

# WR6 PTO-BD

# Portable Grain Auger Assembly Manual

This manual applies to:

AGI Westfield WR6 PTO-BD (36/41)

AGI Hutchinson WR6 PTO-BD (36/41)

AGI Mayrath WR6 PTO-BD (36/41)



Read this manual before using product. Failure to follow instructions and safety precautions can result in serious injury, death, or property damage. Keep manual for future reference.

Part Number: 30253 R2 Revised: December 2024 Original Instructions

#### New in this Manual

The following changes have been made in this revision of the manual:

Description	Section
Added tube layout and decal placement section.	Section 3.5 – Tube Layout and Branding Decal Placement on page 20
Replaced slip connector with chain connector.	Section 3.10 – Belt Shaft Drive Gearbox on page 24
Updated the transport undercarriage instructions; updated wheel bolt description.	Section 3.13 – Transport Undercarriage on page 26
Changed washer lock nut to flange lock nut; added cable clamp installation instructions and image.	Section 3.14 – Winch & Lift Cable on page 28
Changed washer lock nuts to flange lock nuts.	Section 3.17 – Belt Drive Guard on page 33

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# **1. Introduction**

Before assembling, please read this manual. Familiarize yourself with the process and the necessary precautions for efficient and safe assembly of this AGI Portable Grain Auger.

Everyone present at the assembly site is required to be familiar with all safety precautions.

Keep this manual available for frequent reference and review it with new personnel. Call your local distributor or dealer if you need assistance or additional information.

# 2. Safety

# 2.1. Safety Alert Symbol and Signal Words



This safety alert symbol indicates important safety messages in this manual. When you see this symbol, be alert to the possibility of injury or death, carefully read the message that follows, and inform others.

**Signal Words:** Note the use of the signal words **DANGER**, **WARNING**, **CAUTION**, and **NOTICE** with the safety messages. The appropriate signal word for each message has been selected using the definitions below as a guideline.

DANGER Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death.
 WARNING Indicates a hazardous situation that, if not avoided, could result in serious injury or death.
 CAUTION Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.
 NOTICE Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

# 2.2. General Safety Information

Read and understand all safety instructions, safety decals, and manuals and follow them when operating or maintaining the equipment.

• Owners must give instructions and review the information initially and annually with all personnel before allowing them in the work area. Untrained users/operators expose themselves and bystanders to possible serious injury or death.



- Use for intended purposes only.
- Modification of the auger in any way without written permission from the manufacturer is not covered by the warranty.
- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.
- Follow applicable local codes and regulations.

# 2.3. Rotating Flighting Safety

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- KEEP AWAY from rotating flighting.
- DO NOT remove or modify flighting guards, doors, or covers. Keep in good working order. Have replaced if damaged.
- DO NOT operate the auger without all guards, doors, and covers in place.
- NEVER touch the flighting. Use a stick or other tool to remove an obstruction or clean out.
- Shut off and lock out power to adjust, service, or clean.

# 2.4. Upending

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- Anchor intake end and/or support discharge end to prevent upending.
- Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.
- Do not raise intake end above tow bar height.
- Empty the auger and fully lower before moving.

# 2.5. Rotating Parts Safety

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- Keep body, hair, and clothing away from rotating shafts, pulleys, belts, chains, and sprockets.
- Do not operate with any guard removed or modified. Keep guards in good working order.
- Shut off and lock out power source before inspecting or servicing machine.

# 2.6. Guards Safety

• Keep guards in place. Do not operate with guard removed.

- Do not walk on, step on, or damage guards.
- Lock out power before removing a guard.
- Ensure all guards are replaced after performing maintenance.







### 2.7. Hand Winch Safety

- Inspect lift cable before using. Replace if frayed or damaged. Make sure lift cable is seated and tracking properly and cable clamps are secure.
  - Tighten brake lock by turning winch handle clockwise at least two clicks after lowering the auger.
  - Lower the auger fully before towing, then rotate winch handle until cable has light tension.
  - Do not lubricate winch brake discs.

### 2.8. Drives and Lockout Safety

Inspect the power source(s) before using and know how to shut down in an emergency. Whenever you service or adjust your equipment, make sure you shut down the power source and unplug or remove the key (as applicable) to prevent inadvertent start-up and hazardous energy release. Know the procedure(s) that applies to your equipment from the following power source(s). Ensure that all personnel are clear before turning on power to equipment.

### 2.8.1 PTO Driveline Safety

#### **WARNING** Drive

- Keep body, hair, and clothing away from rotating PTO driveline.
- Make certain the driveline shields telescope and rotate freely on driveline before attaching.
- Make certain the driveline is securely attached at both ends.
- Do not operate auger unless all driveline, tractor, and equipment shields are in place and in good working order.
- Do not exceed the specified operating speed.
- Keep universal joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.
- Engage tractor park brake and/or chock wheels.

#### Lockout

- Position all controls in neutral, shut off tractor's engine, and remove key from tractor.
- If removing key is impossible, remove PTO driveline from tractor.



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## 2.9. Tire Safety

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion that may result in serious injury or death.

- DO NOT attempt to mount a tire unless you have the proper equipment and experience to do the job.
- Have a qualified tire dealer or repair service perform required tire maintenance.
- When replacing worn tires, make sure they meet the original tire specifications. Never undersize the replacement tire.
- DO NOT weld to the tire rim with the tire mounted on the rim. This action may cause an explosion which could result in serious injury or death.
- Inflate tires to the manufacturer's recommended pressure.
- Tires should not be operated at speeds higher than their rated speed.
- Keep wheel lug nuts tightened to manufacturer's recommendations.
- Never reinflate a tire that has been run flat or seriously under-inflated without removing the tire from the wheel. Have the tire and wheel closely inspected for damage before remounting.





### 2.10. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when operating or maintaining the equipment.

#### **Safety Glasses**

• Wear safety glasses at all times to protect eyes from debris.

#### Coveralls

• Wear coveralls to protect skin.

#### Hard Hat

• Wear a hard hat to help protect your head.







#### **Steel-Toe Boots**

• Wear steel-toe boots to protect feet from falling debris.

#### **Work Gloves**

• Wear work gloves to protect your hands from sharp and rough edges.

#### **Dust Mask**

• Wear a dust mask to prevent breathing potentially harmful dust.

#### **Hearing Protection**

• Wear ear protection to prevent hearing damage.

### 2.11. Safety Equipment

The following safety equipment should be kept on site.

#### **Fire Extinguisher**

• Provide a fire extinguisher for use in case of an accident. Store in a highly visible and accessible place.

#### **First-Aid Kit**

• Have a properly-stocked first-aid kit available for use should the need arise, and know how to use it.

### 2.12. Safety Decals

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible. See decal location figures that follow.
- Replaced parts must display the same decal(s) as the original part.
- Replacement safety decals are available free of charge from your distributor, dealer, or factory as applicable.









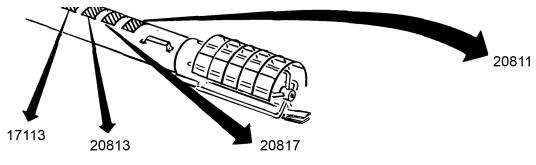
### 2.12.1 Decal Installation/Replacement

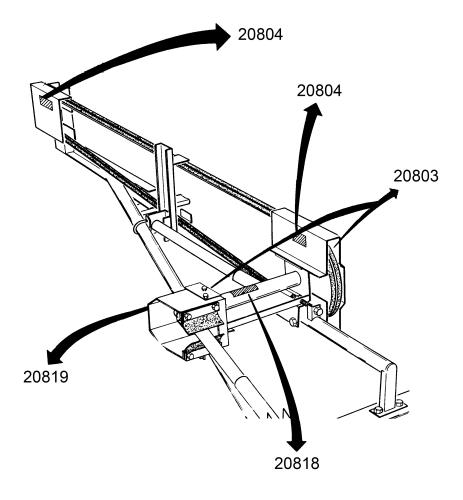
- 1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
- 2. Decide on the exact position before you remove the backing paper.
- 3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- 4. Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- 5. Small air pockets can be pierced with a pin and smoothed out using the decal backing paper.

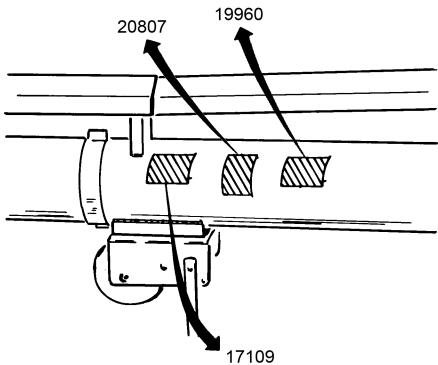
### 2.12.2 Safety Decal Locations and Details

Replicas of the safety decals that are attached to the auger and their messages are shown in the figure(s) that follow. Safe operation and use of the auger requires that you familiarize yourself with the various safety decals and the areas or particular functions that the decals apply to, as well as the safety precautions that must be taken to avoid serious injury, death, or damage.

#### Figure 1. Safety Decal Locations







#### Table 1. Safety Decals

Part Number	Description
20813	DANGER         Image: Constraint of the second sec
	<ul> <li>NEVER touch the auger flighting. Use a stick or other tool to remove an obstruction or clean out.</li> <li>Shut off and lock out power to adjust, service, or clean.</li> </ul>
20817	DANGER
	<ul> <li>ELECTROCUTION HAZARD</li> <li>To prevent death or serious injury:</li> <li>When operating or moving, keep equipment away from overhead power lines and devices.</li> <li>Fully lower equipment before moving.</li> <li>This equipment is not insulated.</li> <li>Electrocution can occur without direct contact.</li> </ul>

Part Number	Description
20818	DANGER           Constrained         CONTING PTO DRIVELINE           Constrained         Constrained and constrated and constrated and constrained and constrated and constrained
20819	<image/> <ul> <li>DANGER</li> <li>Device Device Devi</li></ul>

Part Number	Description		
20803 (placed on machine behind guard)	MISSING GUARD HAZARD		
	To prevent serious injury or death, shut off power and reattach guard before operating machine.		
20804			
	ENTANGLEMENT HAZARD		
	To prevent serious injury or death:		
	<ul> <li>Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.</li> </ul>		
	<ul> <li>Do not operate with any guard removed or modified. Keep guards in good working order.</li> </ul>		
	<ul> <li>Shut off and lock out power source before inspecting or servicing machine.</li> </ul>		

Part Number	Description
20807	
	To prevent serious injury or death:
	<ul> <li>Read and understand the manual before assembling, operating, or maintaining the equipment.</li> </ul>
	<ul> <li>Only trained personnel may assemble, operate, or maintain the equipment.</li> </ul>
	<ul> <li>Children and untrained personnel must be kept outside of the work area.</li> </ul>
	<ul> <li>Do not modify the equipment. Keep in good working order.</li> </ul>
	<ul> <li>If the manual, guards, or decals are missing or damaged, contact factory or representative for free replacements.</li> </ul>
	Lock out power before performing maintenance.
	<ul> <li>To prevent equipment collapse or upending, support equipment tube while disassembling certain components.</li> </ul>
	<ul> <li>Follow grain storage structure manufacturer's warnings when loading and unloading.</li> </ul>
	<ul> <li>Electric motors must be grounded. Disconnect power before resetting overloads.</li> </ul>

Part Number	Description
20811	WARNING WARNING
	UPENDING HAZARD
	To prevent death or serious injury:
	<ul> <li>Anchor intake end and/or support discharge end to prevent upending.</li> </ul>
	<ul> <li>Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.</li> </ul>
	Do not raise intake end above tow bar height.
	Empty tube and fully lower before moving.
17109	
	For proper raising and lowering of equipment:
	<ul> <li>After lowering equipment, always tighten brake lock by turning winch handle clockwise at least two clicks.</li> </ul>
	<ul> <li>Rotate winch handle until cable has light tension, when in towing position.</li> </ul>
	Do not lubricate winch brake discs.
	Inspect lift cable periodically; replace if damaged.
	Inspect cable clamps periodically; tighten if necessary.

Part Number	Description
17113	
	<ul> <li>TRANSPORT HAZARD</li> <li>To prevent serious injury or death:</li> <li>Securely attach equipment to vehicle with correct pin and safety chains.</li> <li>Use a tow vehicle to move equipment.</li> </ul>
19960	NOTICE
	To prevent damage, wheels must be free to move when raising or lowering equipment.
	When equipment is positioned, chock all wheels.

# 3. Assembly

## 3.1. Assembly Safety

#### • Do not take chances with safety. The components can be large, heavy, and hard to handle. Always use the proper tools, rated lifting equipment, and lifting points for the job.

- Do not stand on, under, or near any component that is not secured.
- Carry out assembly in a large open area with a level surface.
- Always have two or more people assembling the auger.
- Make sure you have sufficient lighting for the work area.
- Tighten all fasteners according to their specifications. Do not replace or substitute bolts, nuts, or other hardware that is of lesser quality than the hardware supplied by the manufacturer.

## 3.2. Check Shipment

Unload the parts at the assembly site and inspect them thoroughly while comparing the packing slip to the shipment. Ensure that all items have arrived and that none are damaged or fasteners have come loose during shipment.

It is important to report missing or damaged parts immediately to ensure that proper credit is received from either the manufacturer or from your distributor/dealer, and to ensure that any missing parts can be shipped quickly to avoid delaying the assembly process.

#### Note

Do not attempt to assemble or install a damaged component.

# **3.3. List of Required Tools**

- 2-4 pipe stands
- Two sawhorses (1200 lb / 544 kg bearing capacity)
- One standard socket set and wrench set
- One torque wrench
- One standard 25' (7.62 m) tape measure
- One 2' (600 mm) level
- One 8" (200 mm) level magnetic
- Two C-clamps or vise grips
- One picker with minimum reach of 12' (3.66 m) and 4000–6000 lb and (1814–2722 kg) lifting capacity
- One 100' (30 m) measuring tape
- One tire pressure gauge
- One tire chuck
- 6–10 wood blocks (2x4's or smaller)
- Grease
- Impact wrench and sockets
- 2+ steel punches (for aligning bolt holes)

## 3.4. Before You Begin

- Perform assembly on a firm and level surface in an area large enough to allow access to all sides of the equipment.
- Before beginning assembly, familiarize yourself with all the sub-assemblies, components, and hardware that make up the equipment.
- Have all parts and components on hand, and arrange them for easy access.
- Separate the hardware (bolts, nuts, etc.) and lay them out into groups for easier identification during assembly.

Note

When options or more than one configuration is available for the equipment and the assembly information varies, additional instructions will be included.



These additional instructions will be indicated with an arrow.

- If assembling inside a building, be sure the ceiling is at least 14' (4.27 m) high to provide clearance when installing the undercarriage.
- Ensure there is adequate space to remove the assembled machine from the assembly area.

## 3.5. Tube Layout and Branding Decal Placement

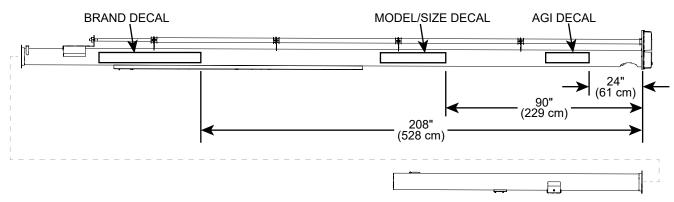
#### Identify and Arrange the Auger Tube Sections

- 1. Align tube sections on a series of support stands, placing a support stand at the end of each tube (see the figures below for correct tube identification and positioning).
- 2. As tubes sections are added, make sure that support stands are at equal heights across all tubes to ensure that tubes are level with each other. Otherwise, use some form of shim to keep the tubes level across all of the support stands.

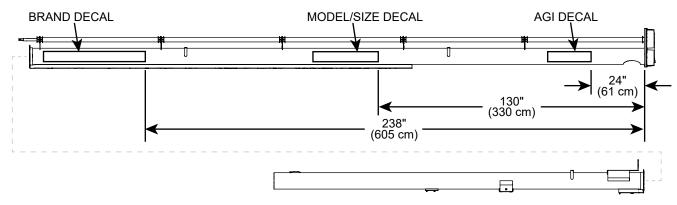
#### Important

Strap tubes to the support stands to prevent the tubes from rolling off the stands.

#### 36 Model



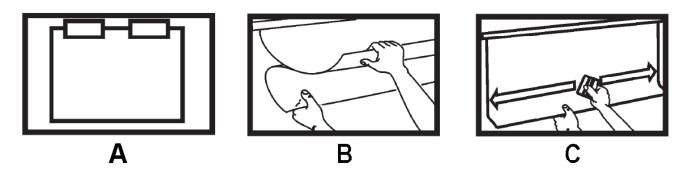
#### 41 Model



#### Apply the Logo and Model Decals on the Auger Tubes

- 1. Prepare surface by cleaning thoroughly with soap and water. Surface must be clean and free of dirt, grime, rust and oil. To clean oily surface, wipe with clean cloth and solvent cleaner or isopropyl alcohol.
- 2. Position the decal on the tube and apply masking tape along the top, creating a gate hinge. Figure A demonstrates.
- 3. Peel 6" of backing paper from the top of the decal and use the squeegee to adhere decal to the tube, as seen in Figure B. Start at the top center of the decal and work your way outward both left and right using overlapping strokes.
- 4. As you work your way down the decal, peel back the backing paper 6" at a time. Repeat Step 3 until the entire decal has been applied to the tube. See Figure C as an example.

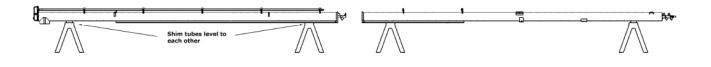
- 5. Once the entire decal has been properly adhered to the tube, remove tape hinge from front of decal. Remove the front application tape at a sharp 180° angle.
- 6. Inspect the entire decal for air pockets; if found, remove them by punching a tiny hole with a pin and then squeegee the surface flat.
- 7. As a final process, squeegee the corners and edges of the decal to ensure proper adhesion and to prevent premature peeling.



### 3.6. Tubes & Flighting

1. Position tube sections. Align tube sections on a flat surface or on a series of benches.

#### Figure 2.



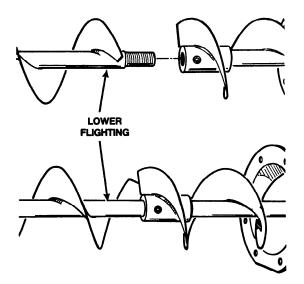
**WARNING** Do not drop. Damage to equipment or serious personal injury will result.

#### Note

When assembly more than 2 sections, start from spout end and work towards hopper.

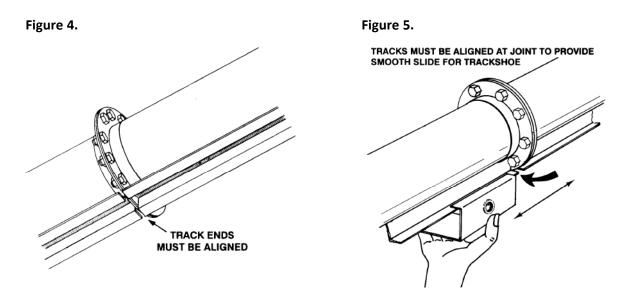
- 2. Screw or slide lower flight shaft onto upper flight shaft until flight ends butt together and flighting spiral matches up. Secure with set screw. Repeat, if necessary, for any remaining flight shafts.
- 3. Slide tube sections together and secure. Make sure to align upper and lower track ends and then tighten bolts. Secure with 7/16" x 1" bolts and lock nuts.

#### Figure 3.



#### Important

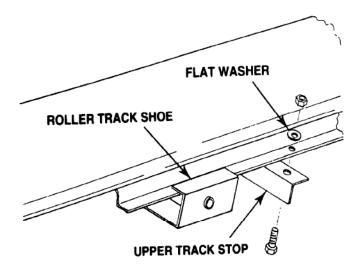
Track ends must align to allow track shoe to smoothly slide over track joint. Misalignment may cause jamming.



### 3.7. Track Shoe & Track Stop

- 1. Slide roller track shoe onto track.
- 2. Attach the upper track stop with 7/16" x 1" bolts, heavy flat washers, and lock nuts (Figure 6 on page 23). For correct positioning of the upper track stop, see Table 2 on page 23.

#### Figure 6. Roller Track Shoe and Upper Track Stop



#### Table 2. Track Stop Locations

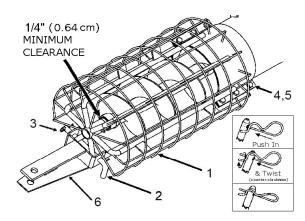
Model	Upper Track Stop	Measurement from Tube Flange
36	1st set of holes from top end of track	160-5/8"
41	3rd set of holes from top end of track	144"

**A CAUTION** Failure to locate track stops in the proper holes can result in damage to the auger and/or personal injury.

### 3.8. Install the Intake

- 1. Clean dirt and paint from lower flight stub and intake bushing.
- 2. Attach intake hitch to lower auger tube and tighten securely.
- 3. Maintain 1/2" (1.27 cm) clearance between bushing and end of flight.
- 4. Attach clevis to intake hitch with clevis pin and grip clip.

#### Figure 7.



1	intake hitch
2	clevis pin
3	grip clip
4	bolt, 7/16" x 1"
5	lock nut, 7/16"
6	clevis

## 3.9. Multi-Stage Driveshaft

Because some sections of the driveshaft are factory installed, please consult the table below for correct sequence before completing installation. Then proceed as follows:

- 1. Clean paint and dirt from driveshaft end and shaft connectors.
- 2. Slide shaft connector halfway onto the last pre-installed driveshaft segment.
- 3. Slip lower driveshaft segments through bearings on lower tube section. Install a Woodruff key, and slide into shaft connector.
- 4. Place a few drops of oil at each driveshaft bearing to allow for break-in.
- 5. Tighten all set screws on shaft connectors.

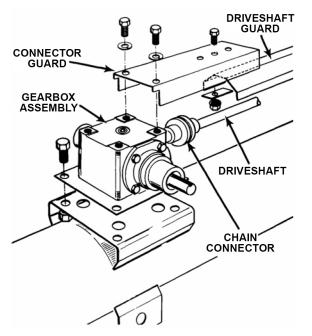
Model	Driveshaft Sequences (from discharge end)		
	1st Hole	2nd Hole	3rd Hole
36	4'9"	-	1"
	(1.45 m)		(2.54 cm)
41	3'9-1/2"	4'9"	1"
	(1.15 m)	(1.45 m)	(2.54 cm)

### 3.10. Belt Shaft Drive Gearbox

See Figure 8 on page 25. The PTO-BD gearbox assembly is shipped with the mounting plate and chain connector in place. To install:

- 1. Secure half the chain connector to the driveshaft using a woodruff key.
- 2. Place gearbox assembly onto the mounting bracket welded to lower tube and secure with four 7/16" x 1" bolts and lock nuts, maintaining a minimum 1/8" (3.2 mm) clearance between chain connector sections.

#### Figure 8.



#### Important

Add EP90 lube oil to the gearbox before operating auger. Failure to do so will void warranty. Do not overfill. Fill half full only with about 540 mL or 19 fl oz.

### **3.11. Upper Housing Lubrication**

Fill enclosed upper drive housing with grease. See Section 4. – Specifications on page 35. For continuous use in extreme cold conditions, semi-fluid arctic grease or heavy oil may be used.

### 3.12. Driveshaft Shield

Refer to Table 3 for the proper sequence for your auger.

Table 3.	Driveshaft Shielding
I able 5.	Driveshart Shielung

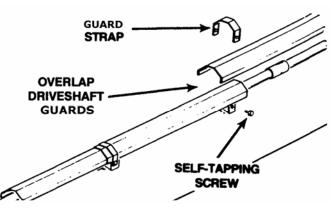
Model	Step 1		Step 2		Step 3		Step 4	
woder	No.	Length	No.	Length	No.	Length	No.	Length
36	1	48" (1.22 m)	1	42" (1.07 m)	4	48" (1.22 m)	1	42" (1.07 m)
41	2	48" (1.22 m)	1	42" (1.07 m)	4	48" (1.22 m)	1	42" (1.07 m)

Shielding is installed working from the gearbox assembly up to the discharge end. To install:

- Attach the connector guard to the gearbox with two 3/8" x 3/4" bolts and lock washers, as shown in Figure
   Attach the first driveshaft shield (for size, see Step 1 in Table 3) to the connector guard with one 1/4" x 1/2" bolt, a flange lock nut, and a punched flat iron plate.
- 2. To install the remainder of the driveshaft shielding, work from the bottom up, overlapping at the bearing bracket, as shown in Figure 9 on page 26.

3. Fasten with guard strap and self-tapping screws. Do not tighten until all guarding is in place.



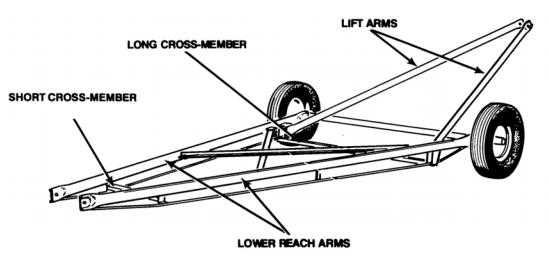


## 3.13. Transport Undercarriage

#### See Figure 10.

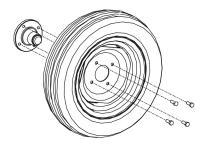
- 1. To assemble the undercarriage, fasten the lower reach arms to the axle with three 7/16" x 1" bolts and lock nuts on each side.
- 2. Attach the long cross member to the bottom of the undercarriage brackets with two 7/16" x 1" bolts and lock nuts. The cross member should be attached so that the 2 support-tube mounting holes are located to the right side of the auger (as determined when standing at the intake end facing the top discharge end) for right hand drive application.

#### Figure 10.



- 3. Attach the short cross member (20" / 50.8 cm) to the undercarriage brackets (Figure 10) with two 1/2" x 1-1/4" bolts and lock nuts.
- 4. Check that the pressure of the pre-inflated tires matches the pressure indicated on the tire sidewall. Mount the wheels on the hubs and attach with four 1/2" x 1" wheel bolts.

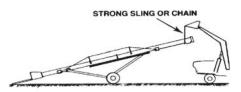
#### Figure 11.



- 5. Fasten the upper lift arms to the lower reach arms with 5/8" x 1-1/2" bolts and lock nuts. Do not overtighten. Tighten snug only; these bolts act as pivot points.
- 6. Raise the discharge end of the auger with a front end loader and a strong sling/chain or block and tackle. The height should be sufficient to clear the undercarriage assembly.

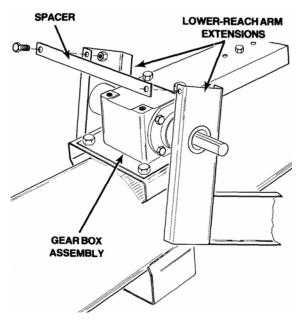
**WARNING** Do not remove the tube support until the auger is fully assembled.

#### Figure 12.



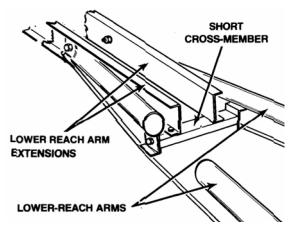
7. Slip the lower reach arm extensions (left and right) onto the gearbox hubs and attach the spacer bracket with two 7/16" x 1" bolts and lock nuts.

#### Figure 13.

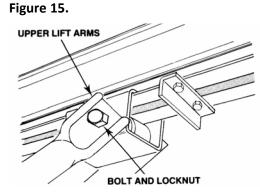


Position the transport undercarriage beneath the tube assembly and attach the lower reach arms to the arm extensions with 5/8" x 1-1/2" bolts and lock nuts. Attach the extensions to the short cross member with two 7/16" x 1" bolts and lock nuts.

#### Figure 14.

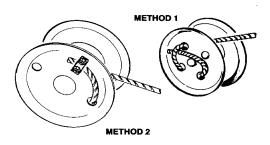


9. Attach the upper lift arms to the roller track shoe with one 5/8" x 6-1/2" bolt and lock nut. Do not overtighten. Tighten snug only; this bolt acts as a pivot point.



## 3.14. Winch & Lift Cable

Figure 16.



- 1. Attach cable to winch using one of the 2 methods shown, depending on supplied winch.
  - If method 2 is used, the nut must be on the outside of the drum to prevent damage to the cable. Leave about one inch of cable extending past the clamp. Cable must leave winch from bottom side.
- 2. The winch must have a minimum of 3 wraps of cable on drum when auger is in transport position.

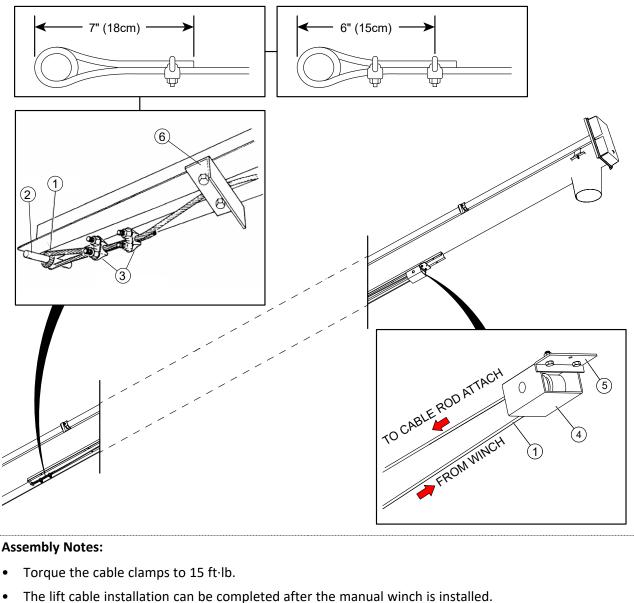
#### Important

Winch handle must be positioned on the left side of the auger (determine left by standing at the intake end, facing the discharge end).

- 3. Attach winch to winch mount with three 3/8" flange lock nuts.
- 4. Thread lift cable under and around roller on track shoe, then back to cable attach rod welded to lower end of track.

#### Note

36 models only have a lower angle-iron track stop. On these augers, the cable must be threaded between track stop and auger tube so cable rests on top of the track stop.



	•		
1	lift cable, 1/4"	4	track shoe
2	cable attach rod	5	track stop, upper
3	cable clamp, 1/4"	6	track stop, lower (36 model)

- 5. Wrap cable 1-1/2 times around the cable attach rod and double-back 7" (18 cm) of cable.
- 6. Secure the cable in place by installing and tightening two 1/4" cable clamps.

- a. Apply first clamp one base width from dead end of rope with the u-bolt over the dead end. Live end rests in clamp saddle. Tighten nuts evenly to recommended torque of 15 ft·lb.
- b. Apply second clamp as close to loop as possible with the u-bolt over the dead end. Live end rests in clamp saddle. Apply tension and tighten nuts evenly to recommended torque of 15 ft·lb.

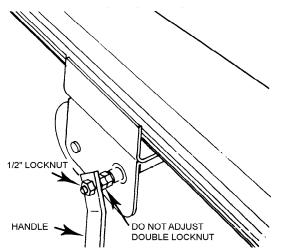
### 3.14.1 Winch Handle

This auger may use one of several different winch models. Before installing handle on the main winch assembly, check the model number stamped on winch housing and follow the correct set of instructions.

Marning Winch handle assembly must follow the instructions below. Improper assembly will result in sudden winch failure causing damage to equipment and/or personal injury

#### Model K1051 & K1550

#### Figure 17.



- 1. Slide handle over flat sides of input shaft.
- 2. Fasten with 1/2" lock nut.

#### Important

Do not remove or loosen the double lock nut on the input shaft: it is an important part of the brake system of the winch.

# 3.15. Belt Drive (BD)

#### **Right Hand Set-Up**

- 1. Slide the 1-3/4" support tube into the 2" support tube up to the welded stop. Attach the 2" tube to the long cross member with two 7/16" x 1" bolts and lock nuts.
- 2. Fasten the 1-3/4" tube to the right lower reach arm with one u-bolt. See Figure 18.

#### Important

In Steps 2 through 4, do not tighten bolts until belts are adjusted.

- 3. Place the sliding bracket on the lower reach arm. See below for correct installation.
  - **36 model:** Place the sliding bracket on the lower reach arm with the tab facing outward from the auger. Fasten with two 7/16" x 3" bolts and lock nuts (Figure 18).
  - **41 model:** Place the sliding bracket on the lower reach arm with the tab facing into the auger (Figure 18). Fasten with two 7/16" x 3-1/2" bolts and lock nuts.
- Place the jackshaft into position on the 2" support tube and insert two 7/16" x 3" bolts and lock nuts (Figure 19).
- 5. Fasten the jackshaft to the sliding bracket with one 7/16" x 1" bolt and lock nut.
- 6. Position the 7/16" x 8" adjusting bolt.
- 7. Before installing the pulleys, clean all paint and/or dirt from the gearbox shaft, jackshaft, and inside the pulley hubs.

Figure 18.

1-3/4" JACKSHAFT SUPPORT TUBE WARD 36' ADJUSTING BOLT ONLY 2" SUPPORT TUBE INWARD TRANSPORT SADDLE SLIDING BRACKET 2" SUPPORT TUBE SLIDING BRACKET LONG CROSS-MEMBER LOWER-REACH ARM

Figure 19.

- 8. Secure the 15" single pulley to the jackshaft with a 1/4" x 2-1/2" square key. Position the pulley hub to face the gearbox.
- 9. Secure the 8" (single groove) pulley to the gearbox input shaft with a 1/4" x 1-1/2" square key. Position the pulley hub to face the gearbox.
- 10. Place the belts on the pulleys ensuring that they are properly aligned.

#### Note

To align the belts, place a straight edge on the large pulley and sight along the straight edge toward the small pulley. Adjust the pulleys and jackshaft assembly as needed until the jackshaft is squared and the belts are aligned.

11. Adjust the tension with the tension adjust bolt. During the adjustment, the sliding bracket may require an occasional nudge to prevent binding.

Note

The correct operation tension is the lowest tension at which the belt(s) will not slip under peak load conditions.

- 12. Once the belt tension is adjusted, tighten all bolts in Steps 2 through 4.
- 13. Attach the belt guide bracket to the 1-3/4" support tube, as shown in Figure 20. Adjust the belt guides within 1/8" to 1/4" of belt(s) when the belt(s) are under tension.

#### Left Hand Set-Up

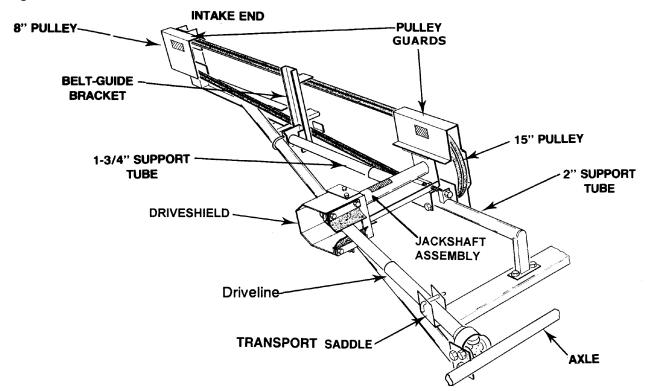
To change the auger from a right-hand drive to a left-hand drive, take the following steps:

1. Support the discharge end of the auger using a front-end loader and a sling or chain, or a block-and-tackle.

**DANGER** Never use a PTO driveline without a rotating guard in good working order. Do not exceed the maximum recommended operating length or angularity of the PTO driveline.

- 2. Remove the following items: pulley guards, v-belt(s), 8" pulley, PTO driveline, jackshaft assembly, belt guides, sliding bracket, support tubes, long cross member, extension arms, and the spacer.
- 3. Remove the gearbox from the auger, and remove the mounting plate from the gearbox.
- 4. Place the gearbox on a level surface with the output shaft up. Switch air-vent filler plug (from top) with the solid plug (from bottom) to prevent oil leak after rotation of the gearbox.
- 5. Re-mount the gearbox with the pulley shaft to the left side of the auger, as determined when standing at the intake end facing the discharge end.
- 6. Reverse and reinstall the long cross member so that the support tube mounting holes are to the left side of the auger.
- 7. Reinstall all items removed. Remember to reverse the position of the items where necessary.

Figure 20.



### 3.16. PTO Driveline

- 1. Clean PTO driveline and flighting shaft ends of any paint or dirt.
- 2. Slide non-spline end of PTO driveline onto the jackshaft using a 1/4" x 1-1/2" square key. Tighten set screws securely (Figure 20 on page 33).

#### Important

Do not extend PTO driveline beyond 64" when in use.

- 3. Next, slide the driveshield over the PTO driveline and attach to jackshaft assembly with two 3/8" x 3/4" bolts and flange lock nuts.
- 4. Attach transport saddle for the PTO driveline to lower reach arm bracket with one 7/16" x 2-1/4" bolt and lock nut (Figure 20 on page 33).

### 3.17. Belt Drive Guard

#### See Figure 20 on page 33.

- 1. Attach the small pulley guard with two  $1/4" \times 1/2"$  bolts and flange lock nuts.
- 2. Attach the large pulley guard using set of holes nearest the axle with four 1/4" x 1/2" bolts and flange lock nuts.

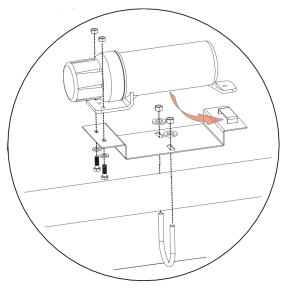
# 3.18. Safety Spout

If a safety spout is being used with this auger, the safety release door should be on the left side of the auger, as determined when standing at intake, facing the discharge end.

## 3.19. Plastic Manual Container

1. Attach the manual container bracket to the top of the axle, centered between the two wheels, using a 3/8" x 2-1/2" u-bolt, two 3/8" washers, and two 3/8" lock nuts (Figure 21).

#### Figure 21.



- 2. Slide the tab on the bottom of the manual container into the raised slot in the bracket.
- 3. Bolt the manual container to the bracket using two 1/4" x 3/4" bolts, two washers, and two 1/4" lock nuts.

# 4. Specifications

Specification	36	41			
Tube Size	6" (152	6" (152 mm)			
DIMENSIONS					
	Lowered	9'0"	9'7"		
Height	Halfway	17'4"	20'2"		
	Raised	24'10"	28'7"		
	Lowered	16'3"	18'8"		
Reach	Halfway	14'3"	16'4"		
	Raised	11'2"	12'8"		
Height at Lift Arms	10'0"	11'6"			
Height at Wheels	14'4"	16'4"			
Reach to Lift Arms	8'11"	10'2"			
Wheel Thread	82"	88"			
POWER REQUIREMENTS		· · · · · ·			
PTO Drive	540	540 rpm			
Max PTO Driveline Operating	15	15°			
Max Operating Length	64" (163	64" (1610 mm)			
OTHER		•			
Upper Drive Housing Grease (	550 g (	550 g (20 oz)			

Augers have minimum clearances from 10' (3.05 m) to 13' (3.96 m) in normal transport position.

# **5. Appendix**

## 5.1. Bolt Torque

Table 4 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 4 as a guide. Replace the hardware with the same strength bolt, contact AGI if you are unsure.

	Dry or Lubricated	Threads per inch (Course/ Fine)	Area of Bolt (sq in.)		Recommended Torque (ft-lb)								
Size					Grade 2		Grade 5		Grade 8		8.8 S/S		
			Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	
1/4"	Dry	20/28	0.0318	0.0364	5.5	6.3	8	10	12	14	6.3	7.8	
1/4"	Lubricated				6.3	4.7	6.3	7.2	9	10	-	-	
5/16"	Dry	18/24	0.0524	0.058	11	12	17	19	24	27	11	11.8	
5/10	Lubricated				8	9	13	14	18	20	-	-	
3/8"	Dry	16/24	0.0775	0.0878	20	23	30	35	45	50	20	22	
5/8	Lubricated	10/24	0.0775		15	17	23	25	35	35	-	-	
7/16"	Dry	14/20	0.1063	0.1187	32	36	50	55	70	80	31	33	
//10	Lubricated		0.1005	0.1107	24	27	35	40	50	80	-	-	
1/2"	Dry	13/20	0.1419	0.1599	50	55	75	85	110	120	43	45	
-/-	Lubricated				35	40	55	65	80	90	-	-	
9/16"	Dry	12/18	0.182	0.203	70	80	110	120	150	170	57	63	
5/10	Lubricated		0.102	0.200	55	60	80	90	110	130	-	-	
5/8"	Dry	11/18	0.226	0.256	100	110	150	170	210	240	93	104	
0,0	Lubricated				75	85	110	130	160	180	-	-	
3/4"	Dry	10/16	0.334	0.373	175	200	260	300	380	420	128	124	
	Lubricated				130	140	200	220	280	310	-	-	
7/8"	Dry	9/14	0.462	0.508	170	180	430	470	600	670	194	193	
, -	Lubricated				125	140	320	350	180	180	-	-	
1"	Dry	8/14	0.606	0.679	250	280	640	720	910	1020	287	289	
	Lubricated				190	210	480	540	680	760	-	-	
1-1/8"	Dry	7/12	0.763	0.856	350	400	790	890	1290	1440	288	290	
	Lubricated				270	300	590	670	970	1080	-	-	
1-1/4"	Dry	7/12	0.989	1.073	500	550	1120	1240	1820	2010	289	291	
	Lubricated				380	420	840	930	1360	1510	-	-	
1-1/2"	Dry	6/12	1.405	1.581	870	960	1950	2200	3160	3560	-	-	
	Lubricated				650	730	1460	1640	2370	2670	-	-	

 Table 4.
 Recommended Bolt Torque<sup>1</sup>

1. Torque value for bolts and cap screws are identified by their head markings. Established at 75% of yield strength of bolt given the cross-sectional area.

#### Note

Torque figures in table are valid for non-greased or non-oiled threads and head unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

# **6. AGI Limited Warranty**

This warranty relates to AGI Augers (the "Product") sold by AGI, (referred to herein as the "Seller") and applies only to the first user of the Product (meaning a purchaser directly from the Seller or from an authorized dealer or distributor of the Product, referred to herein as the "Buyer").

This warranty shall only be effective if properly registered with the Seller in accordance with information provided to the Buyer at the time of sale.

- 1. The Seller warrants to the Buyer that the Product is free from defects in material and workmanship **under normal and reasonable use**.
- 2. This warranty applies only to defects in materials and workmanship and not to damage incurred in shipping or handling, through normal wear and tear, or damage due to causes beyond the control of the Seller such as lightning, fire, flood, wind, earthquake, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration, improper assembly, improper installation, improper maintenance or improper repair of the Product.
- 3. The warranty period for the Product shall be two years from delivery of the Product to the Buyer where the Product is used in a normal farm operation. First year of warranty coverage of parts and labour, second year warranty coverage of parts only. Warranty period for the Product shall be 90 days from delivery of the Product to the Buyer where the Product is used in a commercial operation. In the event that any part incorporated into the Product is manufactured and sold to the Seller by a third party vendor, such part is only warranted to the extent of the warranty given by that third party.
- 4. The obligations set forth in this warranty are conditional upon the Buyer promptly notifying the Seller of any defect and completing reasonably required documentation and, if required, promptly making the Product available for correction. The Seller shall be given reasonable opportunity to investigate all claims and no Product shall be returned to the Seller or part disposed of until after inspection and approval by the Seller and receipt by the Buyer of written shipping instructions, with transportation charges prepaid.
- 5. Upon return of the Product, or such part of the Product that requires correction, the Seller shall, at the Seller's option, either repair or replace the Product or such part. The Seller shall replace or attempt to repair and return the Product or such part within a reasonable period of time from receipt of an approved warranty claim from the Buyer. If the Seller is unable to repair or replace the Product, the Buyer shall be entitled to a credit note in the amount of the purchase price for the Product.
- 6. The total liability of the Seller on any claim, whether in contract, tort or otherwise, arising out of, connected with, or resulting from the manufacture, sale, delivery, repair, replacement or use of the Product or any part thereof shall not exceed the price paid for the Product and the Seller shall not be liable for any special indirect, incidental or consequential damages caused by reason of the installation, modification, use, repair, maintenance or mechanical failure of the Product. Consequential or special damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs and operational inefficiencies.
- 7. Notwithstanding anything contained herein to the contrary, the foregoing is the Buyer's sole and exclusive remedy for breach of warranty by the Seller in respect of the Product. The Seller, for itself, its agents, contractors, employees and for any parent or subsidiary of the Seller, expressly disclaims all warranties, either express or implied, written or oral, including implied warranties of merchantability or fitness for a particular purpose and undertakes no obligation with respect to the conformity of the Product except as set out in the purchase agreement, if any, or marketing materials.
- 8. The foregoing warranty is the entire warranty of the Seller to the Buyer and the Buyer shall not be entitled to rely upon any representation or warranty contained in any marketing material of the Seller in respect of the Product. The Seller neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning the Product.

#### WARRANTY VOID IF NOT REGISTERED

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, South Africa, India and Italy and distributes its products globally.



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