

W13

Portable Grain Auger Operator's Manual

This manual applies to:

Westfield W13, Hutchinson W13, Mayrath W13:

51', 61', 71'





Part Number: 31128 R0 Revised: November 2021

Original Instructions

Read this manual before using product. Failure to

This product has been designed and manufactured to meet general engineering standards. Other local regulations may apply and must be followed by the operator. All personnel must be trained in the correct operational and safety procedures for this product. Use the sign-off sheet below to record initial and periodic reviews of this manual with all personnel.

Date	Employee Name and Signature	Employer Name and Signature
	+	

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W13 – PORTABLE GRAIN AUGER 1. INTRODUCTION

1. Introduction

Thank you for your purchase. Follow the instructions in this manual for safe use of this auger. Following proper operation and maintenance will help to keep the auger running in optimal condition.

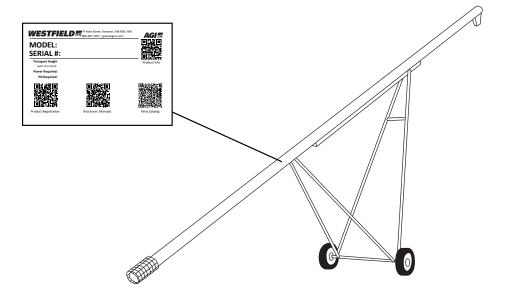
Keep this manual handy for frequent reference and to review with new personnel. A sign-off form is provided on the inside front cover for your convenience. If any information in this manual is not understood or if you need additional information, please contact AGI or your representative for assistance.

This manual should be regarded as part of the equipment.

1.1. Serial Number Location

The serial number location for your auger is shown in the figure below. Have the serial number ready when ordering parts or requesting service or other information. Record information in the table below for easy reference.

Model Number	
Serial Number	
Date Received	



1.2. Intended Use

The auger is intended for use as listed below and described throughout this manual. Use in any other way is considered contrary to the intended use and is not covered by the warranty.

Intended use for the auger:

• Handling grain, pulse crops, treated seeds, fertilizer, or other similar materials.

1. INTRODUCTION W13 – PORTABLE GRAIN AUGER

1.2.1 Misuse

Do not install/use the auger for/with:

• transferring material other than dry, free-flowing food-grains.

lifting or using as a hoist or crane.

W13 – PORTABLE GRAIN AUGER 2. SAFETY

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.

A 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.
- Do not modify the auger in any way without written permission from the manufacturer and 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

A DANGER

- 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. Overhead Power Lines



- When operating or moving, keep auger away from overhead power lines and devices.
- The auger is not insulated.
- Electrocution can occur without direct contact.



2.5. Upending



- 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.



2.6. Rotating Parts Safety

⚠ WARNING

- Keep body, hair, and clothing away from rotating 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.

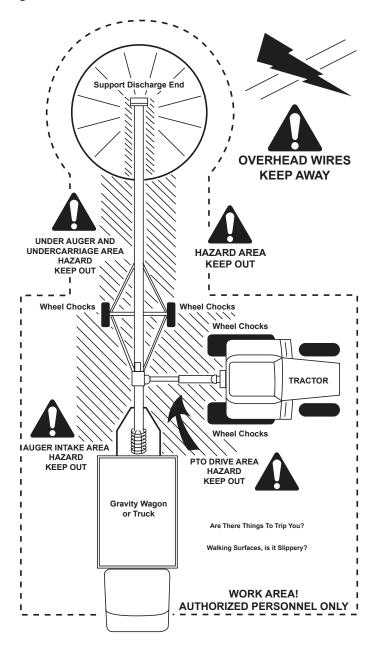


W13 – PORTABLE GRAIN AUGER 2. SAFETY

2.7. Work Area Safety

- Have another trained person nearby who can shut down the auger in case of accident.
- Do not allow any unauthorized persons in the work area.
- Keep the work area clean and free of debris.

Figure 1. Work Area



2. SAFETY W13 - PORTABLE GRAIN AUGER

2.8. Guards Safety

⚠ WARNING

- 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.

2.9. Raising and Lowering the Auger

- MARNING Before raising/lowering/moving/adjusting the auger, make sure the area around the auger is clear of obstructions and/or untrained personnel. Never allow anyone to stand on or beneath the auger when it is being placed.
 - Lower the auger to its lowest position when not in use.
 - Empty the auger before raising or lowering.
 - Do not get on or beneath the auger when raising or lowering.
 - Raise and lower auger on reasonably level ground only.
 - Never attempt to increase height of the auger by positioning wheels on lumber, blocks, or by any other means. To do so will result in damage to auger and/or serious injury.
 - Do not raise the auger in high winds.

2.10. Hydraulic Lift Safety

- MARNING Inspect lift cable before using. Replace if frayed or damaged. Make sure lift cable is seated properly in cable sheaves and cable clamps are secure.
 - Lower the auger fully before towing, then apply pressure to the lift cylinders until cable has light tension.
 - Do not connect or disconnect hydraulic lines while system is under pressure.
 - Keep all hydraulic lines away from moving parts and pinch points.
 - Escaping hydraulic fluid under pressure will cause serious injury if it penetrates the skin surface (serious infection or toxic reaction can develop). See a doctor immediately if injured.
 - Use metal or wood as a backstop when searching for hydraulic leaks and wear proper hand and eye protection.
 - Check all hydraulic components are tight and in good condition. Replace any worn, cut, abraded, flattened, or crimped hoses.
 - Clean the connections before connecting to equipment.
 - Do not attempt any makeshift repairs to the hydraulic fittings or hoses with tape, clamps, or adhesive. The hydraulic system operates under extremely high pressure; such repairs will fail suddenly and create a hazardous and unsafe condition.

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2.11. Positioning the Auger



- Transport and place equipment on reasonably level ground when raising, lowering, positioning, or operating.
- Move the auger into position slowly. Do not unhitch and attempt to move by hand.
- Chock wheels and anchor intake end after placement.

2.12. Towing the Auger

The auger is not intended for transport on public roads. If it requires transport on a public roadway, the following steps should be taken:



- MARNING Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
 - Always travel at a safe speed, never exceeding 20 mph (32 km/h).
 - Reduce speed on rough surfaces.
 - Do not transport on slopes greater than 20°.
 - Use caution when turning corners or meeting traffic.
 - · Make sure the SMV (slow moving vehicle) emblem and all the lights and reflectors that are required by local authorities are in place, are clean, and can be seen by all over-taking and oncoming traffic.
 - Always use hazard-warning flashers on tractor/towing vehicle when transporting unless prohibited by law.
 - Do not allow riders on the auger or towing vehicle during transport.
 - Attach to towing vehicle with an appropriate pin and retainer. Always attach safety chains.
 - Place the auger in the transport position before moving on roads.

2.13. 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.



2.13.1 PTO Driveline Safety

MARNING Drive

- Keep body, hair, and clothing away from rotating PTO
- 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.

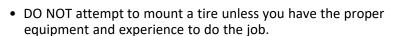
Lockout

- 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.

2.14. 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.



- 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.







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2.15. 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.



Hearing Protection

• Wear ear protection to prevent hearing damage.



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.



2. SAFETY W13 – PORTABLE GRAIN AUGER

2.16. 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.



2.17. 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.

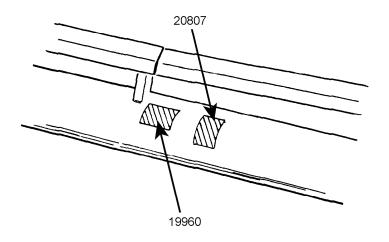
2.17.1 Decal Installation/Replacement

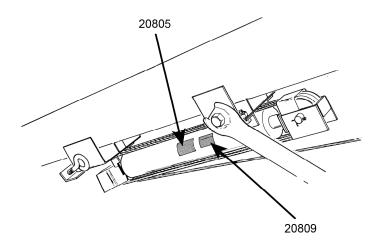
- 1. Decal area must be clean and dry, with a temperature above 50°F (10°C).
- 2. Decide on the exact position before you remove the backing paper.
- 3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- 4. Slowly peel back the remaining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

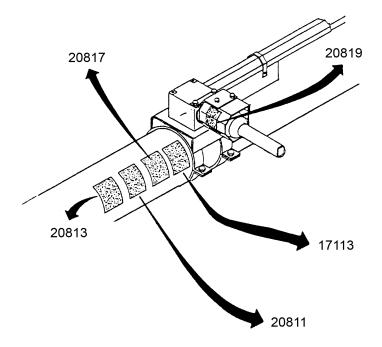
2.17.2 Safety Decal Locations and Details

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.

W13 – PORTABLE GRAIN AUGER 2. SAFETY







2. SAFETY W13 – PORTABLE GRAIN AUGER

Table 1. Safety Decals

Part Number	Description
20813	DANGER
	ROTATING FLIGHTING HAZARD
	To prevent death or serious injury:
	KEEP AWAY from rotating auger flighting.
	DO NOT remove or modify auger 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 auger 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.
20817	DANGER
	ELECTROCUTION HAZARD
	To prevent death or serious injury:
	When operating or moving, keep equipment away from overhead power lines and devices.
	Fully lower equipment before moving.
	This equipment is not insulated.
	Electrocution can occur without direct contact.

W13 – PORTABLE GRAIN AUGER 2. SAFETY

Table 1 Safety Decals (continued)

Part Number	Description	
20819	DANGER	
	ROTATING PTO DRIVELINE	
	To prevent serious injury or death:	
	Keep body, hair, and clothing away from rotating PTO driveline.	
	Do not operate equipment unless all driveline, tractor, and equipment shields are in place and in good working order.	
	Make certain the driveline shields turn freely on driveline.	
	Make certain the driveline is securely attached at both ends.	
	Do not exceed specified operating speed (see operator's manual).	
	Keep u-joint angles small and equal. Do not exceed maximum recommended length for PTO driveline.	

2. SAFETY W13 – PORTABLE GRAIN AUGER

Table 1 Safety Decals (continued)

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

W13 – PORTABLE GRAIN AUGER 2. SAFETY

Table 1 Safety Decals (continued)

Part Number	Description
20811	WARNING UPENDING HAZARD To prevent death or serious injury: • 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 tube and fully lower before moving.
17113	TRANSPORT HAZARD To prevent serious injury or death: Securely attach equipment to vehicle with correct pin and safety chains. Use a tow vehicle to move equipment.

2. SAFETY W13 – PORTABLE GRAIN AUGER

Table 1 Safety Decals (continued)

Part Number	Description
20805	WARNING
	HIGH PRESSURE FLUID HAZARD Hydraulic fluid can cause serious injury if it penetrates the skin. If it does, see a doctor immediately. Relieve system pressure before repairing, adjusting or disconnecting. Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
20809	To prevent serious injury or death: • Keep away from rotating cable sheaves and lift cables. • Inspect lift cable periodically; replace if damaged. • Inspect cable clamps periodically; tighten if necessary.
19960	NOTICE To prevent damage, wheels must be free to move when raising or lowering equipment. When equipment is positioned, chock all wheels.

W13 – PORTABLE GRAIN AUGER 3. TRANSPORT

3. Transport

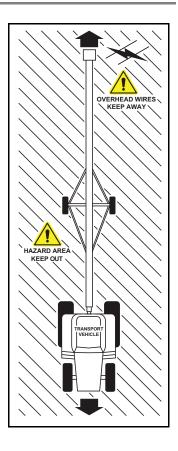


Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

3.1. Transport Safety

MARNING

- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed, never exceeding 20 mph (32 km/h). Reduce speed on rough surfaces. Use caution when turning corners or meeting traffic.
- Yield to other drivers and allow faster traffic to pass.
- Make sure the SMV (slow moving vehicle) emblem, maximum transport speed sign, and all the lights and reflectors that are required by local authorities are in place, are clean, and can be seen by all over-taking and oncoming traffic. Always use hazard-warning flashers on tractor/towing vehicle when transporting unless prohibited by law.
- Do not transport during times of limited visibility such as fog, snow, or heavy rain. Take extra precautions at night and at dusk.
- Keep others away from the transport vehicle and auger.
- Do not allow riders on the auger or towing vehicle during transport.
- Stay away from overhead obstructions and power lines when operating and transporting. Electrocution can occur without direct contact.
- Fully lower the auger before transporting, and only raise when next to storage facility. Ensure there is slight tension on the lift cable.
- Attach to a proper towing vehicle with a hitch pin and retainer. Always attach safety chains.
- Do not raise the intake end above drawbar, upending may occur.
- Empty auger of all grain or seed before transporting. Transporting a full auger will place excessive loads on the tube, frame, axle, hitch, and tow vehicle.
- Do not transport on slopes greater than 20°.
- Do not transport with an under-inflated tire(s).
- If the auger wheels are partially or fully buried in snow or grain, failure to clear area around the wheels before transporting may cause damage to the auger or result in serious injury.



3. TRANSPORT W13 – PORTABLE GRAIN AUGER

3.2. Transport Preparation

1. It is not recommended that the auger be transported faster than 20 mph (32 km/h). Table 2 references the acceptable transport speed as per the ratio of tractor weight versus auger weight. See Specifications (Section 8. – Specifications on page 42) for auger weights.

WARNING A weight imbalance between the auger and the towing vehicle could result in a collision from reduced stability, handling, and braking ability.

- 2. Ensure the auger will clear any overhead obstructions or electrical wires prior to transporting. Refer to Section 8. Specifications on page 42 for the transport height of your auger.
- 3. Longer augers have a large turning radius. Allow ample room for turning as the discharge end may swing dramatically. Allow all oncoming traffic to pass before turning right or left.

MARNING A collision with an oncoming vehicle could occur if the auger discharge swings into the opposing lane.

Table 2. Speed versus Weight Ratio

Road Speed	Weight or fully equipped or loaded implement(s) relative to weight of towing machine
Up to 32 km/h (20 mph)	1 to 1, or less
Up to 16 km/h (10 mph)	2 to 1, or less
Do not tow if	More than 2 to 1

3.3. Connect the Auger to the Towing Vehicle

Follow all safety precautions when transporting the auger and use a proper towing vehicle.

- 1. Place the auger in the full down position. The frame should be in the full down position with slight tension on the lift cable. Refer to Lowering procedure.
- 2. Place and secure hitch pin using a clevis to tongue connection only.

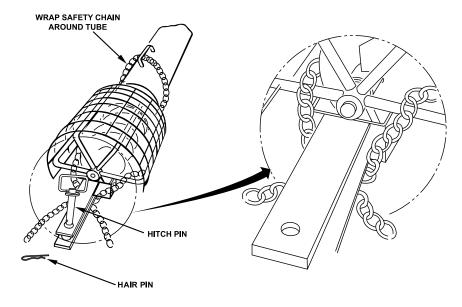
Important

Use a type of hitch pin that will not allow auger to separate from towing vehicle.

- 3. Disconnect PTO driveline from tractor and secure in transport saddle.
- 4. Thread the safety chain and form a cradle to prevent the auger from digging into the road surface or upsetting (should a breakaway occur), see Figure 2. Replace the safety chain if one or more links or end fittings are stretched, broken, damaged, or deformed. The safety chain should have a load rating at least as high as the auger weight, refer to Section 8. Specifications on page 42.
- 5. Use caution when transporting the auger over rolling terrain. In severe dips, the intake end may contact the ground.

W13 – PORTABLE GRAIN AUGER 3. TRANSPORT

Figure 2. Typical Safety Chain and Hitch Connection



4. PLACEMENT W13 – PORTABLE GRAIN AUGER

4. Placement



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

4.1. Placement Safety

⚠ WARNING

- The auger is not insulated, keep away from overhead power lines. Electrocution can occur without direct contact.
- · Anchor intake end before using.
- Place the auger on reasonably level ground before operating. The auger could topple if ground is too uneven.
- Chock the auger wheels after placement.
- Empty the auger before raising, lowering, or positioning.
- Check that wheels are free to move before raising or lowering the auger.
- Never attempt to increase height of the auger by positioning wheels on lumber, blocks, or by any other means.
- Do not permit anyone to stand beneath the auger when raising or lowering.
- Move the auger into position slowly. Do not unhitch and attempt to move by hand.
- Do not leave auger in raised position when not in use.

4.2. Positioning the Auger

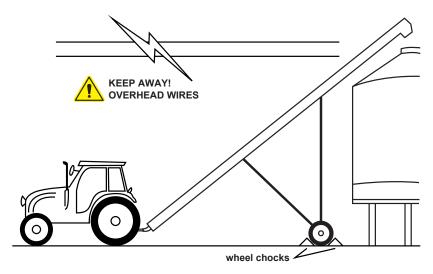
To position the auger using a tractor:

Filling Bins

- 1. Back the auger up to the bin while it is in its lowered configuration.
- 2. Set the park brake on the tractor before dismounting.
- 3. Raise the auger so it clears the bin.
- 4. Slowly back the auger up until the outlet is over the opening in the bin.
- 5. Unhook the auger from the tractor and lower the intake end to the ground.
 - WARNING Upending hazard, do not hook or unhook hitch unless the auger has a downward weight.
- 6. Slowly lower the auger spout to the bin.
 - **NOTICE** Do not rest the spout on the bin. This may cause damage to the auger or bin.
- 7. Place chocks in the front and back of each wheel and anchor the intake end.

W13 – PORTABLE GRAIN AUGER 4. PLACEMENT

Figure 3. Typical Grain Auger Placement for Filling Bins



Under Hopper Bottom Bins

- 1. Position the intake hopper between the hopper bin vertical legs.
- 2. Move auger into place. Do not allow auger or components to contact grain bin.
- 3. Raise the auger to desired height.
- 4. Place chocks in the front and back of each wheel and anchor the intake end.

4.3. Raising and Lowering

Before using the hydraulic lift cylinder:

- Check that the hydraulic hoses are free from leaks, binding, flattening, kinks, or wear.
- Check that the cable is properly seated in the cable sheaves on the lift cylinder and that cable clamps are secure.

Raising

- 1. Before connecting the hydraulic hose, wipe the hose coupler clean.
 - **NOTICE** Dirt in the hydraulic system can damage the cylinder o-rings and can cause leakage and failure of the system.
- 2. Open the ball valve on the hose connected to the cylinder.
- 3. Start tractor and idle at low rpm.
- 4. Engage hydraulic lever to power the cylinder.
- 5. Increase tractor rpm until desired rate of lift is reached.
- 6. Raise the auger to the desired height.
- 7. Close the hydraulic ball valve when the auger is fully raised.

4. PLACEMENT W13 – PORTABLE GRAIN AUGER

NOTICE

Failure to close the ball valve may cause the frame to creep lower, potentially damaging the auger.

Lowering:

- 1. Reconnect the hydraulic hose coupler to tractor, if disconnected. Keep the tractor running while lowering the auger should the need arise to re-lift it.
- 2. Open the ball valve.
- 3. Open the tractor valve, feathering the control to prevent too rapid a descent.

Note

Once the valves are opened, the auger tube lowers by gravity. As the tube nears the full down position, the rate of descent will increase. Do not operate with the tractor valve fully open.

- 4. Turn off the tractor, and lock out the tractor power source.
- 5. Before disconnecting hydraulic couplers, relieve the hydraulic pressure.

WARNING Disconnecting a hydraulic hose under pressure can result in serious injury.

6. Adjust the auger in the full down position until there is a slight tension on the lift cable. Do not leave the cable slack.

W13 – PORTABLE GRAIN AUGER 5. OPERATION

5. Operation

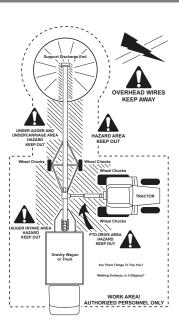


Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

5.1. Operation Safety

MARNING

- Keep away from rotating and moving parts, including the auger/mixer flighting, drive components, shafts, and bearings.
- Always operate with guards, covers, and shields in place.
- Have another trained person nearby who can shut down the equipment in case of accident.
- Keep the work area clear of bystanders.
- Keep the work area clean and free of debris.
- Ensure maintenance has been performed and is up to date.



5.2. Start-up and Break-in

Check the following during the first hours of operation.

1. Check that the auger intake and discharge areas are free of obstructions.



Foreign objects can damage the auger. Remove any obstructions from the intake and discharge areas before operating the auger.

- 2. Visually inspect the auger, see Visual Inspection in Maintenance Section.
- 3. Check tightness of all bolts/nuts, fasteners, and hardware (re-torque if necessary).
- 4. Ensure adequate power is supplied to operate the auger, see Section 8. Specifications on page 42.
- 5. Start the auger and operate normally.
- 6. Be aware of unusual sounds. If any are heard, determine the source and stop the auger. Lock out the power and correct the problem before resuming work. If you are unsure of the problem or procedure, contact your local dealer.

Note

The auger may run rough until the tube is polished.

7. Do not run the auger for long periods of time without material because it increases wear. Try to run only when moving material.

5. OPERATION W13 – PORTABLE GRAIN AUGER

8. Stop the auger when it is empty of grain, lower fully and lockout power.

Important

After the initial start-up and inspection, the auger should be shut down and visually inspected (see Maintenance Section) after approximately ten hours of operation.

5.3. Operation - PTO Drive

- 1. Attach the PTO driveline securely to the tractor and confirm the connection to the auger shaft is secure.
- 2. Confirm the PTO driveline rotating shield and other shields/guards are in place and in good working order.
- 3. Align the tractor axis with the auger input shaft to minimize the angles of the universal joints on the PTO driveline.

Important

Check that the PTO does not exceed the maximum operating angle, refer to Section 8. – Specifications on page 42.

- 4. Ensure the PTO drive on the tractor is in the off position before starting the tractor.
- 5. Start tractor engine at low idle, slowly engage the PTO with the tractor idling to prevent unneeded stress on the drive components and shear bolts.
- 6. If everything is operating normally, start running grain through the auger and increase the tractor PTO to the specified full speed to produce the required flow.
- 7. To shut down, reduce the speed to low idle and lock out the PTO.
- 8. Disconnect the PTO driveline from the tractor and secure it to the PTO transport saddle with the safety chain and keep it in transport saddle when transporting.

When raising or lowering the auger:

Disconnect the PTO driveline.



The PTO driveline is non-seperable. Damage may occur if PTO is not removed before moving tractor away from auger

When starting under load:

If restarting the auger under load (tube is full), engage the PTO with the tractor idling.



Engaging the PTO at high engine speed under load will result in equipment damage.

5.4. Emergency Shutdown

In an emergency situation:

- 1. Stop or shut down the power source immediately and lock out all power.
- 2. Stop the flow of material (if applicable).
- 3. Ensure the machine components come to a stop before inspecting.
- 4. Correct the emergency situation before resuming work.

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5.5. Restarting with a Full Tube

When the auger is shut down inadvertently or due to an emergency, the tube may still be filled with grain.

1. With the power source locked out, remove as much of the grain as possible from the tube and intake using a shop vacuum or other tool. Do not use your hands.

NOTICE Starting under load may result in damage to the auger.

- 2. If guards or covers have been opened or removed, close or replace them before restarting the unit.
- 3. If the auger tube is full of grain, do not restart at full speed. Engage the drive at low power, gradually increasing until normal operating speed is reached.
- 4. Once the auger has been started, you may resume normal operation.

5.6. Bin Level Indicators

A full bin will cause auger to plug, which can damage the flighting and other drive components. Installing grain-level indicators on your bins will allow you to monitor bin filling and help prevent damage to your auger.

5.7. Use of Grain Spreaders

Many grain spreaders cannot handle the large capacity of some augers and can cause the auger to plug, damaging the flighting and other drive components. This type of damage is not covered by warranty. To avoid this:

- Make sure spreader is turned on and operating.
- When using a flex down spout, center auger spout above spreader and do not lower auger spout into spreader.
- Suspend the spreader lower from bin ceiling leaving extra room for excess grain to flow over the spreader.
- Get a larger spreader, if available.
- Remove the spreader.

5.8. Shutdown

When operation has been completed:

- 1. Once the auger is clear of grain, lock out the power source.
- 2. Lower the auger fully. See Raising and Lowering instructions.
- 3. Clean out any remaining grain from the auger with a vacuum or sweep out.
- 4. Clean the entire work area.
- 5. Remove anchors, supports, and chocks.

5. OPERATION W13 – PORTABLE GRAIN AUGER

5.9. Operating the Auger with Fertilizer

If auger has been used to move fertilizer, it should be cleaned out to prevent corrosion. The easiest way to prevent corrosion is to run a load of grain through it after moving fertilizer or clean the machine as noted in the Maintenance section.

5.10. Storage

After the season's use, the auger should be thoroughly inspected and prepared for storage. Repair or replace any worn or damaged components and perform maintenance as described in the Maintenance Section to prevent any unnecessary downtime at the start of the next season.

To ensure a long, trouble-free life, this procedure should be followed when preparing the unit for storage.

- 1. Lower the auger fully for storage and maintain slight tension on the lift cable.
- 2. Remove all residual material from the hopper and the tube.
- 3. Wash the auger thoroughly using a water hose or pressure washer to remove all dirt, mud, debris, or residue.
- 4. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove any entangled material.
- 5. Touch up all paint nicks and scratches to prevent rusting.
- 6. Check tire pressure and inflate. For inflation pressure, refer to Section 8. Specifications on page 42.
- 7. Inspect the auger for cracks, tightness of fittings and fasteners, hydraulic hose cracks (if applicable). Have required repairs performed to replace worn or damaged components.
- 8. Store in an area that is dry, level, free of debris, and away from human activity. Store inside if possible.
- 9. Chock wheels.
- 10. Support intake on blocks to eliminate prolonged contact with the ground.
- 11. Lubricate all grease fittings according to maintenance procedure.
- 12. Clean and lightly lubricate the spline on the PTO driveline. Cover the PTO driveline with a plastic bag to protect it from the weather and place it in the transport saddle.

W13 – PORTABLE GRAIN AUGER 6. MAINTENANCE

6. Maintenance



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.

6.1. Maintenance Safety

⚠ WARNING

- Keep components in good condition. Follow the maintenance procedures.
- Ensure the service area is clean, dry, and has sufficient lighting.
- Do not modify any components without written authorization from the manufacturer. Modification can be dangerous and result in serious injuries.
- Shut down and lock out power before maintaining equipment.
- After maintenance is complete, replace all guards, service doors, and/or covers.
- Use only genuine AGI replacement parts or equivalent. Use of unauthorized parts will void warranty. If in doubt, contact AGI or your local dealer.

Before attempting maintenance of any kind:

- · Lower the auger fully.
- · Chock wheels.
- Support tube if performing maintenance on the undercarriage assembly.
- Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.





6. MAINTENANCE W13 - PORTABLE GRAIN AUGER

6.2. Maintenance Schedule

Proper maintenance habits mean a longer life, better efficiency, and safer operation. Please follow the Maintenance Schedule below. Keep good records of the hours the auger has been operated and the maintenance performed.

Daily:

Section 6.3 – Visually Inspect the Equipment on page 32

Section 6.4 – Lubricate the Equipment on page 33

Grease the Intake Bushing on page 35

Monthly:

6.5 Inspect Hydraulic Hoses and Fittings on page 33

Grease the Upper Drive Chain on page 35

Annually:

Section 6.10 - Clean and Wash the Equipment on page 36

Section 6.6 – Check the Gearbox Oil on page 34

Section 6.8 – Adjust the Upper Drive Chain on page 34

Section 6.13 - Inspect and Service the Hydraulic Lift on page 38

2-3 Years:

Section 6.7 - Change the Gearbox Oil on page 34

As Required:

Section 6.11 – Repack the Wheel Bearings with Grease on page 36

Section 6.12 - Check/Adjust the Truss Cables on page 37

6.3. Visually Inspect the Equipment

MARNING Lock out power before inspecting.

Check the following during a visual inspection:

- 1. Ensure all guards are in place and in good working order.
- 2. Examine the auger for damage or unusual wear.
- 3. Check tightness of bolts/nuts, fasteners, and hardware (re-torque if necessary).
- 4. Be sure all safety decals are in place and are legible.
- 5. Check that the discharge and intake area are free of obstructions.
- 6. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove any entangled material.
- 7. Inspect hydraulic hoses and fittings for leaks and wear. Fix or replace where necessary.

W13 – PORTABLE GRAIN AUGER 6. MAINTENANCE

8. Check wheel bolts are tight and examine tires for gashes, uneven wear, or loss of air pressure. See Section 8.

- Specifications on page 42 for recommended tire pressure and torque information.

- 9. Check all operating, lifting, and transport components. Replace damaged or worn parts before using the auger.
- 10. Inspect the auger shaft bushing for unusual wear or discoloration.
- 11. Check the PTO shield & replace if damaged.
- 12. Inspect the truss cables for proper tension and possible damage such as fraying, kinking, or unwinding.

6.4. Lubricate the Equipment

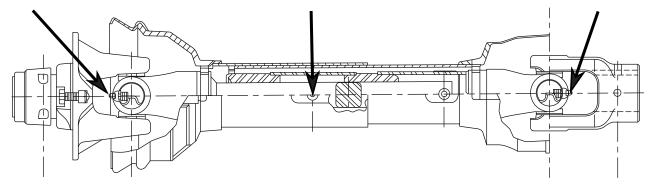
Your equipment can operate at top efficiency only if clean fluids and lubricants are used. Use clean containers to handle all fluids and lubricants. Store them in an area protected from dust, moisture, and other contaminants.

- 1. Wipe the grease fittings with a clean cloth before greasing to avoid injecting dirt and grit.
- 2. Use a hand-held grease gun for all greasing.
- 3. If fittings will not take grease, remove and clean thoroughly.
- 4. Replace fittings if they are broken or will not accept grease.
- 5. If Intake Bushing is present in your auger, lubricate it.

Use SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.

6.4.1 PTO Driveline

Figure 4. Typical PTO Driveline Grease Points



6.5. Inspect Hydraulic Hoses and Fittings

- 1. Pressurize the system.
- 2. Using a piece of cardboard or wood, run it along the length of the hose and around all fittings.
- WARNING Escaping hydraulic fluid under pressure will cause serious injury if it penetrates the skin surface.
- 3. Replace the hose or tighten/replace the fitting if a leak is found. For replacement hoses, refer to Section 8. Specifications on page 42.

6. MAINTENANCE W13 – PORTABLE GRAIN AUGER

- 4. Replace any hose that is badly cut, nicked, abraded, or is separating from the crimped end of the fitting.
- 5. Secure hoses to the machine.

6.6. Check the Gearbox Oil

- 1. Remove fill/vent plug to check gearbox oil level. Insert an improvised dipstick (rolled paper or plastic tie) into the oil filler hole to determine the oil level.
- 2. Note the level and the condition of the oil. Maintain oil level at half full (center of cross shaft) with 90W or equivalent gear oil, adding as necessary or drain and refill if condition is poor.
- 3. Ensure gearbox is level when checking or refilling.
- 4. Do not overfill when adding oil.
- 5. Replace fill/vent plug.

6.7. Change the Gearbox Oil

Use SAE approved 90W or equivalent gear oil.

- 1. Remove gearbox from the auger.
- 2. Place a pan under the drain plug.
- 3. Use a wrench and remove the drain plug.
- 4. Loosen the filler plug so air can enter the gearbox and the oil will drain freely.
- 5. Allow the oil to drain completely.
- 6. Replace the drain plug.
- 7. Add oil until the gearbox is half full (center of cross shaft) and replace filler plug. A flexible funnel may be required. Gearbox should be level when checking or refilling. **Do not overfill.**
- 8. Reinstall the gearbox and guards.

6.8. Adjust the Upper Drive Chain

Maintain 1/4" - 1/2" (0.64 cm - 1.27 cm) chain deflection.

- 1. Loosen the bolts and remove the cover plate.
- 2. Loosen the bolts on the top bearing in the upper drive housing.

Note

Improper adjustment of the drive chain will result in premature wear.

- 3. Remove the connecting link and link. Add a half link to the chain if required.
- 4. Grease the chain with SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.
- 5. Reattach the cover plate and tighten the bolts.

W13 – PORTABLE GRAIN AUGER 6. MAINTENANCE

Figure 5. Upper Drive Chain



6.9. Grease

Use SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.

For continuous use in extreme cold, semi-fluid arctic grease or heavy oil may be used.

Use only a hand-held grease gun.

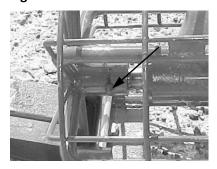
Wipe grease fitting with a clean cloth before greasing to avoid injecting dirt and grit.

If a fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

Grease the Intake Bushing

1. Lubricate the intake bushing zerk.

Figure 6. Intake Zerk



Grease the Upper Drive Chain

1. Fill enclosed upper drive housing to plug level with grease. See Section 8. – Specifications on page 42

6. MAINTENANCE W13 – PORTABLE GRAIN AUGER

Figure 7. Upper Chain Drive Zerk



6.10. Clean and Wash the Equipment

- 1. Clean out excess grain from all areas of the auger.
- 2. Make sure water can drain from the auger tube and intake, then wash the tube with a water hose or pressure washer until all dirt, mud, debris, or residue is gone.

Important

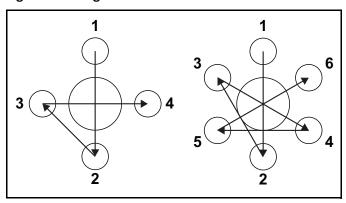
Do not contact electronic controls with high pressure washer.

3. Provide sufficient time for the water to drain from the auger.

6.11. Repack the Wheel Bearings with Grease

- 1. Block wheels and ensure unit is stable.
- 2. Remove the wheel bolts and the wheels.
- 3. Clean wheel and hub mounting surfaces to ensure there is no rust or debris.
- 4. Remove the wheel bearing and pack with grease. Use SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.
- 5. Tighten the wheel bolts (diagonal pattern) with a torque wrench to 100 ft-lb (±10 ft-lb) of torque. Inspect to make sure the wheel is sitting flush with the hub.

Figure 8. Diagonal Pattern for 4-bolt and 6-bolt Tires



W13 – PORTABLE GRAIN AUGER 6. MAINTENANCE

6.12. Check/Adjust the Truss Cables



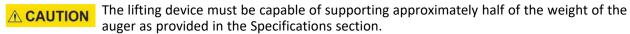
When equipped with Truss Cables:

Check the Truss Cables:

Check tube for straightness, no slack in the cables, and a just noticeable upward deflection of the discharge end. During operation, it is normal that for the tube to deflect downward.

If required, adjust cables by following the procedure below:

1. Lift the discharge end of the auger with a overhead crane, front end loader, or other proper lifting device so that the tube has a slight upward deflection at the discharge to give the cable some slack.





- 2. When the auger has more than one set of cables start from the innermost cables and work your way out.
- 3. Loosen cable clamps on cable truss where the cable requires adjustment.
- 4. Locate the eyebolt anchors for the cable. Refer to Figure 9 on page 38.
- 5. Tighten cable eyebolts evenly on both sides (use eyebolt nuts to tighten eyebolts) until the discharge end just starts to angle upward.
 - The tube should not deflect to the left or right if tightened evenly.
 - Tension should be greater on shorter cables than on longer cables. If the auger tubes remain straight then the cables are tensioned properly.
- 6. If the proper cable tension can't be obtained before the eyebolts run out of adjustment, then do the following:
 - a. Loosen the eyebolts.
 - b. At the eyebolts, loosen the cable clamps, shorten the cables until there is tension on the cable, then tighten the cable clamps fully.
 - c. Return to step 5.
- 7. Secure jam nut on cable eyebolt and re-tighten any cable clamps that were loosened.
- 8. The cables are properly tightened when:
 - There is no slack in the cables.
 - · The discharge end is deflected sightly upwards.
 - The tube is straight side-to-side.

Table 3. Truss Cable Adjustment

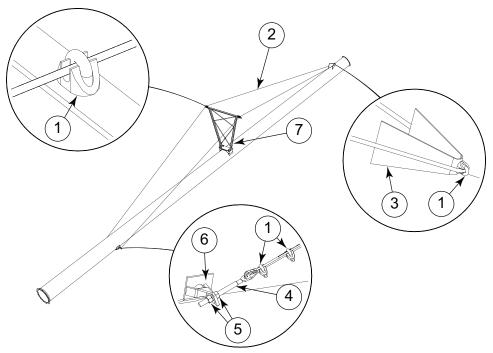
Item	Description
1	Cable Clamp
2	Truss Cable
3	Cable Return Bracket
4	Cable Eyebolt

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Table 3 Truss Cable Adjustment (continued)

Item	Description
5	Eyebolt Nuts
6	Eyebolt Anchor
7	Cable Truss

Figure 9. Typical Cable Truss Assembly



6.13. Inspect and Service the Hydraulic Lift

MARNING Place the auger in the fully lowered position with the cable slack.

To Inspect the Lift Cable:

- 1. Inspect the cable for damage such as fraying, kinking, or unwinding. Replace if damaged.
- 2. Check to make sure the cable clamps are secure.
- 3. Oil the sheave pins on the lift cylinder.

W13 – PORTABLE GRAIN AUGER 7. TROUBLESHOOTING

7. Troubleshooting



Before continuing, ensure you have completely read and understood this manual's Safety section, in addition to the safety information in the section(s) below.



Shut down and lock out all power sources before diagnosing any of the causes or attempting any of the solutions below.

In the following section, we have listed some causes and solutions to some of the problems you may encounter.

If you encounter a problem that is difficult to solve, even after having read through this section, please contact your local dealer or distributor. Before you contact them, please have this operation manual and the serial number from your machine ready.

Problem	Cause	Solution				
Excessive noise or vibration. *Remember to follow proper break-in procedures—flighting may run rough until tube is polished. If noise is extreme from outset or continuous after several loads of grain are fed, continue with troubleshooting.	Chatter from wooden bearings.	Spray penetrating lubricant between shaft and bearing surface. Bearings will break in over time. *If replacement of a bearing becomes necessary, split bearings are available to avoid having to slide all bearings off driveshaft.				
	Truss cables incorrectly adjusted.	Support end of auger and adjust cables so auger is flat or curves slightly upwards. See Maintenance.				
	Flighting peeled back due to plugging.	Inspect spout end of auger for flighting condition. Remove and replace flighting sections as necessary.				
	Top drive inadequately lubricated.	Fill to appropriate level with grease. Top drive is not designed to be filled with oil.				
	Bent flighting sections.	Support auger and remove all flighting sections. Check for straightness of flight stubs by rolling across flat concrete section. Straighten stub or replace as necessary. Take care not to bend flighting when reinstalling.				
	Obstruction in auger tube.	Visually inspect for cloth or trash wrappe around flighting, or buildup of gum from oily crops such as flax or canola.				
Premature wear on auger tubes.	Auger being run at low capacity or empty for extended period of time.	Frequently occurs on farms using grain wagons. Auger should not be left unattended when filling bins. Depending				

7. TROUBLESHOOTING W13 – PORTABLE GRAIN AUGER

Problem	Cause	Solution				
	Bent flighting.	on application, a belt conveyor may be more appropriate.				
	Flighting allowed to wear beyond normal point of replacement.	When flighting becomes razor thin at intake, replacement is critical. Since flight material is double thickness at welded lap joints, high spots on flight occur and can accelerate spot tube wear.				
The flighting does not turn.	Auger flighting is plugged or obstructed.	Identify and remove obstruction.				
	Bearing is seized.	Identify the bearing and replace.				
	A chain is broken.	Identify the chain and repair or replace.				
	Upper drive chain is broken.	Repair or replace.				
	Gearbox is seized.	Fix or replace the gearbox.				
	Gearbox coupler bolt is broken or missing.	Replace the bolt.				
Auger flighting is	Obstruction in the auger tube.	Identify and remove obstruction.				
noisy.	Flighting shaft bolts are loose or damaged.	Tighten or replace bolts.				
	Flighting shaft is bent.	Repair or replace flighting shaft.				
	Flighting is damaged.	Repair or replace flighting.				
	Worn bearing.	Repair or replace bearing.				
	Low gear oil level.	Inspect the gearbox, replace if damaged or add oil if not damaged.				
	Upper chain drive loose.	Tighten the chain as required.				
Tube is misaligned.	Loose truss cables. (when equipped)	Tighten cables as required.				
Shear bolts fail repeatedly.	Incorrect shear bolt type.	Replace with correct part number. AGI shear bolts are specifically designed to provide correct driveline protection.				

W13 – PORTABLE GRAIN AUGER 7. TROUBLESHOOTING

Problem	Cause	Solution			
	Shear bolt hole worn out-of-round.	Frequent use of the incorrect shear bolt size can wear the mounting hole creating a "scissor effect," which will require replacement of the affected parts.			
	Corn spreaders in bin unable to keep up with auger output.	Slow down auger or remove corn spreaders.			
	Flighting peeled back as a Occurs when bin h result of plugging. Inspect flighting at If necessary, replace				
	Driveline failure.	See Maintenance Section.			

A-Frame

Problem	Cause	Solution				
The auger will not raise or lower.	Closed hydraulic valve.	Open hydraulic valve.				
	Inadequate hydraulic pressure.	Adjust the pressure if possible, or use an alternate hydraulic supply.				
	Damaged cylinder.	Fix or replace the cylinder.				
	Missing or broken cylinder pin.	Replace cylinder pin.				
	Hydraulic system leak.	Identify and repair leak.				
	Auger movement is obstructed.	Identify and clear the obstruction.				
The auger will not stay in the elevated	Leak in auger hydraulic cylinder, fittings, or hose.	Lower auger to transport position and repair leaks as required.				
position.	Leak in tractor hydraulics.	Close hydraulic valve to isolate cylinder from tractor hydraulics.				
		Ball valve not closed while in elevated position.				

8. SPECIFICATIONS W13 – PORTABLE GRAIN AUGER

8. Specifications

Specification		13-51 13-61 13-71						
Tube Size		13"						
DIMENSIONS								
	Lowered	10' 9" (327.7 cm)	11' 7" (353.1 cm)	12' 11" (393.7 cm)				
Height	Halfway	21' 10" (665.5 cm)	25' 8" (782.3 cm)	30' 10" (939.8 cm)				
	Raised	35' 5" (1079.5 cm)	41' 1" (1252.2 cm)	47' 0" (1432.6 cm)				
,	Lowered	22' 4" (680.7 cm)	27' 5" (835.7 cm)	32' 3" (983 cm)				
Reach	Halfway	20' 2" (614.7 cm)	24' 10" (756.9 cm)	29' 5" (896.6 cm)				
	Raised	15' 3" (464.8 cm)	20' 0" (609.6 cm)	23' 1" (703.6 cm)				
Wheel Tread		112" (284.5 cm) 118" (299.7		124" (315 cm)				
POWER REQU	IREMENTS							
PTO Drive		70 HP	90 HP					
PTO Speed		540 rpm						
Max PTO Driveline Operating Angle		15°						
Hydraulic Hoses		1400 psi (9653 kPa)	1600 psi (11032 kPa)	1800 psi (12411 kPa)				
Hydraulic Fluid (approx. volume)		12.4 L (3.28 US gal)	12.4 L (3.28 US gal) 15 L (3.96 US gal)					
OTHER			<u>_</u>					
Upper Drive Housing Grease Quantity		78 oz (2200 g)						

W13 – PORTABLE GRAIN AUGER 9. APPENDIX

9. Appendix

9.1. 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.

Table 4. Recommended Bolt Torque^a

	_	Threads per			Recommended Torque (ft-lb)							
Size	Dry or Lubricated	inch (Course/	Area of Bo	olt (sq in.)	Grade 2 Grade 5		e 5	Grad	8.8 S/S			
	Lubricateu	Fine)	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
1/4"	Dry	00/00	0.0240	0.0364	5.5	6.3	8	10	12	14	6.3	7.8
1/4	Lubricated	20/28	0.0318		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
3/10	Lubricated	10/24		0.056	8	9	13	14	18	20	-	•
3/8"	Dry	16/24	0.0775	0.0878	20	23	30	35	45	50	20	22
3/0	Lubricated	10/24	0.0775	0.0076	15	17	23	25	35	35	-	•
7/16"	Dry	14/20	0.1063	0.1187	32	36	50	55	70	80	31	33
7/10	Lubricated	14/20	0.1003		24	27	35	40	50	80	1	1
1/2"	Dry	13/20	0.1419	0.1599	50	55	75	85	110	120	43	45
1/2	Lubricated	13/20	0.1419		35	40	55	65	80	90	-	ı
9/16"	Dry	12/18	0.182	0.203	70	80	110	120	150	170	57	63
9/10	Lubricated	12/10			55	60	80	90	110	130	1	1
5/8"	Dry	11/18	0.226	0.256	100	110	150	170	210	240	93	104
3/0	Lubricated	11/10	0.220		75	85	110	130	160	180	-	-
3/4"	Dry	10/16	0.334	0.373	175	200	260	300	380	420	128	124
3/4	Lubricated	10/10			130	140	200	220	280	310	1	1
7/8"	Dry	9/14	0.462	0.508	170	180	430	470	600	670	194	193
110	Lubricated 9/14	3/14			125	140	320	350	180	180	-	-
1"	Dry	8/14	0.606	0.679	250	280	640	720	910	1020	287	289
ı	Lubricated	0/14	0.000		190	210	480	540	680	760	-	-
1-1/8"	Dry	7/12	0.763	0.856	350	400	790	890	1290	1440	288	290
1-1/0	Lubricated	//12	0.763	0.856	270	300	590	670	970	1080	-	-
1-1/4"	Dry	7/12	0.989	1.073	500	550	1120	1240	1820	2010	289	291
1-1/4	Lubricated	1/12	0.909		380	420	840	930	1360	1510	-	-
1-1/2"	Dry	6/12	1.405	1.581	870	960	1950	2200	3160	3560	-	•
1-1/2"	Lubricated	6/12			650	730	1460	1640	2370	2670	-	-

^aTorque 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%.

10. AGI LIMITED WARRANTY W13 – PORTABLE GRAIN AUGER

10. 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

W13 – PORTABLE GRAIN AUGER

10. AGI LIMITED WARRANTY

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.



P.O. Box 39, Rosenort, Manitoba, ROG 1W0 Canada **P** 866.467.7207 (Canada & USA) or 204.746.2396 | **F** 866.768.4852 | **E** sales@grainaugers.com

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