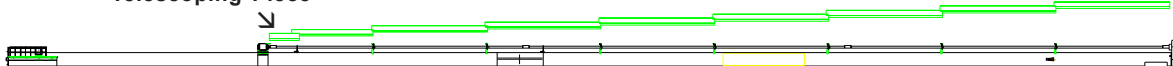
Electric: 1@1' 6", 1@1' 0", 7@5' 8-1/4"
PTO: 1@1' 6", 1@2' 0", 8@5' 8-1/4"



57' Model

Telescoping Piece

Electric: 1@1' 6", 1@5' 0", 7@5' 8-1/4"
PTO: 1@1' 6", 1@1' 0", 9@5' 8-1/4"



61' Model

Telescoping Piece

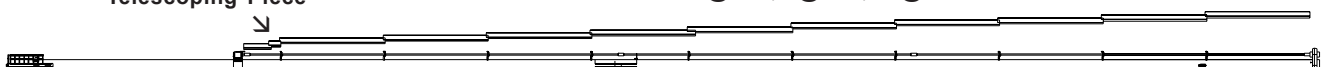
Electric: 1@1' 6", 1@4' 0", 8@5' 8-1/4"
PTO: 1@1' 6", 10@5' 8-1/4"



65' Model

Telescoping Piece

Electric: 1@8", 1@4' 0", 10@5' 8-1/4"
PTO: 1@1' 6", 1@3' 0", 10@5' 8-1/4"



71' Model

Telescoping Piece

Electric: 1@1' 6", 1@3' 0", 9@5' 8-1/4", 1@1' 0", 1@1' 6"
PTO: 1@1' 6", 1@1' 0", 11@5' 8-1/4", 1@1' 0", 1@1' 6"



⚠ DANGER

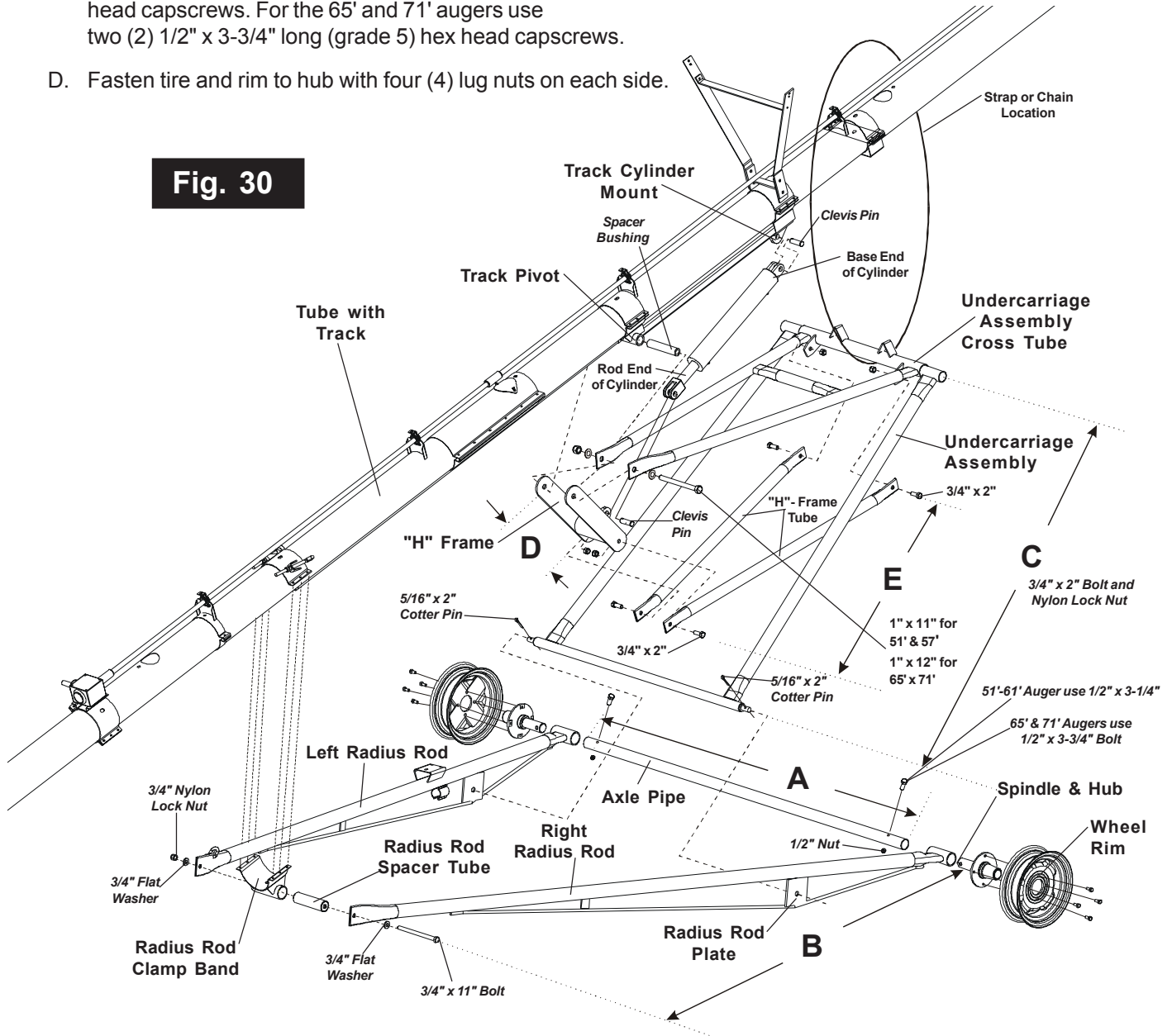
DO NOT operate the auger without all drive shaft covers in place.

Hydraulic Lift Auger Assembly

30. Hydraulic Undercarriage Assembly

- Place the left and right radius rod close to positions shown in Fig. 30 below. The flattened ends of the radius rods must be facing towards the intake end of the auger. The left radius rod with the winch mount **MUST** be on the left side, which is your left hand side when facing the discharge end.
- Insert the pivot shafts on the undercarriage assembly into the square plates on the radius rods. Secure using one 5/16" x 2" cotter pin for each pivot shaft.
- Guide the axle pipe through the short pipes at the end of the radius rods. Slide the hub and spindle assembly into the undercarriage axle and fasten using a hex head capscrew and nylon locknut. For 51'-61' augers use two (2) 1/2" x 3-1/4" long (grade 5) hex head capscrews. For the 65' and 71' augers use two (2) 1/2" x 3-3/4" long (grade 5) hex head capscrews.
- Fasten tire and rim to hub with four (4) lug nuts on each side.

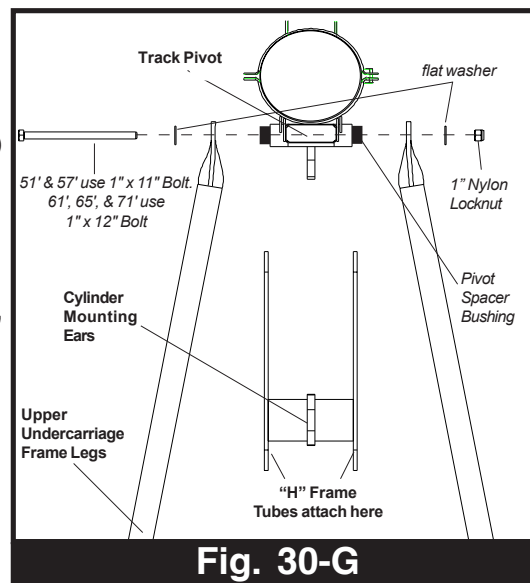
Fig. 30



| Hydraulic Lift Models | 51' | 57' | 61' | 65' | 71' |
|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| "A" - Axle Pipe Length | 93.00" | 93.00" | 93.00" | 120.00" | 120.00" |
| "B" - Radius Rod Length | 176.50" | 176.50" | 176.50" | 209.25" | 209.25" |
| "C" - Axle Leg Length | 88.50" | 102.75" | 102.75" | 115.00" | 115.00" |
| "D" - Axle Leg Spacer Tube Length | 19.25" | 19.25" | 19.25" | 26.625" | 26.625" |
| "E" - H-Frame | 64.50" | 82.50" | 82.50" | 97.00" | 97.00" |
| "F" - Cylinder Size | 4" Bore 24" Stroke | 4" Bore 24" Stroke | 4" Bore 24" Stroke | 4" Bore 36" Stroke | 4" Bore 36" Stroke |

30. Hydraulic Undercarriage Assembly (Cont.)

- E. Place strap or chain around the auger tube housing about 1/3 of the way down from the discharge end. Use a lifting device and lift the auger tube about approximately 6' from the ground. Roll the undercarriage into position under the tubing. (See Fig 30 on pg 46)
- F. Insert the pivot spacer tube into the track pivot tube welded to the bottom of the track at the discharge end.
- G. Raise the upper undercarriage frame legs fasten the H-Frame and upper legs to the track pivot tube using a 1" x 11" (grade 5) hex head capscrew and nylon locknut on 51' - 61' augers or a 1" x 12" (grade 5) hex head capscrew and nylon locknut on 65' & 71' augers. (See Fig. 30-G)
- H. Fasten the "H" frame tubes to the lower end of the "H" frame with two (2) 3/4" x 2" long (grade 5) hex head capscrew and nylon locknut.



NOTE

Turn H-frame so cylinder mounting ear points toward the auger discharge end.

- I. Fasten the other end of the "H" Frame tubes to the ears on the undercarriage crosstube with two (2) 3/4" x 2" long (grade 5) hex head capscrews and nylon locknuts.
- J. Wrap a chain or heavy duty strap around the auger tube and undercarriage frame. The chain or strap must be tight to keep the undercarriage from opening when the tube is raised to attach the radius rods to the radius rod clamp.
- K. Insert the radius rod spacer tube into the radius rod clamp band. Then, insert a 3/4" x 11" long (grade 5) hex head capscrew through a flat washer, the right radius rod, and through the spacer tube to the left side. Then through the left radius rod, another flat washer and secure with a nylon locknut.

⚠ DANGER

Before lowering and unstrapping the auger, make sure the intake is on the ground and the undercarriage is touching the rest. Check the transport height of the auger by measuring the distance from the top of the auger's discharge end to the ground. Double check your measurement with the chart on page 45. If they don't fit into the range on the chart for your size auger go back double check the following!

1. **Location of radius rod clamp and track.** (See pages 38-39.)
2. **The length of the undercarriage components.** (See page 46.)
3. **The length of auger tubes.** (See pages 17-18.)
4. **Is the discharge end of the auger tube sagging because the truss cables require tightening?** (See page 41-43.)

If you have double checked all of the above items and your measured discharged height is **NOT** in the range specified in the transport height chart on page 55, call your dealer or the factory immediately.

DO NOT CONTINUE TO ASSEMBLE THE AUGER and do not release the hoist with the auger in this condition.

- L. Double check that all undercarriage bolts and fasteners are tight and assembled correctly.
- M. When the transport height is correct as described above, the lifting device may be released.
- N. Attach the hydraulic cylinder to the cylinder mounting ears on the "H" frame using clevis pin and keeper clips that are furnished with the cylinder. (See Fig. 30 & 30-G)

⚠ CAUTION

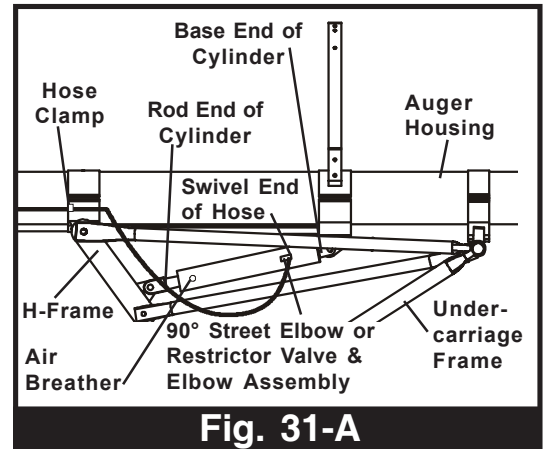
The base of the cylinder must be attached to the mount on the track. The rod end of the cylinder will be attached to the cylinder mounting ears on the "H" frame. The cylinder ports must be facing the left side of the auger when viewing the auger from the intake end.

The hydraulic cylinder furnished with your auger uses a restrictor at the port at the base end of the cylinder. The style of restrictor depends on which length cylinder is used. The 4" bore x 24" stroke cylinder uses a restrictor built into the port at the base to control the speed that the auger is raised or lowered. The 4" bore x 36" stroke cylinder uses an in-line restrictor valve assembled to the port at the base to control the speed that the auger is lowered. Only use the cylinder provided with the auger. Do not use a cylinder that does not have the proper restrictor present. If using the 4" bore x 36" stroke cylinder, the in-line restrictor must be installed as instructed on page 48. The restrictor must be installed with flow direction arrow pointing towards the cylinder port.

Hydraulic Lift Auger Assembly

31. Hydraulic Hose Clamp Assembly

- A. 4" bore x 24" hydraulic cylinder - 51', 57' and 62' augers.
1. Thread the 90° street elbow into the upper cylinder port at the base end of the cylinder.
 2. Attach the swivel end of the hydraulic hose to the street elbow and tighten. (See Fig. 31-A.)
- B. 4" bore x 36" hydraulic cylinder - 65' and 71' augers.
1. Thread the restrictor valve & elbow assembly into the upper cylinder port at the base end of the cylinder. (See Fig. 31-C.)



CAUTION

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

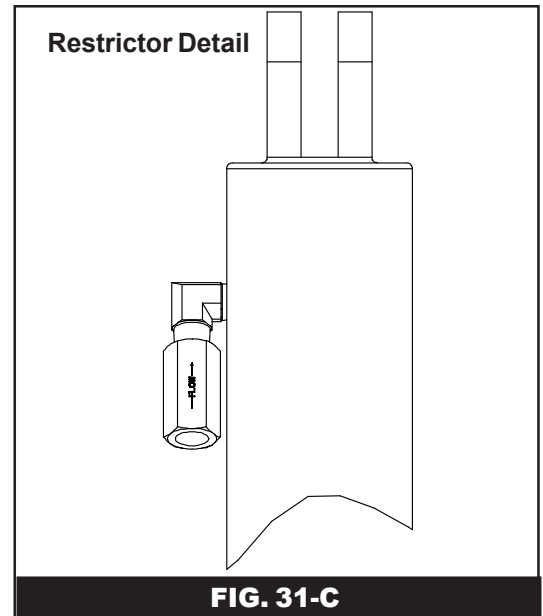
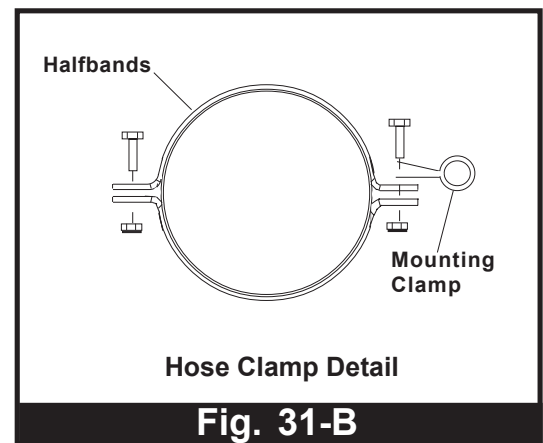
2. Attach the swivel end of the hydraulic hose to the restrictor valve and tighten. (See Fig. 31-A.)
- C. Starting at the cylinder end of the hose, fasten the hydraulic hose to the auger tube using the hose mounting clamps located on the halfbands located along the auger tube. (See Illustrations on page 49 for the number of clamps for your size auger.)
- D. Thread the female end of the shut-off valve onto the end of the hydraulic hose.
- E. Check all of the fittings and connections to make sure they are tight.

CAUTION

Leave a loop of hose approximately 2' in length to allow enough hose to be extended when the auger is fully raised.

WARNING

Do NOT disconnect or connect the hydraulic components when there is ANY pressure within the system. These systems are very pressurized. If any hydraulic oil is released, even an invisible leak, it can penetrate body tissues and cause critical injury. Always use a piece of cardboard or wood when searching for leaks. NEVER use hands or other body parts. Make absolutely certain that all connections are tightened during reassembly. If injured by the releasing of pressurized hydraulic oil, seek medical attention IMMEDIATELY! Severe infection or reaction is possible if medical attention is not received immediately.

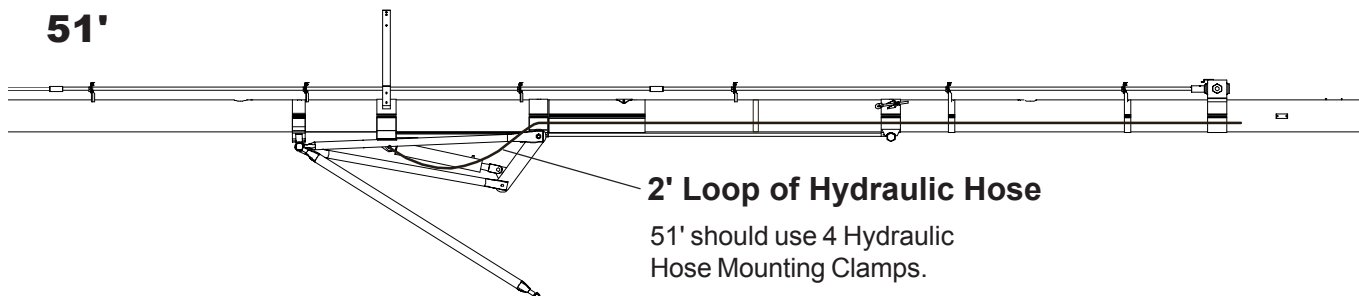


31. Hydraulic Hose Clamp Assembly (Cont.)

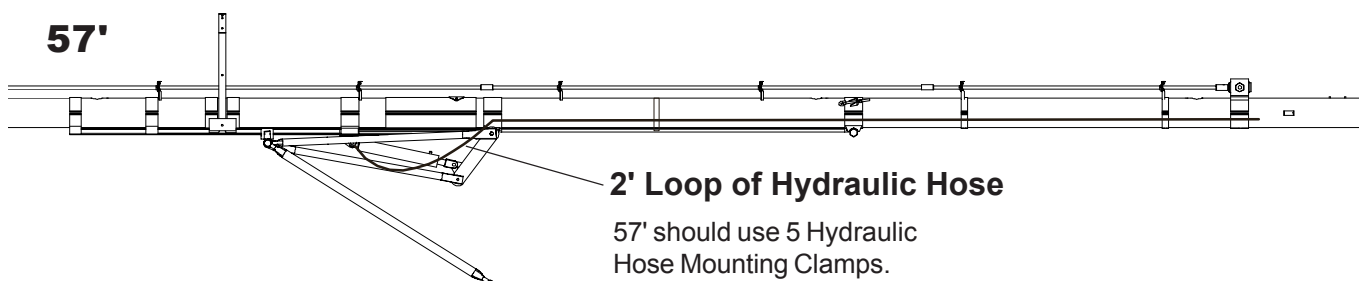
Hydraulic Hose Clamp Locations

Space clamps evenly along the auger tube, making sure the hose is tight against the tube. Leave a two foot loop of hose where it attaches to the hydraulic cylinder so it has enough length to expand when the undercarriage is raised.

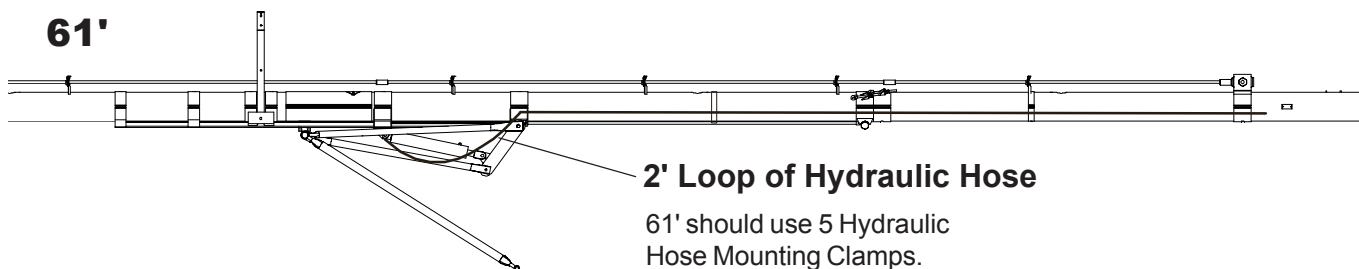
51'



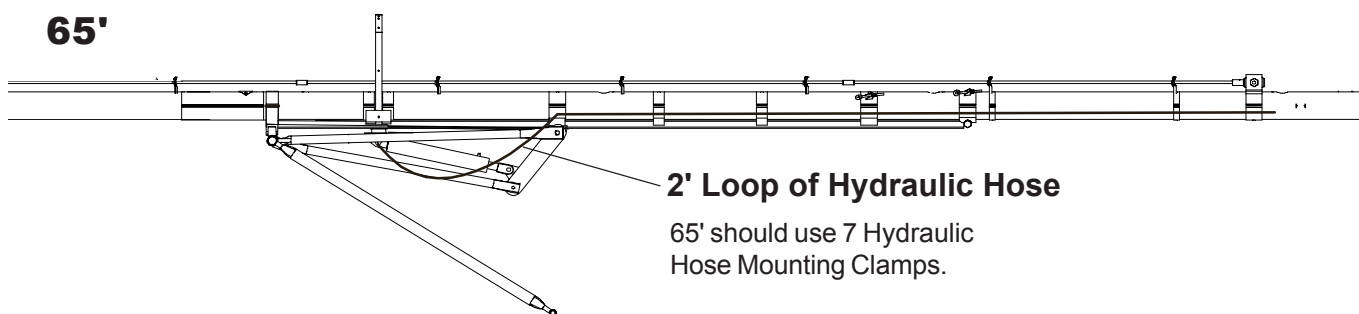
57'



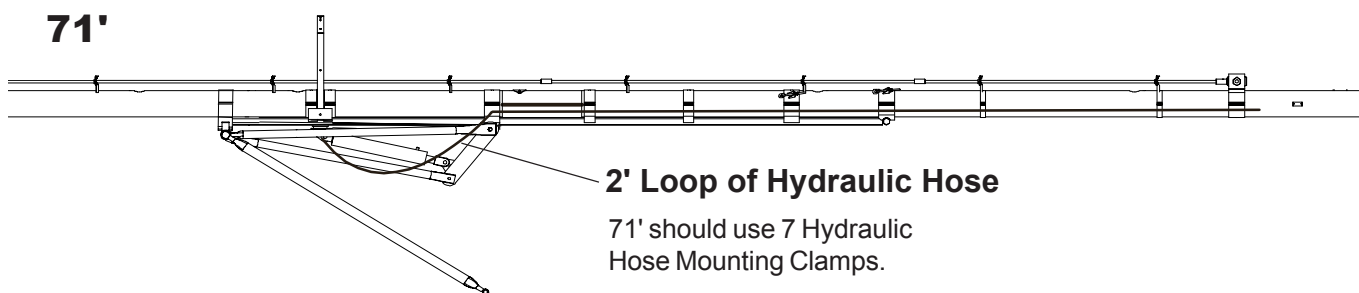
61'



65'



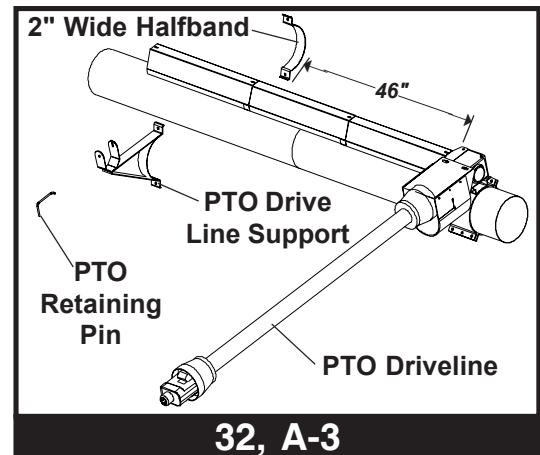
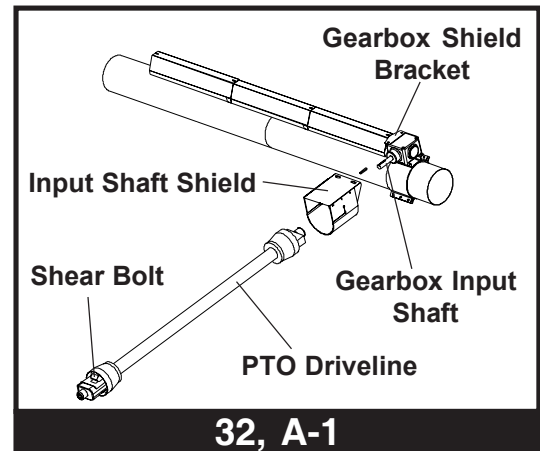
71'



32. Drive Kit Assembly for Both Hydraulic and Manual Lift Augers

A. PTO Drive

1. Place the PTO shield onto the top of the gearbox.
2. Secure the PTO shield using two (2) 3/8" x 3/4" bolts, lockwashers and flatwashers.
3. Place the PTO driveline support 46" up the auger housing from the center of the gearbox and attach it to the auger using a halfband and two (2) 5/16" x 1-1/2" long (grade 5) hex head bolts and nuts. Position the PTO driveline support to the auger so that the PTO driveline is parallel with the drive shaft cover.
4. Install the retaining pin by slipping the short bent end of pin through the hole in the PTO driveline support and through the slot of the other side. Allow the long end of the pin to rotate downward. This will secure the pin in place. Set the PTO driveline into the support to be sure that the support is installed properly.
5. Attach PTO driveline to gearbox, using 1/4" x 1-1/2" long drive key.
6. Tighten set screw.



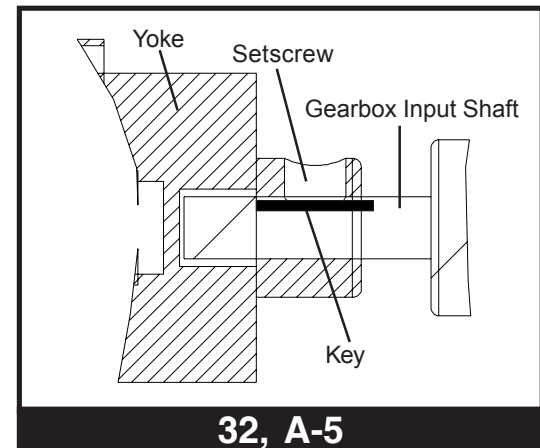
NOTE

P.T.O. Drives can be driven from either the right or left hand side of the auger. All illustrations show gearbox in left hand drive position.

To change the drive for a right hand drive, turn the gearbox over and bolt the other side to the gearbox mount. The vent plug in the gearbox must be put on the top side of the box. The PTO driveline support is installed on the other side of the auger housing.

NOTE

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. It is important to use the correct replacement bolts of the proper size and strength to insure that the shear device will protect the auger and operator.



32. Drive Kit Assembly for Both Hydraulic and Manual Lift Augers (cont.)

B. Electric Drive (See Fig 32-B)

1. Assemble the motor mount to the auger housing by attaching the halfbands. Secure the halfbands with six (6) 3/8" x 1-1/2" bolts and nuts.
2. Secure the bracket located on the end of the motor mount weldment to the gearbox with two (2) 3/8" x 1" bolts, flat washers, and locknuts.
3. Secure the belt guard bracket to the motor mount with two (2) 3/8" x 1-1/4" bolts, lockwashers, and nuts.
4. Attach the belt guard bracket to the belt guard with four (4) 3/8" x 1" bolt, lockwashers, flatwashers, and nuts.
5. Attach the pulley to the gearbox input shaft. Secure the pulley with 1/4" x 2" key for 31', 41', & 51' models and use a 1/4" x 3" key for 57', 61', 65', & 71' models. Tighten the set screws with a hex head wrench.
6. Install a motor to the motor mount. **The motor, motor pulley, and the hardware used to attach it to the motor mount are not supplied.** Use an electric motor of the proper size that operates at 1750 RPM. (See table in Fig. 32-B.) Use a 4" O.D. motor pulley.



1750 RPM electric motors and controls shall be installed by a qualified electrician, and must meet the standards set by the National Electrical Code and all local and state codes. Reset and motor starting controls shall be located where the operator has unrestricted access to the controls.

7. A magnetic starter should be used for the operator's protection and for the protection of the motor. This is to protect the operator against accidental restart caused by power interruption, conductor fault, low voltage, circuit interruption or motor overload. Therefore, the motor must be restarted manually. If using a motor with built-in thermal overload protection, make sure this type of motor has a manual reset.

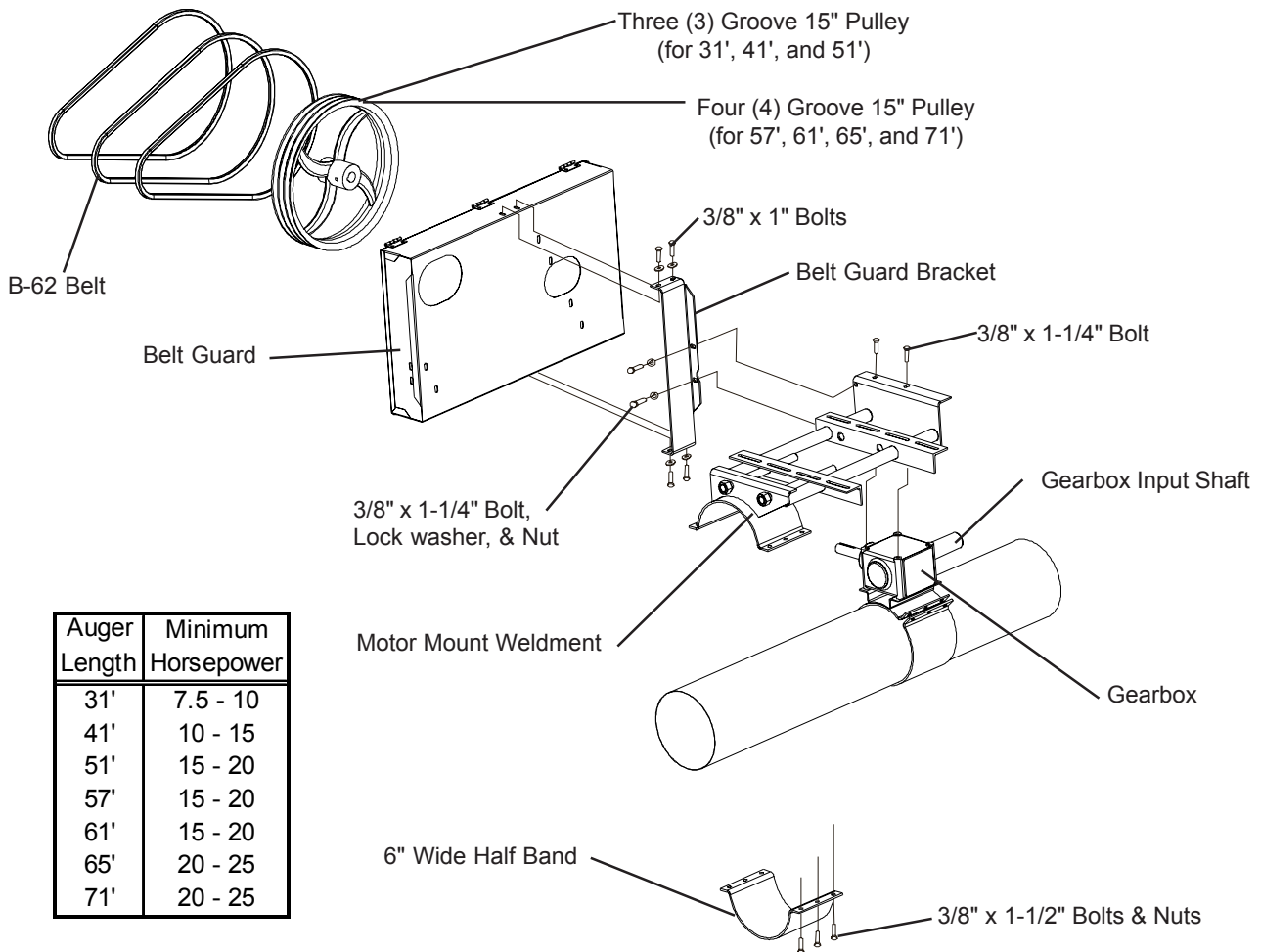


Disconnect and lockout power before resetting motor overloads. Make certain electric motors are grounded.

8. Install the motor pulley to the motor pulley shaft.
9. Install the belts.

FIG. 32-B

Top Mounted Electric Motor Drive Assembly

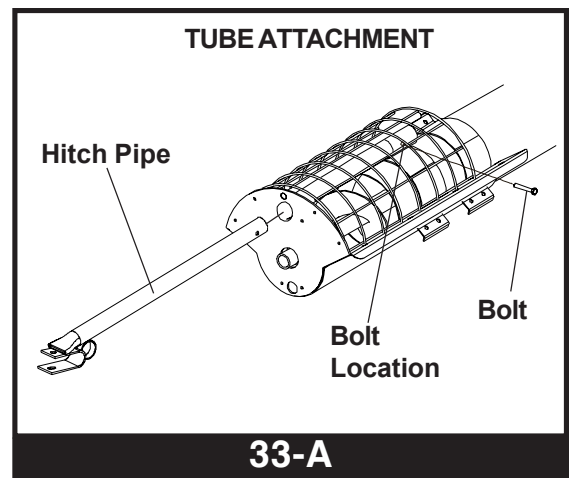


33. Install the Hitch.

- A. Attach the hitch to the tube attachment anchor with one (1) 7/16" x 2 1/2" long (grade 5), hex head bolt, lockwasher and nut. (See Fig. 33-A)

34. Operator's Manual Container.

- A. Check that an operator's manual is in the plastic container.
- B. Snap the container into the holder located in the left radius rod arm.



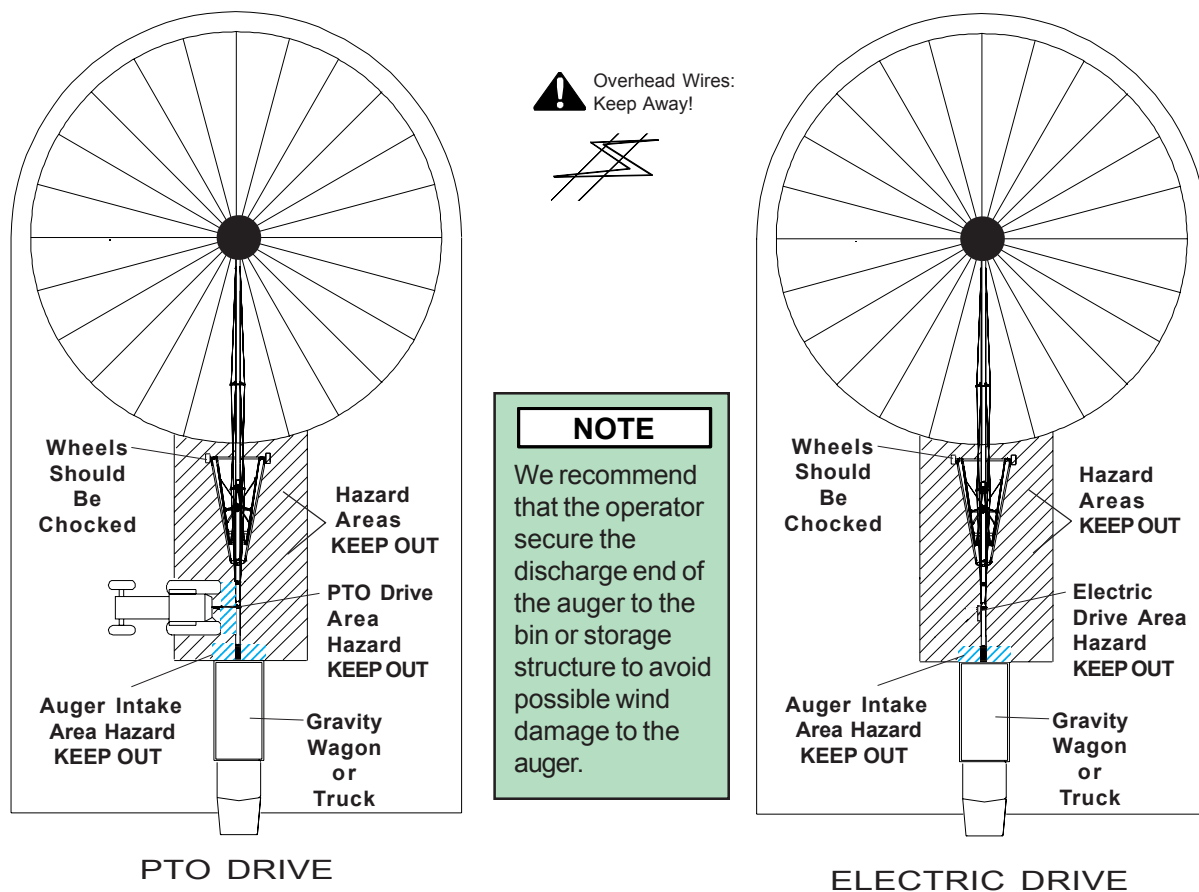
1. Designate Work Area.

- A. Before starting the auger, establish the designated work areas. The diagram below shows where boundaries should be established.
- B. Mark off the designated work areas using colored nylon or plastic rope as portable barriers.

⚠ DANGER **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.



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 ordered from the factory.
- E. Check winch and cable to ensure they are secure and operational.

Startup

2. Inspect the Auger (cont.)

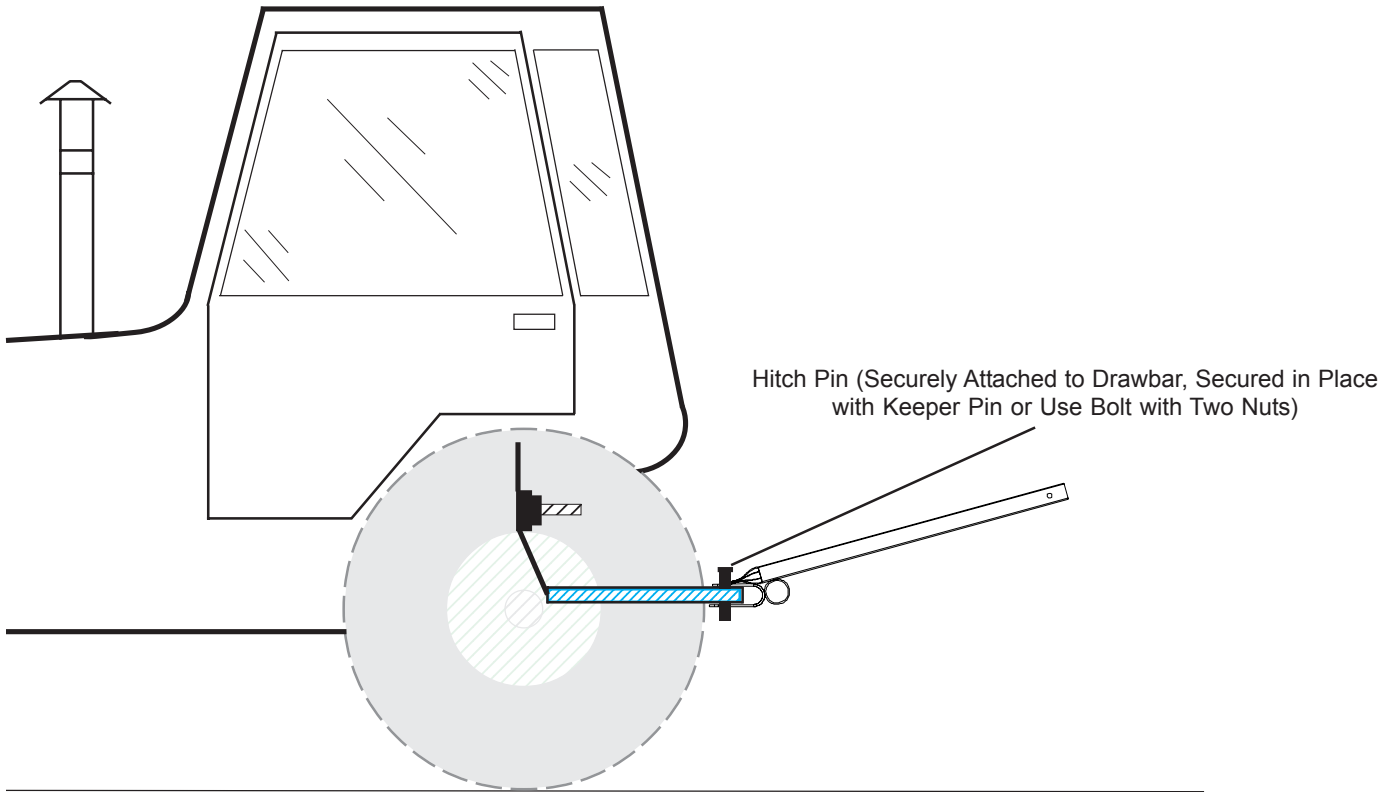
- F. Ensure that ALL fasteners are tight.
- G. Check the hydraulic hose and fittings to ensure they are tight and are not leaking hydraulic oil.
- H. Check the oil level in ALL gearboxes and enclosed drives. The **Maintenance** section of this manual gives oil level recommendations.
- I. Ensure that the inspection covers are in place
- J. Make sure all electrical wiring is not damaged and that it meets proper wiring codes.
- K. Ensure that the electric motor is operating at the proper speed.
- L. Maintain proper tension adjustment on the belts on the electric motor drive.

3. Hitch Auger to Tractor.

CAUTION 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 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 below.
- C. **DO NOT** attach the PTO driveline to the tractor at this time. It will be attached after placement of the auger.



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. This is not supplied with the auger.

4. 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 pick-up truck or other suitable vehicle.
- D. Follow these recommendations when transporting the auger:
 1. Always transport the auger in the full-down position. This will prevent lowering of the hopper during transport.
 2. Make sure the hitch is secured to the tractor.

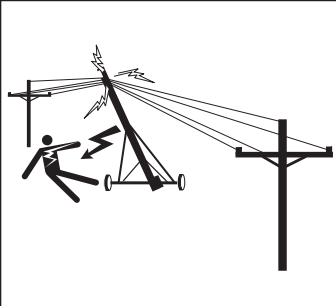
| | Auger Size | Transport Height | | Auger Size | Transport Height |
|--------------------|-------------------|-------------------------|-----------------------|-------------------|-------------------------|
| Manual Lift | 31' | 11' 10" | Hydraulic Lift | 51' | N/A |
| | 41' | 10' 6" | | 57' | N/A |
| | 51' | 13' 2" | | 61' | 12' 7" |
| | 57' | 13' 1" | | 65' | 12' 0" |
| | 61' | 13' 3" | | 71' | 12' 10" |
| | 65' | 12' 6" | | | |
| | 71' | 14' 6" | | | |

NOTE Overall transport height is with auger fully lowered and the intake on the ground. When the auger is attached to a towing vehicle, these heights will be approximately 12" less.

WARNING Be careful making turns and **AVOID SHARP TURNS.**

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.



⚠ 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

5. Placing the Auger in Work Area.

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.

1. 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 Top-End Drive Transport Auger can be deployed. Also allow room for a convenient path for the loaded vehicle to reach the Top-End Drive Transport Auger.
- C. Raise into position.

⚠ 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.

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. 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.

⚠ WARNING

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

2. Raise Auger

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

5. Placing the Auger in Work Area (cont.)

3. 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.

CAUTION 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.

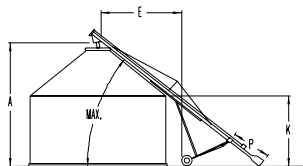
- C. Place the tractor in "Park," set the brake, and chock the wheels by placing a board or cement block in front and behind the wheels.
- D. We recommend securing the auger to the ground to prevent possible wind damage. Remember to untie the auger before attempting to move it.
- E. **DO NOT** increase the height of the auger by placing the wheels on blocks, lumber, or by other means.

F. Operating Heights and Dimensions:

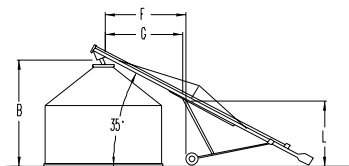
| | A | B | C | D | E | F | G | H |
|---------------------------|-----------------------------|-------------------------|-------------------------|----------------------------------|---------------------------------|--|--|--|
| Auger Diameter and Length | Discharge Height at Maximum | Discharge Height at 35° | Discharge Height at 25° | Overall Height during *Transport | Closest Point to Bin at Maximum | Closest Point to Bin at 35° (ground level) | Closest Point to Bin at 35° (eave level) | Closest Point to Bin at 25° (eave level) |
| 10" x 31' | 19' 10" | 17' 4" | 12' 8" | 11' 10" | 8' 1" | 11' 0" | 11' 5" | 8' 9" |
| 10" x 41' | 28' 3" | 23' 0" | 16' 10" | 10' 6" | 10' 4" | 14' 11" | 16' 8" | 13' 4" |
| 10" x 51' | 35' 0" | 28' 9" | 21' 1" | 13' 2" | 13' 0" | 16' 9" | 19' 0" | 13' 2" |
| 10" x 57' | 37' 0" | 32' 2" | 23' 6" | 13' 1" | 16' 10" | 20' 7" | 21' 2" | 16' 5" |
| 10" x 61' | 42' 6" | 34' 6" | 25' 2" | 13' 3" | 16' 6" | 20' 4" | 20' 3" | 15' 3" |
| 10" x 65' | 45' 0" | 36' 10" | 26' 11" | 12' 6" | 19' 6" | 22' 9" | 22' 6" | 17' 11" |
| 10" x 71' | 48' 0" | 40' 3" | 29' 6" | 14' 6" | 17' 9" | 25' 0" | 24' 5" | 18' 3" |

| | I | J | K | L | M | N | O | P |
|---------------------------|--|--|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--|
| Auger Diameter and Length | Closest Point to Bin at 25° (ground level) | Closest Point to Bin at Transport Position | Free Clearance Above Wheels at Maximum | Free Clearance Above Wheels at 35° | Free Clearance Above Wheels at 25° | Length of Upper Under-carriage Arm | Length of Lower Under-carriage Arm | Distance From Intake to Under-carriage Mount |
| 10" x 31' | 11' 2" | 11' 5" | 10' 11" | 10' 3" | 9' 2" | 10' 7" | 9' 8" | 4' 10" |
| 10" x 41' | 16' 9" | 17' 7" | 15' 0" | 13' 3" | 11' 2" | 12' 8" | 12' 2" | 5' 10" |
| 10" x 51' | 17' 8" | 20' 6" | 20' 6" | 17' 7" | 15' 5" | 14' 10" | 14' 8" | 9' 4" |
| 10" x 57' | 22' 3" | 23' 10" | 20' 3" | 18' 5" | 16' 6" | 14' 10" | 14' 8" | 13' 3" |
| 10" x 61' | 23' 3" | 25' 6" | 25' 4" | 21' 0" | 18' 9" | 16' 1" | 17' 5" | 12' 0" |
| 10" x 65' | 24' 10" | 26' 8" | 24' 0" | 21' 6" | 19' 2" | 16' 1" | 17' 5" | 12' 9" |
| 10" x 71' | 27' 3" | 29' 3" | 28' 7" | 23' 10" | 21' 7" | 16' 1" | 17' 5" | 15' 5" |

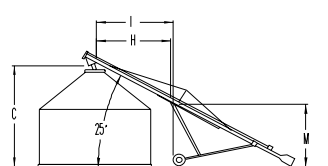
* The transport height will be slightly lower when attached to the drawbar of the towing vehicle.



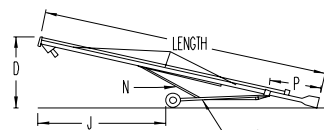
Auger Raised to Maximum Position



Auger Raised to 35°



Auger Raised to 25°



Auger in Transport Position

Operation

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” the auger when it is new and at the beginning of each season. (Refer to Step 2, below, for instructions.)
- E. Only use an Agricultural Tractor with 540 RPM Power Take-Off (PTO). With electric motor drive, use an electric motor that operates at 1750 RPM and use a 4" O.D. motor pulley.
- F. To avoid damage and excessive wear of the augers:
 - Do not operate the auger at speeds in excess of 540 RPM.
 - Do not operate the auger at speeds below 450 RPM.

▲ WARNING

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 into the 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 or electric motor and lockout the power source whenever the equipment must be serviced or adjusted.

Do not operate electric motor equipped units until motors are properly grounded.

Disconnect power on electric motor equipped units before resetting motor overloads.

2. Start-up and Break-In.

- A. Any auger that is new or has set 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 Top-End Drive Transport Auger is in a 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 fighting to “load up” at low speed. If this occurs, high torque must be used to turn the auger fighting, and this can damage the auger.

2. Start-up and Break-In (cont.)

- G. Run the auger at partial capacity until several hundred bushels of grain have been augered and the flighting assembly and tube are 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.
- I. Run the auger at partial capacity when using an electric drive motor.

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.

NOTE

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

Shutdown

1. Normal Shutdown.

- A. Make sure that the auger is empty before shutting down the unit.
- B. Slow down the RPM.
- C. Turn off the tractor or electric motor.
- D. Before the operator leaves the work area, the power source should be locked out, as described on below.

CAUTION

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 or adjust the auger.

2. Intermittent Operation Shutdown.

CAUTION

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

- 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.

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 hopper and auger that you can before restarting.
- C. **Never** attempt to restart the auger when it is full.

CAUTION

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

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

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. If an electric motor drive is used, disconnect the electrical power supply.
- C. The operator should lockout the Top-End Drive 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.

- A. After you are finished conveying the 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. Disconnect the PTO driveline and place it in storage position.
 - 2. Move the auger from bin or storage area.
 - 3. Lower the auger.
 - 4. Move the auger to next bin or storage area.

6. Move Auger from Bin.

- A. Empty the auger and clean up the work area.
- B. Untie any anchors and remove all supports.
- C. Remove the wheel chocks.
- D. Raise the auger so that the discharge spout is clear of the bin opening.
- E. 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.

7. 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.

8. 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.

Shutdown

9. Unhitch the Auger.

NOTE

If you must disconnect the tractor from the auger in the raised position, secure the auger to the ground to prevent wind damage.

- A. Chock the auger wheels to prevent the auger from rolling.
- B. Remove the safety chain and hitch pin.
- C. Disconnect the tractor from the auger.

▲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.

10. Store PTO Driveline.

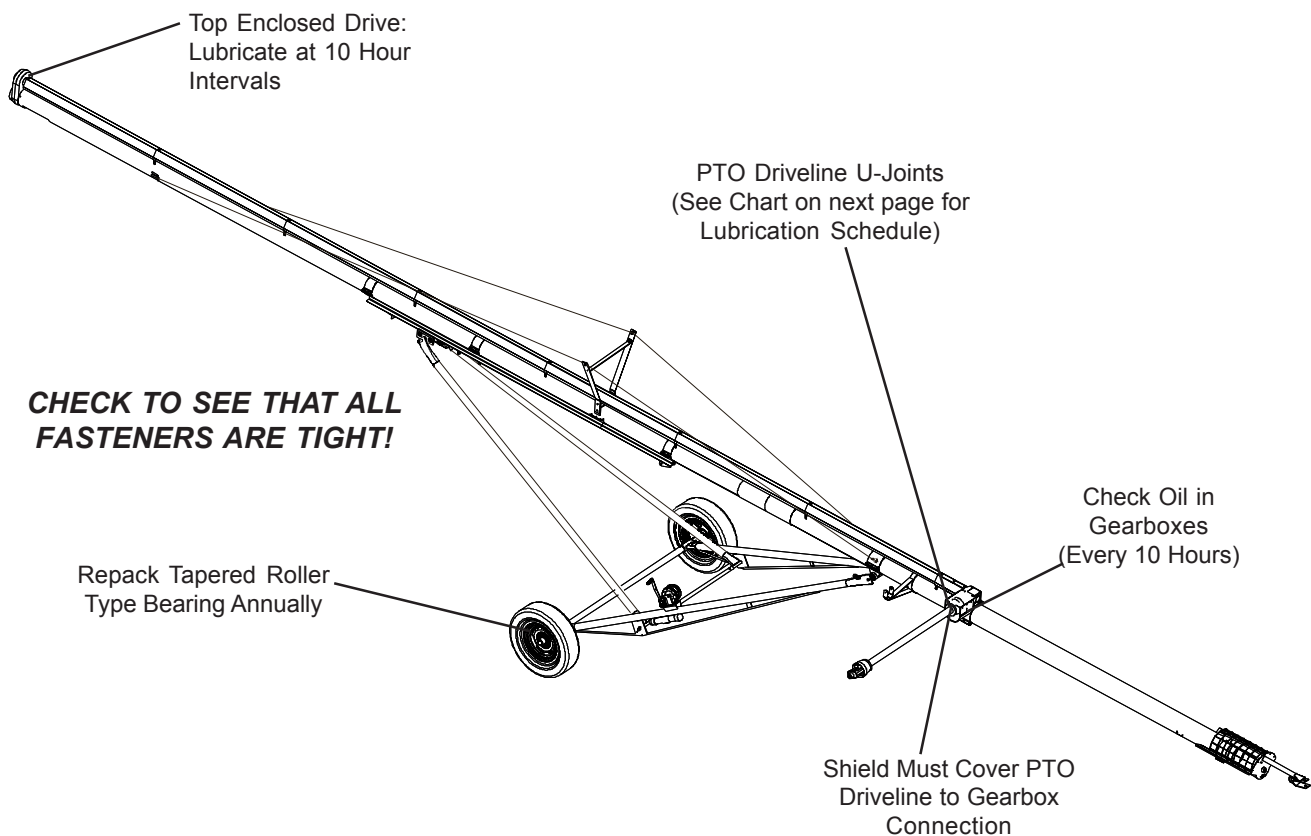
- A. Place the PTO driveline in storage position when it is not attached to the tractor.

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.



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



2. Winch Lubrication.

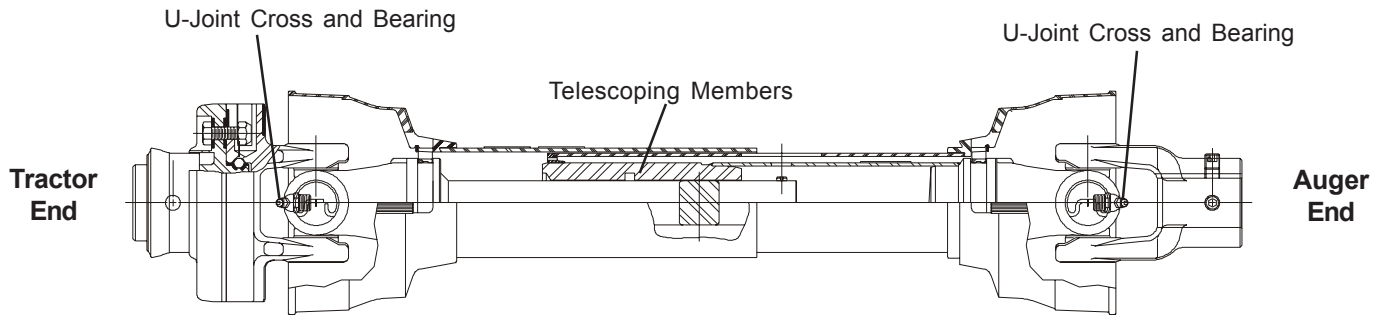
A. Winches require the following maintenance:

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 three (3) fittings on the PTO driveline. The drawing on the following page identifies the location of the fittings.

3. PTO Driveline U-Joint Lubrication (cont.)



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 the shaft shield upwards. Refer to the drawing on the previous page 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 |

- 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. Refer to the drawing on the previous page for the location of the 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.

NOTE

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

- 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.

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. |
| 10" dia. | 5/16" - 18 x 1" long | Grade 5 | GK2657 |

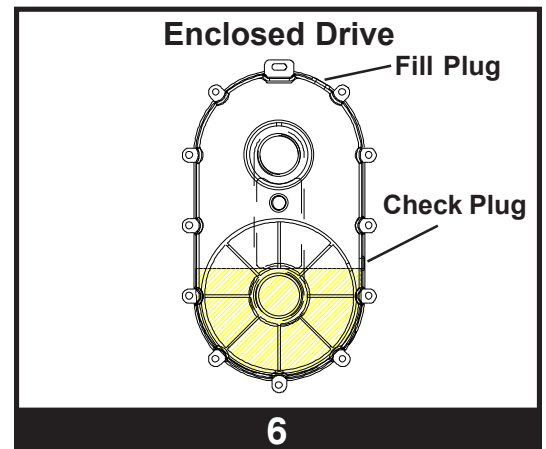
- C. Extra shear bolts are supplied with the auger. They are stored in the operator’s manual container located on the left radius rod.

6. Enclosed Drive Lubrication.

The enclosed drive is located at the discharge end of the auger housing and is shipped without oil. Oil is to be added to the unit during field assembly of the auger. Oil will dissipate under normal operating conditions, therefore the oil level should be checked regularly. Add oil until the oil level reaches the check point.

For lubrication in normal operating temperature between 40eF to 120eF, we recommend the use of non-foaming, multipurpose gear oil SAE 90 weight. For temperatures below 40eF, use SAE 80 weight oil*. Use a grade of oil commercially available for automotive differentials. Extra pressure additives may be of value in severe applications.

* SAE80W-90 weight oil may also be used for all operating temperatures.



NOTE

DO NOT add more oil than recommended. Additional oil may damage the seals or be forced out through the vented plug.

7. Gearbox Lubrication

- A. Remove the vented fill plug from the top of the gearbox and the check plug from the side.
- B. Fill the gearbox to the check plug opening with the recommended lubricant. For temperatures between 40° F and 120° F use non-foaming multi purpose gear oil SAE 85W90. Below 40° F SAE 80. SAE 80W90 may also be used for all operating temperatures.
- C. Replace the plugs.

8. Belt Adjustment.

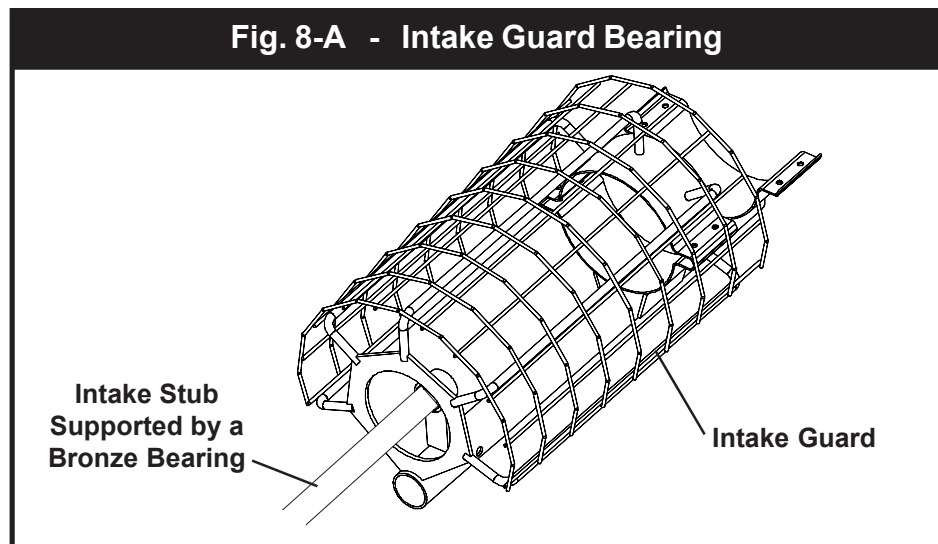
- A. For drives that are powered by belts, the belt tension will need periodic adjustments.

9. Bearings.

All drive shafts are supported by self-aligning, sealed ball bearings, which have been packed at the factory and require no further lubrication. There is no adjustment to be made to the bearings, but check that the retainers are firmly fastened to the bearing stand. Also check that the setscrews in the lock collars are tight against the drive shaft.

WARNING The Incomplete drive shaft must be shielded with drive shaft covers during operation.

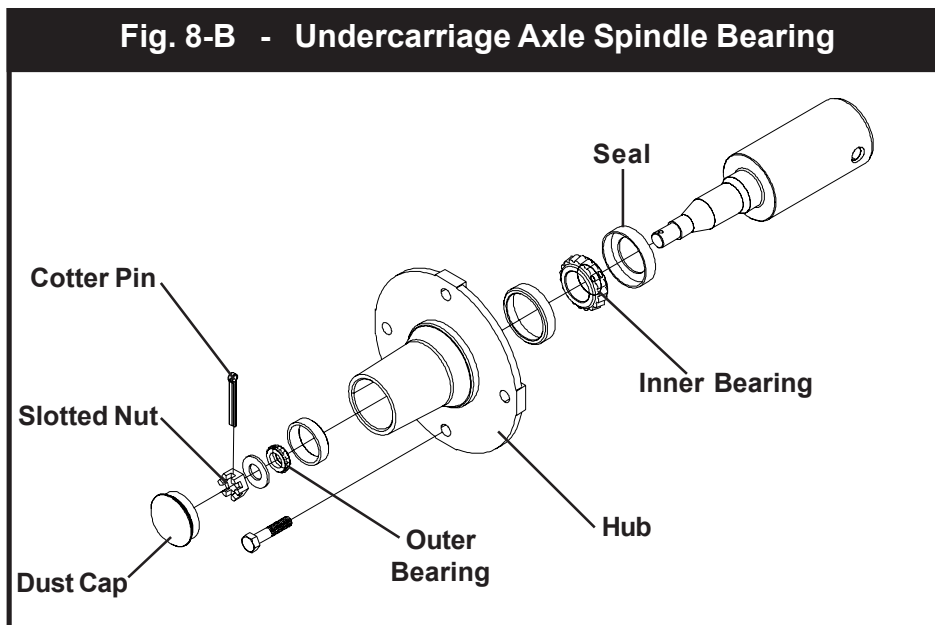
1. Every auger has a bronze bearing with a graphite bearing at the intake end. This bearing requires no lubrication. If the wire guard is damaged, contact dealer and replace.



9. Bearings (Cont)

B. Undercarriage axle spindle bearing (See Fig. 8-B)

1. Tapered roller type bearings are standard for 8" augers and should be repacked with grease and adjusted annually or as needed, determined by the augers usage.
2. Care must be used in dismantling the tapered roller bearings. First remove the dust cap by prying around its edges. Remove the cotter pin, slotted nut and flatwasher. Carefully remove the hub and bearings from the spindle. Inspect all parts for wear or damage and replace them with new ones if necessary.
3. When reassembling the hub, repack both bearing cones with grease and fill hub cavity 1/3 full. Place the inner bearing assemblies into the hub, and then press the grease seal into the hub and carefully reinstall the hub on the spindle. When placing the hub on the spindle, be careful not to damage the lip of the grease seal. Install the outer bearing assembly into the hub, and replace the flat washer and slotted nut. Tighten the slotted nut to seal the bearings until the hub binds as you rotate the hub. Back off the slotted nut to the next slot and pin with a new cotter pin. Use a 5/32" cotter pin 1-1/4" long. Replace the dust cap.



| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|--|---|--|
| <p>1. The auger is vibrating.</p> | <p>A. Damage can occur to the auger flighting, causing noise. Damage usually is caused from foreign material being run through the auger.</p> | <p>A1. It may be necessary to remove the flighting for inspection.</p> |
| <p>2. Capacity is too low.</p> | <p>A. There may not be enough grain reaching the auger.</p> | <p>A1. Make sure the intake has not bridged over, restricting flow. The flighting at the intake should be covered with grain for maximum capacity.</p> |
| | <p>B. The auger is moving too slowly.</p> | <p>B1. Check the auger speed. Low capacity will result from speeds slower than recommended.</p> |
| <p>3. The auger plugs.</p> | <p>A. The auger may be "jamming" because too much grain is reaching the auger.</p> | <p>A1. Decrease the amount of grain the auger is gathering.</p> |
| | <p>B. The grain may be wet.</p> | <p>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.</p> |
| | <p>C. The auger may be jammed with foreign material.</p> | <p>C1. Remove any foreign material in the auger.</p> |
| | <p>D. The discharge end may be plugged.</p> | <p>D1. Unplug any plugs at the discharge end of the auger.</p> |

Troubleshooting

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|--|---|
| 4. 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. |
| 5. Auger Lowering by itself (Hydraulic lift under-carriage augers ONLY) | A. Hydraulic fittings, hose, and connections could be leaking. | A1. Check that the hydraulic shut-off valve is close. |
| 6. Auger WILL NOT raise or lower (Hydraulic lift under carriage augers ONLY) | A. The hydraulic coupler may not be properly attached to the tractor and the tractor reservoir is full of oil. | A1. Check that the hydraulic shut-off valve is open. |

PARTS SECTION

PRE-ASSEMBLED OR PURCHASED COMPONENTS

Pre-assembled or purchased parts listed below can be ordered as complete assemblies or individual components can be selected by referring to their parts breakdowns listed on pages 88 - 96.

Pre-Assembled or Purchased Components

| Ref # | 10" Part # | Description |
|-------|------------|--|
| N\S | GK2429 | Enclosed Drive Assembly for 10" |
| N\S | GK1193 | Spindle & Hub Assembly 4-Bolt |
| N\S | GK3337 | Winch #1500 Brake Type for 10" x 31' and 41' |
| N\S | GK2490 | Winch #2550 Brake Type for 10" x 51', 57', 61', 65' and 71' |
| N\S | GK1515 | Implement Input Driveline (I.I.D.) for 10" x 31', 41', 51', 57', 61', 65', and 71' |
| N\S | GK2494 | Gearbox for 10" x 31', 41', 51', 57', 61', 65' and 71' Direct PTO and Top Mounted Electric Drive |
| N\S | GK1527 | Hydraulic Cylinder 4 Bore x 24 Stroke |
| N\S | GK1528 | Hydraulic Cylinder 4 Bore x 36 Stroke |

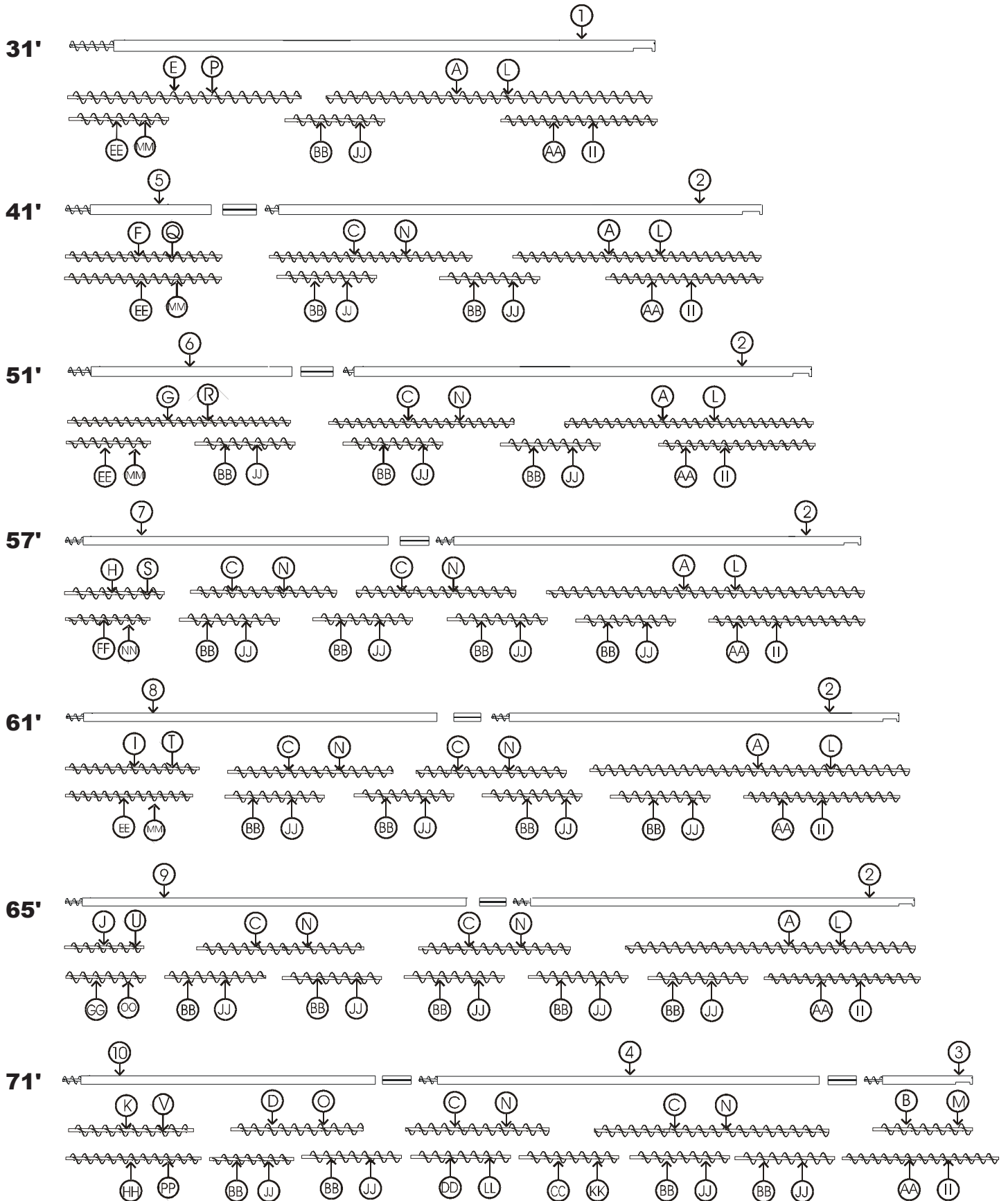
FLIGHTING & HOUSING COMPONENTS

| AUGER HOUSING COMPONENTS | | |
|--------------------------|------------------|--|
| Ref No. | Part No. | Description |
| N\S | ***** GK1883 | Connecting band for 41', 51', 57', 61', 65', and 71' NOTE:71' WILL USE TWO (2) GK1883 |
| N\S | GK3460 GK1407 | Intake guard Half band for intake guard |
| N\S | GK1400 | Hitch pipe |
| N\S | GK3572 | Stub shaft 1-1/2" x 6-3/4" |

| INTERNAL BEARING FLIGHT AND HOUSING COMPONENTS | | |
|--|----------|--|
| Ref No. | Part No. | Description |
| N\S | GK3923 | Connecting band with slot NOTE:71' WILL USE TWO (2) GK3923 |
| N\S | GK1951 | Flight connecting stub (1.5" x 11.5") |
| N\S | GK3670 | Inspection hole cover |
| N\S | GK1293 | Internal bearing bracket w\ bronze bushing |
| N\S | GK1303 | Replacement bronze bushing |
| N\S | S-8314 | Flight connecting bolt, 1/2" x 3.0" (Grade 8) |
| N\S | S-8315 | 1/2" Stover nut |

| STANDARD FLIGHT CONNECTING COMPONENTS | | |
|---------------------------------------|----------|---|
| Ref No. | Part No. | Description |
| N\S | S-8314 | Connecting Bolt - 1/2" x 3" (grade 8) hex head capscrew |
| N\S | S-8315 | 1/2" Stover Nut |

AUGER FLIGHT & HOUSING



HOUSING COMPONENTS

| STANDARD GALVANIZED AUGER HOUSING (14 GA.) (See page 71) | | |
|--|-----------------|---|
| Ref. No. | Part No. | Description |
| 1 | ***** GK3302 | Auger Housing for 10" x 31' (30'-0" long) |
| 2 | ***** GK3469 | Auger Housing (Upper Section) for 10" x 41' - 65' (30'-0" long) |
| 3 | ***** GK3916 | Auger Housing (Middle Section) for 10" x 71' (10'-0" long) |
| 4 | ***** GK3467 | Auger Housing (Lower Section) for 10" x 41' (10'-0" long) |
| 5 | ***** GK3461 | for 10" x 51' (20'-0" long) |
| 6 | ***** GK3462 | for 10" x 57' (26'-0" long) |
| 7 | ***** GK3463 | for 10" x 61' (30'-0" long) |
| 8 | ***** GK3464 | for 10" x 65' (34'-0" long) |
| 9 | ***** GK3465 | for 10" x 71' (26'-0" long) |
| 10 | ***** GK3468 | |

| HEAVY DUTY GALVANIZED AUGER HOUSING (12 GA.) (See page 71) | | |
|--|------------------|---|
| Ref. No. | Part No. | Description |
| 1 | ***** GK3752 | Auger Housing for 10" x 31' (30'-0" long) |
| 2 | ***** GK3800 | Auger Housing (Upper Section) for 10" x 41' - 65' (30'-0" long) |
| 3 | ***** GK 3781 | Auger Housing (Middle Section) for 10" x 71' (10'-0" long) |
| 4 | ***** GK3783 | Auger Housing (Lower section) for 10" x 41' (10'-0" long) |
| 5 | ***** GK3784 | for 10" x 51' (20'-0" long) |
| 6 | ***** GK3785 | for 10" x 57' (26'-0" long) |
| 7 | ***** GK3786 | for 10" x 61' (30'-0" long) |
| 8 | ***** GK3787 | for 10" x 65' (34'-0" long) |
| 9 | ***** GK3782 | for 10" x 71' (26'-0" long) |
| 10 | ***** GK3798 | |

NOTE The auger housing length is one foot shorter that the stated auger length. For example, a 57' long auger has 56' of housing, the head is 32' and the lower is 24'. Be careful to order the correct length replacement housing for your auger.

NOTE Auger housing includes drive shaft and drive shaft bearings.

AUGER HOUSING FOR INTERNAL BEARING

See page 71 for reference.

| STANDARD GALVANIZED AUGER HOUSING FOR INTERNAL BEARING (14 GA.) | | |
|---|-----------------|---|
| Ref. No. | Part No. | Description |
| 1 | ***** GK4002 | Auger housing for 10" x 31' (30'-0" long) |
| 2 | ***** GK3714 | Auger housing (Upper Section) for 10" x 41' - 65' (30'-0" long) |
| 3 | GK3916 | for 10" x 71' (10'-0" long) |
| 4 | ***** GK3917 | Auger housing (Middle Section) for 10" x 71' (34'-0" long) |
| 5 | ***** GK4003 | Auger housing (Lower Section) for 10" x 41' (10'-0" long) |
| 6 | GK4009 | for 10" x 51' (20'-0" long) |
| 7 | GK4005 | for 10" x 57' (26'-0" long) |
| 8 | GK4010 | for 10" x 61' (30'-0" long) |
| 9 | GK4006 | for 10" x 65' (34'-0" long) |
| 10 | GK3918 | for 10" x 71' (26'-0" long) |

See page 71 for reference.

| HEAVY DUTY GALVANIZED AUGER HOUSING FOR INTERNAL BEARINGS (12 GA.) | | |
|--|-----------------|---|
| Ref. No. | Part No. | Description |
| 1 | ***** GK3799 | Auger Housing for 10" x 31' (30'-0" long) |
| 2 | ***** GK3789 | Auger Housing (Upper Section) for 10" x 41' - 65' (30'-0" long) |
| 3 | GK3781 | for 10" x 71' (10'-0" long) |
| 4 | ***** GK3792 | Auger Housing (Middle Section) for 10" x 71' (34'-0" long) |
| 5 | ***** GK3793 | Auger Housing (Lower Section) for 10" x 41' (10'-0" long) |
| 6 | GK3794 | for 10" x 51' (20'-0" long) |
| 7 | GK3795 | for 10" x 57' (26'-0" long) |
| 8 | GK3796 | for 10" x 61' (30'-0" long) |
| 9 | GK3791 | for 10" x 65' (34'-0" long) |
| 10 | GK3797 | for 10" x 71' (26'-0" long) |

NOTE The auger housing length is one foot shorter than the stated auger length. For example, a 57' long auger has 56' of housing, the head is 32' and the lower is 24'. Be careful to order the correct length replacement housing for your auger.

NOTE Auger housing includes drive shaft and drive shaft bearings.

FLIGHTING COMPONENTS

| STANDARD DUTY FLIGHT (7 GA.) (See pg. 71) | | |
|--|----------|--|
| Ref No. | Part No. | Description |
| A | GK3564 | Upper Flight Section for 31', 41', 51', 57', 61', and 65' (16' 2-3/8") |
| B | GK3288 | for 71' (10' 2-11/16") |
| ***** | | |
| Middle Flight Section | | |
| C | GK3549 | for 41', 51', 57', 61', 65', and 71' (14' 10-1/2") |
| D | GK3286 | for 71' (17' 6") |
| NOTE: 57'-71' WILL USE TWO (2) GK3549 | | |
| ***** | | |
| Lower Flight Section | | |
| E | GK3280 | for 31' (14' 11-7/8") |
| F | GK3281 | for 41' (10' 1/2") |
| G | GK3282 | for 51' (20' 1") |
| H | GK2383 | for 57' (11' 2-3/8") |
| I | GK3636 | for 61' (15' 2-1/8") |
| J | GK3284 | for 65' (19' 3-1/8") |
| K | GK3285 | for 71' (13' 8") |

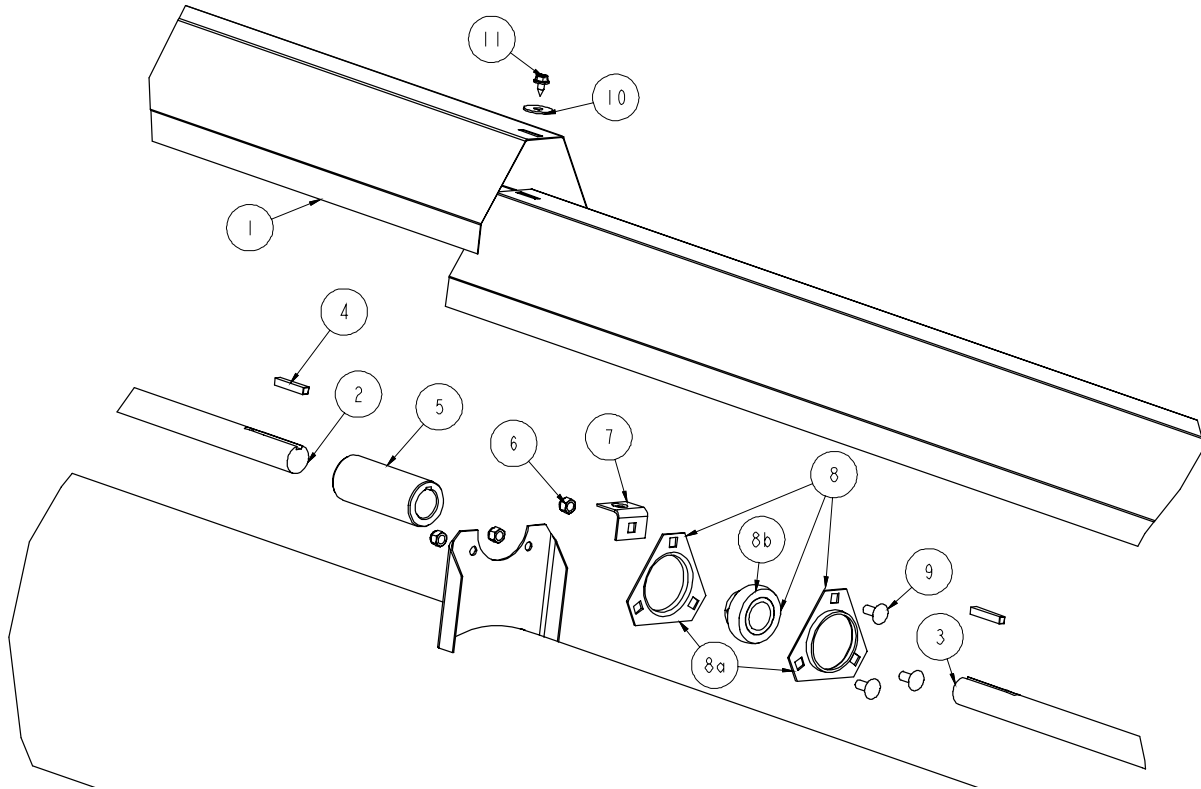
| HEAVY DUTY FLIGHT (1/4") (See pg. 71) | | |
|--|----------|---|
| Ref # | Part No. | Description |
| L | GK3628 | Upper Flight Section for 31', 41', 51', 57', 61' and 65' (16' 2-3/8") |
| M | GK3629 | for 71' (10' 2-11/16") |
| ***** | | |
| Middle Flight Section | | |
| N | GK3626 | for 41', 51', 57', 61', 65' and 71' (14' 11") |
| O | GK3627 | for 71' (17' 6") |
| NOTE: 57'-71' WILL USE TWO (2) GK3626 | | |
| ***** | | |
| Lower Flight Section | | |
| P | GK3630 | for 31' (14' 11-7/8") |
| Q | GK3631 | for 41' (10' 1/2") |
| R | GK3632 | for 51' (20' 1") |
| S | GK3633 | for 57' (11' 2-3/8") |
| T | GK3698 | for 61' (15' 2-1/8") |
| U | GK3634 | for 65' (19' 3-1/8") |
| V | GK3635 | for 71' (13' 8") |

FLIGHTING WITH INTERNAL BEARINGS

| STANDARD DUTY FLIGHT W/ INTERNAL BEARINGS (7 GA.) (See pg. 71) | | |
|--|----------|---|
| Ref No. | Part No. | Description |
| | ***** | Upper Flight Section |
| AA | GK3705 | for 31' - 71' (10' 10-1/2") |
| | ***** | Middle Flight Section |
| BB | GK3706 | for 31', 41', 51', 57', 61', 65' and 71' (9' 6") 65' @5, and 71' @ 4 (9' 6") |
| CC | GK3708 | for 71' (4' 9-3/4") |
| DD | GK3709 | for 71' (6' 9-3/4") |
| | ***** | Lower Flight Section |
| EE | GK3707 | for 31' 41' and 51' and 61' (10' 2") |
| FF | GK3710 | for 57' (6' 2") |
| GG | GK3711 | for 65' (4' 2") |
| HH | GK3712 | for 71' (8' 2") |

| HEAVY DUTY FLIGHT W/ INTERNAL BEARINGS (1/4") (See pg. 71) | | |
|--|----------|---|
| Ref # | Part No. | Description |
| | ***** | Upper Flight Section |
| II | GK3727 | for 31', 41', 51', 57', 61', 65' and 71' (10' 10-1/4") |
| | ***** | Middle Flight Section |
| JJ | GK3728 | for 31', 41' @2, 51' @3, 57' @4, 61' @4, 65' @5, and 71' @ 4 (9' 9-3/4") |
| KK | GK3730 | for 71' (4' 9-3/4") |
| LL | GK3729 | for 71' (6' 9-3/4") |
| | ***** | Lower Flight Section |
| MM | GK3731 | for 31' 41' and 51' and 61' (10' 2") |
| NN | GK3732 | for 57' (6' 2") |
| OO | GK3733 | for 65' (4' 2") |
| PP | GK3734 | for 71' (8' 2") |

DRIVE SHAFT COMPONENTS

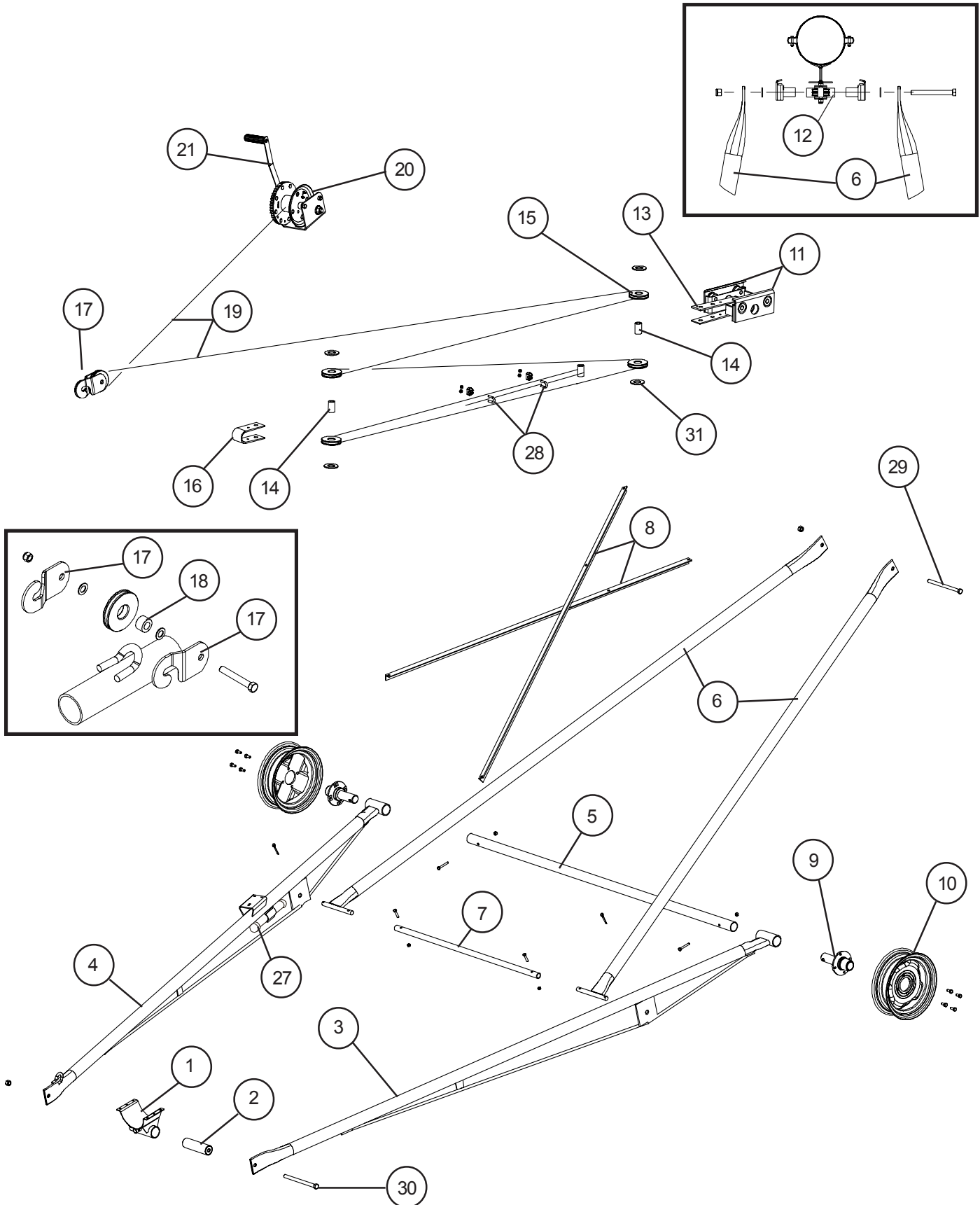


| Drive Shaft Components | | | |
|------------------------|--|--------|-----------|
| Ref # | Description | Part # | Auger |
| 1 | Drive Shaft Shield | | |
| | 5' 8-1/4" | GK2240 | ALL |
| | 1' | GK2235 | 71' |
| 2 | Drive Shaft (Upper & Mid Section) | | |
| | 16' 10-1/2" | GK3279 | 31' |
| | 15' 7-3/4" | GK2602 | 41' - 65' |
| | 10' 3-1/2" | GK1917 | 71' |
| | 14' 1" | GK3532 | 71' |
| 3 | Drive Shaft (Lower Section) | | |
| | 19' 6" | GK2526 | 71' |
| | 12' 3" | GK1914 | 57' |
| | 14' 9" | GK3533 | 61' |
| | 16' 7" | GK2532 | 65' |
| 4 | 11' 9-1/2" | GK2527 | 71' |
| | Key SQ 1/4"X 1 1/2" | S-9169 | ALL |
| 5 | 1" to 1" Drive Shaft Coupler | GK1500 | ALL |
| 6 | Nylock Nut 5/16"-18 ZN GR5 | S-7382 | ALL |
| 7 | Drive Shaft Cover Bracket | GK2603 | ALL |
| 8 | Bearing with Triangle Flange & Set Screw | GK1596 | ALL |
| 8a | 1" Bore Bearing | GK2557 | ALL |
| 8b | Flangette | GK2556 | ALL |
| 9 | Carriage Bolt 5/16"-18x3/4" ZN GR2 | S-6076 | ALL |
| 10 | 1/4" Flat Washer | S-8351 | ALL |
| 11 | Screw 1/4" x 5/8" | S-8350 | ALL |

MANUAL LIFT UNDERCARRIAGE COMPONENTS

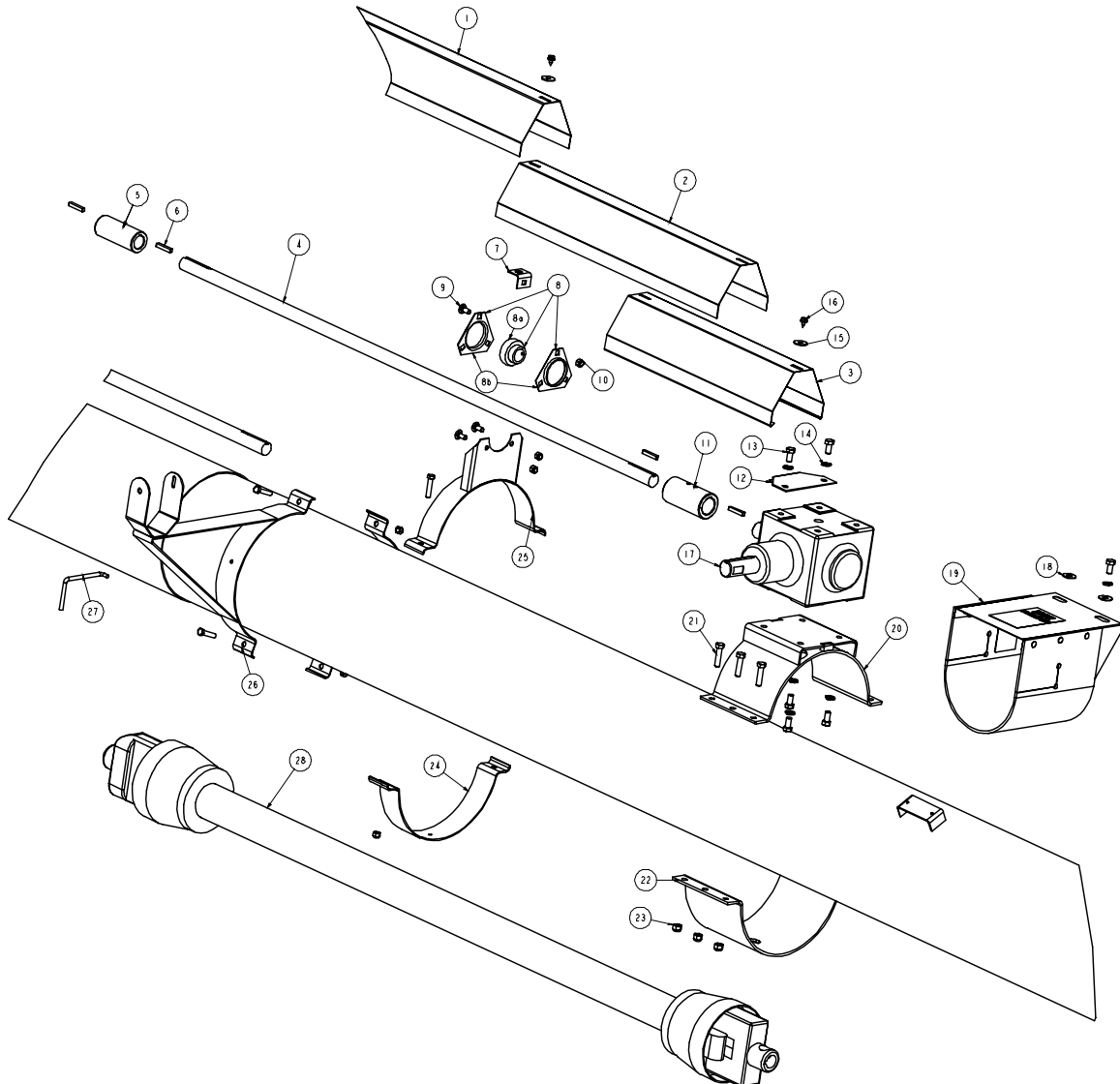
| Ref No. | Part No. | Description |
|---------|----------|--|
| 1 | GK1404 | Radius Rod Clamp Band\Radius Rod Pivot (31'-57' Models) |
| | GK3563 | Radius Rod Clamp Band\Radius Rod Pivot (61'-71' w/ Truss Anchor Bracket) |
| 2 | GK1549 | Radius Rod Spacer Tube (8-1/4" long) |
| 3 | | Right Radius Rod |
| | GK1421 | for 31' (9' - 8" long) |
| | GK2550 | for 41' (12' - 2" long) |
| | GK2058 | for 51' & 57' (14' 8-1/2" long) |
| | GK3101 | for 61', 65', and 71' (17' 5-1/4" long) |
| 4 | | Left Radius Rod (with winch mount) |
| | GK1416 | for 31' (9' - 8" long) |
| | GK2551 | for 41" (12' - 2" long) |
| | GK2059 | for 51' & 57' (14' 8-1/2" long) |
| | GK3358 | for 61', 65', and 71' (17' 5-1/4" long) |
| 5 | | Axle Pipe |
| | GK1546 | for 31' & 41' (94-1/2" long) |
| | GK2056 | for 51' & 57' (93" long) |
| | GK2627 | for 61', 65', and 71' (120" long) |
| 6 | | Axle Leg |
| | GK1419 | for 31' (10' 6-1/2" long) |
| | GK2554 | for 41' (12' - 8" long) |
| | GK2060 | for 51', 57' (14' - 10" long) |
| | GK3196 | for 61', 65', and 71' (16' - 1" long) |
| 7 | | Axle Leg Crosspipe |
| | GK1418 | for 31' (53" long) |
| | GK1031 | for 41' (51" long) |
| | GK2057 | for 51' & 57' (49-3/4" long) |
| | GK3366 | for 61', 65', and 71' (72-1/2" long) |
| N/S | | Track Weldment |
| | GK1390 | for 31' |
| | GK3307 | for 41' |
| | GK3333 | for 51' |
| | GK3255 | for 57' |
| | GK3457 | for 61' and 71' |
| N/S | | Spacer Tube |
| | GK3562 | for 31', 41', & 57' |
| | GK3683 | for 51' |
| | GK3653 | for 61' & 65' |
| | GK3560 | for 71' |
| 8 | GK1394 | Axle Leg Crossbrace |
| 9 | GK1193 | Spindle and Hub Assembly (31' - 71' Models) |
| 10 | GK1176 | Wheel Rim (4-bolt) |
| 11 | GK1175 | Trolley with Steel Side Rollers |
| 12 | GK1179 | Trolley Spacer Bushing (4-3/4" long) |
| 13 | GK1150 | Trolley Pulley Clevis - (Long Clevis) |
| 14 | GK1453 | Pulley Clevis Bushing (for 31'-71') |
| 15 | GK1543 | 1/4" Cable Pulley (3.0" O.D. x 1.03 I.D.) |
| 16 | GK1391 | Track Pulley Clevis (Short Clevis) |
| 17 | GK1545 | Pulley Clevis Plate |
| 18 | GK1544 | Cable Pulley Bushing (5/8" long) |
| 19 | | Winch Cable |
| | GK1589 | for 31' (1/4" x 44' long) |
| | GK1606 | for 41' (1/4" x 82' long) |
| | GK3320 | for 51' & 57' (1/4" x 91' long) |
| | GK3322 | for 61', 65' and 71' (1/4" x 118' long) |
| 20 | GK3337 | K-1550 Winch (31', 41', 51', & 57' Models) |
| | GK2490 | K-2250 Winch (61', 65' and 71' Model) |
| 21 | GK1567 | Winch Handle - #1000-#2500 |

MANUAL LIFT UNDERCARRIAGE COMPONENTS



DIRECT PTO DRIVE COMPONENTS

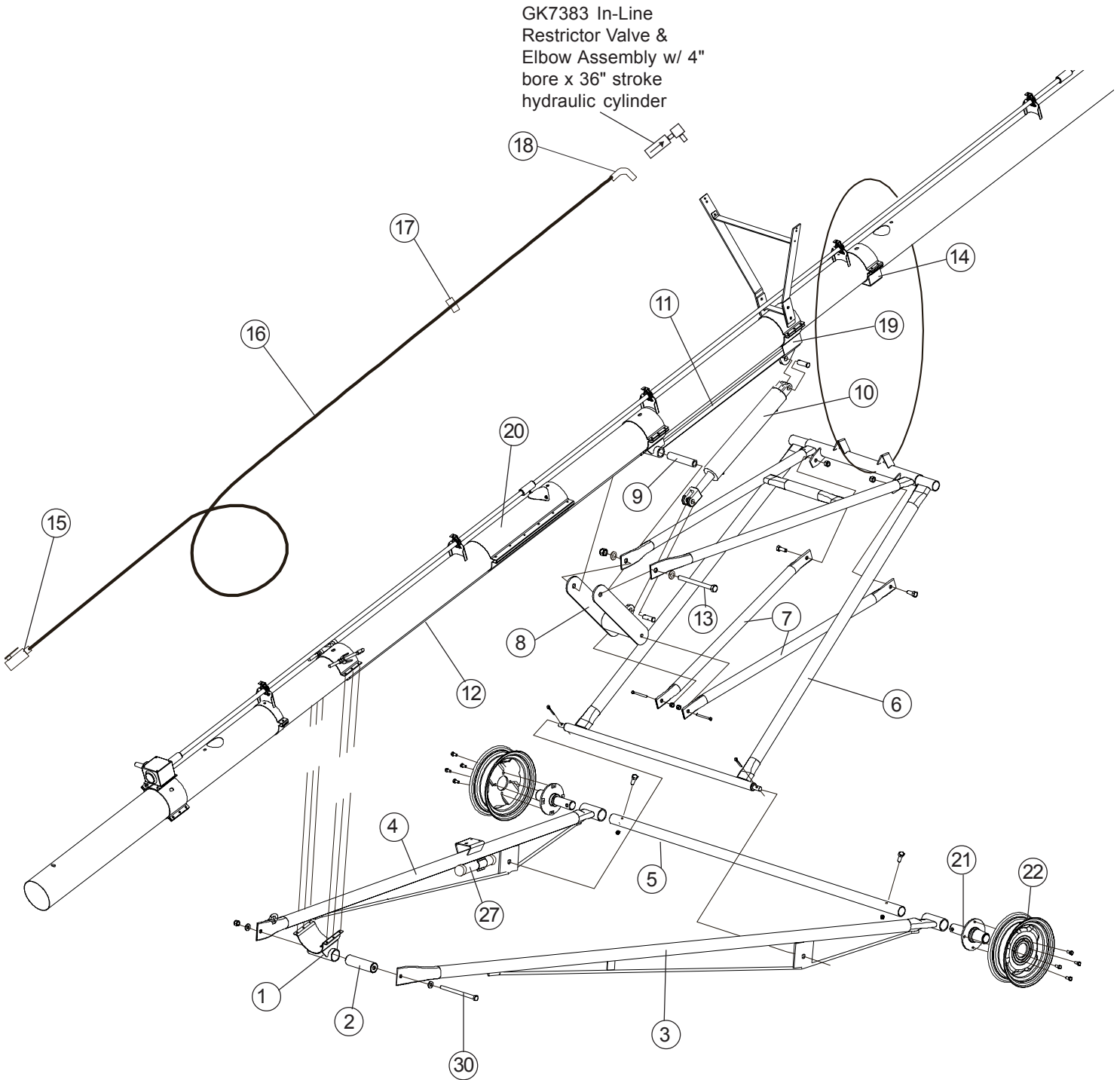
| Ref. # | Description | Part # | Auger | Ref. # | Description | Part # | Auger |
|--------|--|--------|-----------|--------|------------------------------------|---------|-------|
| 1 | Drive Shaft Cover Long 5' 8-1/4" | GK2240 | ALL | 8b | Flangette | GK2556 | ALL |
| 2 | Drive Shaft Cover Short | | | 9 | Carriage Bolt 5/16"-18x3/4" ZN GR2 | S-6076 | ALL |
| | 3' | GK2144 | 31' & 65' | 10 | Nylock Nut 5/16"-18 ZN GR5 | S-7382 | ALL |
| | 2' | GK2521 | 41' & 51' | 11 | 1-1/4" to 1" Drive Shaft Coupler | GK7564 | ALL |
| | 1' | GK2235 | 57' & 71' | 12 | Gearbox Shield Bracket | GK2224 | ALL |
| 3 | Telescoping Drive Shaft Cover 1' 6" | GK2523 | ALL | 13 | Bolt HHCS 3/8"-16x3/4" GR5 | S-7105 | ALL |
| 4 | Drive Shaft Extension | | | 14 | 3/8" Lock Washer | S-1054 | ALL |
| | 8' 8" | GK1392 | 31' | 15 | 1/4" Flat Washer | S-8351 | ALL |
| | 4' 3" | GK2069 | 41' | 16 | Screw 1/4" x 5/8" | S-8350 | ALL |
| | 14' 1" | GK3532 | 51' | 17 | Gearbox 90 Deg 1:1 Ratio | GK24941 | ALL |
| | 8' 2" | GK2432 | 57' | 18 | 3/8" Flat Washer | S-248 | ALL |
| | 9' 9" | GK3202 | 61' | 19 | PTO Shield | GK1570 | ALL |
| | 11' 9-1/2" | GK2527 | 65' | 20 | Band On Gearbox Mount | GK3311 | ALL |
| | 9' 6" | GK2070 | 71' | 21 | Bolt HHCS 3/8"-16x1-1/2" ZN GR5 | S-7515 | ALL |
| 5 | 1" to 1" Drive Shaft Coupler | GK1500 | ALL | 22 | Half Band 10"x 6" 7GA. Painted | GK5116 | ALL |
| 6 | Key SQ 1/4"X 1 1/2" | S-9169 | ALL | 23 | Nylock Nut 3/8"-16 ZN GR5 | S-7383 | ALL |
| 7 | Drive Shaft Cover Bracket | GK2603 | ALL | 24 | Half Band 10" X2" 12GA. GALV | GK1057 | ALL |
| 8 | Bearing with Triangle Flange & Set Screw | GK1596 | ALL | 25 | 10" Band-on Bearing Stand | GK3553 | ALL |
| 8a | 1" Bore Bearing | GK2557 | ALL | 26 | 10" PTO Carrier Bracket | GK3518 | ALL |
| | | | | 27 | PTO Retaining Pin | GK3246 | ALL |
| | | | | 28 | PTO Input Drive Line 60" | GK1515 | ALL |



HYDRAULIC LIFT UNDERCARRIAGE COMPONENTS

| Ref No. | Part No. | Description |
|---------|----------|--|
| 1 | GK1404 | Radius Rod Clamp Band\Radius Rod Pivot (47'-61' Models) |
| 2 | GK1549 | Radius Rod Spacer Tube (8-1/4" long) |
| 3 | | Right Radius Rod |
| | GK2550 | for 51' (12' - 2" long) |
| | GK2058 | for 57' and 61' (14' 8-3/4" long) |
| | GK3101 | for 65' (17' 10-1/2" long) |
| | GK4843 | for 71' (18' 4-3/4") |
| 4 | | Left Radius Rod (with winch mount) |
| | GK2551 | for 51' (12' - 2" long) |
| | GK2059 | for 57' and 61' (14' 8-3/4" long) |
| | GK3358 | for 65' (17' 10-1/2" long) |
| | GK4843 | for 71' (18' 4-3/4") |
| 5 | | Axle Pipe |
| | GK1546 | for 51' (7' 10-1/2") |
| | GK2056 | for 57' and 61' (7' 9") |
| | GK2627 | for 65' and 71' (10') |
| 6 | | Undercarriage Assembly |
| | GK2614 | for 51' |
| | GK3356 | for 57' and 61' |
| | GK3357 | for 65' and 71' |
| 7 | | H-Frame Tube |
| | GK2528 | for 51' (64" long) |
| | GK2529 | for 57' & 61' (82" long) |
| | GK3082 | for 65' and 71' (96 1/2" long) |
| 8 | | H-Frame |
| | GK1450 | for 51', 57' and 61' |
| | GK3359 | for 65' and 71' |
| 9 | | H-Frame Spacer Tube |
| | GK2267 | for 51', 57', and 61' |
| | GK3523 | for 65' and 71' |
| 10 | | Hydraulic Cylinder |
| | GK1527 | for 51', 57' and 61' ; 4" bore x 24" stroke |
| | GK7381 | for 65' and 71' ; 4" bore x 36" stroke (Includes GK7383 In-Line Restrictor Valve & Elbow Assembly) |
| 11 | | Track Weldment |
| | GK3590 | for 51' |
| | GK3809 | for 57' and 61' |
| | GK3594 | for 65' and 71' (w/ Radius Rod Clamp) |
| 12 | | Spacer Tube |
| | GK1387 | for 51' (8' 11" long) |
| | GK3561 | for 57' and 61' (9' 9-1/4" long) |
| 13 | | Bolt for H-Frame Tube |
| | S-8419 | for 51', 57and 61' (1" x 11") |
| | S-8417 | for 65' and 71' (1" x 12") |
| 14 | | Rest Plate |
| | GK4859 | for 51' Halfband Rest Plate |
| | GK5326 | for 65' Connecting Band With Rest Plate |
| | GK5327 | for 65' Internal Bearing Connecting Band With Rest Plate |
| 15 | GK1533 | Hydraulic Ball Valve/Shut Off Valve |
| 16 | GK3521 | Hydraulic Hose (3/8" x 39') |
| 17 | GK1315 | Hose Mounting Clamp |
| 18 | GK1336 | 90° Elbow (for 4" bore x 24 stroke hydraulic cylinder) |

HYDRAULIC LIFT UNDERCARRIAGE COMPONENTS



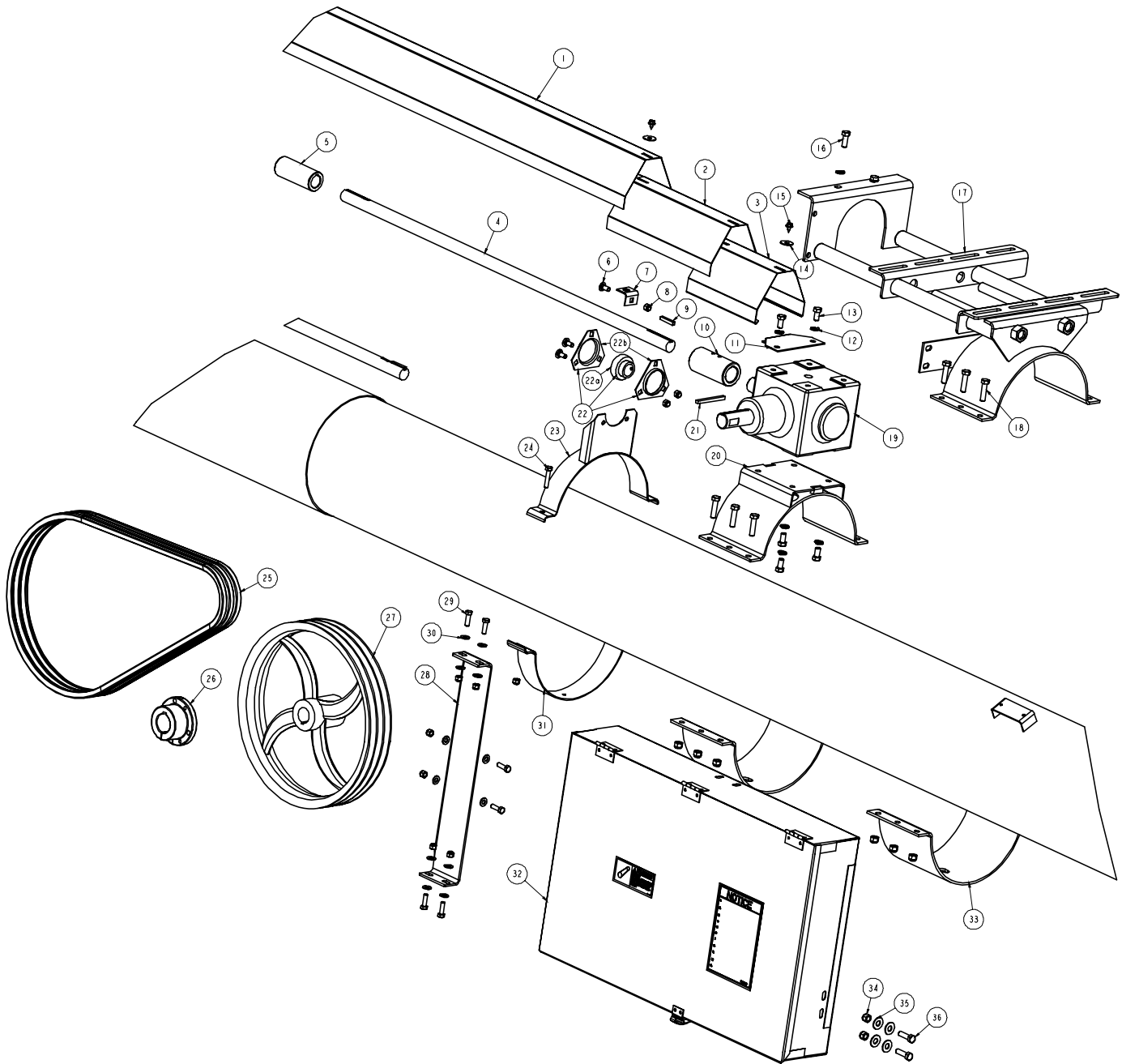
MISCELLANEOUS COMPONENTS

| MISCELLANEOUS COMPONENTS | | |
|---------------------------------|-----------------|----------------------------|
| Ref No. | Part No. | Description |
| N/S | GK1556 | Corn screen cover 10" |
| N/S | GK1557 | Corn screen cover band 10" |
| N/S | GK1523 | Manual container with caps |
| N/S | GK3089 | Cap for manual container |

TOP MOUNTED ELECTRIC DRIVE COMPONENTS

| ELECTRIC DRIVE COMPONENTS | | | |
|---------------------------|---|----------------------------|---|
| Ref. # | Description | Part # | Auger |
| 1 | Drive Shaft Cover Long 5' 8-1/4" | GK2240 | 41', 51', & 65' |
| 2 | Drive Shaft Cover Short 4' 3' 1' | GK2143 GK2144 GK2235 | 61' & 65' 71' 41' & 51' |
| 3 | Telescoping Drive Shaft Cover 8" 1' 6" | GK2524 GK2523 | 31', 41', & 65' 51', 57', 61', & 71' |
| 4 | Drive Shaft Extension 3' 2" 4' 3" 6' 7" | GK4078 GK2069 GK3531 | 41', 51', & 61' 65' 51' |
| 5 | 1" to 1" Drive Shaft Coupler | GK1500 | ALL |
| 6 | Carriage Bolt 5/16"-18x3/4" ZN GR2 | S-6076 | ALL |
| 7 | Drive Shaft Cover Bracket | GK2603 | ALL |
| 8 | Nylock Nut 5/16"-18 ZN GR5 | S-7382 | ALL |
| 9 | Key SQ 1/4"X 1 1/2" | S-9169 | ALL |
| 10 | 1-1/4" to 1" Drive Shaft Coupler | GK1609 | ALL |
| 11 | Gearbox Shield Bracket | GK2224 | ALL |
| 12 | 3/8" Lock Washer | S-1054 | ALL |
| 13 | Bolt HHCS 3/8"-16x3/4" GR5 | S-7105 | ALL |
| 14 | 1/4" Flat Washer | S-8351 | ALL |
| 15 | Screw 1/4" x 5/8" | S-8350 | ALL |
| 16 | Bolt HHCS 3/8" - 16 x 1" GR5 | S-7469 | ALL |
| 17 | 10" Motor Mount | GK3522 | ALL |
| 18 | Bolt HHCS 3/8"-16x1-1/2" ZN GR5 | S-7515 | ALL |
| 19 | Gearbox 90 Deg 1:1 Ratio | GK24941 | ALL |
| 20 | Band On Gearbox Mount | GK3311 | ALL |
| 21 | Key SQ 1/4"X 3" | S-8276 | ALL |
| 22 | Bearing with Triangle Flange & Set Screw | GK1596 | ALL |
| 22a | 1" Bore Bearing | GK2557 | ALL |
| 22b | Flangette | GK2556 | ALL |
| 23 | 10" Band-on Bearing Stand | GK3553 | ALL |
| 24 | Bolt HHCS 5/16"-18x1-1/2" ZN GR5 | S-2741 | ALL |
| 25 | V - Belt B62 V-Belt B66 V-Belt | GK2546 GK2016 | 31', 41', & 51' 57', 61', 65', & 71' |
| 26 | Sheave SF Bushing 1-1/4" Bore | GK3542 | 57', 61', 65', & 71' |
| 27 | Sheave Aluminum 3 Belt 15" x 1-1/4" Bore Cast Iron 4 Belt 15.4" SF | GK2234 GK3541 | 31', 41', & 51' 57', 61', 65', & 71' |
| 28 | Belt Guard Mounting Bracket | GK2548 | ALL |
| 29 | Bolt HHCS 5/16"-18x1" ZN GR5 | S-1196 | ALL |
| 30 | 5/16" Flat Washer | S-1937 | ALL |
| 31 | Half Band 10" X 2" 12GA. GALV | GK1057 | ALL |
| 32 | Belt Guard Assmely | GK3524 | ALL |
| 33 | Half Band 10"x 6" 7GA. Painted | GK5116 | ALL |
| 34 | Nylock Nut 3/8"-16 ZN GR5 | S-7383 | ALL |
| 35 | 3/8" Flat Washer | S-248 | ALL |
| 36 | Bolt HHCS 3/8"-16x1-1/4" ZN GR5 | S-2071 | ALL |

TOP MOUNTED ELECTRIC DRIVE COMPONENTS



Truss Components

See Fig. 4 - Fig. 6 on page 75 for reference.

| TRUSS COMPONENTS | | | |
|-------------------------|---|--|---|
| Ref. # | Description | Part # | Auger |
| 1 | Band-On Truss Mount | GK1403 GK1406 | 41' 51',61',65' & 71' |
| 2 | Truss Side Support (19" long Upper (32" long) Lower (39-1/2" long) | GK1552 GK1555 GK2536 | 41' 51',61',65' & 71' 57',61',65' & 71' |
| 3 | Truss Crossbrace(28" long) | GK1554 | 51',57',61',65' & 71' |
| 4 | Truss Crossbrace (18-5/8" long) | GK1568 | 41',57',61',65' & 71' |
| 5 | Truss Cable Clamp 1/4" Cable Clamp 5/16" Cable Clamp | GK2761 GK2760 | |
| 6 | Under Truss Vertical Tube | GK1395 | 61',65', & 71' |
| 7 | Under Truss Side Strap | GK1393 | 61',65', & 71' |
| 8 | Band-On Truss Anchor | GK1458 | 41' to 71' |
| 9 | Band-On Truss Anchor | GK1508 | 61' to 71' |
| 10 | Eye Bolt 5/8" Dia. | GK3107 | 41' to 71' |
| 11 | 3/8" Cable Clamp | GK2759 | 41' to 71' |
| N/S | Truss Cable 1/4" x 28' long 5/16" x 47' long 5/16" x 45' long 5/16" x 31' long 5/16" x 52' long | GK1575 GK3525 GK2641 GK2167 GK1582 | 41' 51' 57' & 61' 61', 65', & 71' 65' & 71' |

TRUSS COMPONENTS

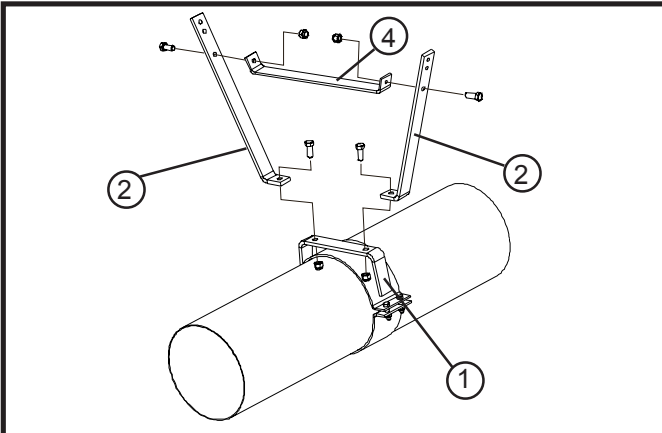


FIG. 3
41' Manual Model Main Truss

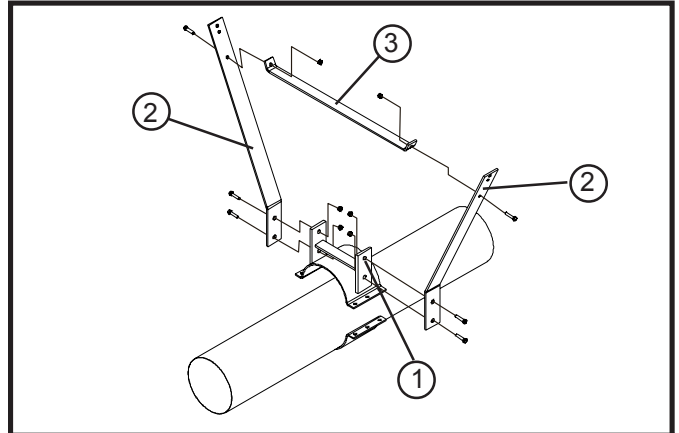


FIG. 4
51' Manual & Hydraulic Main Truss
61', 65', 71' - Hydraulic & Manual Upper Truss

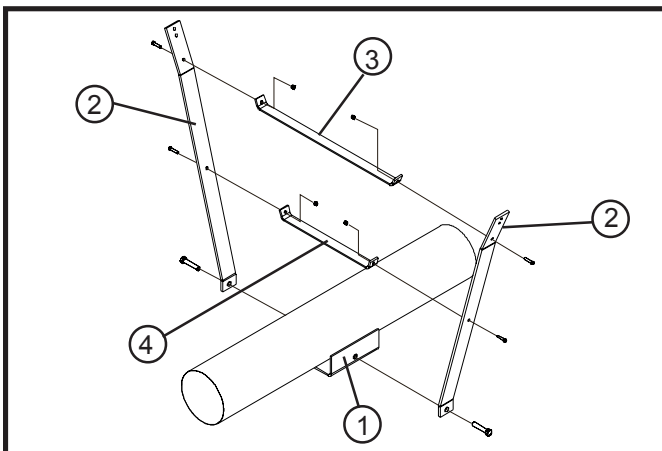


FIG. 5
57' Manual & Hydraulic Main Truss
61' - 71' Hydraulic Upper Truss

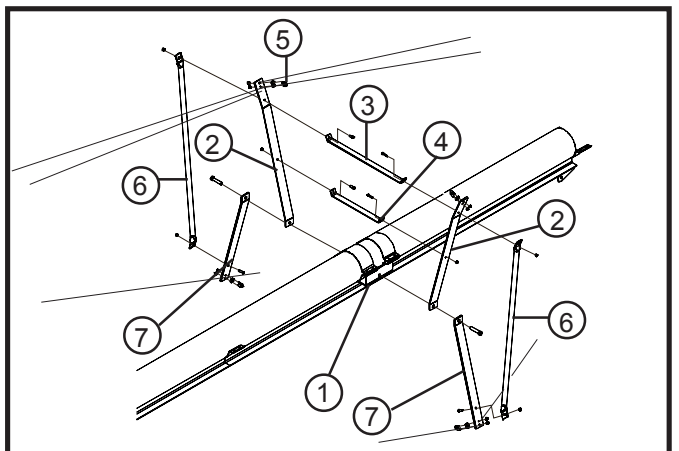


FIG. 6
61'-71' Manual Lower Truss

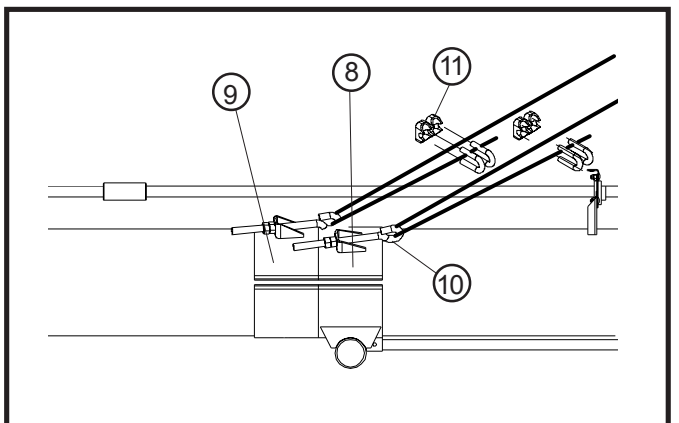


FIG. 7

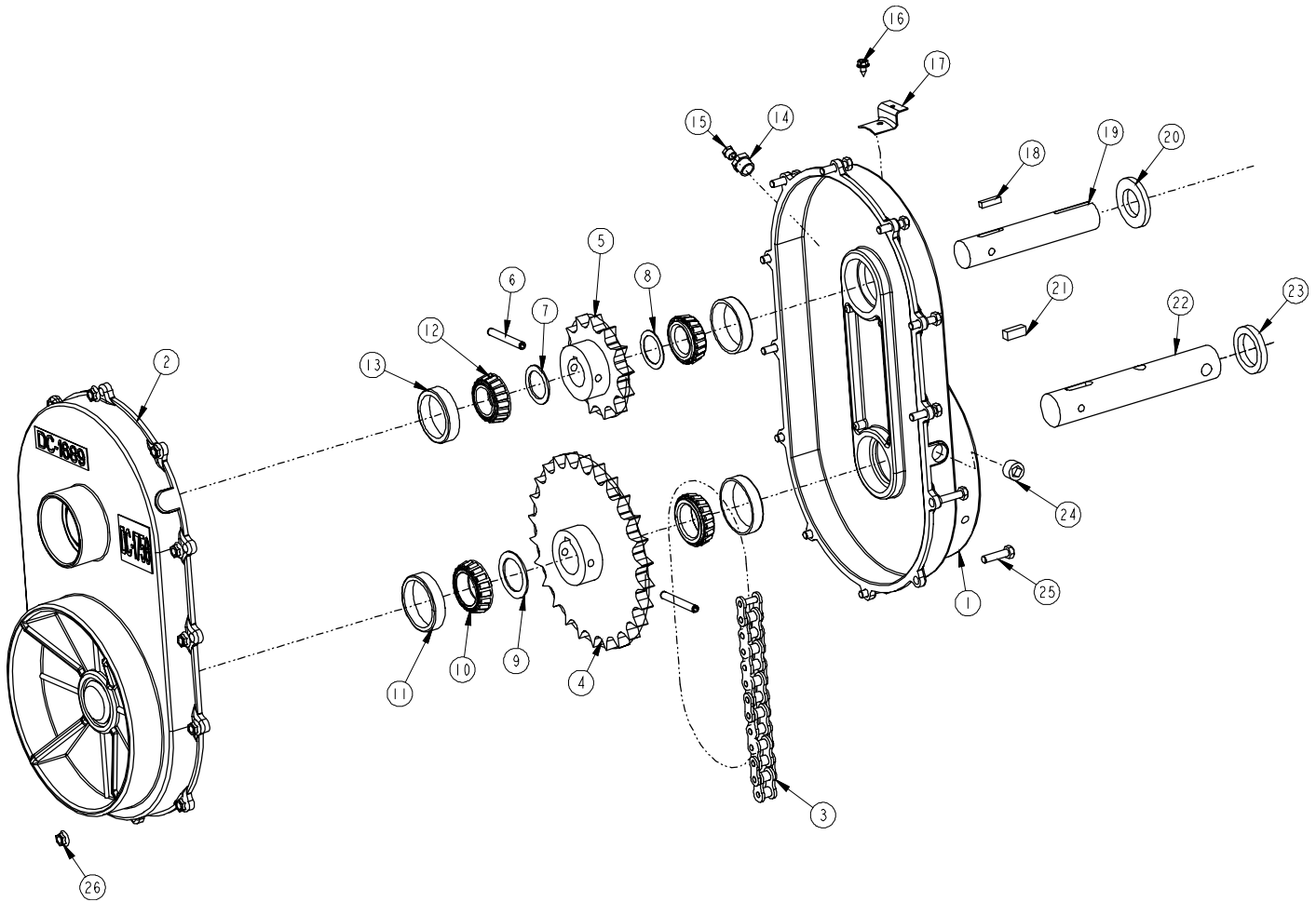
ENCLOSED HEAD DRIVE ASSEMBLIES**GK3832**

| ENCLOSED HEAD DRIVE ASSEMBLIES GK3832 (2:1) & GK2429 (1:1) | | | |
|---|--|---------------|--------------|
| Ref. # | Description | Part # | Ratio |
| 1 | Aluminum Casting | GK2363 | <i>Both</i> |
| 2 | Aluminum Casting | GK6787 | <i>Both</i> |
| Roller Chain | | | |
| 3 | #80 Roller Chain 34 Pitch | GK4384 | 1:1 |
| | #80 Roller Chain 37 Pitch | GK6341 | 2:1 |
| Lower Sprocket | | | |
| 4 | #80 17T 1-1/2" Bore | GK4386 | 1:1 |
| | #80 26T 1-1/2" Bore | GK4387 | 2:1 |
| Upper Sprocket | | | |
| 5 | #80 17T 1-1/4" Bore | GK4389 | 1:1 |
| | #80 13T 1-1/4" Bore | GK4390 | 2:1 |
| 6 | 5/16" x 2-1/2" Rolled Pin | S-4375 | <i>Both</i> |
| 7 | 1-1/4" ID .075" Thick Bushing | GK6336 | <i>Both</i> |
| 8 | 1-1/2" ID .031" Thick Bushing | GK6781 | 1:1 |
| | 1-1/4" ID .031" Thick Bushing | GK6780 | 2:1 |
| 9 | 1-1/2" ID .075" Thick Bushing | GK6337 | <i>Both</i> |
| 10 | 1-1/2" Cone Bearing | GK2368 | <i>Both</i> |
| 11 | 1-1/2" Bearing Cup | GK2384 | <i>Both</i> |
| 12 | 1-1/4" Cone Bearing | GK2367 | <i>Both</i> |
| 13 | 1-1/4" Bearing cup | GK2383 | <i>Both</i> |
| 14 | Pipe Bushing 1/8" x 3/8" | GK5350 | <i>Both</i> |
| 15 | 1/8" - 27 NPT Vent Plug | GK2697 | <i>Both</i> |
| 16 | 1/4" x 5/8" SMSA Screw | S-8350 | <i>Both</i> |
| 17 | Driveshaft Shield Bracket | GK2543 | <i>Both</i> |
| 18 | Key 1/4" square x 1" | S-9168 | <i>Both</i> |
| 19 | Stub Shaft 1-1/4" | GK4388 | <i>Both</i> |
| 20 | 1/1/4" Oil Seal | GK2374 | <i>Both</i> |
| 21 | Key 3/8" square x 1" | GC03540 | <i>Both</i> |
| 22 | Stub Shaft 1-1/2" | GK2370 | <i>Both</i> |
| 23 | 1/1/2" Oil Seal | GK2373 | <i>Both</i> |
| 24 | 3/8" - 18 NPT Plug | GK2376 | <i>Both</i> |
| 25 | Bolt HHTB 5/16"-18x1-1/4" ZN GR5 | S-4276 | <i>Both</i> |
| 26 | Nut Flange Wiz 5/16"-18 ZN GR2 | S-8675 | <i>Both</i> |
| N/S | Gasket Replacement Kit (Blue RTV Silicone) | GK7529 | <i>Both</i> |

NOTE

* Indicates items that are not part of the assembly number. These items are sold separately.

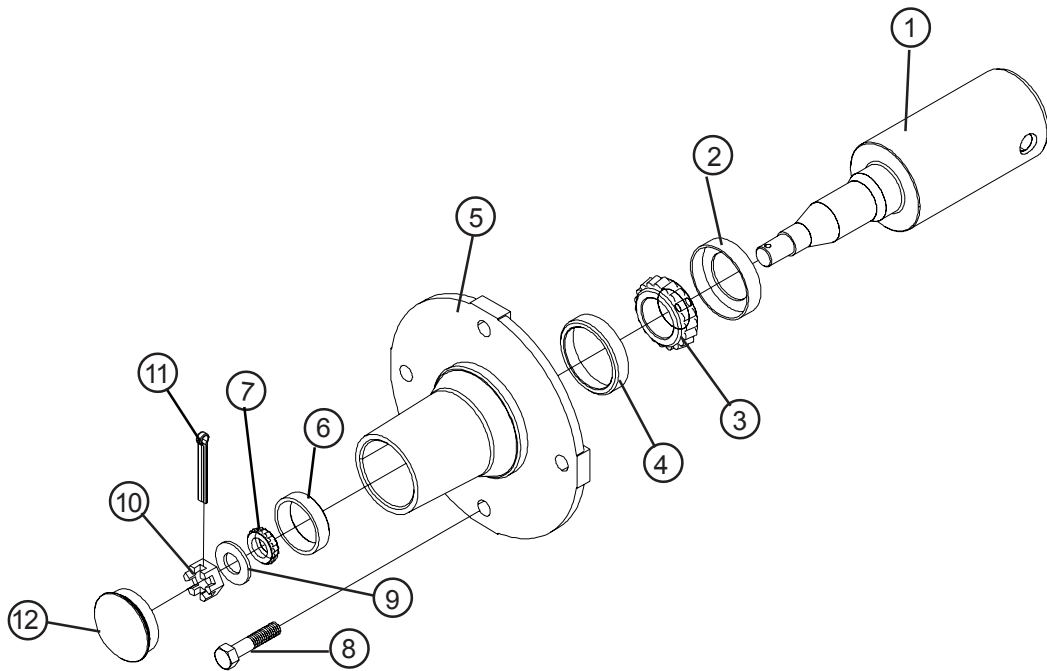
ENCLOSED HEAD DRIVE ASSEMBLIES
GK3832



SPINDLE AND HUB ASSEMBLIES

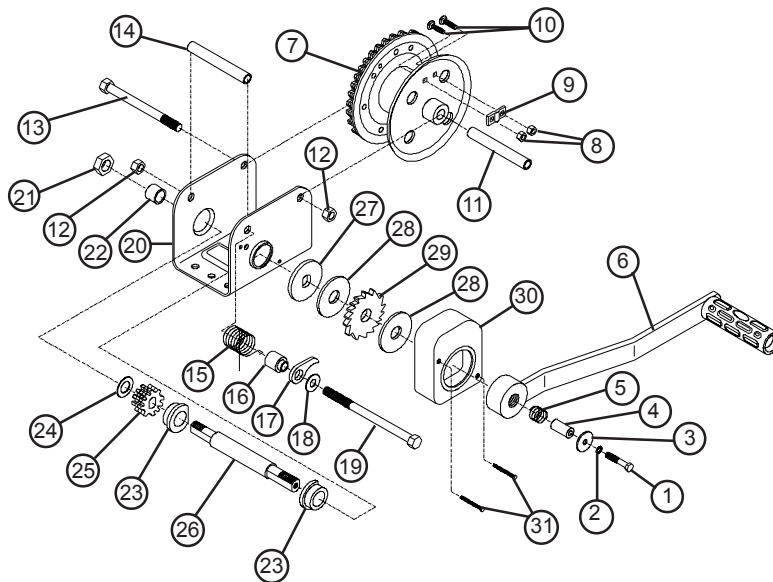
GK1193

| Ref No. | Description | 4-bolt(2-1/16" x 14")for 10" x 31' - 71' |
|---------|--------------------------|---|
| | Spindle and hub assembly | GK1193 |
| 1 | Spindle | GK1511 |
| 2 | Grease Seal | GK2703 |
| 3 | Inner cone | GK2700 |
| 4 | Inner cup | GK2711 |
| 5 | Hub | GK1572 |
| 6 | Outer cup | GK2712 |
| 7 | Outer cone | GK2701 |
| 8 | Lug bolt | GK2708 |
| 9 | Washer | GK2704 |
| 10 | Slotted hex nut | GK2702 |
| 11 | Cotter pin | GK2713 |
| 12 | Hub cup | GK1551 |



WINCH - BRAKE TYPE 1000# GK1562

| Ref. # | Description | Part # | Qty. Req. |
|--------|------------------------------|----------|-----------|
| 1 | 1/4" - 20 x 1-1/2" Hex Screw | | |
| 2 | 1/4" Lockwasher | | |
| 3 | 1/4" Flatwasher | GK6256 | 1 |
| 4 | Handle Retainer Spacer | | |
| 5 | Spring | | |
| 6 | Handle Retainer Spacer | GK1567 | 1 |
| 7 | Reel Assembly | GK6259** | 1 |
| 8 | #10-24 Hex Nut | | |
| 9 | Cable Keeper | S-7635 | 1 |
| 10 | #10-24 x 5/8" Carriage Bolt | | |
| 11 | Front Frame Spacer | GK6260** | 1 |
| 12 | 3/8" Lockwasher | GK6241* | 2 |
| 13 | 3/8" x 1/2" Reel Bolt | GK6261* | 1 |
| 14 | Back Frame Spacer | GK6262** | 1 |
| 15 | Pawl Spring | GK6239** | 1 |
| 16 | Pawl Spacer | GK6240** | 1 |
| 17 | Pawl | GK6241** | 1 |
| 18 | 3/8" Flat Washer | GK6241* | 1 |
| 19 | 3/8" x 5-1/2" Pawl Bolt | GK6263* | 1 |
| 20 | Frame | GK6264** | 1 |
| 21 | 9/16" - 16 Locknut | GK6245* | 1 |
| 22 | Bearing | GK6246** | 1 |
| 23 | 3/4" ID Bushing | GK6247** | 2 |
| 24 | 9/16" Flat Washer | GK6248* | 1 |
| 25 | Pinion Gear | GK6249** | 3 |
| 26 | Pinion Shaft | GK6250** | 1 |
| 27 | Brake Backup Plate | GK6251** | 1 |
| 28 | Brake Pad | GK6252** | 2 |
| 29 | Ratchet | GK6253** | 1 |
| 30 | Cover | GK6254** | 1 |
| 31 | #10-32 x 1-1/5" Cover Screw | GK6255* | 2 |

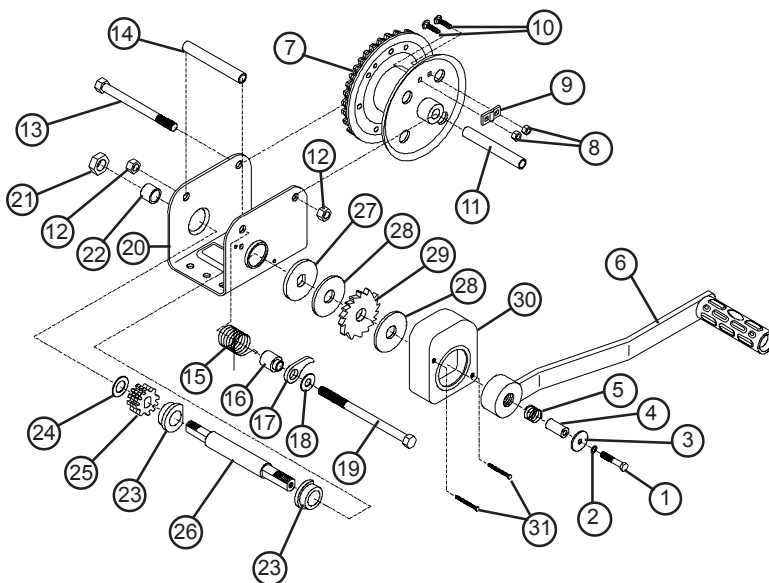


NOTE

* 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.

WINCH - BRAKE TYPE 1500# GK3337

| Item Number | Description | Qty. Req. | Part Number |
|-------------|------------------------------|-----------|-------------|
| 1 | 1/4" - 20 x 1-1/2" Hex Screw | | |
| 2 | 1/4" Lockwasher | | |
| 3 | 1/4" Wide Flatwasher | 1 | GK6256 |
| 4 | Handle Retainer Spacer | | |
| 5 | Spring | | |
| 6 | Handle | 1 | GK1567 |
| 7 | Real Assembly | 1 | GK6259** |
| 8 | #10-24 Hex Nut | | |
| 9 | Cable Keeper | 1 | S-7635 |
| 10 | #10-24 x 5/8" Carriage Bolt | | |
| 11 | Front Frame Spacer | 1 | GK6260** |
| 12 | 3/8" Lockwasher | 2 | GK6141* |
| 13 | 3/8" x 5" Reel Bolt | 1 | GK6261* |
| 14 | Back Frame Spacer | 1 | GK6262** |
| 15 | Pawl Spring | 1 | GK6239** |
| 16 | Pawl Spacer | 1 | GK6240** |
| 17 | Pawl | 1 | GK6241** |
| 18 | Washer | 1 | GK6248* |
| 19 | 3/8" x 6" Pawl Bolt | 1 | GK6263* |
| 20 | Frame | 1 | GK6264** |
| 21 | 9/16" - 18 Locknut | 1 | GK6245* |
| 22 | Bearing | 1 | GK6246** |
| 23 | Bushing | 2 | GK6247** |
| 24 | 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* |



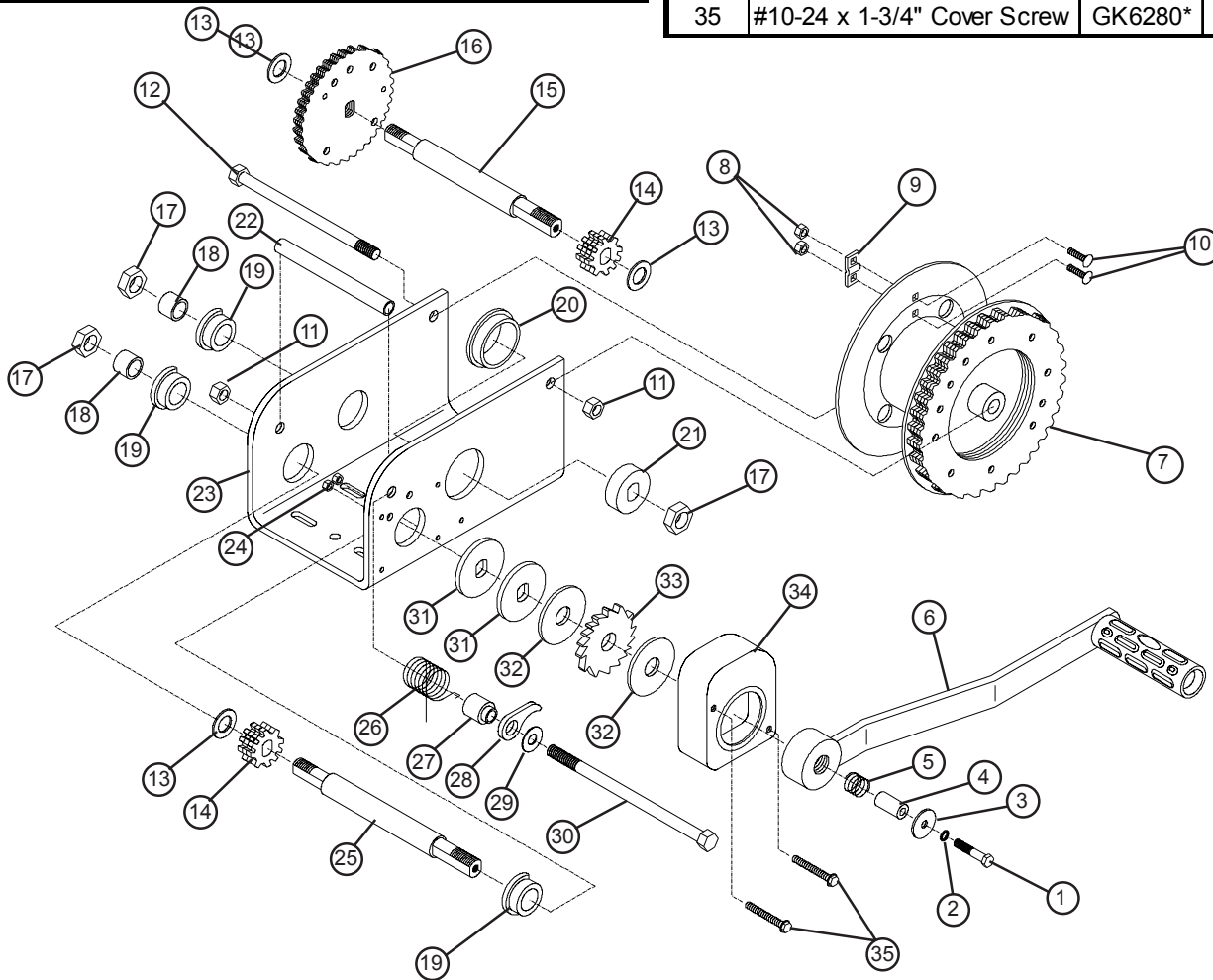
NOTE

* 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.

Parts List

WINCH - BRAKE TYPE 2500# GK2490

| Ref. # | Description | Part # | Qty. Req. | Ref. # | Description | Part # | Qty. Req. |
|--------|------------------------------|----------|-----------|--------|-----------------------------|----------|-----------|
| 1 | 1/4" - 20 x 1-1/2" Hex Screw | | | 18 | 3/4" OD Bearing | GK6271** | 2 |
| 2 | 1/4" Lockwasher | | | 19 | 3/4" ID Bushing | GK6272** | 3 |
| 3 | 1/4" Flatwasher | GK6256 | 1 | 20 | 1-1/2" ID Bushing | GK6273** | 1 |
| 4 | Handle Retainer Spacer | | | 21 | 1-1/2" OD Bushing | GK6274** | 1 |
| 5 | Spring | | | 22 | Frame Spacer | GK6275** | 1 |
| 6 | Handle Retainer Spacer | GK1567 | 1 | 23 | Frame | GK6276** | 1 |
| 7 | Reel Assembly | GK6266** | 1 | 24 | #10-32 Locknut | GK6277* | 2 |
| 8 | #10-24 Hex Nut | | | 25 | Back Pinion Shaft | GK6278** | 1 |
| 9 | Cable Keeper | S-7635 | 1 | 26 | Pawl Spring | GK6239** | 1 |
| 10 | #10-24 x 5/8" Carriage Bolt | | | 27 | Pawl Spacer | GK6240** | 1 |
| 11 | 3/8" Locknut | GK6236** | 2 | 28 | Pawl | GK6241** | 1 |
| 12 | Reel Bolt | GK6267* | 1 | 29 | Washer | GK6242* | 1 |
| 13 | 9/16" Flat Washer | GK6268* | 3 | 30 | Pawl Bolt | GK6279* | 1 |
| 14 | Pinion Gear | GK6249** | 8 | 31 | Brake Backup Plate | GK6251* | 2 |
| 15 | Front Shaft | GK6269* | 1 | 32 | Brake Pad | GK6252* | 2 |
| 16 | Pick-Off Gear Assembly | GK6270* | 1 | 33 | Ratcher | GK6253** | 1 |
| 17 | 9/16"-18 Locknut | GK6245* | 3 | 34 | Cover | GK6254** | 1 |
| | | | | 35 | #10-24 x 1-3/4" Cover Screw | GK6280* | 1 |

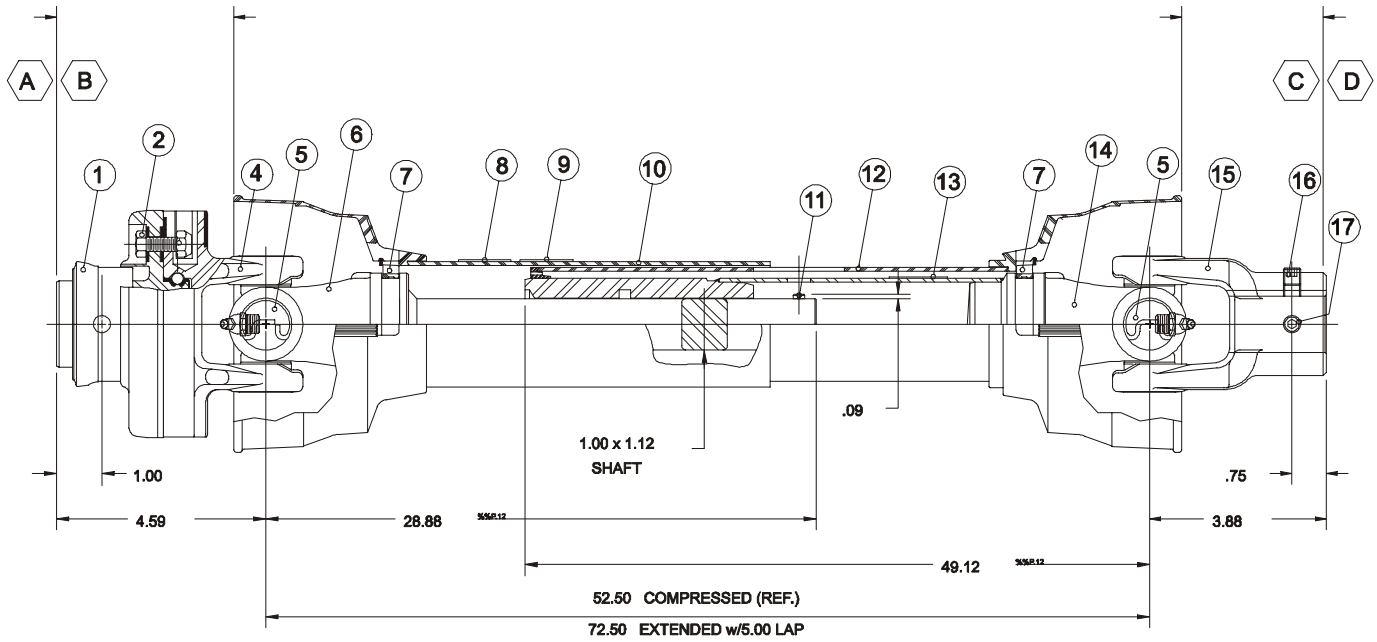


* Indicates standard hardware items - purchase locally.

NOTE

** 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.

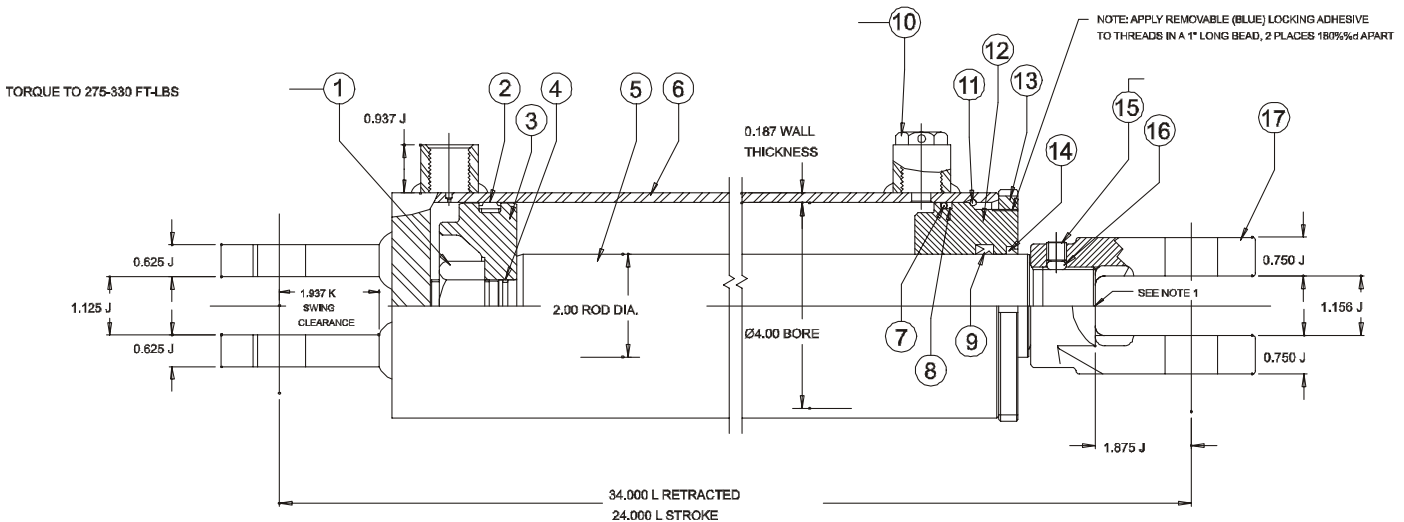
PTO DRIVELINE GK1515



| GK1515 - PTO Driveline | | |
|------------------------|--------|---|
| Ref. # | Part # | Description |
| A | GK6028 | Joint and Shaft Half Assembly with Guard |
| C | GK6027 | Joint and Shaft Half Assembly with Guard |
| 1 | GK2665 | Spring-Lok Repair Kit |
| 2 | GK2657 | Shear Bolt Kit (5/16"-18 x 1" Gr. 5) |
| 4 | GK2676 | Ball Shear Assembly |
| 5 | GK2653 | 14E Cross and Bearing Kit |
| 6 | GK6306 | Yoke and Shaft |
| 7 | GK2662 | Nylon Repair kit |
| 8 | GK2658 | Safety Sign |
| 9 | GK6303 | Safety Sign 540 RPM |
| 10 | GK2690 | Outer Guard |
| 11 | S-6076 | Roll Pin |
| 12 | GK2685 | Inner Guard |
| 13 | GK2659 | Safety Sign |
| 14 | GK6307 | Yoke, Tube, & Slip Sleeve |
| 15 | GK2678 | Yoke |
| 16 | GK2655 | Set Screw, 3/8"-16x.38" Long Knurled Cup Point, Socket Head |
| 17 | GK3289 | Set Screw, 3/8"-16x.50" Long Knurled Cup Point, Socket Head |

NOTE Shear Bolt Replacement Kit No. GK2657 includes six (6) 5/16" - 18 x 1" long Grade 5 hex head bolts and locknuts. Shear Bolt Replacement Kit No. GK3099 includes six (6) 3/8" - 16 x 1" ong Grade 5 hex head bolts and locknuts.

HYDRAULIC CYLINDER GK1527 & GK7381

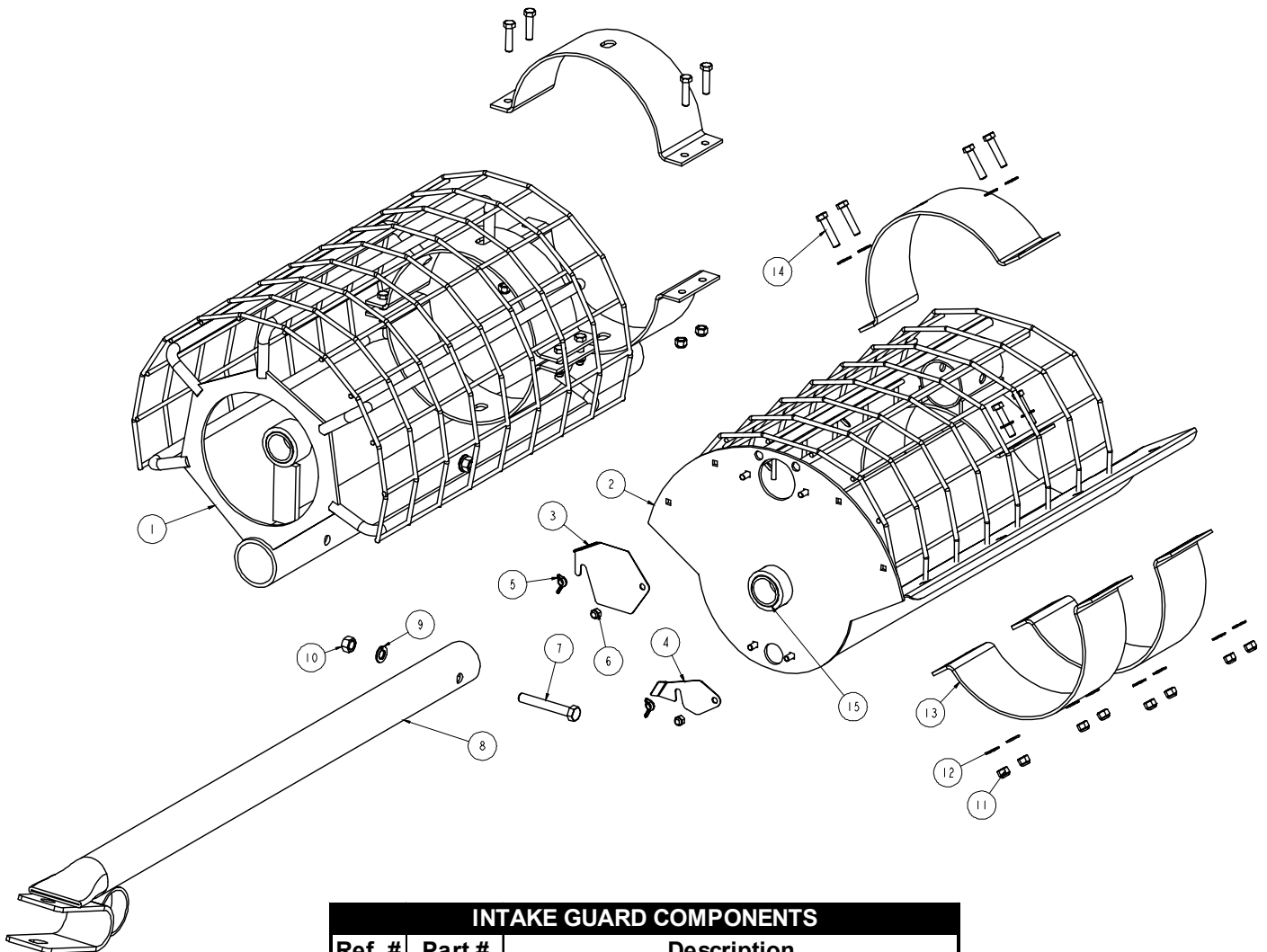


| Ref. # | Complete GK1527 4" Bore x 24" Stroke Used on 51', 57', & 62' | Complete GK7381 4" Bore x 36" Stroke Used on 65' & 71' | Description |
|--------|--|--|-------------------------------------|
| 1 | GK6213 | GK6213 | Nut Lock** |
| 2 | GK3323 | GK3323 | O-Ring Seal* |
| 3 | GK6211 | GK6211 | Piston Rod 4" OD** |
| 4 | GK3323 | GK3323 | Small O-Ring* |
| 5 | GK6208 | GK6222 | Piston Rod 2" DX** |
| 6 | GK6207 | GK6221 | Cylinder 4" ID** |
| 7 | GK3323 | GK3323 | Large O-Ring* |
| 8 | GK3323 | GK3323 | Backup Washer* |
| 9 | GK3323 | GK3323 | Backup Washer* |
| 10 | GK6216 | GK6216 | Breather Plug 1/2" NPT |
| 11 | GK6214 | GK6214 | Cylinder : Ret Ring Rod Inlet 4"*** |
| 12 | GK6210 | GK6210 | Cylinder Guide 4" ID x 2"*** |
| 13 | GK6219 | GK6219 | Spanner Nut 3/4" x 4-1/2" OD** |
| 14 | GK6359 | GK6359 | Piston Rod Washer* |
| 15 | GK6220 | GK6220 | Set Screw 3/8"-16x3/4"*** |
| 16 | GK6212 | GK6212 | Plug: Nylon** |
| 17 | GK6209 | GK6209 | Clevis Rod 1-1/2"-12UNF** |
| N/S | GK1531 | GK1531 | Clevis Pin & Clip |
| N/S | GK6217 | GK6217 | Plug Steel Pipe, 1/2" HS** |
| N/S | GK6218 | GK6218 | Cylinder** |
| N/S | GK3323 | GK3323 | Seal Kit 4" Bore |
| N/S | -- | GK7383 | Restrictor Valve & Elbow Assembly |

NOTE

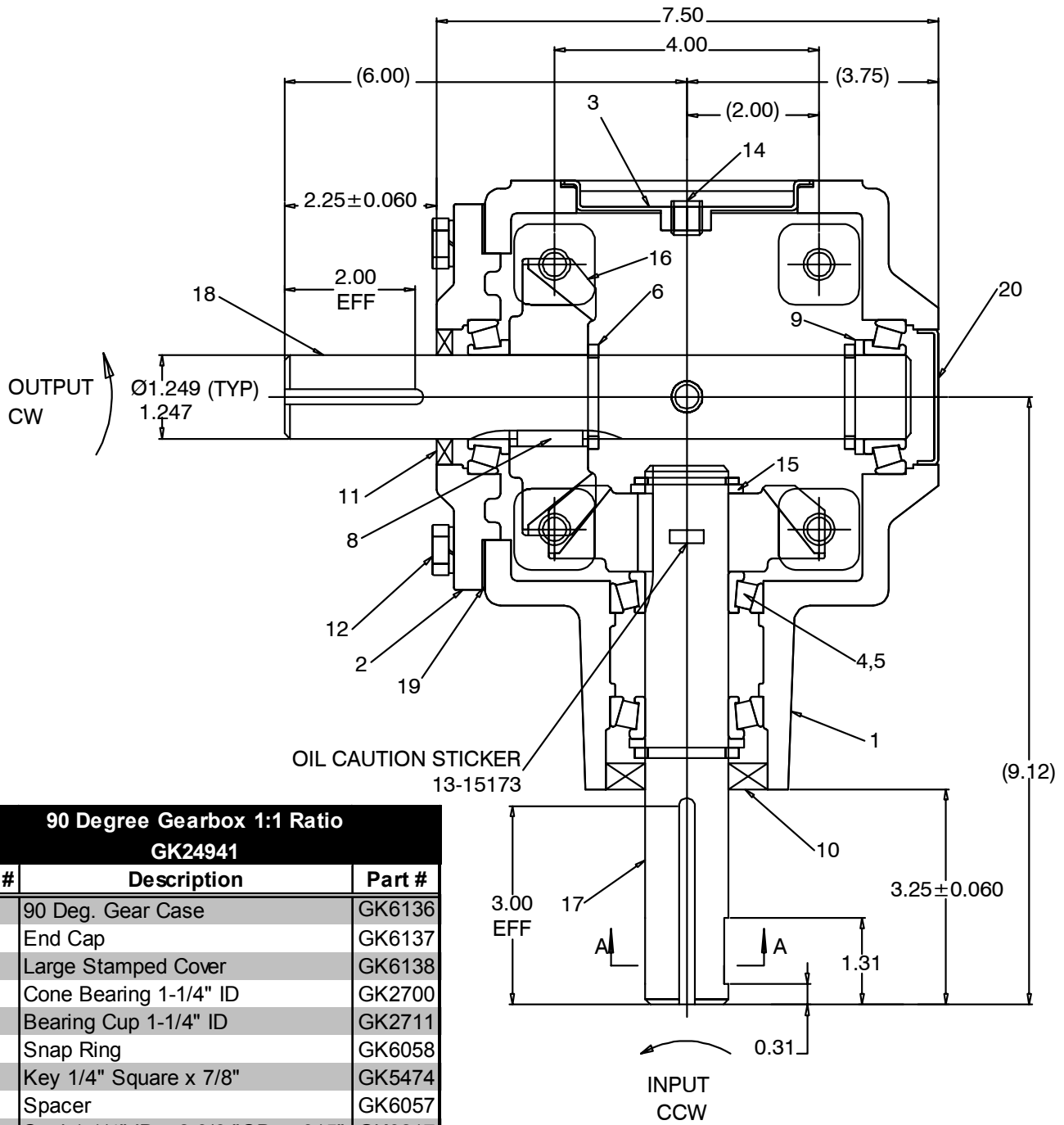
* Only available as part of seal kit, GK3323.
 ** Not available seperately
 N/S - Not Shown.

INTAKE GUARD COMPONENTS



| INTAKE GUARD COMPONENTS | | |
|-------------------------|--------|--------------------------------------|
| Ref. # | Part # | Description |
| 1 | GK3502 | INTAKE GUARD - OPEN |
| 2 | GK3460 | INTAKE GUARD - ROUND BOTTOM |
| 3 | GK1530 | HOPPER HITCH COVER |
| 4 | GK1475 | HOPPER CLEANOUT COVER |
| 5 | S-4301 | WING NUT 5/16"-18 ZN GR2 |
| 6 | S-7382 | NYLOCK NUT 5/16"-18 ZN GR5 |
| 7 | S-8314 | BOLT HHCS 1/2"-13x3-1/2" ZN GR8 |
| 8 | GK1400 | HITCH PIPE |
| 9 | S-236 | 1/2" LOCK WASHER |
| 10 | S-7510 | HEX NUT 1/2"-13 ZN GR2 |
| 11 | S-7383 | NYLOCK NUT 3/8"-16 ZN GR5 |
| 12 | S-7409 | FLAT WASHER 3/8" |
| 13 | GK5117 | HALF BAND 10"x4" 7GA. PAINTED |
| 14 | S-8706 | BOLT HHTB 3/8"-16x1-3/4" ZN GR5 |
| 15 | GK1303 | BRONZE BUSHING 1.504" ID X 1.880" OD |

90° GEARBOX PARTS (GK24941)



| 90 Degree Gearbox 1:1 Ratio GK24941 | | |
|--|------------------------------------|--------|
| Ref. # | Description | Part # |
| 1 | 90 Deg. Gear Case | GK6136 |
| 2 | End Cap | GK6137 |
| 3 | Large Stamped Cover | GK6138 |
| 4 | Cone Bearing 1-1/4" ID | GK2700 |
| 5 | Bearing Cup 1-1/4" ID | GK2711 |
| 6 | Snap Ring | GK6058 |
| 8 | Key 1/4" Square x 7/8" | GK5474 |
| 9 | Spacer | GK6057 |
| 10 | Seal 1-1/4" ID x 2-3/8" OD x .315" | GK3217 |
| 11 | Seal 1-1/4" ID x 2" OD x .315" | GK3218 |
| 12 | Capscrew 3/8" x 1" | GK6140 |
| 13 | 1/8" - 27 NPT Vent Plug | GK2697 |
| 14 | Level Plug 1/4"-18 NPT | GK5454 |
| 15 | Shim: .007" X 1-1/4" ID | GK3212 |
| 16 | 90 Deg Bevel Gear 17 Tooth | GK6142 |
| 17 | Input Shaft | GK6143 |
| 18 | Output Shaft | GK6144 |
| 19 | Shim Kit | GK6061 |
| 20 | Small stamped Cover | GK6145 |

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