

UTX Series

Portable U-Trough Grain Auger Assembly Manual

This manual applies to:

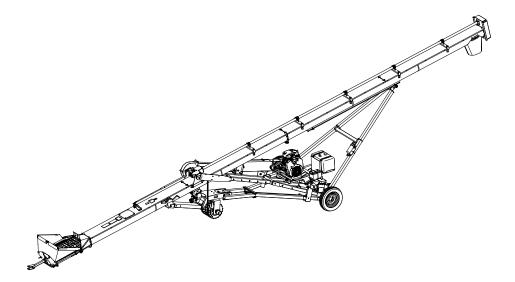
AGI Westfield UTX (44)

AGI UTX (44)

AGI Hutchinson UTX (44)

AGI Mayrath UTX (44)

AGI GrainMaxx UTX (44)







Part Number: 31084 R9

New in this Manual

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

Description	Section
Updated the grease instructions.	Section 4.10 – Add Grease to the Head Cover on page 28
Added elbow for hydraulic filter.	Section 4.28 – Install the Hydraulic Filter on page 60
Flipped bolts and nuts on the SP reach arms.	Section 4.30 – Install the Undercarriage on page 61

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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 U-Trough 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.

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 assembling the equipment.

 Only experienced personnel who are familiar with this type of assembly and installation should perform this work. Untrained assemblers/installers expose themselves and bystanders to possible serious injury or death.



- Do not modify the auger in any way or deviate from the instructions in this manual without written
 permission from the manufacturer. Unauthorized modification or methods may impair the function and/or
 safety. Any unauthorized modification will void the warranty.
- Follow a health and safety program for your worksite. Contact your local occupational health and safety organization for information.
- Contact your local representative or AGI if you need assistance or additional information.
- Always follow applicable local codes and regulations.

2.3. Rotating Flighting Safety



- 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. Rotating Parts Safety



- 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.



2.5. Hydraulic Winch Safety

When Equipped:



- * Keep away from rotating cable drum and winch cable. Do not touch or grab cable while winch is being operated or use hands to guide the cable.
 - Inspect cable and cable clamps before using hydraulic winch. Replace cable if frayed or damaged. Tighten cable clamps if necessary.
 - Check the cable anchor on the winch drum is tight.
 - Confirm hydraulic hoses are in good condition.
 - Do not continue to supply power to hydraulic winch after the auger has reached full up position.
 - Do not disconnect hydraulic quick couplers when lines are pressurized.
 - Make sure lift cable is seated properly.
 - Always keep a minimum of 3 cable wraps on the cable drum.

2.6. 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.



2.6.1 Gas Engine Safety

⚠ WARNING Power Source

- Keep guards in place and secure.
- Properly ventilate surrounding area.
- Never fill the fuel tank with the engine running, while smoking, or near an open flame. Always shut down and allow engine to cool before filling with fuel.
- Never overfill the tank or spill fuel. If fuel is spilled, clean it up immediately.
- Be sure to use the correct type and grade of fuel. Ground the fuel funnel or nozzle against the filler neck to prevent sparks that could ignite fuel vapors.
- Be sure to replace the fuel fill cap when you are done.

Lockout

- For engines with an electric start, remove the ignition key, the spark plug wire, or the spark plug.
- For engines with a rope or crank start, remove the spark plug wire or the spark plug.



2.6.2 Hydraulic Power Safety

⚠ WARNING Power Source

- Refer to the rules and regulations applicable to the power source operating the hydraulic system.
- 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.

Lockout

• Always place all hydraulic controls in neutral and relieve system pressure before disconnecting or working on hydraulic system.



2.7. 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.



2.8. Battery Safety

⚠ WARNING

- Wear safety glasses and protective gloves when working near batteries.
- Make certain the battery or terminal covers are in place and in good working order.
- Keep all sparks and flames away from batteries; gas given off by electrolyte is explosive.
- Avoid contact with battery electrolyte. Wash off any spilled electrolyte immediately.
- Do not tip batteries more than 45° to avoid electrolyte loss.
- To avoid injury from sparks or short circuits, disconnect battery ground cable before servicing any part of an electrical system.



2.9. Personal Protective Equipment

The following Personal Protective Equipment (PPE) should be worn when assembling 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.



2.10. 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.



2.11. 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.

2.11.1 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.

2.11.2 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

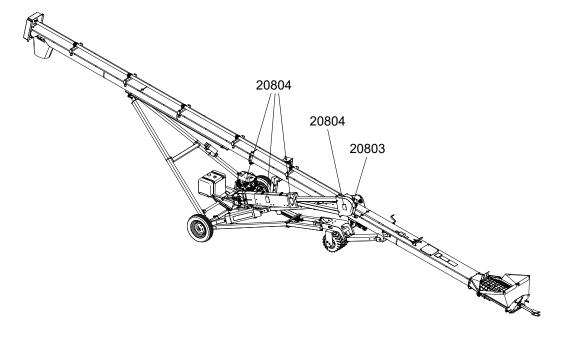


Figure 2. Safety Decal Locations

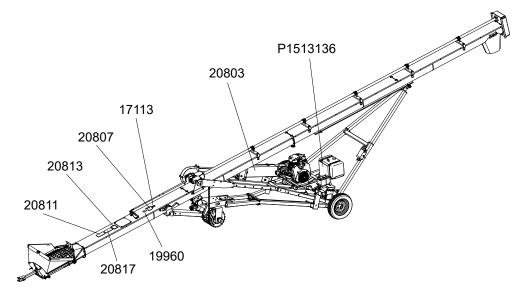


Figure 3. Safety Decal Locations (HD Hydraulic Steering)

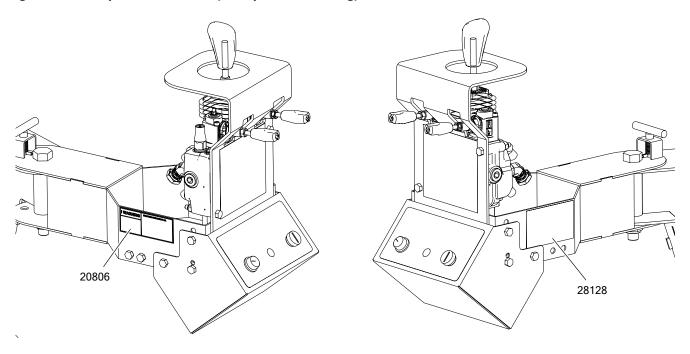


Figure 4. Safety Decal Locations (Hydraulic Winch)

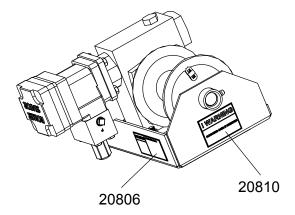


Table 1. Safety Decals

Part Number	Description
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.
20813	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.

Table 1 Safety Decals (continued)

Part Number	Description
20803 (inside)	WARNING MISSING GUARD HAZARD To prevent serious injury or death, shut off power and reattach guard before operating machine.
20804	⚠ WARNING
	ENTANGLEMENT HAZARD
	 To prevent serious injury or death: 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.
20806	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.

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.				
20810					
20010	To prevent death or serious injury: • Keep away from rotating cable drum and winch				
	cable. Inspect lift cable periodically; replace if damaged. Inspect cable clamps periodically; tighten if necessary.				

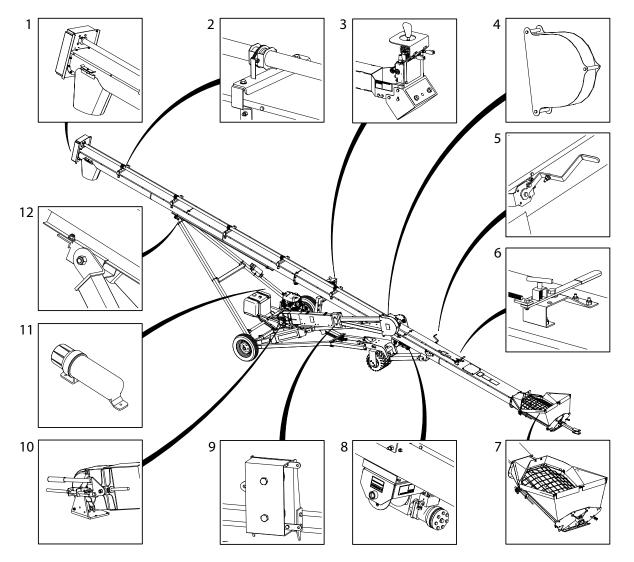
Table 1 Safety Decals (continued)

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	↑ WARNING	
	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.	
28128	A WARNING	
	TRANSPORT HAZARD To prevent serious injury or equipment damage, before towing: Lift up wheel frame completely and secure with safety chain. Pull handle to disengage drive wheel motors.	

Table 1 Safety Decals (continued)

Part Number Description					
P1513136	⚠ WARNING				
	CONTENTS MAY BE UNDER PRESSURE				
	As part of the fuel vapour retention system, it is normal for your tank to expand from internal pressure. Use the vent screw to relieve pressure and before refueling.				
	To remove cap:				
	Open VENT SCREW on top of cap FULLY.				
	Locate Pressure Relief Tab under cap. Turn cap until Pressure Relief Tab Lock engages.				
	3. Press down on tab, rotate cap 1/4 turn (to relieve pressure before opening tank) and release tab. STOP. Lock may engage again. 3. Press down on tab, rotate cap 1/4 turn (to relieve pressure before opening tank) and release tab. STOP. Lock may engage again.				
	PRESS Pressure Relief Tab down again and turn slowly to remove cap.				
	To tighten cap:				
	Turn Closure caps until an audible "click" is heard.				
	Failure to follow may result in fuel spillage.				
19960					
	NOTICE				
	To prevent damage, wheels must be free to move when raising or lowering equipment.				
	When equipment is positioned, chock all wheels.				

3. Features



1	discharge & upper chain drive	7	intake hopper & hopper cloth
2	shaft guarding	8	hydraulic winch
3	hydraulic HD SP kit	9	belt idler
4	pulley guarding	10	belt tension adjustment
5	collapsible hopper cloth control	11	manual holder
6	reversible gearbox control	12	track

Also included: electric clutch, and light kit

4. Assembly

4.1. Assembly Safety

- MARNING 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.

4.2. Check the Shipment

Unload the auger parts at the assembly site and compare the packing slip to the shipment contents. Ensure that all items have arrived and that none are damaged. Take pictures of shipments prior to, or just after, unloading if there are any damages.

Report missing or damaged parts immediately to ensure that proper credit is received from AGI or your representative, and to ensure that any missing parts can be shipped quickly to avoid holding up the assembly process.

Important

Do not assemble or install damaged components.

4.3. Before You Begin

Before you assemble the auger:

- 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.
- If assembling inside, confirm the ceiling and door width/height provide enough clearance when installing the undercarriage and to remove the auger from the building.
- Ensure there is adequate space to remove the assembled auger from the assembly area.

4.4. Hydraulic Fittings and Bolt Tightening

Remember the following basic considerations when tightening hydraulic fittings and bolts:

- Tighten all fasteners to the torque specified in Section 6.1 Bolt Torque on page 81. Do not replace or substitute bolts, nuts, or other hardware that is of lesser quality than the hardware supplied by the manufacturer.
- All hydraulic fittings should be torqued to the recommended specifications. See Section 6.2 Fittings Torque Values on page 82.

NOTICE

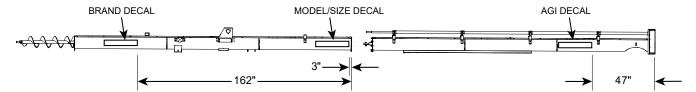
Do not overtighten fittings. Overtightening hose fittings can crack the fittings or motor body and will void the warranty.

4.5. Brand and Model Decal Placement

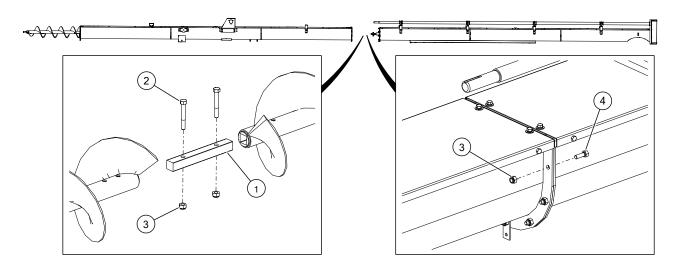
Important

Do not cover any existing safety or instruction decals with the model decals.

- 1. Apply decals to both sides of auger trough.
- 2. Center decals vertically and apply to auger trough.



4.6. Assemble the U-Trough & Flighting

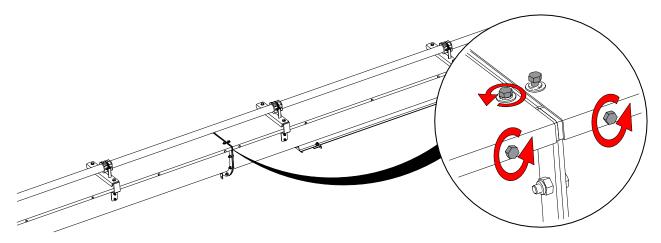


ĺ	1	flight connector shaft	3	lock nut, 7/16"	
Į	2	bolt, 7/16" x 3"	4	bolt, 7/16" x 1-1/4"	

Fixing a Twisted U-Trough

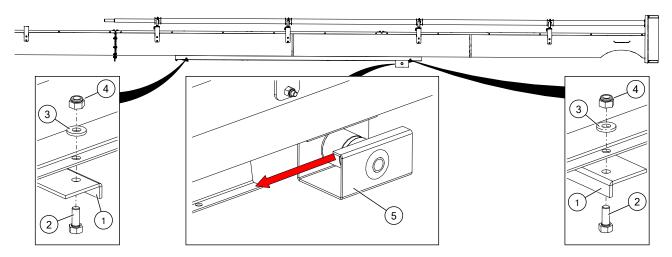
It is important to minimize twist in the trough during assembly. Excessive twist could cause the intake hopper or spout to not sit level relative to the ground. To check for twist, place a level along the flat surface of the trough cover, perpendicular to the axis. If the trough needs to be straightened:

1. Loosen all the bolts on the u-trough cover (top and sides).



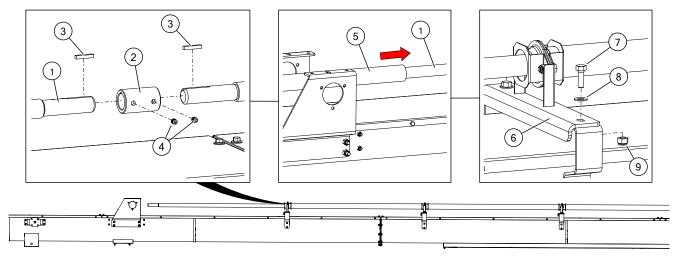
- 2. Twist the trough on either the spout end or lower end (whichever end is the worst). Clamp the trough when it is straight/level.
- 3. Put a level across the flat surface of the trough cover, perpendicular to the axis of the auger. The trough should be level from one end to the other.
- 4. Tighten the bolts on the cover, and unclamp the trough.

4.7. Install the Track Stops

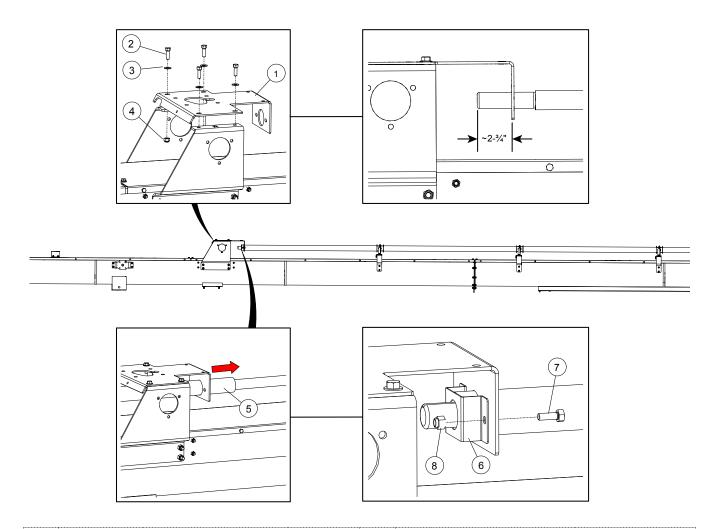


Assembly Note: • Slide track shoe onto track before attaching upper track stop. 1 track stop 4 lock nut, 7/16" 2 bolt, 7/16" x 1" 5 track shoe 3 track washer, 7/16"

4.8. Assemble the Driveshaft

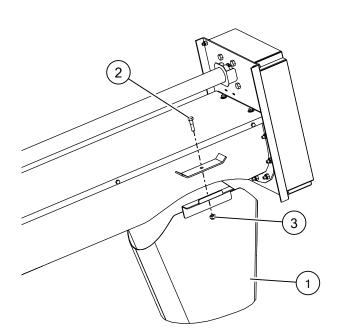


1	lower driveshaft	6	driveline bracket assembly
2	driveshaft connector	7	bolt, 7/16" x 1-1/4"
3	square key, 1/4" x 1-1/2"	8	flat washer, 7/16"
4	set screw, 3/8" x 3/8"	9	lock nut, 7/16"
5	driveshaft guard		



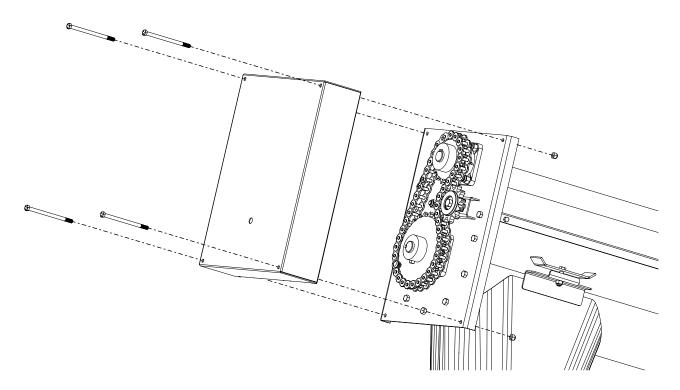
1	gearbox mount bracket	5	driveshaft guard
2	bolt, 7/16" x 1-1/4"	6	guard hanger bracket
3	flat washer, 7/16"	7	bolt, 3/8" x 1"
4	lock nut, 7/16"	8	lock nut, 3/8"

4.9. Install the Spout



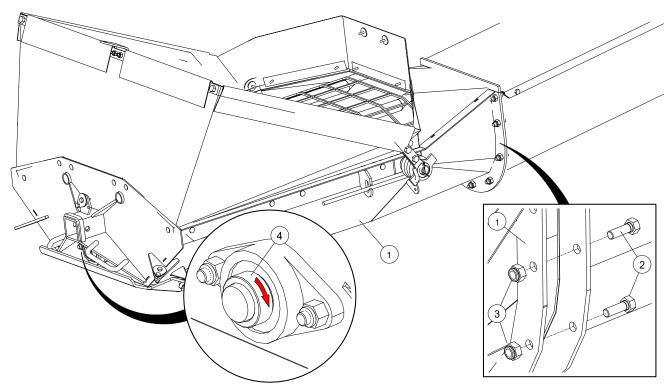
1	spout
2	bolt, 7/16" x 1-3/4"
3	lock nut, 7/16"

4.10. Add Grease to the Head Cover



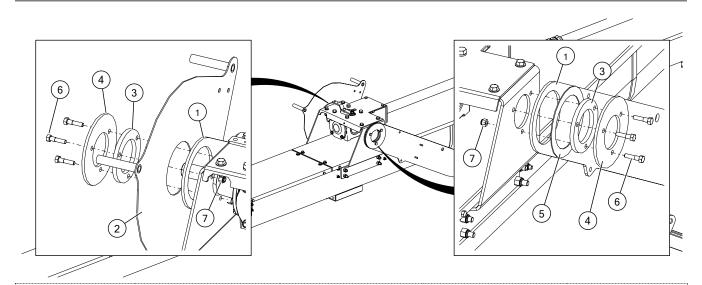
- 1. Remove the head cover from the discharge end.
- 2. Fill the head cover to plug level with grease.
- 3. Lubricate the chain.
- 4. Re-install the head cover.

4.11. Install the Hopper Assembly



1	hopper assembly	3	lock nut, 7/16"
2	bolt, 7/16" x 1-1/4"	4	lock collar, 1-1/4"

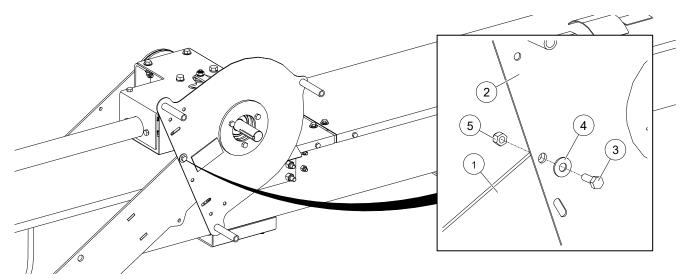
4.12. Attach the Lower Frame to the U-Trough



Assembly Note:

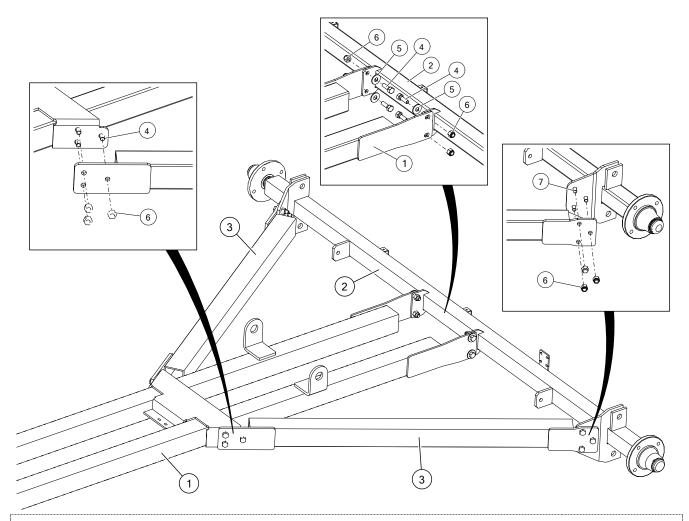
• Ensure that the pulley shim guard is centered on the lower arm bolt plates.

	, , ,		
1	lower frame	5	spacer
2	pulley shim guard	6	bolt, 3/8" x 1-1/2"
3	bolt plate, small	7	lock nut, 3/8"
4	bolt plate, large		



1 lower frame		4	flat washer, 3/8"	
	2	pulley shim guard	5	lock nut, 3/8"
	3	bolt, 3/8" x 1"		

4.13. Attach the Lower Frame to the Axle

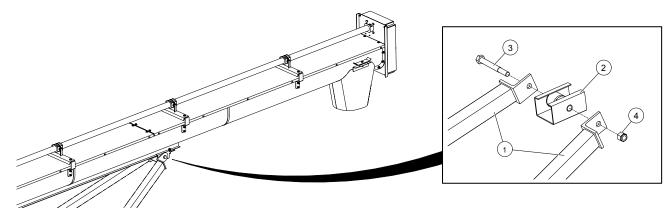


Assembly Notes:

- Loosely install the lower frame to the axle assembly.
- Loosely install all the lower support frame hardware.
- Tighten all hardware once all of the hardware has been placed.

1	lower frame	5	flat washer, 1/2"
2	axle assembly	6	lock nut, 1/2"
3	lower support frame	7	bolt, 1/2" x 1-3/4"
4	bolt, 1/2" x 1-1/2"	İ	

4.14. Attach the Upper Frame to the Trough

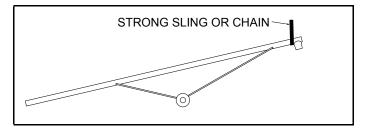


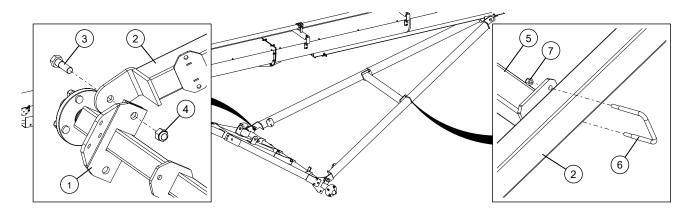
1	upper frame arm	3	bolt, 3/4" x 6-1/2"	
2	track shoe (installed in a previous section)	4	lock nut, 3/4"	ļ

4.15. Attach the Upper Frame to the Axle

Important

Be sure to use proper hoisting equipment and procedures when raising the discharge end of the auger. Lock out the hoist apparatus prior to working around or under the raised trough.

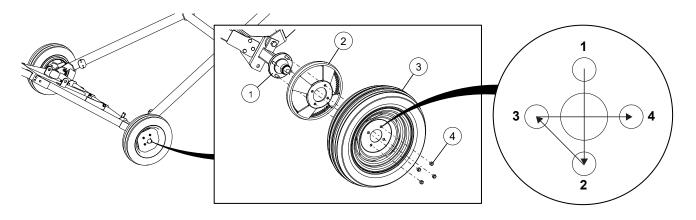




Assembly Note:

• Remove the stand from the intake end of the auger trough and raise the discharge end with a block and tackle or a front end loader and a strong sling or chain. Height should be sufficient so the frame can be easily attached to the axle.

1	axle	5	upper frame cross member
2	upper frame arm	6	square U-bolt, 3/8" x 3-1/16" x 4"
3	bolt, 3/4" x 2-1/2"	7	lock nut, 3/8"
4	lock nut, 3/4"		



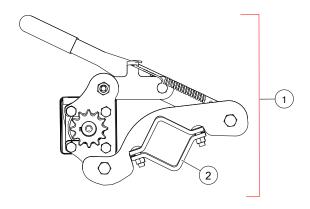
Assembly Notes:

- Check that air pressure in the tires match pressure indicated on the tire sidewall.
- Torque the wheel nuts to 80 ft·lb ± 10 ft·lb (108.5 N·m ± 13.5 N·m) using the pattern shown.

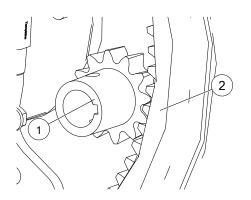
1	hub	3	wheel
2	ring gear	4	wheel nut, 1/2"

4.16. Install the Over-Center Drive

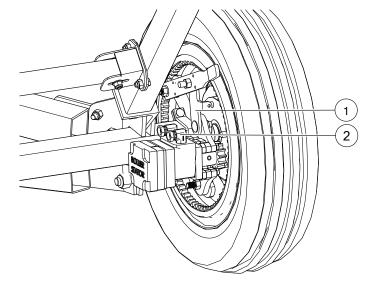
- 1. Position the axle cap of the over-center drive assembly squarely on the axle tube.
- 2. With the pinion gear flush with the ring gear, bolt the axle cap to the axle tube using four carriage bolts and lock nuts.
- 3. Attach fittings to hydraulic motors.



1	over-center drive assembly
2	bolt on axle cap



1	pinion gear
2	ring gear



1	over-center drive assembly
2	steel fitting, 90, 8MNPT x 6 FNPSM

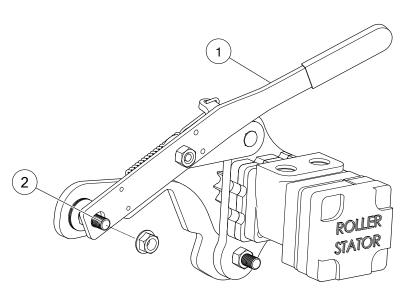
4.17. Adjust the Pinion Gear

NOTICE

Failure to ensure proper gear meshing will result in gear damage. The pinion gear should mesh with the ring gear to provide maximum tooth contact.

Insufficient meshing

- If the pinion gear will barely mesh with the ring gear, loosen the slot bolt jam nuts and slide the handle towards the tire until the pinion gear teeth mesh with the ring gear teeth without binding.
- If the pinion gear does not mesh fully with the ring gear, adjust the handle slot bolt (which bolts to the drive mount clamp) so full meshing of pinion gear is achieved when handle is in over-center position.

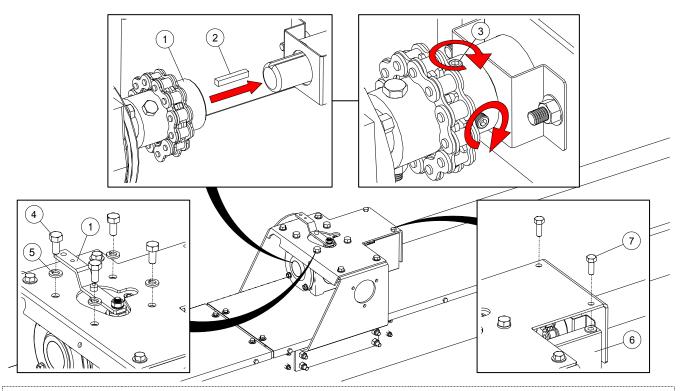


1	handle
2	handle slot bolt

Gear teeth binding

• If the handle will not 'lock' into over-center position, loosen the slot bolt nuts and slide the handle away from the tire.

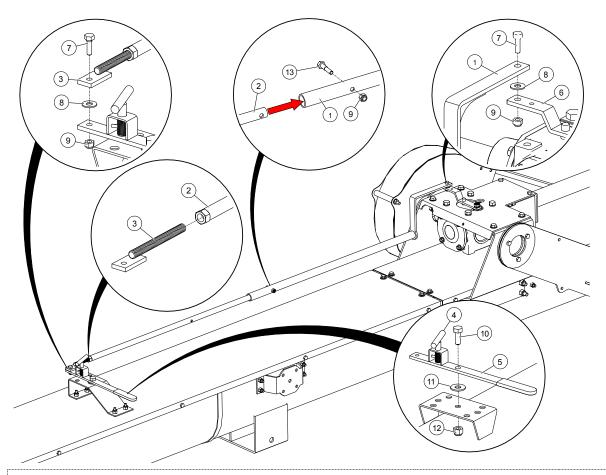
4.18. Install the Reversible Gearbox



Assembly Notes:

- Check the gearbox oil level; gearbox should be half full. Use only EP90 lube oil and fill to HALF FULL only.
- The ends of the gearbox shaft and the driveshaft should be flush with the inside of the chain coupler sprockets.
- If the driveshaft is too long or too short, do the following:
 - If the driveshaft is too long, take up the extra length in the driveshaft connector.
 - If the driveshaft is too short, remove the headcover, chain, sprocket, and lock collar at the top of the upper trough to adjust the two driveshafts.

ļ	1	reversible gearbox assembly	5	lock washer, 1/2"
	2	square key, 1/4" x 1-1/2"	6	chain coupler guard
Ì	3	set screw, 3/8" x 3/8"	7	bolt, 3/8" x 1"
ĺ	4	bolt, 1/2" x 1"		

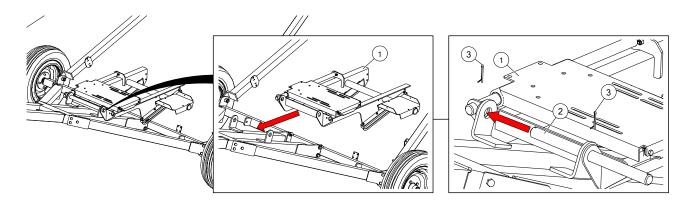


Assembly Notes:

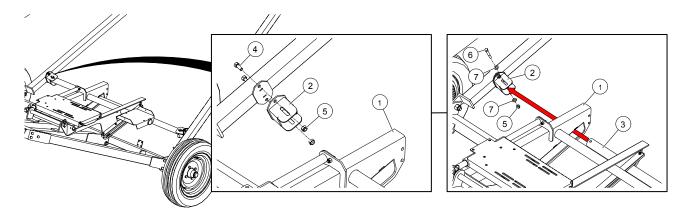
- Ensure the reversible gearbox components do not interfere with any other auger components.
- The detent lever must be in the same position as the gearbox shifter. Ensure the lock pin is engaged with the bracket.
- The detent lever assembly and gearbox shifter joints must pivot do not overtighten.
- Disengage the lock pin and move the detent lever from forward to reverse a few times.
 - Ensure the gearbox fully engages in both directions when moving the lever back and forth.
 - The gearbox should be fully engaged when the lock pin is in the hole.
- If the gearbox does not shift evenly in both directions, use the adjust lug to increase or decrease the length of the gearbox handle extension as required.

1	gearbox push rod	8	flat washer, 5/16"
2	gearbox handle extension, straight	9	lock nut, 5/16"
3	adjust lug	10	bolt, 1/2" x 1-1/4"
4	lock pin	11	flat washer, 1/2"
5	detent lever assembly	12	lock nut, 1/2"
6	gearbox shifter	13	bolt, 5/16" x 1-1/2"
7	bolt, 5/16" x 1"		

4.19. Install the Motor Mount



1	engine slider assembly	3	cotter pin, 3/16" x 1-3/4"
2	motor pivot pin		



Assembly Note:

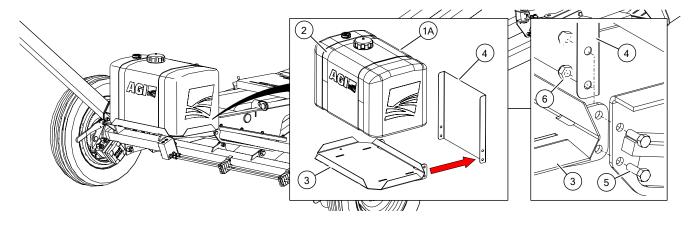
• Ensure leveller tube is through slots in the engine slider assembly before attaching to leveller tube mount brackets.

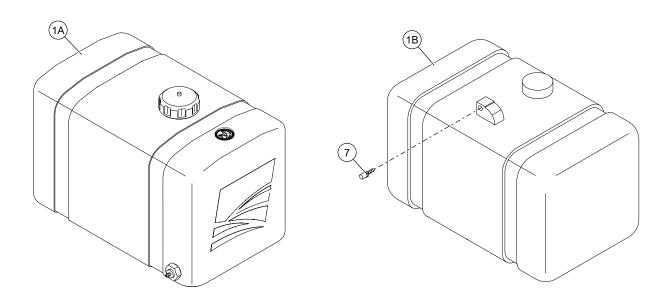
1	engine slider assembly	5	lock nut, 7/16"
2	cross tube bracket	6	bolt, 7/16" x 3"
3	leveller tube	7	flat washer, 7/16"
4	bolt, 7/16" x 1-1/4"		

4.20. Install the Gas Drive

4.20.1 Install the Battery and Fuel Tank

Fuel Tank



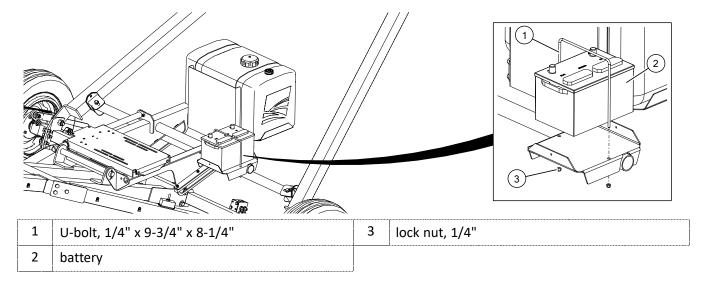


Assembly Notes:

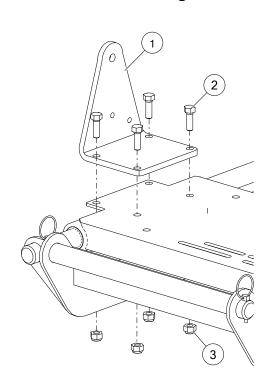
- Route the fuel line between the heat shield and gas tank.
- **EPA Fuel Tank:** Torque the brass fitting to 10 ft·lbs. Use teflon tape.

1A	non-EPA fuel tank	4	heat shield
1B	EPA fuel tank	5	bolt, 7/16" x 1-1/4"
2	fuel tank straps	6	lock nut, 7/16"
3	gas tank mount	7	125-4B fitting

Battery

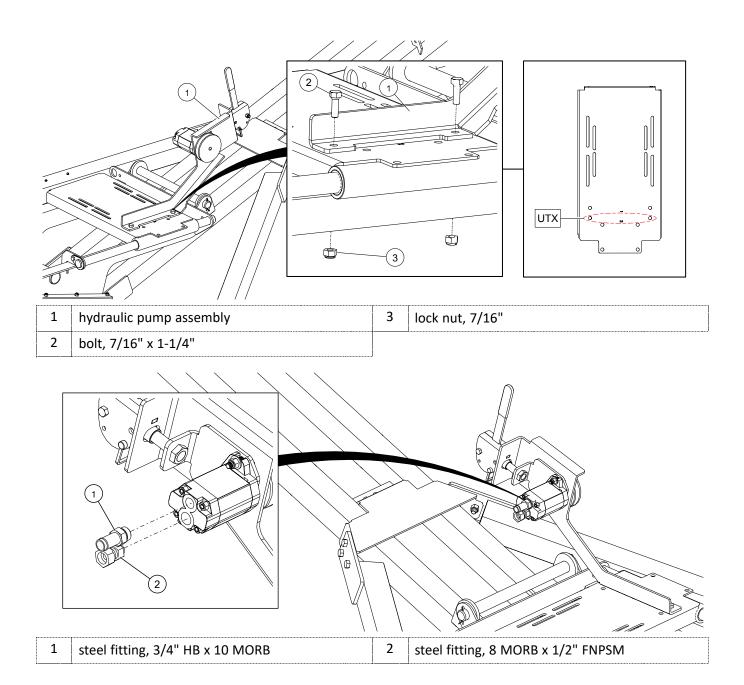


4.20.2 Install the Engine Slider Mount Bracket

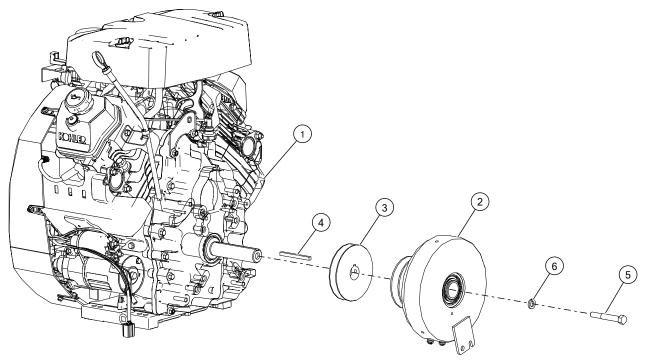


1	engine slider mount bracket
2	bolt, 7/16" x 1-1/4"
3	lock nut, 7/16"

4.20.3 Install the Hydraulic Pump



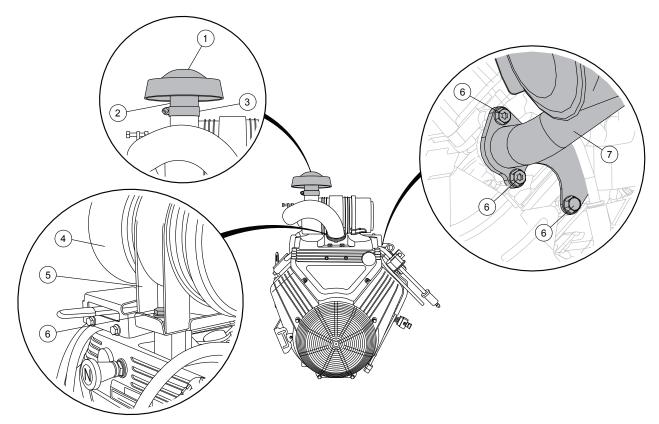
4.20.4 Install the Electric Clutch



Assembly Note:			
Apply anti-seize to the engine shaft where the electric clutch will slide on.			
1	gas engine motor	4	square key, 1/4" x 3"
2	electric clutch, triple	5	bolt, 7/16" x 3"
3	pump pulley, 4-1/2" x 1-1/8" single	6	lock washer, 7/16"

4.20.5 Install the Cold Weather Kit

- 1. Attach the muffler to the engine with bolts.
- 2. Remove the debris filter cap from the intake air filter port. Save the hose clamp for later use.
- 3. Loosen the bolts securing the intake air filter mount.



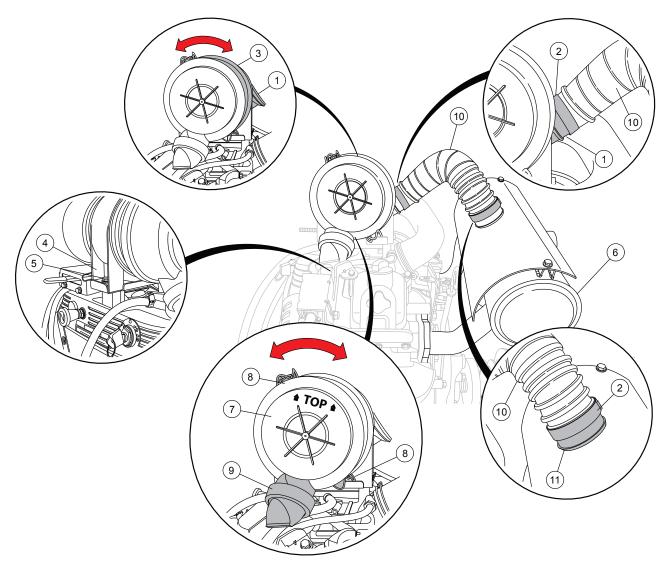
1	debris filter cap	5	intake air filter mount
2	intake air filter port	6	bolts (supplied with muffler kit)
3	hose clamp	7	muffler
4	intake air filter		

- 4. Rotate the intake air filter so that the intake filter port is angled toward the muffler.
- 5. Tighten the bolts to secure the intake air filter mount.
- 6. If necessary, release the clamps securing the intake air filter cap and turn it so the drain port points down.

Note

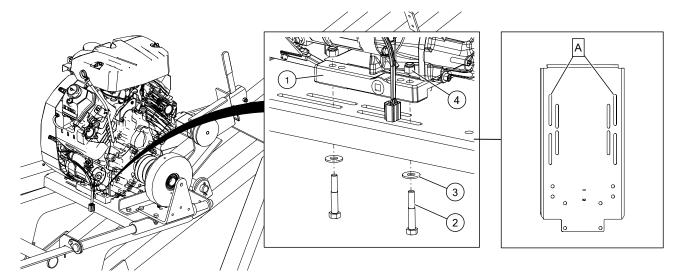
Cap is marked with "TOP" orientation.

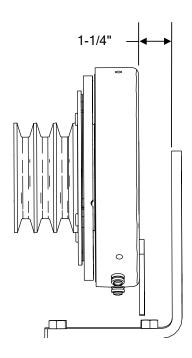
- 7. Install the ducting on the intake air filter port using the hose clamp.
- 8. Route the ducting to the muffler shield port and install using the supplied hose clamp.



1	intake air filter port	7	air filter cap
2	hose clamp	8	clamp
3	intake air filter	9	drain port
4	intake air filter mount	10	ducting
5	bolts (supplied with muffler kit)	11	muffler shield port
6	muffler		

4.20.6 Install the Motor





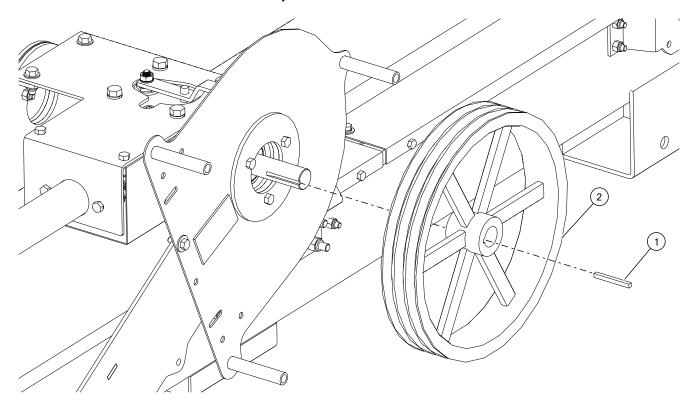
Assembly Notes:

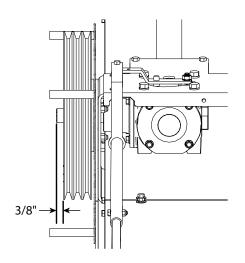
- Place the motor so that the gap between the face of the electric clutch and the inside face of the guard attach bracket is 1-1/4".
- Install the exhaust pipe, muffler and muffler shield to the engine.
 - There is a possible interference with the (standard) muffler hitting the belt guards. If this happens, then please contact your local AGI dealer for an alternative.
- · Perform all the engine wiring.
- Run a fuel hose from the brass fitting to the fuel filter and secure with hose clamps.

1	gas engine motor
2	bolt, 5/16" x 2-1/4"
3	flat washer, 5/16"
4	lock nut, 5/16"
Α	Vanguard, 40 HP ETC

4.21. Install the Drive Components

4.21.1 Install the Gearbox Pulley

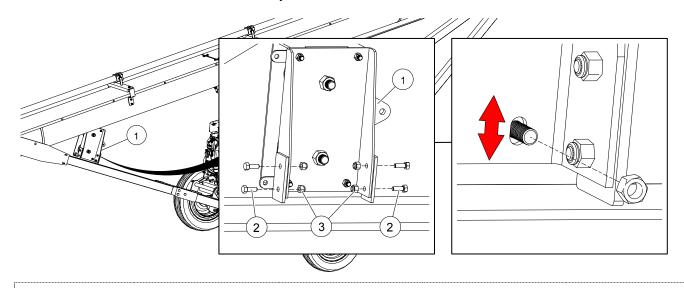




Assembly Notes:

- Ensure that the hub set screws are toward the outside.
- The distance between the face of the gearbox shaft and the outside hub should be 3/8".
- 1 square key, 1/4" x 2-1/2"
- 2 gearbox pulley, triple

4.21.2 Install the Idler Assembly

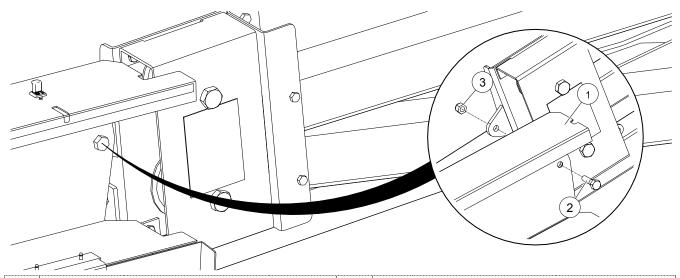


Assembly Notes:

- Use a level/square to ensure the idler assembly is mounted straight.
- The slots in the main plate can be used to adjust the tilt of the pulleys.

1	idler assembly	3	lock nut, 3/8"
2	bolt, 3/8" x 1"		

4.21.3 Install the Guard Assembly

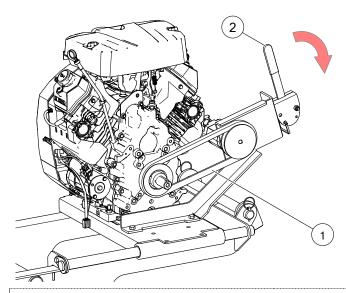


 1
 bottom guard assembly
 3
 lock nut, 1/2"

 2
 bolt, 1/2" x 1-3/4"

4.21.4 Install the Belt

Pump Belt

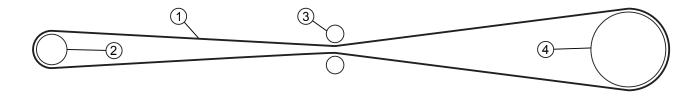


Assembly Note:

• Rotate the pump handle clockwise to apply tension to the pump belt and pull down the handle to lock the belt in place.

L.	,		,	
	1	pump belt, BX35	2	pump handle

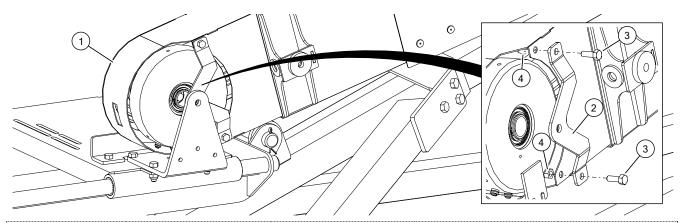
Drive Belt



Assembly Note: • The belt must run straight. Check the alignment of the pulleys and adjust if necessary. 1 belt 3 flat idler pulley 2 electric clutch 4 gearbox pulley

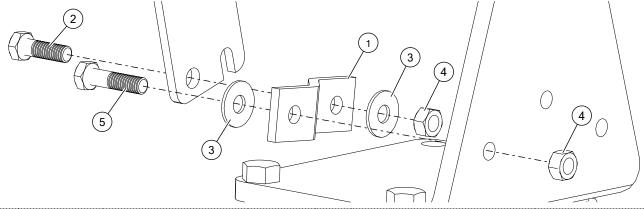
4.21.5 Install the Clutch Guard Assembly

Installing the Clutch Guard



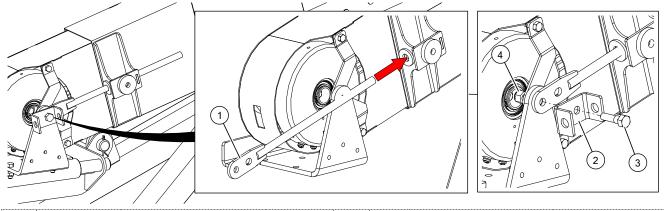
Assembly Note: Slip clutch guard over the electric clutch and slide into the guard assembly. 1 clutch guard 3 bolt, 3/8" x 1" 2 guard retainer plate 4 lock nut, 3/8"

Securing the Clutch



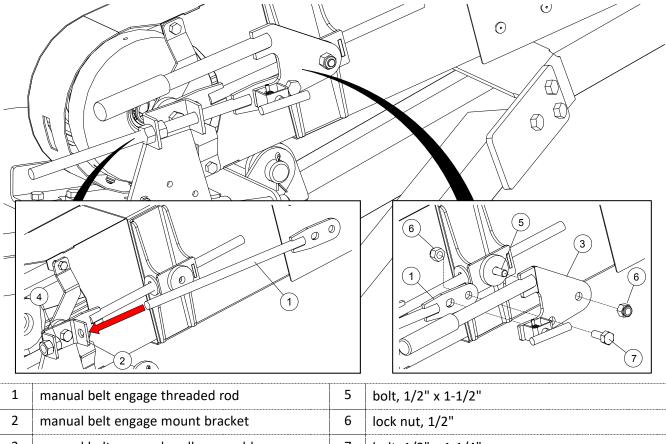
1	clutch stop	4	lock nut, 5/16"
2	bolt, 5/16" x 1"	5	bolt, 5/16" x 1-1/4"
3	flat washer, 5/16"		

Installing the Manual Belt Engage Guide Rod



1	manual belt engage guide rod	3	bolt, 1/2" x 1-3/4"
2	manual belt engage mount bracket	4	lock nut, 1/2"

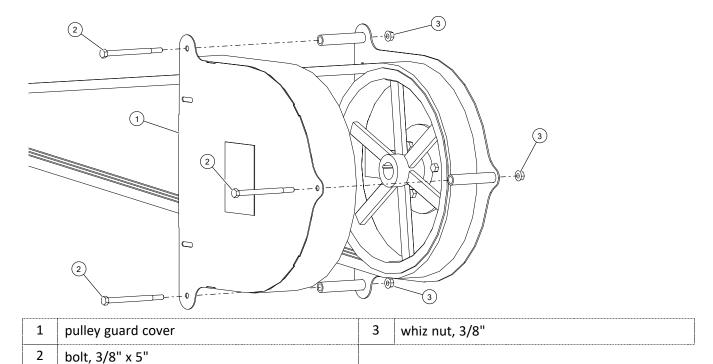
Installing the Manual Belt Engage Handle Assembly



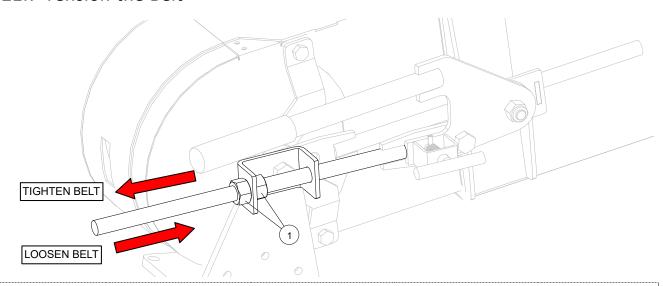
7 bolt, 1/2" x 1-1/4" 3 manual belt engage handle assembly 4 hex nut, 5/8"

50 31084 R9

4.21.6 Install the Gearbox Pulley Cover



4.21.7 Tension the Belt

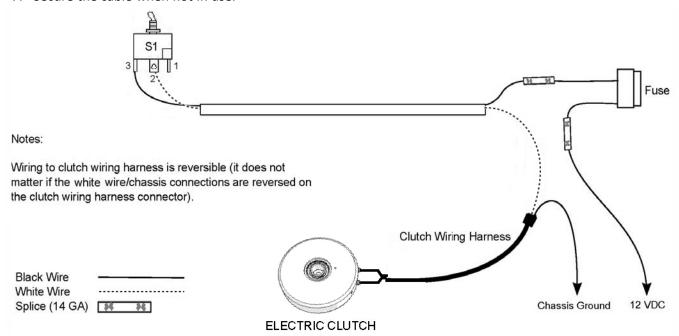


Assembly Notes:

- Use the two hex nuts to apply tension to the drive belt prior to closing the guard cover.
- Close the guard using the rubber draw latches after the belt has been tensioned.
- 1 hex nut, 5/8"

4.22. Wire the Electric Clutch

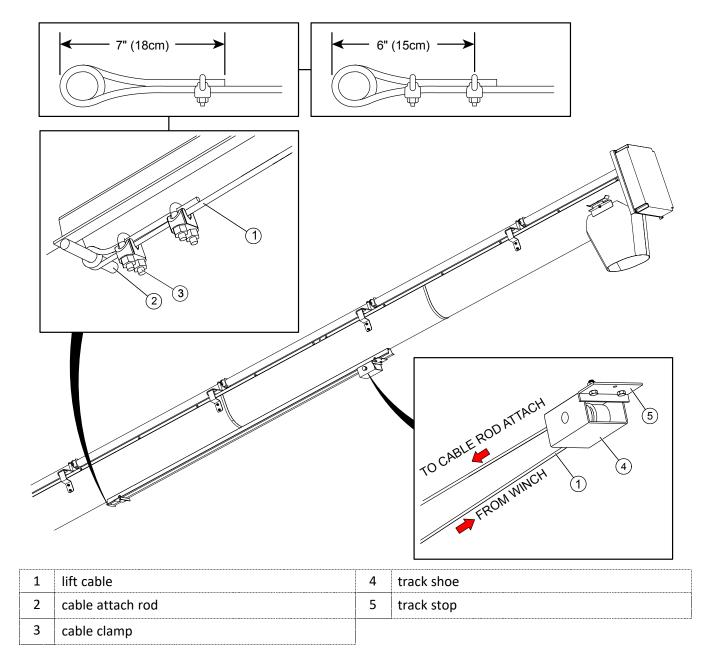
- Remove (cut off) the clutch harness connector that includes a connection clip on one side.
- 2. Prepare the cut end for connection by trimming harness jacket and wire insulation as needed, crimp ring terminals to the two wires on that end, and connect them to the screw terminals on the clutch (it does not matter which wire connects to which terminal).
- 3. Complete the remaining electrical connections, using 14 gauge crimp connectors (splice, spade, and ring terminal) as needed:
 - connect the white switch cable wire to one of the clutch harness connector terminals;
 - connect the black switch cable wire to the fuse, and from there to 12 VDC power;
 - connect the remaining clutch harness connector terminal to ground.
- 4. Test the switch to ensure that the electric clutch engages and disengages properly.
- 5. Use electrical tape to seal and secure any electrical connections that might require weather-proofing.
- 6. Run the electrical cable through the lower frame to prevent accidental disconnection of wiring if the cable is pulled tight.
- 7. Secure the cable when not in use.





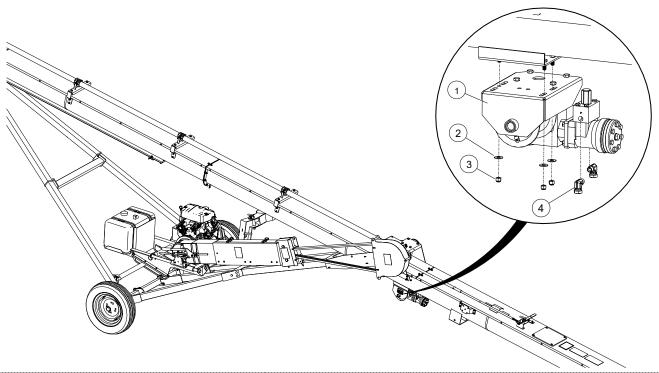
4.23. Install the Lift Cable

- 1. Attach the cable to the cable attach rod welded to the bottom of the track by wrapping it around the rod and doubling-back about 7" (18 cm) of cable.
- 2. Secure the cable in place by installing and tightening two 1/4" cable clamps.
 - a. Apply the first clamp 6" (15.2 cm) from the cable loop with 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. Run cable between the track stop and the auger trough.
- 4. Thread the cable over and around the track shoe. Make certain it is properly seated in the cable groove.



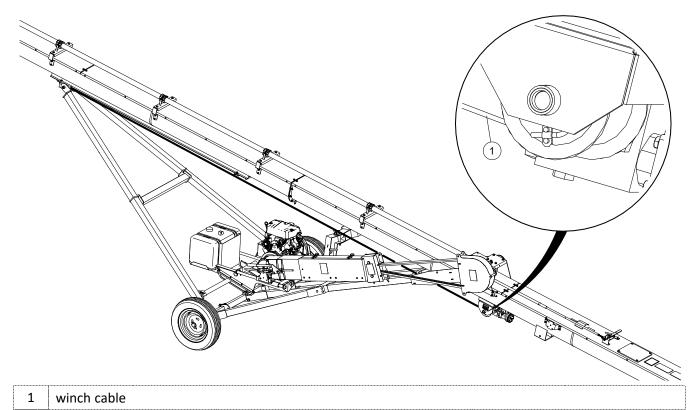
4.24. Install the Hydraulic Winch and Connect the Lift Cable

Hydraulic Winch



1	hydraulic winch assembly	3	lock nut, 3/8"
2	flat washer, 3/8"	4	steel fitting, 90, 6 MNPT x 6 FNPSM

Connect the Lift Cable



- 1. Pull cable to the winch.
- 2. Wrap the cable over and around the winch drum.

Important

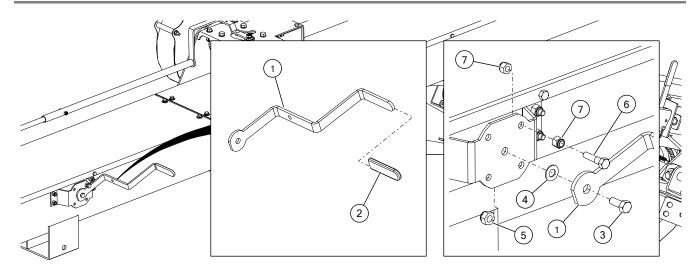
Make sure there is a minimum of three wraps of cable on the winch drum when the auger is in transport position.

3. Thread the cable through the hole in the side of the winch drum and secure it using a cable clamp.

NOTICE

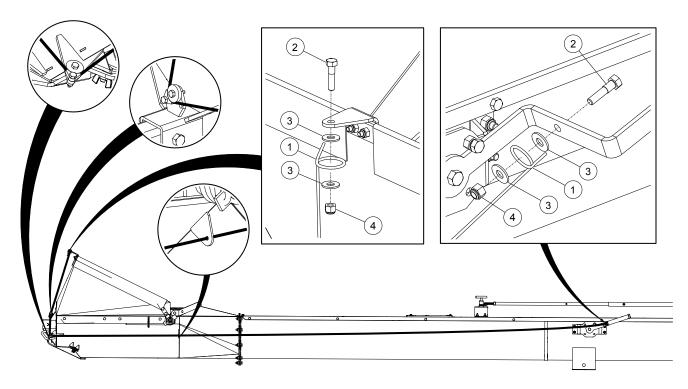
Locate the cable clamp nut on the outside of the drum to prevent damage to the cable.

4.25. Install the Hopper Canvas Handle



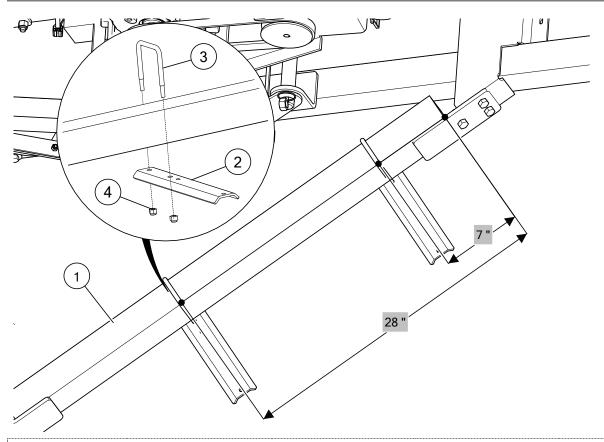
1	hopper canvas handle	5	lock nut, 7/16"
2	rubber handle grip	6	bolt, 3/8" x 1-1/2"
3	bolt, 7/16" x 1"	7	lock nut, 3/8"
4	flat washer, 7/16"		

4.26. Install the Hopper Cable



1	hopper cable	3	flat washer, 3/8"
2	bolt, 3/8" x 1-1/2"	4	lock nut, 3/8"

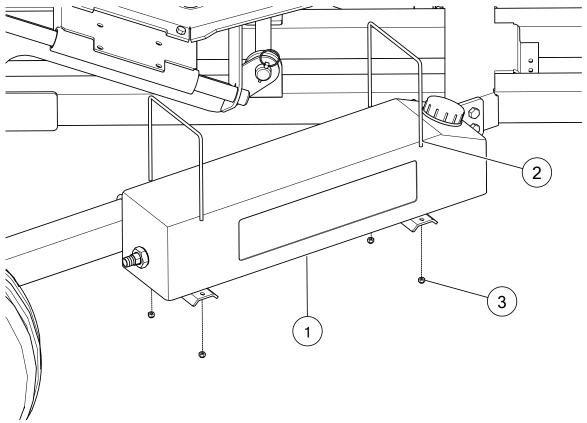
4.27. Install the Hydraulic Oil Tank



Assembly Notes:

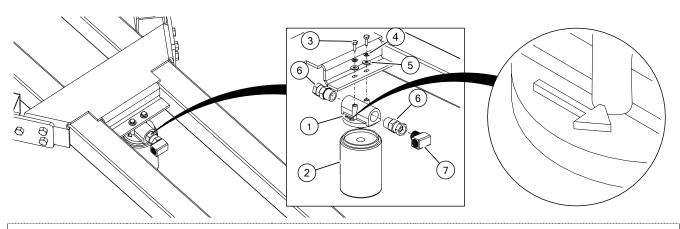
- Place the first hydraulic tank mount 7" from the end of the tube.
- Place the second hydraulic tank mount 28" from the end of the tube.

1	lower support frame, right	3	square U-bolt, 3/8" x 3-1/16" x 4"
2	hydraulic tank mount	4	lock nut, 3/8"



Assembly Note: • Ensure the cap is located on the raised side. 1 hydraulic tank 3 lock nut, 1/4" 2 square U-bolt, 1/4" x 7-1/4" x 7-5/8"

4.28. Install the Hydraulic Filter

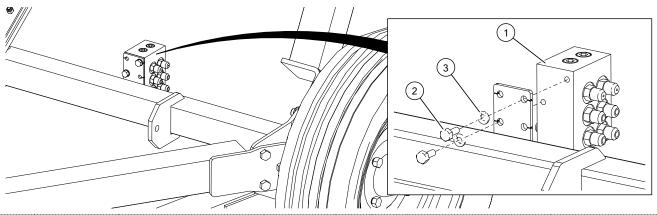


Assembly Note:

• The hydraulic hoses MUST be installed to ensure that the oil flows to the tank, in the same direction as the arrow on the filter head.

1	hydraulic filter head	5	flat washer, 1/4"
2	hydraulic filter	6	steel fitting, 3/4" MNPT x 1/2" FNPSM
3	bolt, 1/4" x 3/4"	7	elbow
4	lock washer, 1/4"		

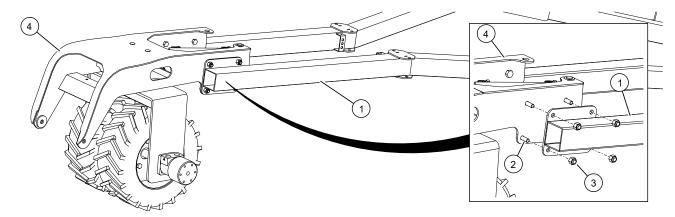
4.29. Install the Hydraulic Manifold



1hydraulic manifold3lock washer, 5/16"2bolt, 5/16" x 3/4"

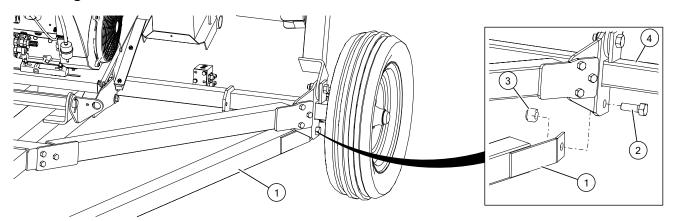
4.30. Install the Undercarriage

Connecting the SP Reach Arms to the Mover Assembly



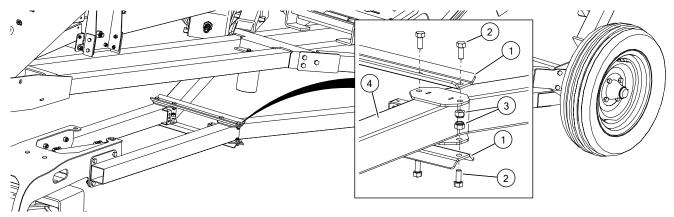
1	AWD SP reach arm	3	lock nut, 1/2"
2	bolt, 1/2" x 1-1/4"	4	AWD SP mover assembly

Connecting the SP Reach Arms to the Axle



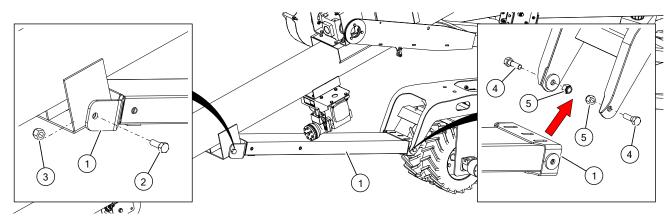
Asse	Assembly Note:					
• 1	This connection must rotate—do not overtighten.					
1	AWD SP reach arm	3	lock nut, 3/4"			
2	bolt, 3/4" x 2"	4	axle			

Installing the SP Reach Arm Tie Braces



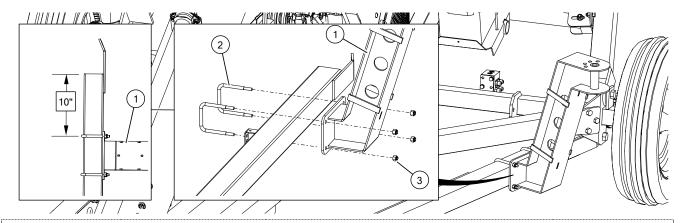
Asse	Assembly Note:					
This step is not required for the 36' model.						
1	tie brace	3	lock nut, 7/16"			
2	bolt, 7/16" x 1"	4	AWD SP reach arm			

Installing the Slider Assembly onto the Tube and Mover Assembly



Asse	Assembly Note:					
These joints must pivot—do not overtighten.						
1	AWD mover slider assembly	4	bolt, 5/8" x 2"			
2	bolt, 3/4" x 2"	5	lock nut, 5/8"			
3	lock nut, 3/4"					

Installing the Controls Tower

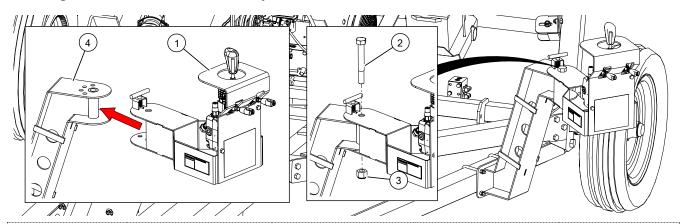


Assembly Notes:

- Install the tower 10" from the end of the SP reach arm tube.
- Install the tower on the right SP reach arm (looking from the intake, towards the discharge).

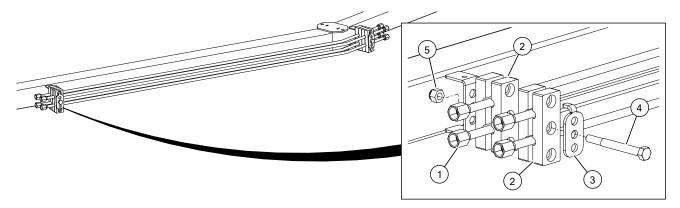
1	controls tower	3	lock nut, 3/8"
2	square U-bolt, 3/8" x 3-1/16" x 4"		

Installing the Mover Controls Assembly



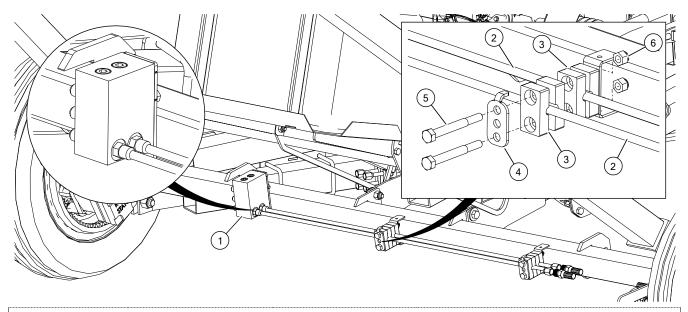
Assembly Note: This connection must rotate—do not overtighten. mover controls assembly bolt, 3/4" x 5-1/2" 4 controls tower

Installing the Bent Steel Hydraulic Lines



Assembly Notes: Install on the same side as the controls. Install clamp bracket with the bend tab pointing inside of the bolt hole. hydraulic steel line, bent double tube clamp lock nut, 3/8" hydraulic tube clamp bracket

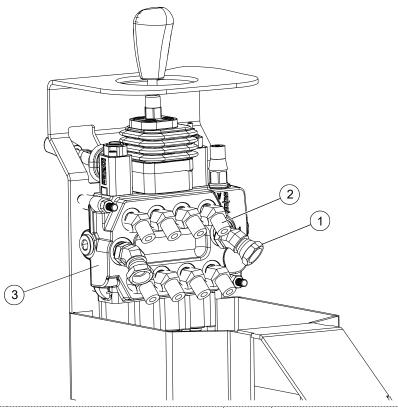
Installing the Straight Hydraulic Steel Lines onto the Axle



Asse	Assembly Note:						
•	 Install the clamp bracket with the bend tab pointing towards the axle. 						
1	hydraulic manifold	4	hydraulic tube clamp bracket				
2	hydraulic steel line, straight	5	bolt, 3/8" x 3-1/4"				
3	single tube clamp	6	lock nut, 3/8"				

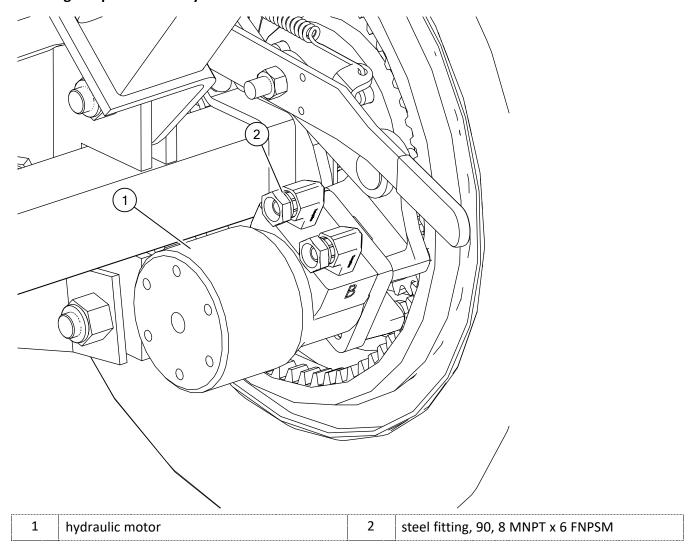
4.31. Install the Hydraulic Adapters

Installing Adapters at the Valve

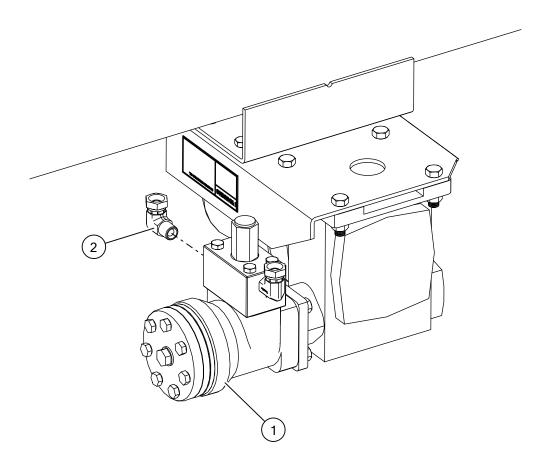


1	steel fitting, 45, 8 MORB x 1/2 FNPSM	3	hydraulic valve
2	steel fitting, 45, 6 MORB x 6 MJIC		

Installing Adapters at the Hydraulic Motors

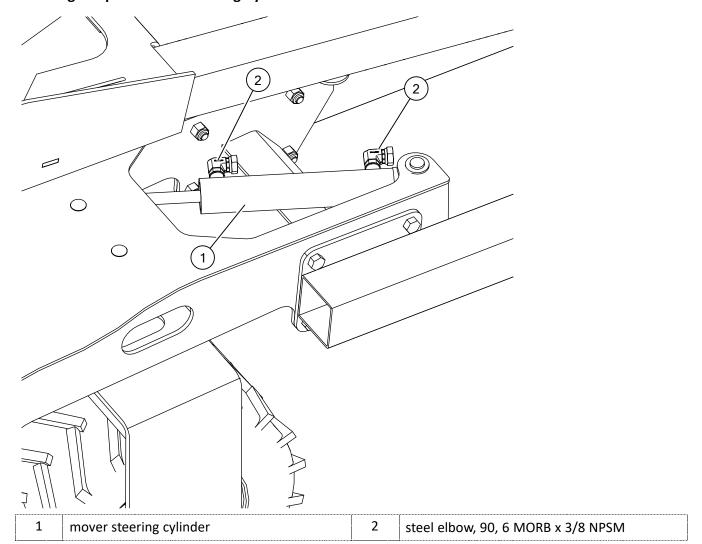


Installing Adapters at the Hydraulic Winch

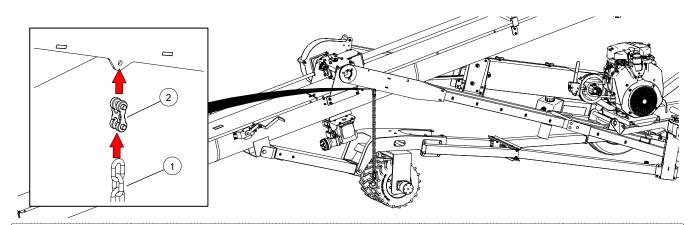


1	hydraulic winch	2	steel fitting, 90, 6 MNPT x 6 FNPSM	
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Installing Adapters at the Steering Cylinder



4.32. Attach the Transport Chain



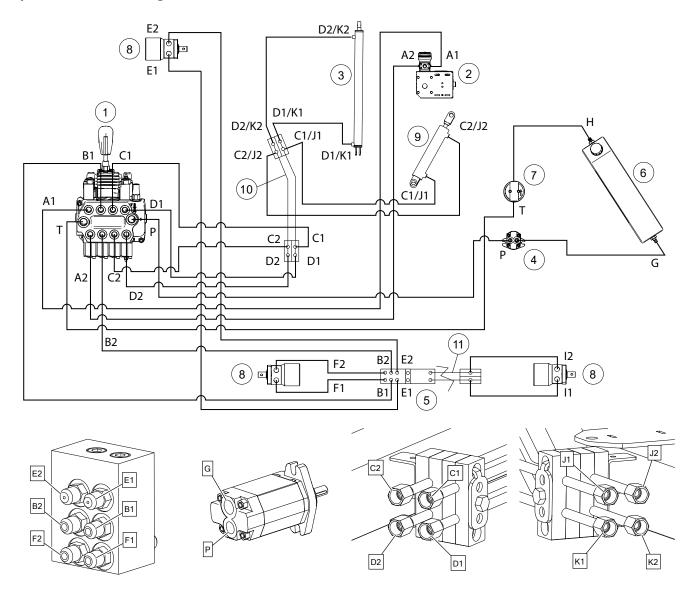
Assembly Notes:

- If necessary, the transport chain assembly can be shortened.
 - Remove mid link from chain.
 - Attach mid link to the appropriate chain link.

1 transport chain 2 mid link

4.33. Attach the Hydraulic Hoses

Hydraulic Hose Routing



Hydraulic Components

1	hydraulic valve	7	oil filter
2	hydraulic winch	8	drive motor
3	hydraulic cylinder, slider	9	hydraulic cylinder, steering
4	hydraulic pump	10	steel hydraulic lines, bent
5	hydraulic manifold	11	steel hydraulic lines, straight
6	oil tank		

Hydraulic Hoses

Item	Hose Ends	Length
A1/A2	3/8" MNPT x #6 FJIC	3/8" x 248"
B1/B2	#6 FJIC x #6 FJIC	3/8" x 60"
C1/C2	#6 FJIC x #6 MJIC	3/8" x 54"
D1/D2	#6 FJIC x #6 MJIC	3/8" x 54"
E1/E2	#6 FJIC x 1/2" MNPT	3/8" x 155"
F1/F2	#6 FJIC x 3/8" MNPT	3/8" x 18"
G	N/A	3/4" x 78"
Н	1/2 MNPT x 1/2 FNPSM	1/2" x 22"
11/12	#6 MJIC x 3/8" MNPT	3/8" x 18"
J1	#6 MJIC x 3/8" MNPT	3/8" x 18"
J2	#6 MJIC x 3/8" MNPT	3/8" x 28"
K1	#6 MJIC x 3/8" MNPT	3/8" x 66"
K2	#6 MJIC x 3/8" MNPT	3/8" x 90"
Р	1/2" MNPT x 1/2" MNPT	1/2" x 110"
Т	1/2" MNPT x 1/2" MNPT	1/2" x 110"

Hose Routing



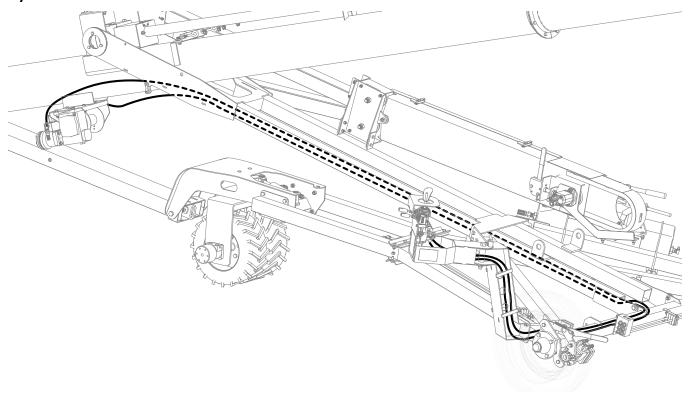
Serious operator injury could occur if the transport unit and hydraulic hoses are not assembled correctly. If necessary, disconnect the hoses and re-assemble.

The SP Transport unit MUST operate as indicated on the control panel decal. The auger MUST move in the direction that the handle is moved.

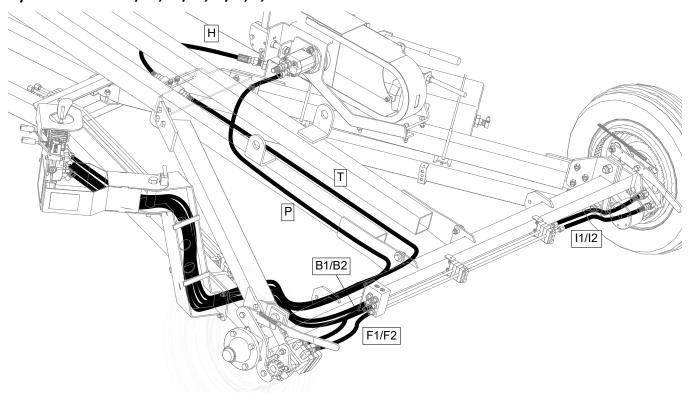
Assembly Notes:

- Assemble hoses as illustrated.
- · Keep hoses free of dirt while assembling.
- Keep pressure and return sides aligned.
- Tighten after being satisfied that the hoses are in the proper position.
- · Check operation.
- Secure hoses in place with the cable ties supplied.

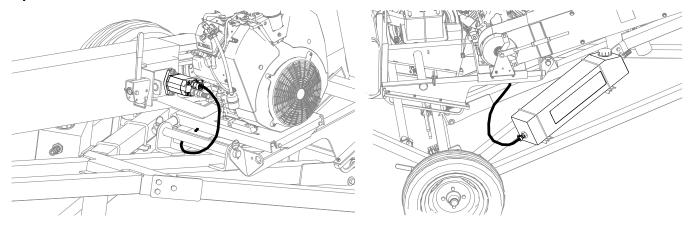
Hydraulic Hoses A1 & A2



Hydraulic Hoses B1/B2, F1/F2, I1/I2, P, T & H



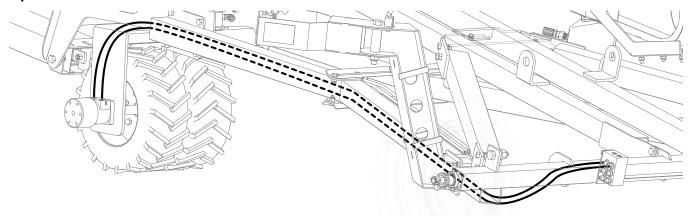
Hydraulic Hose G



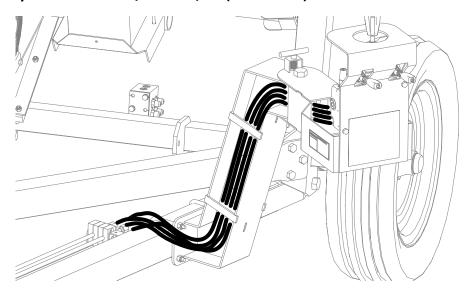
Note

Route hose G under the engine slider assembly along the lower frame.

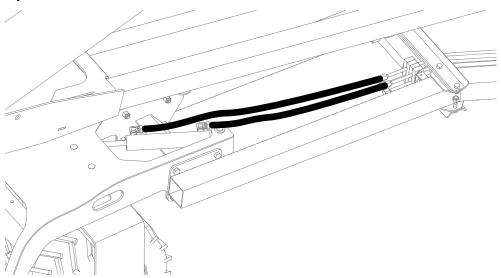
Hydraulic Hoses E1 & E2



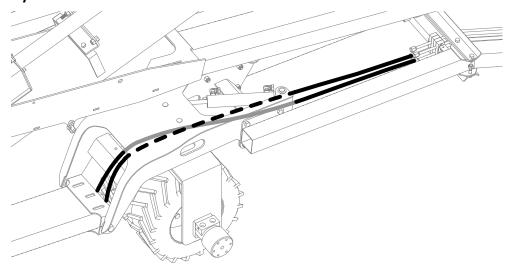
Hydraulic Hoses C1/C2 & D1/D2 (from Valve)



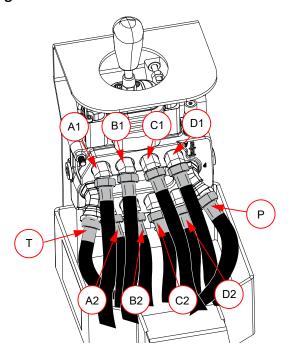
Hydraulic Hoses J1 & J2



Hydraulic Hoses K1 & K2

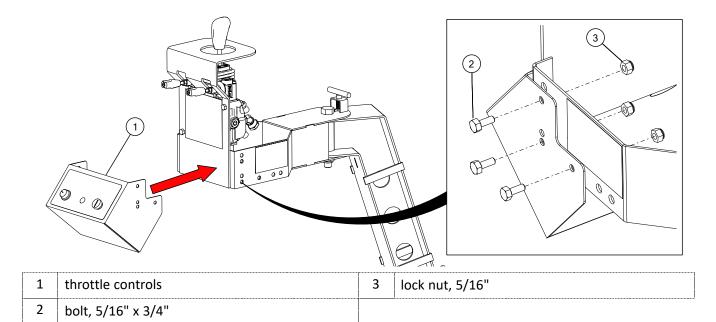


Hydraulic Steering Valve

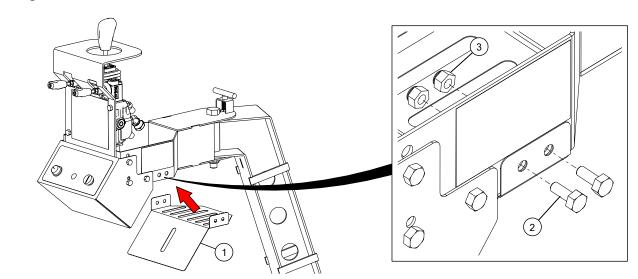


4.34. Install Electronic Throttle Controls

Attaching the Throttle Controls



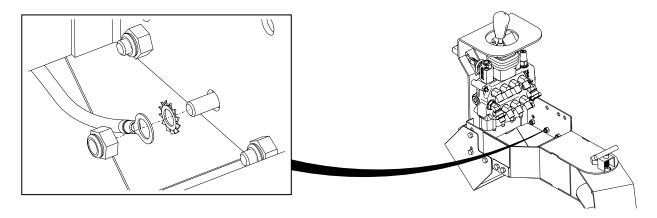
Attaching the Bottom Cover



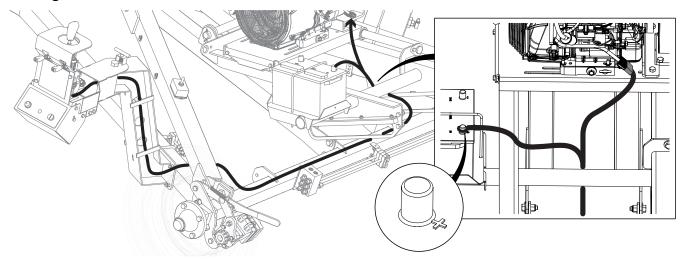
1	throttle controls bottom cover	3	lock nut, 5/16"
2	bolt, 5/16" x 3/4"		

4.34.1 Harness Routing

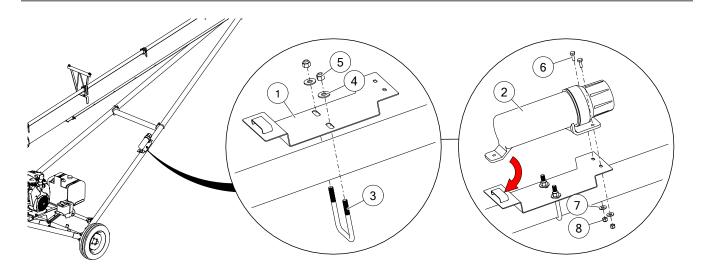
Attaching the Ground Wire Ring Terminal



Routing the Harness

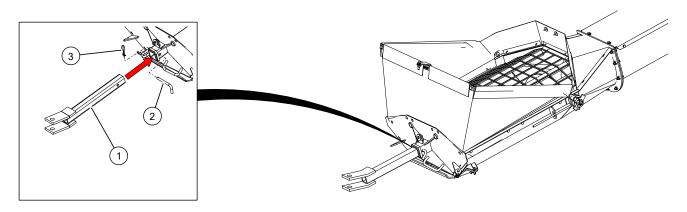


4.35. Install the Manual Holder



1	manual holder mount	5	lock nut, 3/8"
2	manual holder	6	bolt, 1/4" x 3/4"
3	square U-bolt, 3/8" x 3-1/16" x 4"	7	flat washer, 1/4"
4	flat washer, 3/8"	8	lock nut, 1/4"

4.36. Install the Tow Bar



1	offset hitch	3	grip clip
2	clevis pin		

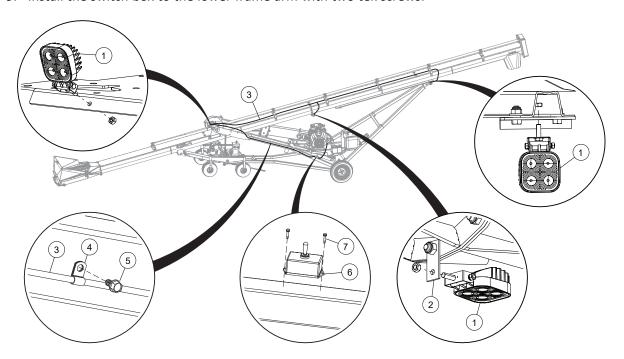
4.37. Install the Work Lights

- 1. Install the discharge-area flood lamp to the track stop with a bolt, washer, and lock nut, then plug the wiring harness connector into the flood lamp connector. Ensure that the connectors are fully engaged.
- 2. Run the wiring harness down the trough to the location of the engine-area lamp.
- 3. Attach a lamp bracket to the trough flange using existing hardware.
- 4. Install the engine-area flood lamp to the bracket using a bolt, washer, and lock nut, then plug the wiring harness connector into the flood lamp connector. Ensure that the connectors are fully engaged.
- 5. Run the wiring harness down the trough to the gearbox.
- 6. Install the intake-area flood lamp to the gearbox mount bracket using a bolt, washer, and lock nut, then plug the wiring harness connector into the flood lamp connector. Ensure that the connectors are fully engaged.
- 7. Run the wiring harness down the lower frame to the engine. Secure using P-clamps and tek screws.
- 8. Connect the wiring-harness eyelet (white wire) to the motor frame (ground). Connect the butt splice to the motor power (positive).

Note

If no motor power lead is available to connect the butt splice it may be necessary to use the provided tap splice connector to draw power from another power or accessory wire. Ensure all connections are fused appropriately.

9. Install the switch box to the lower frame arm with two tek screws.



1	flood lamp (includes hardware)	5	tek screw, #14 x 5/8"
2	lamp bracket	6	switch box
3	wiring harness	7	tek screw, 8-18 x 3/4"
4	P-clamp, 1/4"		

5. Specifications

Specification	44
Trough Width	11" (279 mm)
CAPACITIES	
Unloading Rate	7000–9000 Bu/Hr
TRANSPORT DIMENSIONS	
Length	45'6" (13.9 m)
Width	8' (2.4 m)
Height	10'6" (3.2 m)
DISCHARGE CLEARANCE DIMENSIONS	
Min	9'6" (2.9 m)
Max	18'1" (5.5 m)
TIRES	
Туре	15" Radial
Inflation Pressure	20 – 24 PSI (137–165 kPa)
WEIGHT	
Hitch Weight (no engine)	472 lb (214 kg)
Total Weight	3058 lb (1389 kg)
POWER RECOMMENDATIONS	
Gas Engine	40 HP
PART SPECIFICATIONS	
Gas Tank Capacity	12 Imp Gal (45 L)
Gearbox Oil Capacity	0.9 US Quarts (0.85 L)
Upper Drive Housing Grease Quantity	1700 g (60 oz)
Belt Size	3B270
Mover Kit Hydraulic Oil	ISO 32 Hydraulic Oil

6. Appendix

6.1. Bolt Torque

Table 2 gives the correct torque values for various hardware. Tighten all bolts to the torque specified, unless otherwise noted. Check tightness periodically, using Table 2 as a guide. Replace the hardware with the same strength bolt, contact AGI if you are unsure.

Table 2. Recommended Bolt Torque¹

	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	
		i iliej	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
1/4"	Dry	20/20	0.0310	0.0364	5.5	6.3	8	10	12	14	6.3	7.8
1/4	Lubricated	20/28	0.0318	0.0364	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	0.0324	0.036	8	9	13	14	18	20	-	-
3/8"	Dry	16/24	0.0775	0.0878	20	23	30	35	45	50	20	22
3/8	Lubricated	10/24	0.0773	0.0676	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	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
1/2	Lubricated	13/20	0.1413	0.1333	35	40	55	65	80	90	-	-
9/16"	Dry	12/18	0.182	0.203	70	80	110	120	150	170	57	63
3/10	Lubricated	12/10	0.102	0.203	55	60	80	90	110	130	-	-
5/8"	Dry	11/18	0.226	0.256	100	110	150	170	210	240	93	104
3/0	Lubricated		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	0.554	0.575	130	140	200	220	280	310	-	-
7/8"	Dry	9/14	0.462	0.508	170	180	430	470	600	670	194	193
770	Lubricated	3/ 17	0.402	0.500	125	140	320	350	180	180	-	-
1"	Dry	8/14	0.606	0.679	250	280	640	720	910	1020	287	289
	Lubricated	0,11	0.000	0.073	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	7/12	0.703	0.050	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	,, ==	0.505	1.073	380	420	840	930	1360	1510	-	-
1-1/2"	Dry	6/12	1.405	1.581	870	960	1950	2200	3160	3560	-	-
/-	Lubricated	0, 12	1.700	1.501	650	730	1460	1640	2370	2670	-	-

^{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%.

6.2. Fittings Torque Values

These specifications are for carbon steel. With Zinc plating always lubricate threads and seals. For stainless steel, use the high value of the torque range of steel. For brass, use 70% of the torque value of steel. For mixed metals, use the torque of the lower of the two metals. Torque range is normally calculated +/- 10%.

Table 3. Pipe Rigid - Tapered Pipe Threads (NPTF, N/NF) - Carbon Steel

Pipe Size	Turns-from-finger	Max ft-lbs	Max N-m
1/8" (-2)	3/4 - 1 3/4	12	16
1/4" (-4)	3/4 - 1 3/4	25	34
3/8" (-6)	3/4 - 1 3/4	40	54
1/2" (-8)	1/2 - 1 1/2	54	73
3/4" (-12)	1/2 - 1 1/2	78	106
1" (-16)	1/2 - 1 1/2	112	152
1 1/4" (-20)	1/2 - 1 1/2	154	209
1 1/2" (-24)	1/2 - 1 1/2	211	286
2" (-32)	1/2 - 1 1/2	300	407

Table 4. Pipe Swivel - Straight Pipe Threads (NPSM, N/NFS) - Carbon Steel

Pipe Size	Max ft-lbs	Max N-m			
1/8" (-2)	12	16			
1/4" (-4)	25	3			
3/8" (-6)	40	54			
1/2" (-8)	54	73			
3/4" (-12)	78	106			
1" (-16)	112	152			
1 1/4" (-20)	154	209			
1 1/2" (-24)	211	286			
2" (-32)	300	407			
Note: seals on an internal male 30° seat					

Table 5. Stud End O-Ring Boss (ORB) SAE (U/UF) – Carbon Steel

Tube Size	Thread UNF-2A	Max ft-lbs	Max N-m
-2	5/16" - 24	6-7	8-9
-3	3/8" - 24	8-9	11-12
-4	7/16" - 20	13-15	18-20
-5	1/2" - 20	17-19	23-26

Table 5 Stud End O-Ring Boss (ORB) SAE (U/UF) – Carbon Steel (continued)

Tube Size	Thread UNF-2A	Max ft-lbs	Max N-m
-6	9/16" - 18	22-24	29-33
-8	3/4" - 16	40-43	49-53
-10	7/8" - 14	43-48	59-64
-12	1 1'16" - 12	68-75	93-102
-14	1 3/16" - 12	90-99	122-134
-16	1 5/16" - 12	112-123	151-166
-20	1 5/8" - 12	146-161	198-218
-24	1 7/8" - 12	154-170	209-231

Table 6. JIC 37° Flare Tube Fitting (J/JFS)

Tube Size	Thread UNF-2A	Torque ft-lbs	Torque N-m
-2	5/16 - 24	6-7	8-9
-3	3/8 - 24	8-9	11-12
-4	7/16 - 20	11-12	15-16
-5	1/2 - 20	14-15	19-21
-6	9/16 - 18	18-20	24-28
-8	3/4 - 16	36-39	49-53
-10	7/8 - 14	57-63	77-85
-12	1 1/16 - 12	79-88	107-119
-14	1 3/16 - 12	94-103	127-140
-16	1 5/16 - 12	108-113	147-154
-20	1 5/8 - 12	127-133	172-181
-24	1 7/8 - 12	158-167	215-226
-32	2 1/2 - 12	245-258	332-350

7. 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

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