Wheatheart

PORTABLE DRIVE OVER PIT

10" & 13"

ASSEMBLY & OPERATION MANUAL

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

Part Number: 0310005 R0

Revised: 3/2/10

This product has been designed and constructed according to general engineering standards[a]. Other local regulations may apply and must be followed by the operator. We strongly recommend that all personnel associated with this equipment be trained in the correct operational and safety procedures required for this product. Periodic reviews of this manual with all employees should be standard practice. For your convenience, we include this sign-off sheet so you can record your periodic reviews.

Date	Employee Signature	Employer Signature

a. Standards include organizations such as the American Society of Agricultural and Biological Engineers, American National Standards Institute, Canadian Standards Association, International Organization for Standardization, and/or others.

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1. Introduction

Congratulations on your purchase of a Wheatheart Portable Pit. This piece of equipment will complement your agricultural operation by aiding in the safe and efficient movement of grain, pulse crops, fertilizer, or any other granular materials.

Your new Wheatheart Portable Pit will serve you well if you understand how it operates, if you use it properly, and if you care for it properly. This manual is intended to help you learn how to operate and maintain your equipment in a safe, efficient, and trouble-free manner. So please read this manual all the way through before you use your new Portable Pit.

This manual covers all Portable Pit augers built by Wheatheart Manufacturing, so please use the Table of Contents as a guide when searching for specific information. Keep this manual in a safe place for future reference and for ordering replacement parts.

Should any information remain unclear after thoroughly reviewing this manual, contact your Wheatheart Dealer for clarification before operating your Portable Pit. Knowing the serial number and date of purchase will save time in getting your questions answered. Please write down this information in the space provided below.

MODEL NUMBER: _____ DATE PURCHASED: _____

SERIAL NUMBER: _____ DEALER NAME: _____

2. Safety First

The Safety Alert symbol to the left identifies important safety messages on the product and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety messages. Why is SAFETY important to you?

Three big reasons:

- Accidents disable and kill.
- Accidents cost.
- Accidents can be avoided.

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.

The Safety Alert symbol means ATTENTION, BE ALERT!, YOUR SAFETY IS INVOLVED.

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.

2.1. GENERAL SAFETY

Important: *The general safety section includes instructions that apply to all safety practices. Any instructions specific to a certain safety practice (e.g., assembly safety), can be found in the appropriate section. Always read the complete instructional sections and not just these safety summaries before doing anything with the equipment.*

YOU are responsible for the **SAFE** use and maintenance of your equipment. **YOU** must ensure that you and anyone else who is going to work around the equipment understands all procedures and related **SAFETY** information contained in this manual.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program.

- It is the equipment owner and the operator's responsibility to read and understand **ALL** safety instructions, safety decals, and manuals and follow them before assembling, operating, or maintaining the equipment. All accidents can be avoided.

- Equipment owners must give instructions and review the information initially and anually with all personnel before allowing them to operate this product. Untrained users/operators expose themselves and bystanders to possible serious injury or death.
- Use this equipment for its intended purposes only.

- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety, and could affect the life of the equipment. Any modification to the equipment voids the warranty.
- Do not allow children, spectators, or bystanders within the work area.
- Have a first-aid kit available for use should the need arise, and know how to use it.

- Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
- Wear appropriate protective gear. This list includes, but is not limited to:
  - a hard hat
  - gloves
  - protective shoes with slip-resistant soles
  - protective goggles
  - hearing protection

- For Powered Equipment: before servicing, adjusting, or repairing powered equipment, unplug, place all controls in neutral or off position, stop the engine or motor, remove ignition key or lock out power source, and wait for all moving parts to stop.

- Follow good shop practices:
  - keep service area clean and dry
  - be sure electrical outlets and tools are properly grounded
  - use adequate light for the job at hand
  - Think SAFETY! Work SAFELY!

2.2. OPERATION SAFETY

- Have another person nearby who can shut down the equipment in case of accident.
- Do not operate with any of the safety guards removed.
- Keep body, hair, and clothing away from moving parts. Stay away from intake during operation.

2.3. TRANSPORT SAFETY

- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed. Consult local authorities for further details. Use cautions when turning corners or meeting traffic.
- Use extreme care and minimum ground speed when operating or transporting on hillsides, over rough ground, or near ditches or fences.
- 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 traffic.
- Do not allow riders on the equipment or towing vehicle during transport.
- Stay away from overhead obstructions and power lines when operating and transporting. Electrocution can occur without direct contact.
- Ensure that tires are inflated to the manufacturer's recommended pressure.

2.4. PLACEMENT SAFETY

- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed. Use caution when turning corners or meeting traffic.
- Keep away from overhead and buried power lines / gas lines. Arcing and possible electrocution can occur without direct contact.
- Consult local utility companies before operating machine near overhead or buried power lines / gas lines.
- Use extreme care and minimum ground speed when operating or transporting on hillsides, over rough ground, or near ditches or fences.
- Review the work safety area diagram before starting work.

- Take special care and precautions when transporting during times of limited visibility such as rain, snow, fog, dusk, or at night. It is recommended that you wait for a more appropriate time to move.
- DO NOT transport faster than 20 mph unless GVWR is more than 7000 lb. Never exceed 40 mph.

2.5. STORAGE SAFETY

1. Store in an area away from human activity.
2. Do not permit children to play on or around the stored machine.

2.6. MAINTENANCE SAFETY

- Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
- Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
- Place stands or blocks under the frame before working beneath the machine.
- After maintenance is complete, replace and secure all safety guards and safety devices, and if applicable, service doors and cleanout covers.
- Remove all tools and unused parts from machine before operation.
- Remove buildup of grease, oil, and debris.
- Inspect all parts. Ensure parts are in good condition and installed properly.

Use only genuine Wheatheart replacement parts or equivalent. Replacement parts must meet ASAE standards or serious injury may result. Use of unauthorized parts will void the warranty. If in doubt, contact Wheatheart or your Wheatheart dealer.

2.7. HYDRAULIC SAFETY

- Always place all hydraulic controls in neutral and relieve system pressure before disconnecting or working on hydraulic system.
- Keep all components in the hydraulic system tightly secured and in good condition and clean.
- Replace any worn, cut, abraded, flattened, or crimped hoses.
- Do not attempt any makeshift repairs to the hydraulic fittings or hoses with tape, clamps, or concrete. The hydraulic system operates under extremely high pressure; such repairs will fail suddenly and create a hazardous and unsafe condition.

- Before moving a hydraulic cylinder, ensure that the attached component is safely secured.

WARNING	
	Hydraulic fluid can cause serious injury if it penetrates the skin. If it does, see a doctor immediately. • Relieve pressure before disconnecting hydraulic line. • Wear proper hand and eye protection and use wood or cardboard, not hands, when searching for leaks.

2.8. ENGINE SAFETY

- Be sure to stop engine and remove key or lock out power before inspecting or servicing engine
- Refer to engine operation manual for further details.

2.9. SAFETY DECAL LOCATIONS

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

2.9.1. DECAL INSTALLATION

1. Decal area must be clean and dry, with a temperature above 10°C (50°F).
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 sign backing paper.

2.9.2. DECAL LOCATIONS

Replicas of the safety decals that are attached to the equipment are shown below. Good safety 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.


WARNING
HIGH PRESSURE FLUID HAZARD
To prevent serious injury or death:
• 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.
• Keep all components in good repair.
9700009
WARNING
ROTATING PARTS HAZARD
To prevent serious injury or death:
• Do not operate with any safety shield or guard removed or modified. Keep in good working order.
• Shut off and remove key or lock out power source before inspecting, unplugging or servicing machine.
• Keep hands, legs, feet, hair, jewelry and clothing away from all moving parts.
• Do not stand or climb on machine when operating.
9700013
WARNING
SAFETY INSTRUCTIONS
To prevent serious injury or death:
• Read operator's manual and all product safety decals before operating, servicing or transporting machine.
• Shut off and remove key or lock out power source before inspecting, unplugging or servicing machine.
• Do not operate with any safety shield or guard removed or modified. Keep in good working order.
• Before operating or moving machine, clear work area of all children and untrained personnel.
• Keep hands, legs, feet, hair, jewelry and clothing away from all moving parts.
If the operator manual, safety shields or safety decals are missing or damaged, contact Wheatheart at (877) 934-0649 or www.wheatheart.com for replacements.
9700003
DANGER
ELECTROCUTION HAZARD
1. Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before servicing or repairing machine or electrical components.
2. Keep electrical components in good repair.
P1513009
*Electric Drive Over Pit Only

⚠ WARNING

TRANSPORTING HAZARD

To prevent serious injury or death, before transporting, you must:

- Chain the drive-over ramps together.
- Install and secure the transport wheel lock pins.
- Install and secure the hitch pin retainer.
- Install safety chains between the towing vehicle frame and the drive-over hitch.

To prevent serious injury or death from loss of control:

- Do not exceed rated tire speed.
- Do not tow machine faster than road conditions will safely allow.

Consult local authorities for restrictions on towing speed, weight and length.

Made in Canada 9700004

9700006

REMEMBER: If Safety Signs have been damaged, removed, or become illegible, or if parts are replaced without safety signs, new signs must be applied. New safety signs are available from your authorized dealer.

3. Assembly

Warning: Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.

The Portable Pit, as shipped from the factory, does not have the ramps and ramp lift-springs installed. Follow the procedures below to complete the Portable Pit assembly.

3.1. INSTALLING RAMPS

Refer to Figure 3.1.

1. Align the ramp with the frame tabs so that the frame tabs fit on the outside of the ramp.
2. Install a 3/4” x 2-1/2” bolt, 2 plate washers, and a nylon locknut in the order shown. Do not tighten completely, as ramps must be free to move in slots.
3. Repeat for all 4 ramps.

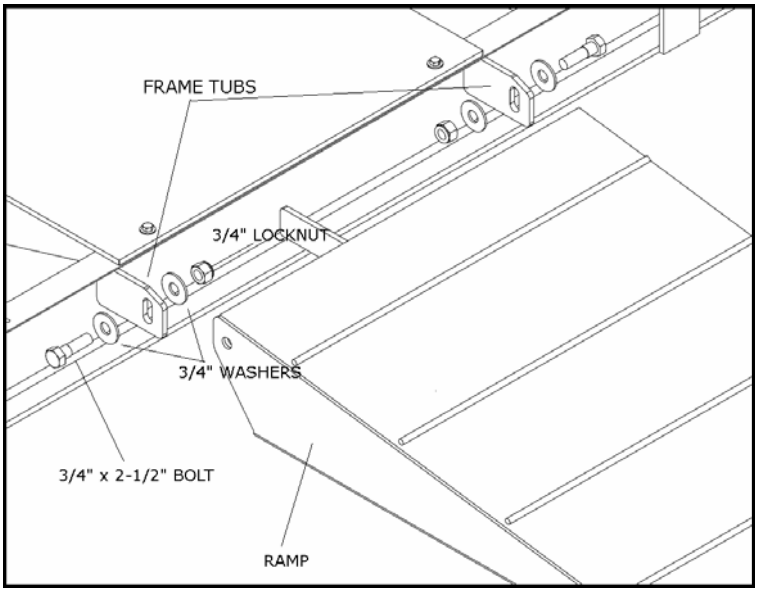


Figure 3.1 Ramp Installation

3.2. INSTALLING RAMP LIFT-SPRINGS

Refer to Figure 3.2.

1. Slide the spring onto the guide rod.
2. Lift the ramp into transport position.
3. Insert the end of the guide rod into the spring plate in the center ramp channel.

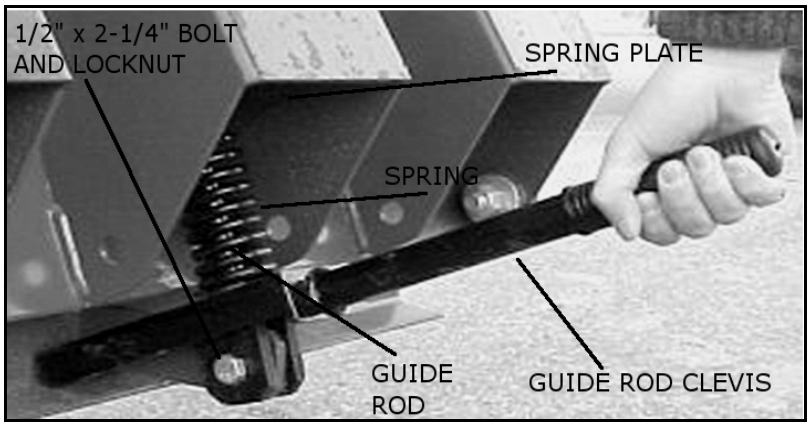


Figure 3.2 Spring Installation

Note: *It may be easier to install springs with ramps tightened at the top of the slotted holes on the ramp mount bracket. Be sure to loosen bolts after ramp install so ramps will slide freely on slots.*

WARNING	
	Compression springs store large amounts of energy and will expand with great force when released. Use caution when compressing springs to avoid serious injury. Ensure tool is in good condition and firmly seated. Stand clear of the path of the spring in case it is accidentally released.

4. Slide the spring installation tool through the guide rod clevis so end of tool is resting solidly on the frame channel.
5. Lift the tool to compress the spring and guide the clevis over the tab on the frame so the bolt holes align.
6. Install a 1/2” x 2-1/4” bolt and a nylock nut in the order shown.
7. Repeat for all 4 lift-springs.

4. Transport

Warning: Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.

NOTICE

Empty the auger before transporting.

Transporting a full auger will place excessive loads on the discharge tube assembly, frame, axle assembly, hitch, and towing unit.

To reduce the risk of injury or death to people using this equipment, follow basic safety precautions when transporting.

1. Make sure that all lights and reflectors required by the local highway and transport authorities are in place, are functioning, and can be seen clearly by all overtaking and oncoming traffic.
2. Be sure the unit is hitched securely to the towing vehicle.
3. Use hazard-warning flashers when transporting with a tractor unless prohibited.
4. Keep to the right and yield the right-of-way to allow faster traffic to pass.
5. Take special care and precautions when transporting during times of limited visibility such as rain, snow, fog, dusk, or at night. It is recommended that you wait for a more appropriate time to move.
6. DO NOT transport faster than 20 mph unless GVWR is more than 7000 lb. Never exceed 40 mph.

4.1. TRANSPORT PREPARATION

The Wheatheart Portable Pit is designed to be easily and conveniently readied for transport. Follow this procedure when converting the machine from operating to transport configuration.

Figure 4.1 Securing Ramps

1. Check the wheel bolt torque prior to transporting the unit. See Section 7.3.7. for recommended torque values.
2. Check that tires are inflated to the manufacturer's recommended pressure prior to transporting the unit.
3. Install the jack. Lift the four drive-over ramps into the transport position and secure the ramps together with the safety chains. Refer to Figure 4.1.
4. Remove the transport lock pins from their storage position in the transport frame arms.
5. Raise the rear of the frame off the ground by extending the wheel lift cylinders.

WARNING	
⚠	To prevent serious injury, keep feet, hands, and fingers clear of frame and cylinder tabs when operating the transport cylinder.

WARNING	
⚠	Stay clear of machine when raising or lowering. Ensure others remain clear.

6. Install the transport lock pins (Figure 5.4). You may have to extend or retract the wheel lift cylinders slightly to align the holes. Refer to Figure 4.2.

Figure 4.2 Wheels Locked in Raised Position

NOTICE

Secure the hoses to the machine to prevent damage from dragging while transporting.

7. Place the tractor hydraulic system lever in neutral to shut off the flow to the hydraulic circuit selector valve.
8. Disconnect the Portable Pit from the remote hydraulic system.
9. Remove the hydraulic power source. Secure hydraulic lines and any power cords.
10. Raise the front of the frame off the ground with the jack. Refer to Figure 4.3.

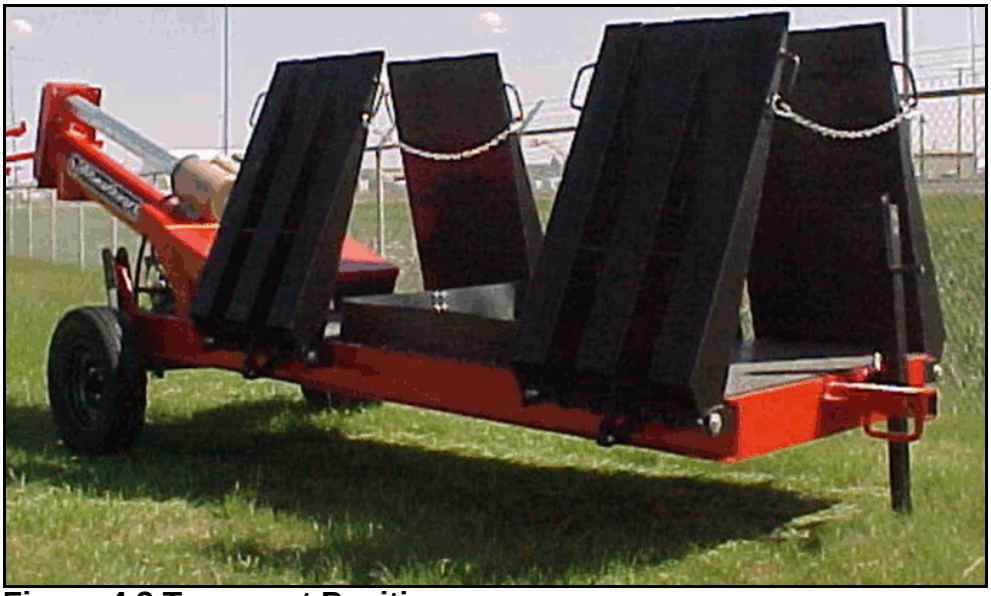


Figure 4.3 Transport Position

WARNING	
	To prevent serious injury or death, before transporting, you must: • Chain the drive-over ramps together. • Install and secure the transport wheel lock pins. • Install and secure the hitch pin retainer. • Install a safety chain between the towing vehicle frame and the Portable Pit hitch tongue.

11. Install the hitch assembly in the frame and secure with the retainer pin and anchor.
12. Back the towing vehicle up to the Portable Pit.
13. Set the park brake before dismounting.
14. Connect the Portable Pit to the towing vehicle and use a retainer to lock the hitch draw pin in place.
15. Install the safety chain between the tongue of the Portable Pit and the frame of the towing unit. Loop the chain under the tongue to form a cradle that will prevent the tongue from digging into the road surface and upsetting the trailer should a break-away occur. Ensure there is enough slack in the chain for turning. When not in use, store the safety chain in a clean dry place. Replace the safety chain if one or more links or end fittings are broken, stretched, or otherwise damaged or deformed. Refer to Figure 4.4.

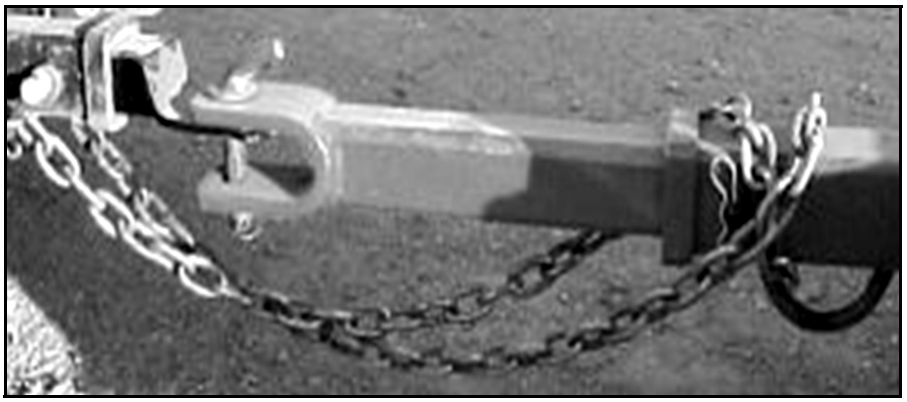


Figure 4.4 Safety Chain (Not Supplied)

16. Remove and stow the jack.

5. Operation

Warning: Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.

5.1. DESCRIPTION OF THE EQUIPMENT

The Wheatheart Portable Pit is a drive-over transfer auger designed to efficiently handle grain, pulse crops, or other granular materials. The four independent ramps and the center frame are built strong and offer a low 7” profile to handle the most challenging drive-over loads. The large center-dump hopper and side-dump hopper allow you to unload from a variety of vehicles with ease.

The drive over transfer auger is available with a 10” or 13” discharge, where the 10” Portable Pit is fed by two 6” hopper augers and the 13” Portable Pit is fed by three 6” hopper augers. The Pit is powered by either a hydraulic or electric motor.

Wheatheart has incorporated time saving features into the Portable Pit to allow you to spend more time operating and less time setting up. The standard spring assisted ramp lifts and the hydraulic powered transport wheel lift make setting up the Portable Pit a quick and simple operation.

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to adjust it to provide maximum efficiency. By following the operating instructions in conjunction with a good maintenance program, your Portable Pit will provide many years of trouble-free service.

5.1.1. EQUIPMENT MATCHING

To ensure safe and reliable operation of your Wheatheart Portable Pit, it is necessary to equip your machine with a power source of appropriate specifications. As a guideline, ensure that these requirements are met:

HYDRAULIC SYSTEM REQUIREMENTS

- In order to operate the hydraulic drive motor and the wheel pivot system, the tractor hydraulic system must be capable of 14 gpm (53 L/min) at 1500 psi (10,500 kPa) for the 10” Portable Pit, and 14 gpm (53 L/min) at 2000 psi (13,800 kPa) for the 13” Portable Pit. All hoses should be protected and secured during operation.

ELECTRICAL SYSTEM REQUIREMENTS

- A minimum 7.5 hp electric motor (1725-1740 rpm) is required to power the 10” Portable Pit, and a minimum 14 hp electric motor (1725-1740 rpm) is required to power the 13” Portable Pit. Ensure the power source has adequate amperage at the proper voltage. Have a licensed electrician provide power and install weatherproof control switches in a safe and convenient location for the operator. All power cords should be protected and secured during operation.

Note: *A hydraulic system will still be required to operate the wheel lift system.*

5.2. OPERATOR CONTROLS

5.2.1. HYDRAULIC DRIVE

The Portable Pit is an easy to use transfer auger that offers the convenience of a single point control for switching between the auger and transport wheel lift hydraulic circuits.

The hydraulic circuit selector valve is located on the body of the discharge tube as shown in Figure 5.1.

- when located in the neutral position (centered) the augers will operate
- when moved up, the wheel lift cylinder will extend to place the unit in transport position
- when moved down, the wheel lift cylinder will retract to place the unit in the operating position

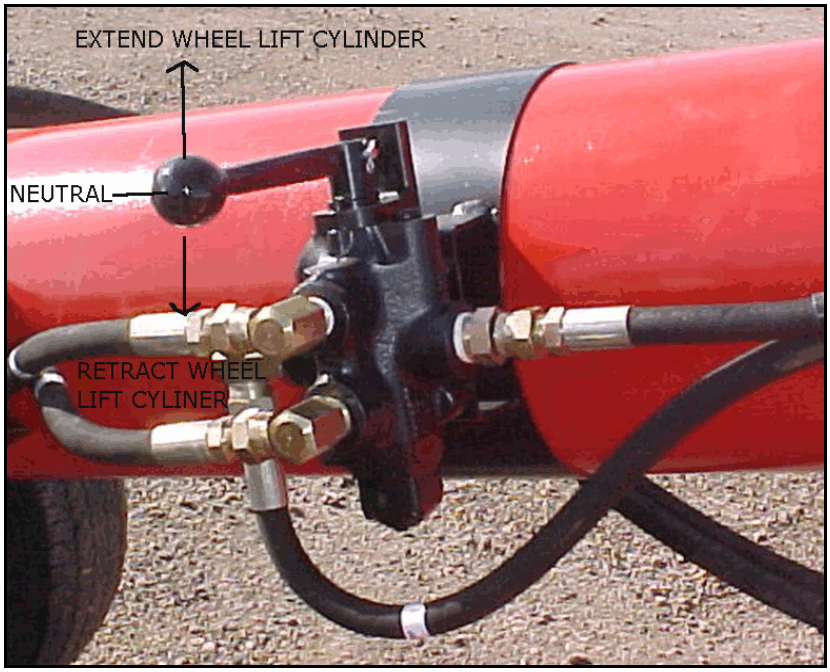


Figure 5.1 Hydraulic Selector Valve

WARNING	
	Stay clear of tires when raising/lowering drive-over pit as tires move back and forth. Ensure pit will rest on level, unobstructed ground.

5.2.2. ELECTRIC DRIVE

Have a licensed electrician provide power to the machine per the National Electric Code ANSI/NFPA 70 and any local codes. Install an ON/OFF switch next to the motor for the convenience of the operator. An example of this is shown in Figure 5.2

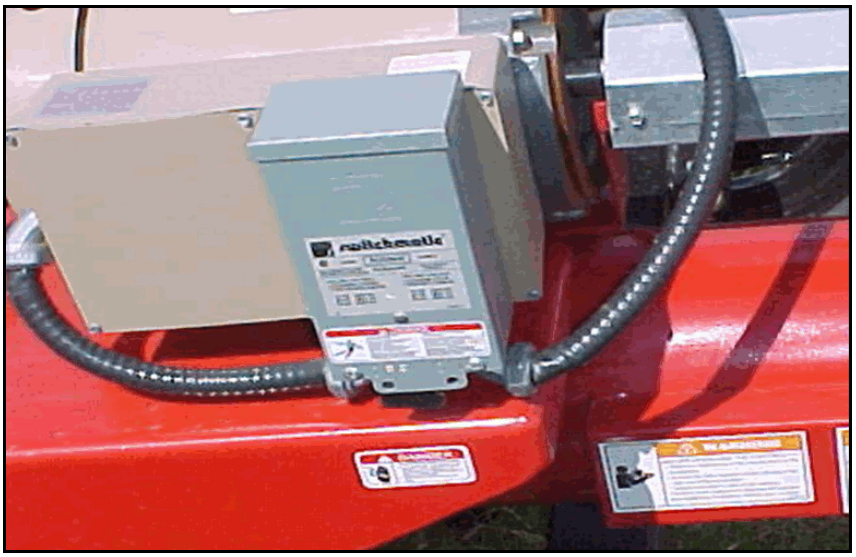


Figure 5.2 Electric Switch Installation

5.3. OPERATING PROCEDURE

5.3.1. SET-UP

Follow this procedure when setting up and converting the machine from transport to operating configuration.

NOTICE

Locate the machine on reasonably flat and firm ground, free from obstructions.

Placement on uneven or soft ground may cause excessive loads on the machine or clearance issues. Corresponding damage to the machine or transport vehicle could result**.**

1. Move the machine to the desired operating location. Be sure to position the machine so the transport vehicles have sufficient space to maneuver.
2. Set the park brake before dismounting the towing vehicle.
3. Install the jack on the Portable Pit frame.
4. Unhook the unit from the towing vehicle.
5. Remove and stow the hitch assembly and safety chain.

6. Use the jack to lower the frame until it rests on the ground. See Figure 5.3.

Figure 5.3 Front End Lowered

7. HYDRAULIC MODELS: Position the hydraulic power source (tractor, portable unit, etc.) near the Portable Pit so the hydraulic outlets are near the hydraulic motor.

NOTICE
Foreign material can severely damage hydraulic components. Clean any dirt or debris from the hose ends and hydraulic system couplers with a clean rag or paper towel before connecting.

8. Secure the power source from moving by placing chocks next to the tires and setting the park brake.
9. Connect the hydraulic hoses to the couplers.

WARNING	
	Disconnect power source before servicing or repairing machine or electrical components. Protect the power cords from damage during operation. Keep electrical components in good repair.

10. For Electric Portable Pit, check to be sure switch is in “OFF” position and connect power source securely.
11. Route the hydraulic hoses and power cords away from any potential hazards.

WARNING

Damaged hydraulic hoses can fail suddenly causing unexpected movement of the machine that will result in serious injury or death.

- Route hydraulic hoses to prevent pinching, rubbing, or binding.
- Keep the hoses away from moving parts.
- Secure the hoses to the machine to prevent dragging while transporting.
- Cover or protect the hoses from damage during operation.
- Repair or replace damaged hoses. DO NOT attempt any makeshift repairs.

12. HYDRAULIC MODELS: Position the hydraulic system lever to provide flow to the hydraulic circuit selector valve. The augers will start rotating. Check wheel lift system to ensure all components are able to move unobstructed and pit may be lowered in a safe manner.
13. Remove the transport lock pins. You may have to extend or retract the wheel lift cylinder slightly to release the load on the pins. Refer to Figure 5.4.

Figure 5.4 Remove Pins

14. Lower the frame to the ground by retracting the wheel lift cylinder. The auger will slow down but continue to turn.

CAUTION

Axle and wheels move rearward as frame is lowered to the ground.

Stand clear when activating the hydraulic controls to avoid personal injury, and ensure others are clear of pit.

15. Stow the transport lock pins in the transport frame arms.

16. Unhook the drive-over ramp safety chains and lower the ramps to the ground.
17. Lock the lid in either open or closed position, as required. Loosen thumb screw on hinge to move lid and be sure to lock lid open during operation by tightening thumb screw.
18. Remove and stow the jack. Refer to Figure 5.5 for drive over operating position.

Figure 5.5 Operating Position

5.3.2. BREAK-IN PERIOD & INITIAL START-UP

Your Portable Pit does not require an elaborate break-in. However, following a few simple tips for the first 5 hours of operation can add to the reliability and life of your machine.

WARNING	
	Be sure to disable or lock out power source before inspecting or servicing machine.

- Follow the service schedule.
- Check hydraulic system oil level.
- Ensure that all hydraulic lines are free from damage, and that all fittings are tight.
- Visually inspect the unit for damage to components. Replace or repair any damaged or questionable parts.
- Check that all guards are installed, secured, and functioning as intended.
- Check the worksite and clean up the area, if needed.
- Regularly inspect the hydraulic motor mounting bolts for tightness (there are 4 bolts).
- Inspect all hydraulic hoses, couplers, and fittings for tightness.

- Check the drive chain tension and alignment. Adjust as required. See Section 7.3.2. for the correct procedure.

After the break-in period refer to the regular maintenance schedule given in Section 7.2. for recommended service intervals.

5.3.3. OPERATION

STARTING

NOTICE

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

The following items should be checked before operating the machine **each time**:

1. Service the machine per the maintenance schedule in Section 7.2.
2. Check the hydraulic system oil level.
3. Visually inspect the unit for damage to components. Replace or repair any damaged or questionable parts.

HYDRAULIC MODEL

1. Place all tractor and Portable Pit controls in neutral.
2. Start the tractor and run at low idle.
3. Place the tractor hydraulic control lever in detent. [what is this?]
4. Increase the engine speed and adjust the hydraulic flow rate to achieve the desired augering speed.

ELECTRIC MODEL

1. Place switch in “ON” position.

NOTICE

Exceeding the maximum flow and pressure ratings may damage the hydraulic motors.

DO NOT operate continuously at flows exceeding 16 gpm (61 l/min) or pressures exceeding 1800 psi (12,500 kPa) for the 10” Portable Pit, and 20 gpm (76 l/min) and 3000 psi (20,700 kPa) for the 13” Portable Pit.

RESTARTING WITH A FULL TUBE

NOTICE

Starting an auger full of material causes excessive loads on the drive components.

Always empty the auger tubes prior to stopping the auger under normal operation.

The discharge tube and hopper may be filled with material if the machine is shut down inadvertently or for an emergency. It is recommended that you restart a full auger at a low speed.

HYDRAULIC MODEL

1. Reduce the tractor engine speed to idle.
2. Adjust the tractor hydraulic system output to a low flow rate on tractors equipped with an adjustment.
3. Once the auger has been started, increase the engine speed and adjust the hydraulic flow rate to achieve the desired augering speed.

ELECTRIC MODEL

1. Place switch in “ON” position.
2. Empty tube and hopper before resuming material unloading.

5.3.4. SHUTDOWN

NORMAL SHUTDOWN

NOTICE

Prolonged operation of an empty auger will cause unnecessary wear.

HYDRAULIC MODEL

1. Run the Portable Pit until the hopper and discharge tube are empty.
2. Place the tractor hydraulic controls in neutral.
3. Shut off the tractor engine and remove the ignition key.

ELECTRIC MODEL

1. Place switch in “OFF” position. Disconnect power supply or lock out switch to prevent accidental start-up.

EMERGENCY STOP

Although it is recommended that the machine is emptied before stopping, in an emergency situation:

1. Stop or shut down the power source immediately.

2. Stop the flow of material from the transport vehicle.
3. Correct the emergency before resuming work.

5.3.5. UNLOADING

NOTICE

Align the transport vehicle tires with the drive-over ramps.

Severe damage will occur to the Portable Pit if the vehicle is not properly aligned.

1. Set up the machine according to the instructions in Section 5.3.1.
2. Review the pre-start checklist in Section 5.3.2.
3. Position the transport vehicle for unloading. Ensure the tires are aligned with the drive-over zone. Refer to Figure 5.6.

Figure 5.6 Align Truck with Pit

4. Drive the vehicle over the Portable Pit.
5. Align the vehicle's discharge chute with either the center or side hopper. Start the Portable Pit according to the instructions in Section 5.3.3.
6. Begin unloading material into the Portable Pit. Direct the flow of grain into the hopper and keep the hopper full for maximum capacity.

NOTICE

Ensure your vehicle does not exceed 100000 lb (45400 kg) GVW, with a maximum tire load of 6600 lb (3000 kg).

Exceeding the maximum weight ratings may cause structural damage to the Portable Pit.

5.3.6. CLEANOUT

1. Remove any excess grain from on top and around the hopper.
2. Run the unit to clean out the majority of the grain.

3. Raise the transport wheels so that access can be gained to the underside of the machine.
4. Install transport lock pins or block the machine from falling.
5. Disable and lock out all power sources (hydraulic or electric).
6. Remove drive-over plates, center hopper guard, and side hopper guard. Refer to Figure 5.7.

Figure 5.7 Cleanout

7. Place a container, such as a 5 gal pail, under the cleanout door.
8. Remove the cleanout door located underneath the bottom of the transfer auger.
9. Clean grain from around augers and hoppers.
10. To wash pit, slope unit towards hitch. Dry the Pit sufficiently to prevent rusting.
11. Replace parts removed in step 6.

6. Storage

Warning: Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.

To ensure a long, trouble-free life, the following procedure should be followed when preparing the unit for storage after the season's use:

Follow maintenance schedule, see section 7.

- Store the machine on a level surface, free of debris, and in an area away from human activity. Store in a dry place, or use a tightly secured tarp to protect the equipment from the weather.
- Ensure that the unit is in transport position.
- Remove all residual material and clean the machine thoroughly.
- Inspect the unit at stress points for cracks.
- Repair or replace any worn or damaged components to prevent any unnecessary downtime at the start of the next season.
- Touch up paint nicks and scratches to prevent rusting.
- Check hydraulic fittings, hoses, lines, couplers, and valves. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded, or is separating from the crimped end of the fitting. Secure the hoses to the machine.
- Inspect and tighten all fasteners; replace fasteners if required.
- Coat exposed cylinder shaft with a light film of grease to protect from the environment.

NOTICE

Prolonged contact with the ground or with water may damage the equipment.

- Store the machine in transport position or store it in the operating position with the frame placed on blocks.
- Store the unit with the hitch end of the machine slightly lowered to provide for drainage (using drain holes).

7. Maintenance

Warning: Before continuing, please reread the safety information relevant to this section at the beginning of this manual. Failure to follow the safety instructions can result in serious injury, death, or property damage.

The Wheatheart Portable Pit has been designed and manufactured to meet the highest standards, while requiring minimal maintenance. Following a careful service and maintenance program will provide many years of trouble-free service.

To reduce the risk of injury or death to persons using this equipment, follow basic safety precautions when performing adjustments, service, or repair.

1. Use extra caution when cleaning and servicing augers because flighting edges can become sharp.
2. Follow proper procedures when mounting a tire on a rim. If in doubt, have a qualified tire repair service perform the required maintenance.

7.1. FLUIDS & LUBRICANTS

GREASE

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

STORAGE & HANDLING

1. Always follow manufacturer’s guidelines for the safe and effective storage and handling of lubricants.
2. Your machine can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants. Store them in an area protected from dust, moisture, and other contaminants.

7.2. MAINTENANCE INTERVALS

Refer to Section 7.3. for details of service.

Table 7.1 Maintenance Intervals

	Maintenance Procedure	Time Period			
		Daily (8 hrs)	Weekly (40 hrs)	Annually (Before storage)	Annually (After Storage)
Visually Inspect the Unit	7.3.1.	✓			
Service Drive Chains	7.3.2.		✓		
Grease Machine	7.3.3.		✓		
Clean Machine	7.3.4.			✓	
Coat Exposed Cylinder Shaft with Grease	7.3.5.			✓	
Repack Wheel Bearings	7.3.6.				✓
Tighten Wheel Bolts	7.3.7.				✓

7.3. MAINTENANCE PROCEDURES

7.3.1. VISUAL INSPECTION

When inspecting:

- Ensure all guards are in place, and in good working order.
- Examine the auger for damage or unusual wear.
- Inspect the machine for evidence of oil leaks.
- Examine hydraulic hoses and fittings for leaks and cracks.
- Be sure all safety decals are in place and are legible.
- Examine all flighting for damage or unusual wear.
- Examine tires for gashes, uneven wear, or loss of air pressure.
- Inspect auger shaft bushing for unusual wear or discoloration.

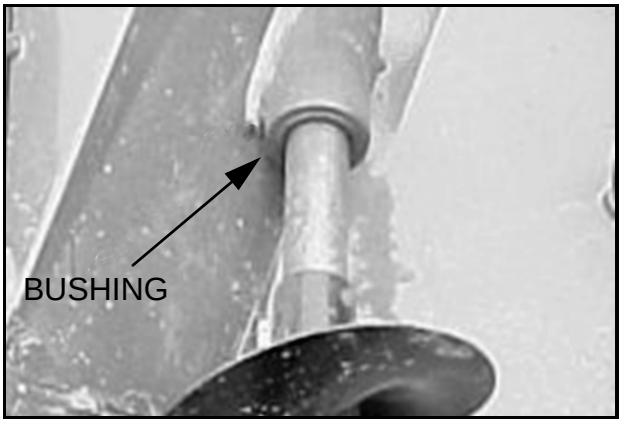


Figure 7.1 Bushing

7.3.2. SERVICING DRIVE CHAIN

1. Remove drive-over plates from the front of the portable pit. Check chain slack.
   - Chain slack is checked at the midpoint of the longest span. It should be approximately 3/8” (10 mm). Do not over-tighten chain as it can deflect augers. Refer to Figure 7.2.

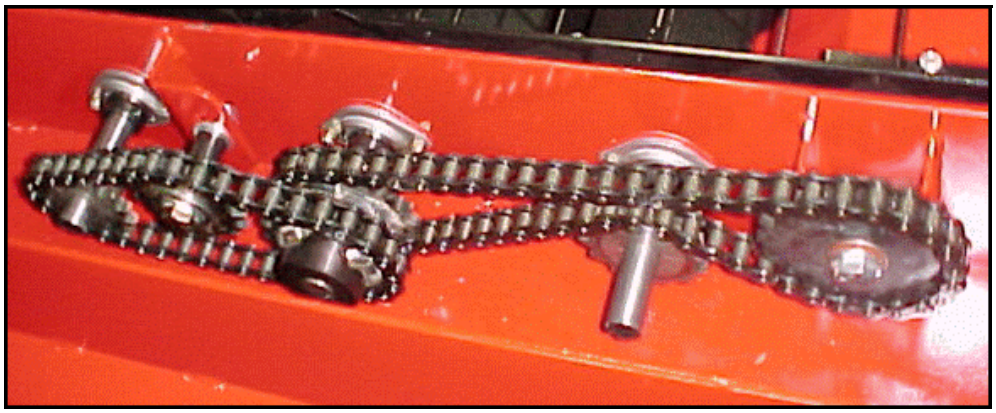


Figure 7.2 Hopper Drive Chains

2. Adjust the chain slack.
   - Loosen idler sprockets.
   - Reposition idler sprockets until chain slack is adequate. If idler sprockets run out of travel, remove a link from the chain.
3. Oil the chain with appropriate lubricant.
4. Replace drive-over plates and any other guards that were removed.

NOTICE

Improperly adjusted drive chain will result in premature wear and failure.

7.3.3. GREASING MACHINE

Important: Original equipment bearings used by Wheatheart are sealed units and will not accept grease.

1. Use only a hand-held grease gun.
2. Wipe grease fitting with a clean cloth before greasing to avoid injecting dirt and grit.
3. Use SAE multi-purpose high temperature grease with extreme pressure (EP) performance or SAE multi-purpose lithium based grease.
4. Grease the two pivot points (as shown in Figure 7.3) and the u-joint in the portable pit. There are three grease points in total.

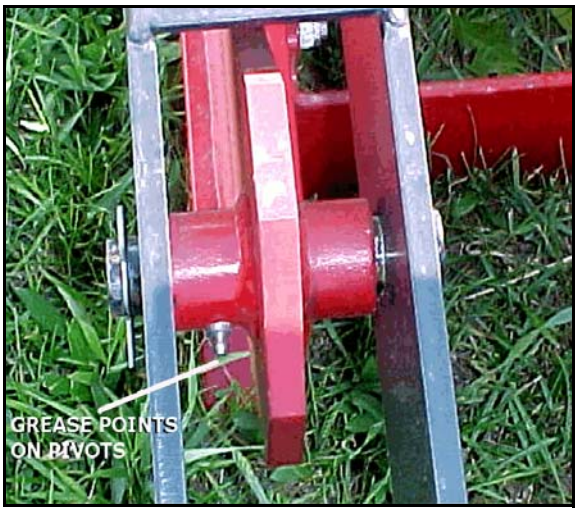


Figure 7.3 Grease Point on Pivots

5. If a fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.
6. Replace broken fittings immediately.

WARNING	
	Ensure transport lock pins are securely in place or pit is on the ground. Ensure power is locked out.

7.3.4. CLEANING MACHINE

1. Clean out excess grain according to the procedure in Section 5.3.6.
2. Elevate front of machine and remove cleanout door so water can run out.
3. Wash the discharge tube and the hopper with a water hose or pressure washer until all dirt, mud, debris, or residue is washed from the portable pit.
4. Provide sufficient time for the water to drain from the discharge tube and hopper.

7.3.5. GREASE EXPOSED CYLINDER SHAFT

Coat the exposed surface of the cylinder shaft with SAE multi-purpose high temperature grease with extreme pressure (EP) performance or SAE multi-purpose lithium based grease.

To prevent corrosion during long term storage. Refer to Figure 7.4.

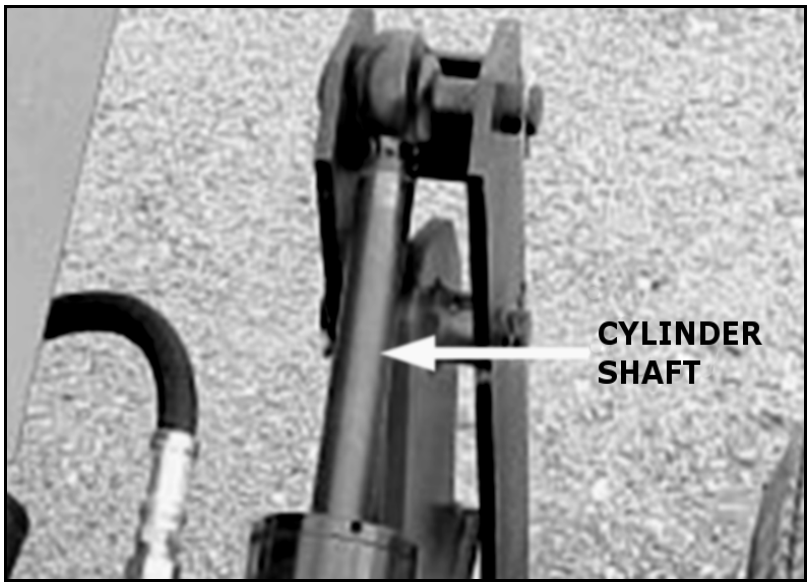


Figure 7.4 Grease Cylinder Shaft

7.3.6. REPACKING WHEEL BEARINGS

1. Remove the wheel bolts and the wheels after securely placing blocks under axle.
2. Remove the wheel bearing and pack with grease. (Use SAE multi-purpose high temperature grease with extreme pressure (EP) performance or SAE multi-purpose lithium based grease.)

7.3.7. TIGHTENING WHEEL BOLTS

1. Tighten the wheel bolts with a torque wrench to 90 ft/lb (±10 ft/lb) of torque.
2. Tighten the wheel bolts in a diagonal pattern.

7.4. REPAIR & OVERHAUL PROCEDURES

7.4.1. DISCHARGE AUGER FLIGHTING

REMOVAL - HYDRAULIC OPTION

1. Place unit in transport position, making sure lock pins are secured.
2. Disable and lock out power source.

3. Remove flange bolts on hydraulic motor mount plate. Remove hydraulic motor shaft bolt from end of flighting. Remove plate with motor attached.
4. Lock side hopper lid in the open position and remove side hopper guard.
5. Loosen set screws on u-joint.
6. Remove flighting assembly and lay it down.

REPLACEMENT - HYDRAULIC OPTION

7. Insert new flighting in tube.
8. Align keyway on the stub shaft with keyway in u-joint. Insert stub shaft and key.
9. Tighten set screws.
10. Reinstall hydraulic motor mount plate by aligning hole on motor with hole in shaft. Insert bolt and nylock nut.
11. Install and tighten flange bolts in a diagonal pattern to ensure uniform tightness.

REMOVAL - ELECTRIC OPTION

12. Place unit in transport position, making sure lock pins are secured.
13. Disable power source.
14. Remove end drive unit lid. Remove slowly as the unit will be packed with grease.
15. Remove end drive mounting bolts and the bolt mounting the coupler shaft at the end of the auger.
16. Remove driveshaft guards.
17. Loosen set screw on chain coupler to remove driveshaft from electric motor.
18. Remove end drive unit with driveshaft still attached to the unit.
19. Lock side hopper lid in the open position and remove side hopper guard.
20. Loosen set screws on u-joint.
21. Remove flighting assembly and lay it down.

REPLACEMENT - ELECTRIC OPTION

22. Insert new flighting in tube.
23. Align key on the stub shaft with keyway in u-joint. Insert stub shaft and tighten set screws.
24. Reinstall end drive unit by inserting coupling shaft into flighting and aligning shaft to accept coupler bolt. Align key on driveshaft with keyway on chain coupler and insert driveshaft. Tighten set screws on chain coupler.
25. Install and tighten flange bolts in a diagonal pattern to ensure uniform tightness.
26. Reinstall driveshaft guards.
27. Clean mating surface of the lid and end drive plate. Apply silicone sealant to perimeter of the end drive lid. Install and tighten lid bolts.

7.4.2. HOPPER AUGER FLIGHTING

REMOVAL

1. Place portable pit in transport position, making sure lock pins are secured.
2. Disable power source.
3. Remove center hopper guard, side hopper guard, and both drive-over plates.
4. Remove bolts that attach stub shafts to auger shafts. Refer to Figure 7.5.

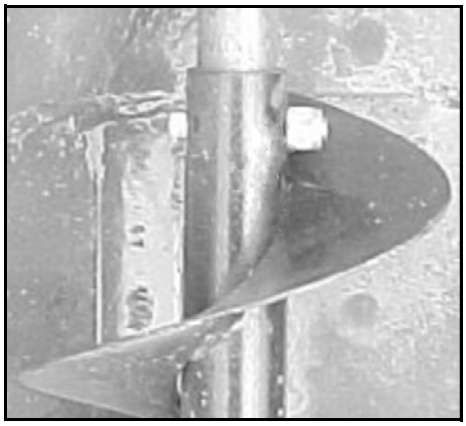


Figure 7.5 Stub Shaft Bolts

5. Remove stub shafts.
6. Remove auger drive chains.
7. Loosen sprocket set screws and remove sprockets.
8. Remove bearing bolts and remove bearings.
9. Remove augers.

REPLACEMENT

10. Reverse above procedure to replace hopper augers.

TIGHTENING HYDRAULIC FITTINGS

When servicing the hydraulics, take appropriate safety precautions.

NOTICE

DO NOT apply excessive force when tightening hydraulic fittings. Damaged fittings may result in leaks and loss of pressure.

Use only wrenches which match the fitting. Do not use crescent or pipe wrenches.

WARNING	
	High-Pressure Hydraulic Fluid To prevent serious injury or death: • relieve pressure on system before repairing, adjusting, or disconnecting. • Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands to find leaks. • Keep all components in good repair. Seek medical attention immediately if any hydraulic fluid penetrates your skin.

8. Troubleshooting

The following table lists the causes and solutions to some potential problems you may encounter in operating your hydraulic or electric Portable Pit.

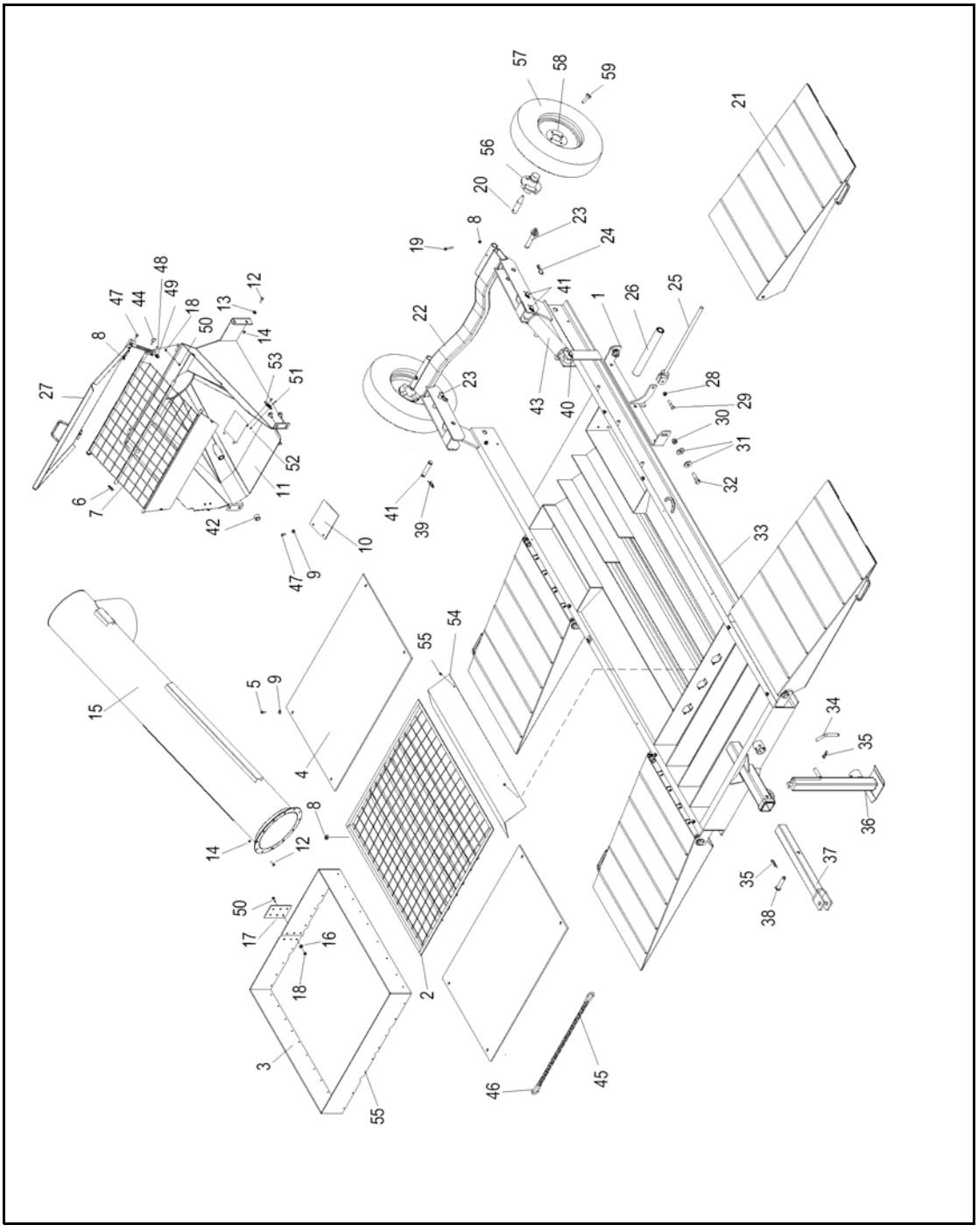
PROBLEM	CAUSE	SOLUTION
None of the augers turn.	• oil is bypassed to the wheel lift cylinder	• move the circuit selector valve to the centre neutral position
	• no hydraulic flow is coming from the power source	• ensure the correct hydraulic lever is engaged
		• hydraulic power source must be started
	• electric motor not functioning	• check that overheat protection on motor has not been thrown
		• check that breaker has not been thrown on supply line
		• have licensed electrician check wiring

PROBLEM	CAUSE	SOLUTION
All of the augers run backwards.	• oil flow is in the wrong direction	• switch direction of flow from hydraulic power source – either by reversing lever or by switching hose connections
	• electric motor is wired backwards	• have a licensed electrician check and repair wiring
One, but not all, augers have stopped.	• drive chain broken or disconnected	• check the drive chain; repair or replace
	• obstruction in the auger	• identify and remove obstruction
Augers are noisy.	• auger shaft bolts are loose or damaged	• tighten or replace bolts
	• auger shaft is bent	• repair or replace auger
	• flighting is damaged	
Low material augering rate.	• hydraulic flow is too low	• increase rpm of hydraulic pump
		• increase flow rate from hydraulic power source
		• ensure hydraulic system meets flow and pressure specification requirements
	• inadequate material flow from truck	• increase flow of material
	• uneven material distribution in hopper	• keep hopper full
		• ensure truck is dumping in the centre of the hopper
	• flow into the auger intake is restricted	• clear grating of obstructions
	• material too wet or heavy	• unloading rates are for dry grain
	• flighting is worn	• repair or replace as required
	• leaky motor seals	• service the hydraulic motor
Ramps difficult to lift.	• assist springs not installed	• install springs per Section 3.2.
	• ramps binding in tabs	• check for damage; repair as required
	• obstruction between ramp and ground	• remove obstruction
	• springs improperly installed	• install springs per Section 3.2.

9. Appendix

9.1. PARTS LIST

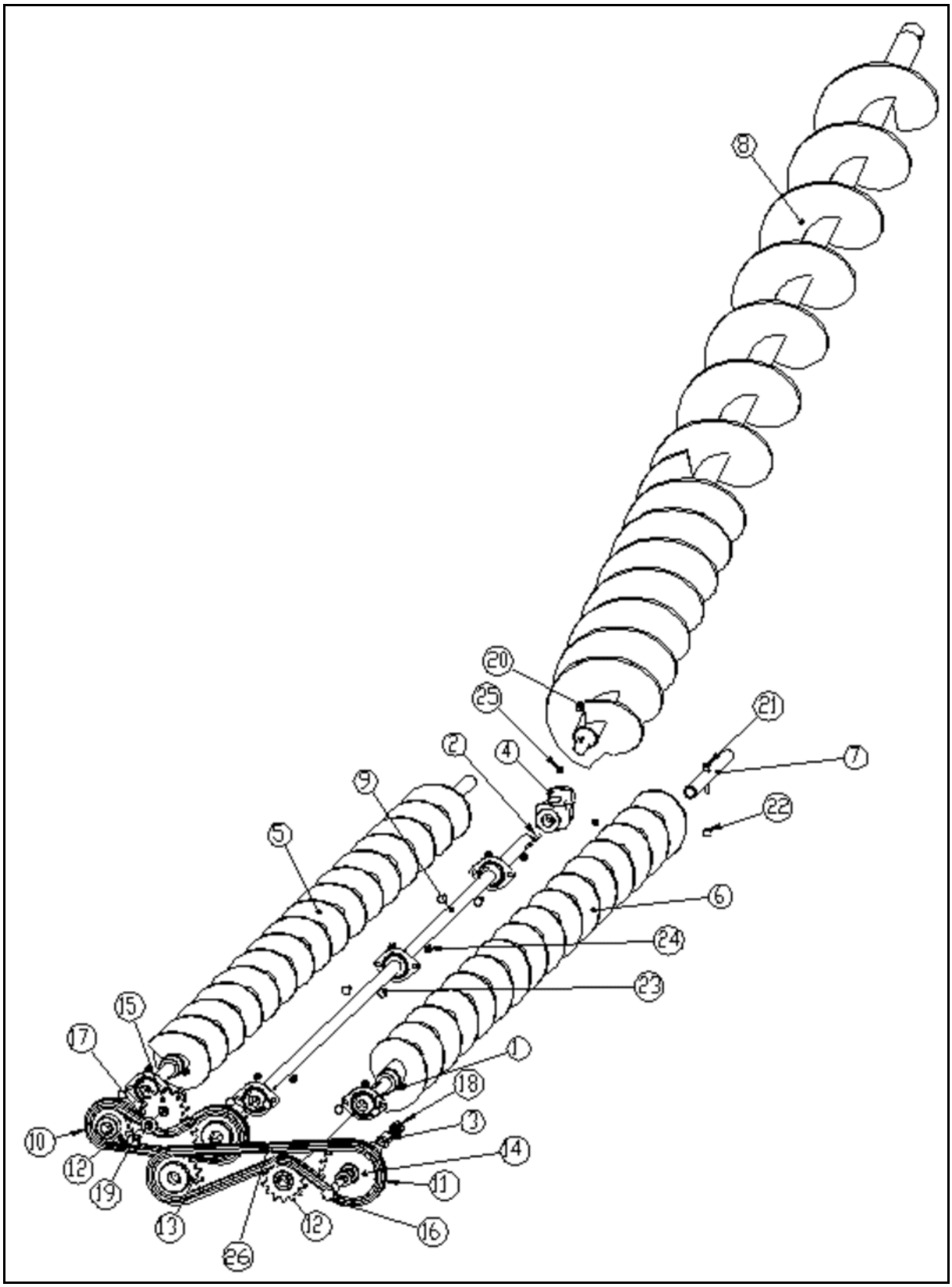
9.1.1. 10”/13” DRIVE OVER PIT - STRUCTURE



REF.	PART NO.	QTY	DESCRIPTION
1	309033	4	RAMP MOUNTING BRACKET
2	309057	1	GUARD, CENTER HOPPER
3	0309057-9	1	BELTING, HOPPER GUARD
4	0309013-2	2	COVER CHECKERPLATE, DRIVE-OVER
5	9900699	14/12	BOLT, HEX, 3/8” X 1”, UNC GR5 PLD (10/13” DOP)
6	2310051	1	EXTERNAL HITCH PIN, 5/8” X 3/16” WIRE
7	309066	1	GUARD, SIDE HOPPER. FLIP-UP
8	601007	14/12	NUT, NYLOCK 3/8” GR5 PLD (10”/13” D.O.P)
9	9900528	10	WASHER LOCK 3/8” PLD
10	310064	1	CLEANOUT DOOR WITH NUTS, TRANSITION, DOP
11	310079	1	TRANSITION, 10” DOP
	309006	1	TRANSITION, 13” DOP
12	4500068	14/20	BOLT, HEX, 7/16” X 1” UNC GR5 PLD (10/13” DOP)
13	9900555	8	WASHER, FLAT 7/16” PLD
14	9900643	14/20	NUT, NYLOCK, 7/16” UNC GR5 PLD (10/13” DOP)
15	310019	1	DISCHARGE TUBE, 10”
	309019	1	DISCHARGE TUBE, 13”
16	9900683	6	WASHER FLAT 1/4” PLT
17	0309057-10	1	BELT CONNECTOR, HOPPER GUARD
18	9900562	6	NUT NYLOCK 1/4” UNC PLT
19	9900585	2	BOLT, HEX 3/8” X 3” UNC GR5 PLD
20	4500059-9	2	SPINDLE, S411, 1.98” X 13.25”, 13/32” X 1”
21	309001	4	RAMP
22	309016	1	SHORT TRANSPORT
23	310027	2	PIN, 1” WITH HANDLE C/W HAIRPIN
24	4500070	2	HAIRPIN, 3/16” x 3-1/4”
25	309017	4	SPRING ROD
26	0309014-7	4	COMP SPRING, 102 LB/IN 22-1/2”
27	309078	1	TRANSITION LID, DOP (AFTER S/N 200382)
	309072	1	TRANSITION LID, DOP (BEFORE S/N 200382)
28	9900538	4	NUT, NYLOCK, 1/2” UNC GR5 PLD
29	9900560	4	BOLT HEX 1/2” X 2-1/4” UNC GR5 PLD
30	9900695	20	NUT, NYLOCK 3/4 UNC GR5 PLD
31	9900506	16	WASHER FLAT 3/4” PLD
32	9900535	8	BOLT, HEX, 3/4” X 2-1/2” UNC GR5 PLD
33	310012	1	FRAME, 10” DOP
	309002	1	FRAME, 13” DOP
34	309028	1	JACK PIN, 5/8” C/W HAIRPIN (C/W JACK)
35	0309027-2	2	HAIRPIN, 7/16” x 3/4” x 2-9/16”, 1/8” DIA
36	0309014-4	1	HITCH JACK, TW, 5000LB
37	309023	1	HITCH
38	309027	1	LOCKING HITCH PIN, 3/4” X 4” (C/W HAIRPIN)
39	2605004	8	EXTERNAL HITCH PIN, 3/4” X 3/32” WIRE

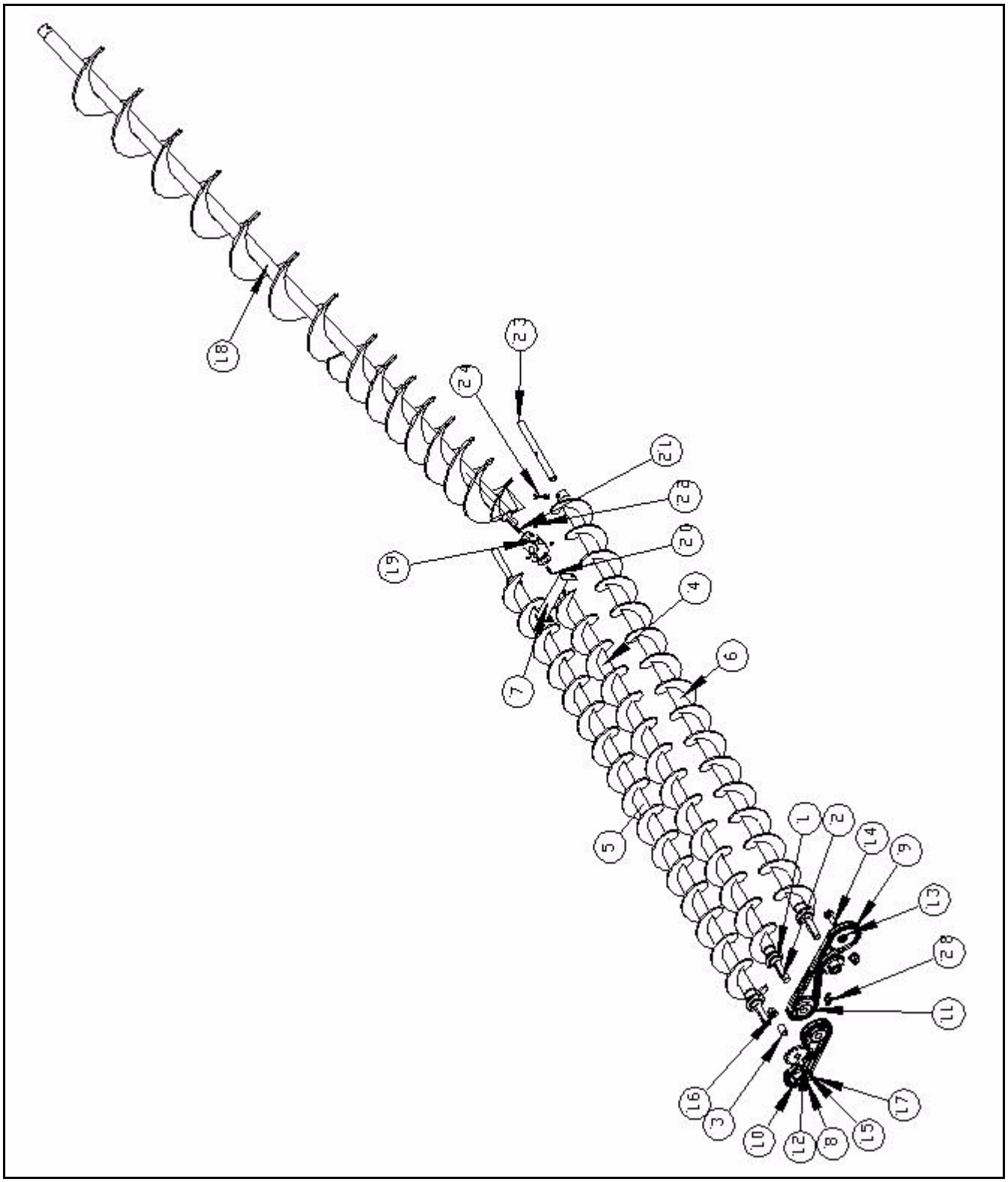
REF.	PART NO.	QTY	DESCRIPTION
40	309026	1	PIN, 1” X 3-3/4” C/W EXTERNAL HITCH PINS
41	309025	3	PIN, 1” X 4-3/4” C/W EXTERNAL HITCH PINS
42	0309006-12	2	BUSHING, BRASS, 1-5/16” X 1” X 1"
43	2300010	1	HYD CYLINDER, 3” X 8”
44	9900003	1	SCREW, THUMB, 3/8” X 3/4”
45	9900893	2	CHAIN, 3/16” X 30 LINKS
46	9900876	4	SNAP LINK, 3/8” X 4”
47	9900530	3	BOLT, HEX, 3/8” X 0.75 UNC GR5 PLD
48	309067	1	SUPPORT BRACKET, SIDE SUPPORT LID
49	309075	2	RETAINING RING, 5/8”, EXT E-TYPE
50	9900800	6	BOLT HEX 1/4” X 3/4” UNC GR5 PLT
51	9900747	4	BOLT, HEX, #10-24 X 1/2” GR5 PLD
52	9900749	4	NUT, NYLOCK #10 UNC GR5 PLD
53	309065	2	OVER CENTER CLAMP, SIDE HOPPER GUARD
54	0310012-10	1	TROUGH CENTER COVER, 10” DOP
55	9900132	38/34	SHEET METAL SCREW, 1/4” X 5/8” W/WASHERHEAD (10/13” DOP)
56	4500059	2	HUB, HA411, BEARINGS, SEAL, DUST CAP
57	4503030	2	TIRE ASSY, P205-75R15 X 4.5 X 4 BOLT WHEEL
58	4500059-7	8	BOLT, WHEEL, WB10 (1/2”)
59	4500059-11	2	RIM, 15" X 4 HOLE

9.1.2. 10” DRIVE OVER PIT - AUGERS & DRIVE COMPONENTS



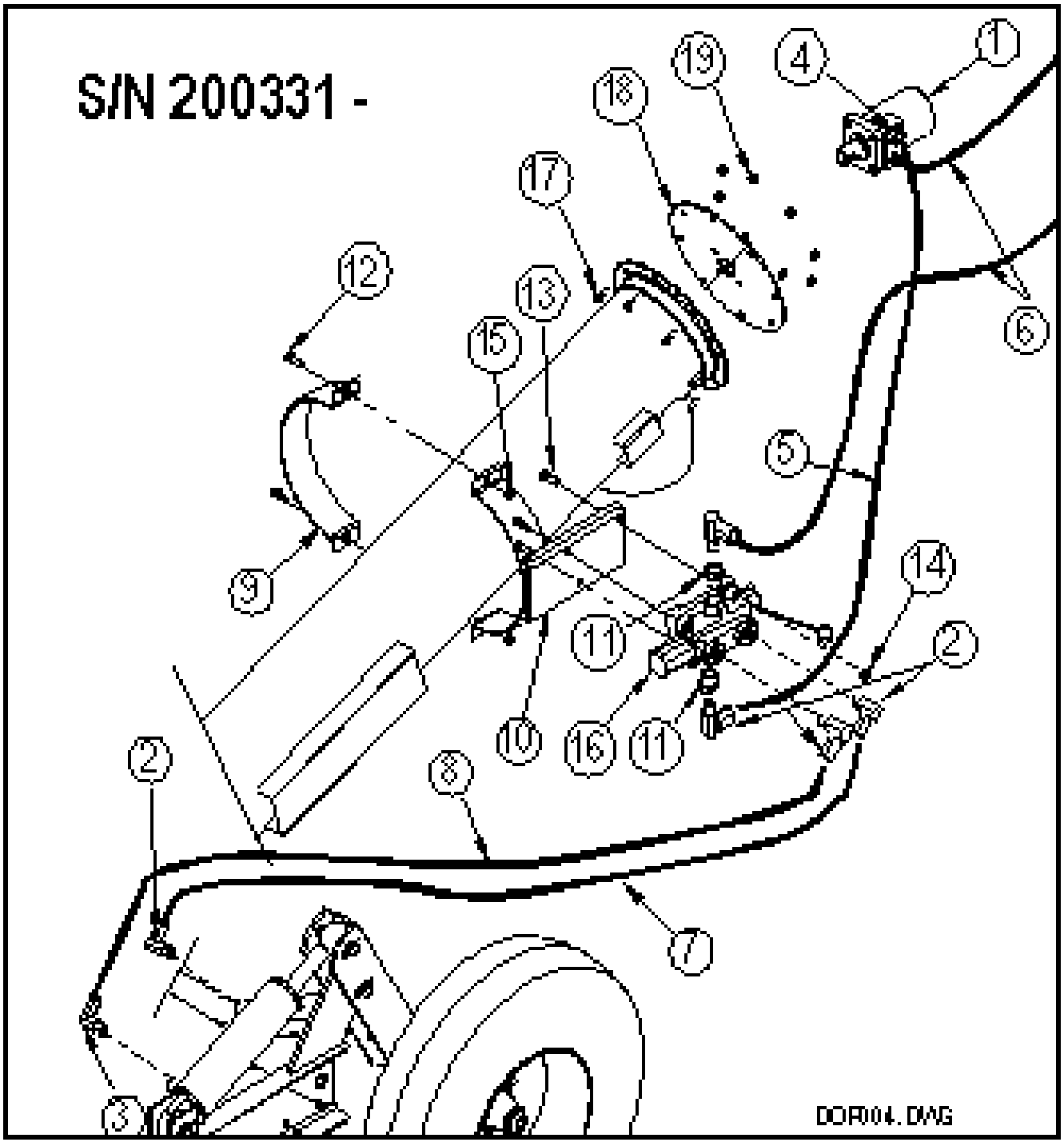
REF.	PART NO.	QTY	DESCRIPTION
1	0300611	5	1.0" FLANGETTE BEARING w/LOCKING COLLAR
2	0309011-5	5	KEY, 1/4" X 1 1/4"
3	0309064	1	TUBE, DOM, 1OD X.188W X 1-7/16”
4	0309069	1	U-JOINT, 1" x 1", H10, 1/4 KEYED, NO SCREWS
5	0309080	1	SIDE AUGER, 6" HEAVY DUTY, RH
6	0309081	1	SIDE AUGER, 6 IN HEAVY DUTY, LH
7	0310002-3	2	COUPLER SHAFT SHORT, SIDE AUGER
8	0310023	1	DISCHARGE AUGER,10
9	0310049	1	HOPPER AUGER DRIVESHAFT
10	0310052	1	CHAIN, #60 X 40 LINKS(30") W/CONN LINK
11	0310062	1	CHAIN, #60X60 LINKS(45") W/CONN LINK
12	4503124	2	SPROCKET 6014 W1(KEY0.25)
13	9900175	2	SPROCKET 6017 X1(KEY0.25)
14	9900177	1	IDLER ASSEMBLY, #60 X 20T, CUSTOM MADE
15	9900229	1	SPROCKET, IDLER ASSEMBLY, #60 X 15T
16	9900799	1	BOLT, 5/8” X 3-1/2” UNC GR5 PLD
17	9900779	6	WASHER FLAT SAE 5/8 PLD
18	9900831	2	NUT NYLOCK 5/8 UNC GR5 PLT
19	9900818	1	BOLT, 5/8” X 2” UNC GR5 PLD
20	4503192	1	WOODRUFF (#808) 1/4” X 1”
21	9900510	2	BOLT, 3/8” X 2-1/4” UNC GR5 PLD
22	0601007	2	NUT NYLOCK 3/8” UNC GR5 PLT
23	9900898	10	BOLT, CARRIAGE, 5/16” X 3/4” UNC GR5 PLD
24	9900520	10	NUT NYLOCK 5/16” UNC GR5 PLT
25	9900131	4	SET SCREW, 3/8-16” X 3/8”, ALLEN
26	9900771-2	2	CHAIN CONNECTOR LINK, #60

9.1.3. 13” DRIVE OVER PIT - AUGERS & DRIVE COMPONENTS

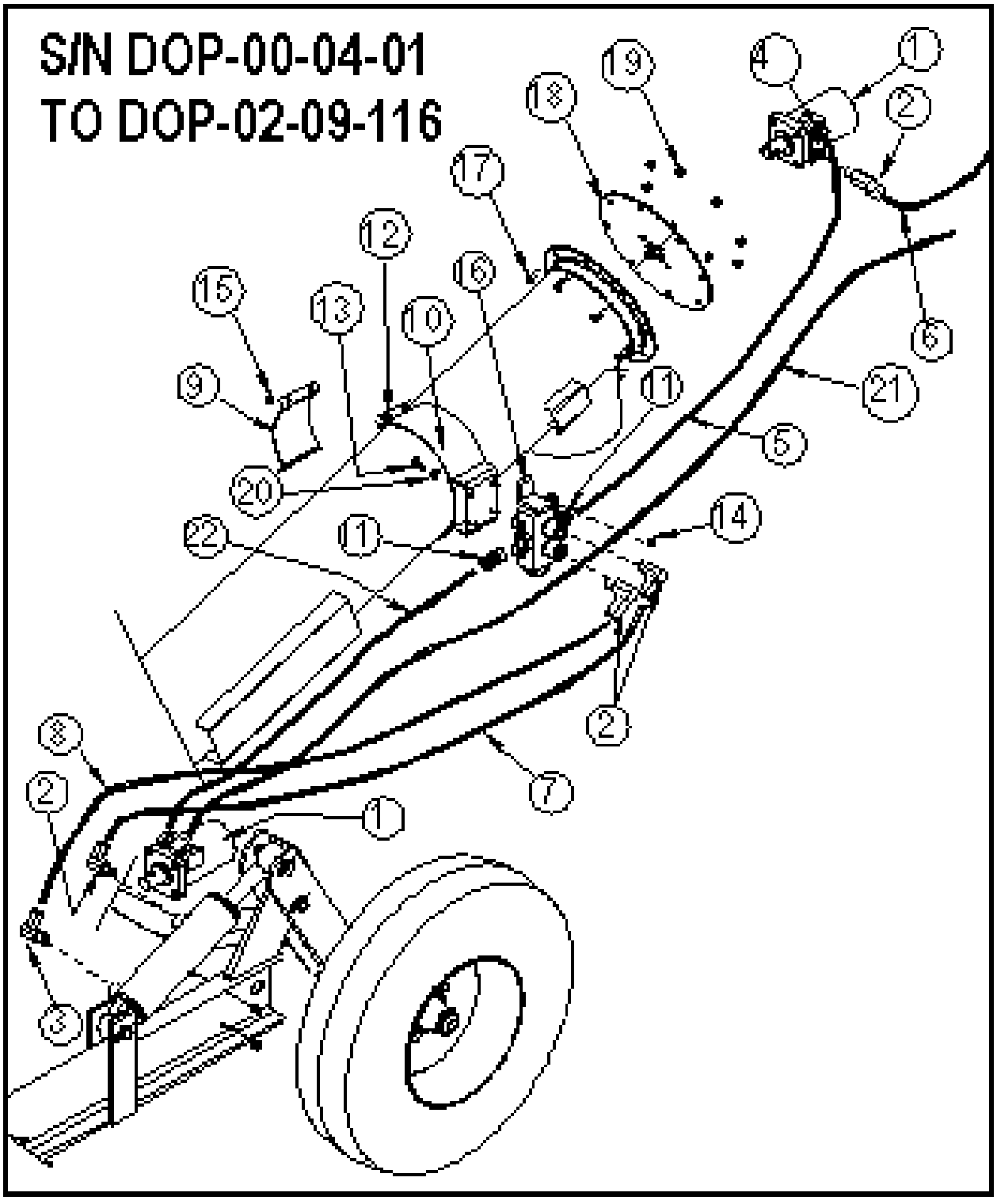


REF.	PART NO.	QTY	DESCRIPTION
1	0300611	3	1.0" FLANGETTE BEARING W/ LOCKING COLLAR
2	0309011-5	5	KEY, 1/4" X 1 1/4"
3	0309064	1	TUBE, DOM, 1OD X.188W X 1-7/16”
4	0309079	1	AUGER, CENTER, 6" HEAVY DUTY, RH
5	0309080	1	SIDE AUGER, 6 IN HEAVY DUTY, RH
6	0309081	1	SIDE AUGER, 6 IN HEAVY DUTY, LH
7	0309099	1	CENTER AUGER U-JOINT BSHG MT W/ BSHG
8	0310052	1	CHAIN, #60 X 40 LINKS(30") W/ CONN LINK
9	0310062	1	CHAIN, #60 X 60 LINKS(45") W/ CONN LINK
10	4503124	2	SPROCKET 6014 W1(KEY0.25)
11	9900175	2	SPROCKET 6017 X1(KEY0.25)
12	9900229	1	SPROCKET, IDLER ASSEMBLY, #60 X 15T
13	9900177	1	IDLER ASSEMBLY,#60 X 20T, CUSTOM MADE
14	9900818	1	BOLT, 5/8” X 2” UNC GR5 PLD
15	9900779	6	WASHER FLAT SAE 5/8” PLD
16	9900831	2	NUT NYLOCK 5/8” UNC GR5 PLT
17	9900799	1	BOLT, 5/8” X 3-1/2” UNC GR5 PLD
18	0309010	1	DISCHARGE AUGER, 13"
19	0309069	1	U-JOINT, 1" x 1", H10, 1/4 KEYED, NO SCREWS
21	4503192	1	WOODRUFF (#808) 1/4” X 1”
22	9900131	4	SET SCREW, 3/8-16” X 3/8”, ALLEN
23	0310002-3	2	COUPLER SHAFT SHORT, SIDE AUGER
24	9900510	2	BOLT, 3/8” X 2-1/4” UNC GR5 PLD
25	9900771-2	2	CHAIN,CONNECTOR LINK, #60

9.1.4. 10”/13” DRIVE OVER PIT - HYDRAULIC KIT



ITEM	PART NO.	QTY	DESCRIPTION
1	9901002PRP	1	MOTOR HYD. 6.3, 1/2NPTF, 3/8 ROLLPIN (10")
	9901005PRP	1	MOTOR HYD, 5.4, 3000PSI, 1/2NPT,3/8 HOLE (13")
2	9900331	5	FTG, ELB, 1/2MNPT X 1/2FNPSM
3	9900332	1	FTG,ELB,1/2MNPT X 1/2FNPSM W/ORF
4	0800834	1	FTG, STL, 1/2"MNPT X 1/2"FNPSM
5	H12X36P	1	HOSE, 1/2 X 36" C/W 8MP X 8MP
6	H12X138P	2	HOSE, HYD, 1/2 X 138, 1/2 M/MNPT
7	H12X64P	1	HOSE, 1/2 X 64" C/W 8MP X 8MP
8	H12X72P	1	HOSE, 1/2 X 72" C/W 8MP X 8MP
9	4504117	1	SPOUT CLAMP, 10 IN SA
	4505041	1	13 " HALF RING
10	4504233	1	10" HYDRAULIC VALVE BRACKET
	4505073	1	13" HYDRAULIC VALVE BRACKET
11	9900752	2	FITTING, 12MP TO 8 FP
12	4500068	2	BOLT, 7/16 X 1 UNC GR5 PLD
13	9900514	3	BOLT, 5/16 X 2 UNC GR5 PLD
14	9900520	3	NUT NYLOCK 5/16 UNC GR5 PLT
15	9900643	2	NUT NYLOCK 7/16 UNC GR5 PLT
16	17675	1	SINGLE SPOOL HYDRAULIC VALVE
17	9900699	8/12	BOLT, 3/8 X 1 UNC GR5 PLD (10/13" DOP)
18	0310067	1	TUBE HEAD PLATE, 10" HYD.
	0309019-2	1	TUBE HEAD PLATE, 13" HYD.
19	0601007	8	NUT NYLOCK 3/8 UNC GR5 PLT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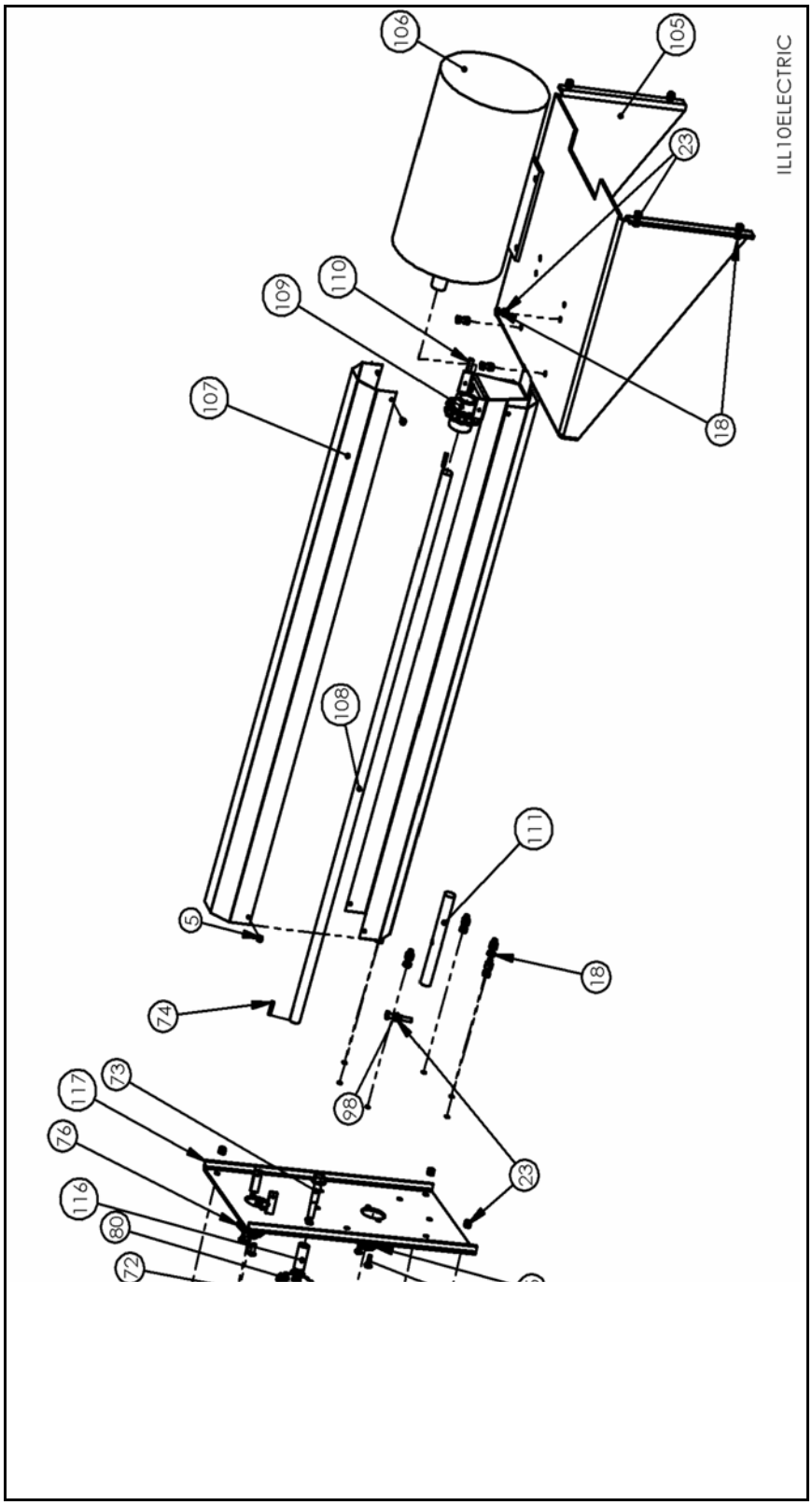
ITEM	PART NO.	QTY	DESCRIPTION
1	1011312	2	HYD MOTOR 4.5 CU. IN.
2	9900331	4	FTG, ELB, 1/2MNPT X 1/2FNPSM
3	9900332	1	FTG,ELB,1/2MNPT X 1/2FNPSM W/ ORIF
4	0800834	1	FTG, STL, 1/2"MNPT X 1/2"FNPSM
5	H12X36P	1	HOSE, 1/2 X 36" C/W 8MP X 8MP
6	H12X138P	1	HOSE, HYD, 1/2 X 138, 1/2 M/MNPT
7	H12X64P	1	HOSE, 1/2 X 64" C/W 8MP X 8MP
8	H12X72P	1	HOSE, 1/2 X 72" C/W 8MP X 8MP
9	0300672A-2	1	RING 10" SMALL PIECE
10	0310025	1	VALVE MOUNT BRACKET
11	2300053	2	HYD. ADAPTER, 12MP-8FPX
12	9900801	4	BOLT, 1/4 X 1-1/2 UNC GR5 PLD
13	9900530	4	BOLT, 3/8 X 3/4 UNC GR5 PLD
14	9900660	4	NUT HEX 3/8 UNC GR5 PLT
15	9900562	4	NUT NYLOCK 1/4
16	1600027	1	GRESEN VALVE
17	9900699	8	BOLT, 3/8 X 1 UNC GR5 PLD
18	0310019-2	1	TUBE HEAD PLATE, 10" HYD.
19	0601007	8	NUT NYLOCK 3/8 UNC GR5 PLT
20	9900528	4	LOCK WASHER
21	H12X180P-1	1	HOSE, 1/2 X 180" C/W 8MP X 8MP
22	H12X54P	1	HOSE, 1/2 X 54" C/W 8MP X 8MP

9.1.5. 10/13” DRIVE OVER PIT - ELECTRIC KIT



REF.	PART NO.	QTY	DESCRIPTION
105	0309044	1	ELEC MOTOR MOUNT WITH GUARD BRACKET
106	-	1	ELECTRIC MOTOR, 7.5 HP MINIMUM, 1725-1740RPM, (NOT INCLUDED)
	-	1	ELECTRIC MOTOR, 14 HP MINIMUM, 1725-1740RPM, (NOT INCLUDED)
107	0310059	2	SHAFT GUARD, 10” ELEC DOP
	0309053	2	SHAFT GUARD, 13” ELEC DOP
108	0310058	1	ELEC DRIVESHAFT, 10” DOP
	0309045	1	ELEC DRIVESHAFT, 13” DOP
109	0310061	1	CHAIN FLEX COUPLER, 1” & 1-3/8”
110	67596	1	KEY, 5/16 SQ X 1-1/4”
111	0309007-5	1	SHAFT, KEYED 1”, ELEC DOP
112	0310066	1	END DRIVE COVER (WF 17297)
113	9900180	1	SPROCKET, #60 X 12T, W-1” X 0.25” KEY
114	9900187	1	SPROCKET, #60 X 36T, X-1” X 0.25” KEY
115	0309049	1	ROLLER CHAIN, #60
116	0309064	1	IDLER SUPPORT, ELEC END DRIVE
117	0310055	1	END DRIVE MOUNT, 10” ELEC DOP
	0309039	1	END DRIVE MOUNT, 13” ELEC DOP
5	9900132	4	SHEET METAL SCREW, ¼” X 5/8” W/WASHERHEAD
18	9900699	12/11	BOLT, HEX, 3/8” X 1”, UNC GR5 PLD (10/13” DOP)
23	0601007	17/16	NUT, NYLOCK 3/8” GR5 PLD (10/13” DOP)
53	9900530	4	BOLT, HEX, 3/8” X 0.75 UNC GR5 PLD
64	9900898	4	BOLT, CARRIAGE, 5/16” X 0.75” UNC GR5 PLD
65	9900520	4	NUT NYLOCK 5/16” UNC GR5 PLD
70	9900831	1	NUT, NYLOCK 5/8” UNC GR5 PLD
72	9900779	3	WASHER FLAT 5/8” PLD
73	9900799	1	BOLT, HEX, 5/8” X 3.5” UNC GR5 PLD
74	0309011-5	2	KEY, ¼” X 1.25”
76	0300611	2	1.0” BEARING WITH FLANGETTES, 2 BOLT
80	9900229	1	IDLER ASSEMBLY, #60, 14T
98	9900510	1	BOLT, HEX, 3/8” X 2-1/4” UNC GR5 PLD (10” DOP)
	9900714	1	BOLT, HEX, 3/8” X 3-1/2” UNC GR5 PLD (13” DOP)

9.2. SPECIFICATIONS

Important: *The capacity of the Portable Pit is dependent on the hydraulic power source. Hydraulic flow or pressure below the nominal requirements will reduce the rated output.*

Wheatheart Manufacturing reserves the right to change specifications without notice.

CAPACITIES			
		10”	13"
Unloading Rate		5000 Bu / Hr (175m^3/hr)	8000 Bu / Hr (280m^3/hr)
Max Vehicle Weight		100,000 LB GVW (45000kg)	100,000 LB GVW (45000kg)
HYDRAULICS			
Hydraulic Flow	Nominal	14 GPM (US) (53 l/min)	14 GPM (US) (53 l/min)
	Maximum	16 GPM (US) (60 l/min)	20 GPM (US) (76 l/min)
Hydraulic Pressure	Nominal	1500 PSI (10500kPa)	2000 PSI (14000kPa)
	Maximum	1800 PSI (12500kPa)	3000 PSI (21000kPa)
ELECTRIC			
Electric Motor Size	Nominal	7.5HP(5.6kW)	14HP(10.5kW)
	Maximum	10HP(7.5kW)	15HP(11.2kW)
DIMENSIONS			
Transport	Length	250” (6350mm)	253" (6426mm)
	Width	75”(1905mm)	75”(1905mm)
	Height	67”(1702mm)	72" (1829mm)
Operating	Length	250”(6350mm)	253" (6426mm)
	Width	147”(3734mm)	147”(3734mm)
	Height – Frame	7-1/2”(191mm)	7-1/2”(191mm)
	Height – Belting	13”(330mm)	13”(330mm)
Ramp	Length	48”(1219mm)	48”(1219mm)
	Width	30”(762mm)	30”(762mm)
	Centre to Centre	78”(1981mm)	78”(1981mm)
Discharge Clearance		26”(660mm)	24 3/4”(629mm)
Under-Vehicle Clearance		7-1/2”(191mm)	7-1/2”(191mm)
TIRES			
Type		P225/70R15	P225/70R15
Inflation Pressure		Refer to Rating on Tire	Refer to Rating on Tire
HOPPERS			
Centre		43” x 47”(1092x1194mm)	43” x 47”(1092x1194mm)
Side		30” x 35-3/4”(762x908mm)	30” x 35-3/4”(762x908mm)
WEIGHT			
Hitch Tongue Weight		1040 LB (475kg)	1230 LB (558kg)
Total Weight		2900 LB (1315kg)	3000 LB (1360kg)

WARRANTY REGISTRATION

Wheatheart congratulates you on your new equipment purchase.
The warranty registration form must be filled out within thirty (30) days from delivery date and sent to:
Wheatheart Manufacturing
3455 Idylwyld Dr. N., Saskatoon, Saskatchewan S7L 6B5

CUSTOMER COPY (Retain this card for warranty and record purposes.)	
PRODUCT:	DEALER'S NAME:
SERIAL #:	ADDRESS:
DELIVERY DATE:	
OWNER'S NAME:	PHONE #:
ADDRESS:	SIGNATURE:
	INVOICE #:
PHONE #:	(Please refer to invoice # when filing claim)

DEALER COPY (Retain this card for warranty and record purposes.)	
PRODUCT:	DEALER'S NAME:
SERIAL #:	ADDRESS:
DELIVERY DATE:	
OWNER'S NAME:	PHONE #:
ADDRESS:	SIGNATURE:
	INVOICE #:
PHONE #:	(Please refer to invoice # when filing claim)

WARRANTY REGISTRATION (Must be filled out and returned to Wheatheart within 30 days of delivery.)	
OWNER'S NAME:	DEALER'S NAME:
ADDRESS:	ADDRESS:
PHONE #:	PHONE #:
SIGNATURE: (I acknowledge the product to be whole and in proper working order.)	SIGNATURE: (I acknowledge the product to be whole and in proper working order. The owner has been given an operation manual and has been informed on proper operation and maintenance.)
PRODUCT: SERIAL #: INVOICE #:	DELIVERY DATE: GAS MOTOR SERIAL #:

LIMITED WARRANTY

Wheatheart warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warranty is only effective for any new machinery that has not been altered, changed, repaired, or treated since its delivery to the buyer, other than by Wheatheart or its authorized dealers or employees, and does not apply to accessories, attachments, tools, or parts sold or operated with the new machinery if they have not been manufactured by Wheatheart.

Wheatheart shall only be liable for defects in the material or workmanship attributed to faulty material or bad workmanship that can be proved by the buyer, and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery or in any other manner whatsoever, and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with Wheatheart operation manual, specifications, or printed instructions.

A Warranty Registration Form and Inspection Report must be completed at the time of delivery and returned to Wheatheart Manufacturing within thirty (30) days.

Warranty Period

Private Farm Use	One (1) year from date of purchase.
Commercial, Custom, or Rental Use	Ninety (90) days from date of purchase.
Replacement Parts	Ninety (90) days from date of replacement

Defective parts are subject to inspection by a Wheatheart representative prior to approval of a warranty claim. All returned parts must be sent to the factory, freight pre-paid, in order to qualify for warranty replacement. Repaired or replaced parts will be returned freight collect.

If these conditions are fulfilled, Wheatheart shall at its own cost and its own option either repair or replace any defective parts provided that the buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation, or any other work, unless Wheatheart has authorized such expenses in advance. Normal wear and service items such as belts, hoses, flashing, etc. are excluded from warranty.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by Wheatheart or its authorized dealers or employees.

This warranty extends only to the original owner of the new equipment.

This warranty is limited to the terms stated herein and is in lieu of any other warranties whether expressed or implied, and without limiting the generality of the foregoing, excluded all warranties, expressed or implied, or conditions whether statutory or otherwise as to quality and fitness for any purpose of the new equipment, Wheatheart disclaims all liability for incidental or consequential damages.

This machine is subject to design changes and Wheatheart shall not be required to retro-fit or exchange items on previously sold units except at its own option.

WARRANTY VOID IF NOT REGISTERED

Wheatheart is a Division of Ag Growth Industries LP
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