OPERATOR AND PARTS MANUAL

13" CONVENTIONAL AUGER MOVER

Models 1342, 1352, 1362

ECO CHANGE LOG

ECO	DATE ISSUED	PRODUCT	DESCRIPTION	MANUAL AFFECTED	MANUAL UPDATED
PRODUCT RELEASE					



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WARRANTY REGISTRATION FORM

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery. **Customer Name:** Dealer Name: Customer Address: Dealer Address: City: Prov / State: City: Prov / State: Postal / Zip Code: Phone: Postal / Zip Code: Phone: Equipment Model: Serial Number: **Delivery Date:** I have thoroughly instructed the buyer on the above described equipment which review included the Operator and Parts Manual content, equipment care, adjustments, safe operation and applicable warranty policy. **Dealer Inspection Report** Safety Bearings Turn Freely All Lights And Reflectors Installed Belt Tension Checked All Lights And Reflectors Cleaned And Working AugerTube Is Straight Safety Chain On Hitch Flighting Turns Freely All Decals Installed Gear Box Oil Level Checked Guards And Shields Installed And Secure All Fasteners Are Tight Review Operating And Safety Instructions Machine Is Lubricated Check For Hydraulic Leaks CheckTire Pressure Date: Dealer Rep. Signature: The above equipment and Operator And Parts Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy. Date: Customer / Owner Signature: Remove this Warranty Registration Form from the Operator And Parts Manual. Make two copies of

the form. Send original Warranty Registration Form to Farm King. Give one copy to the customer

and the dealer will keep one copy.



INTRODUCTION

This Operator And Parts Manual was written to give the owner / operator instructions on the safe operation, maintenance and part identification of the Farm King equipment. READ AND UNDERSTAND THIS OPERATOR AND PARTS MANUAL BEFORE OPERATING YOUR FARM KING EQUIPMENT. If you have any questions, see your Farm King dealer. This manual may illustrate options and accessories not installed on your Farm King equipment.

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OWNER'S INFORMATION

Thank you for your decision to purchase a Farm King C13 Conventional Auger Mover. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator And Parts Manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and / or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator And Parts Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Farm King is continually working to improve its products. Farm King reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Farm King makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Farm King assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Farm King Dealer if you need assistance, information, or additional copies of the manual.

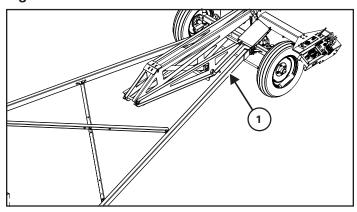
Visit our website at **www.farm-king.com** for a complete list of dealers in your area.

The directions left, right, front and rear, as mentioned throughout this manual, are as viewed by the operator sitting in the tractor seat while towing the implement.

Serial Number Location

Enter the model and serial number in the space provided for easy reference.

Figure 1

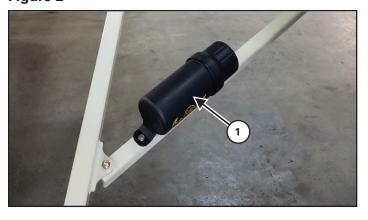


Model Number:
Serial Number:

The serial number plate (Item 1) is located on the lift frame [Figure 1].

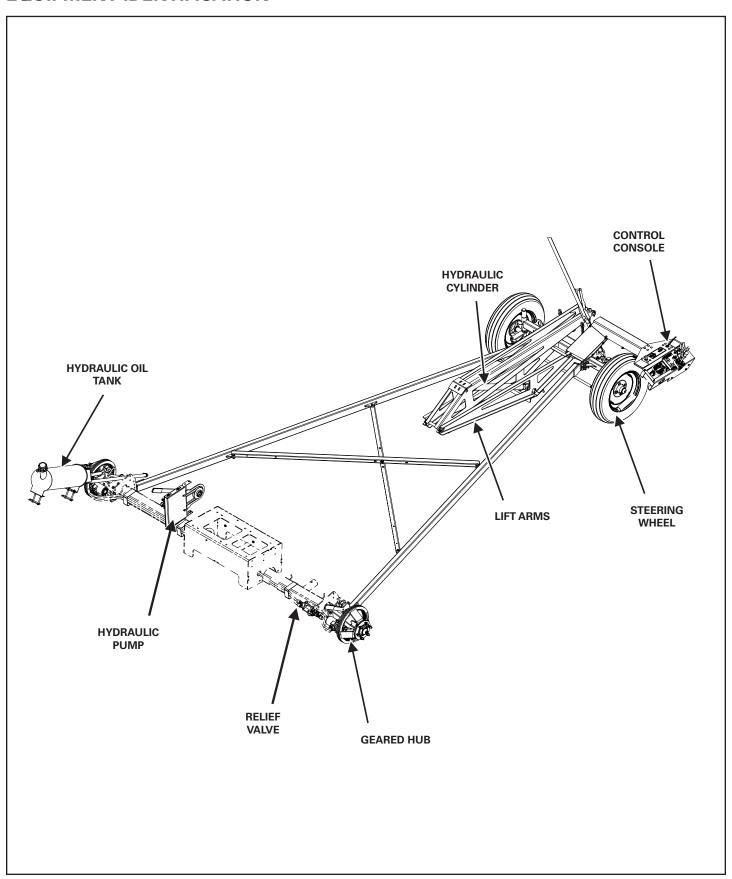
Always use your serial number when requesting information or when ordering parts.

Figure 2



The manual cannister (Item 1) is located on the lift arm cross-member [Figure 2].

EQUIPMENT IDENTIFICATION



SAFETY

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SAFETY INSTRUCTIONS

Safe Operation is The Operator's Responsibility



Safety Alert Symbol

This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



CAUTION

The signal word CAUTION on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



DANGER

The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



WARNING

The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

Safe Operation Needs A Qualified Operator



WARNING

Operators must have instructions before operating the machine. Untrained operators can cause injury or death.

For an operator to be qualified, he or she must not use drugs or alcohol which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

Understand the written instructions, rules and regulations:

- The written instructions from Farm King include the Warranty Registration, Dealer Inspection Report, Operator And Parts Manual and machine signs (decals).
- Check the rules and regulations at your location.
 The rules may include an employer's work safety
 requirements. Regulations may apply to local driving
 requirements or use of a Slow Moving Vehicle (SMV)
 emblem. Regulations may identify a hazard such as
 a utility line.

Have Training with Actual Operation:

- Operator training must consist of a demonstration and verbal instruction. This training is given by the machine owner prior to operation.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

Know the Work Conditions:

- Clear working area of all bystanders, especially small children and all obstacles that might be hooked or snagged, causing injury or damage.
- Know the location of any overhead or underground power lines. Call local utilities and have all underground power lines marked prior to operation.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service.

Use Safety Rules

- Read and follow instructions in this manual and the tractor's Operators Manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to children and persons unfamiliar with its operation.
- If the elderly are assisting with work, their physical limitations need to be recognized and accommodated.
- Stay clear of overhead power lines when raising or lowering the auger. Electrocution can occur without direct contact.
- Check for overhead and / or underground lines before operating equipment (if applicable).
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.
- Check that the equipment is securely fastened to the tractor / towing vehicle.
- Make sure all the machine controls are in the NEUTRAL position before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator And Parts Manual.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders, especially small children.
- DO NOT permit personnel to be in the work area when operating the equipment.
- The equipment must be used ONLY on approved tractors / transport vehicles.
- 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.
- DO NOT make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.

Safety Rules For Power Take-Off (PTO) Driven Equipment

- Keep PTO shields and all guards in place. Replace damaged or missing shields and guards before operating.
- Follow warnings and instructions on machine signs (decals). Replace damaged or missing decals.
- Do not wear loose or bulky clothing around the PTO or other moving parts.
- Keep bystanders away from PTO driven equipment, and never allow children near machines.
- Read and understand the manuals for the PTO driven equipment and be aware of safe operating procedures and hazards that may not be readily apparent.
- Always walk around equipment to avoid coming near a turning PTO drive line. Stepping over, leaning across or crawling under a turning PTO drive line can cause entanglement.
- Position the machine and equipment hitch correctly to prevent drive line stress and separation.
- Use caution when turning. Turning too sharp can cause drive line damage.
- Use caution when raising PTO driven attachment.
- Excessive drive line angle can cause drive line damage. Use stops if needed.

Machine Requirements And Capabilities

- Stop the machine and engage the parking brake. Install blocks in front of and behind the rear tires of the machine. Install blocks underneath and support the equipment securely before working under raised equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Use increased caution on slopes and near banks and ditches to prevent overturn.
- Make certain that the Slow Moving Vehicle (SMV)
 emblem is installed so that it is visible and legible.
 When transporting the equipment, use the flashing
 warning lights (if equipped) and follow all local
 regulations.
- Operate this equipment with a machine equipped with an approved Roll-Over Protective Structure (ROPS). Always wear seat belt when the ROPS is up. Serious injury or death could result from falling off the machine.
- Before leaving the operator's position:
 - 1. Always park on a flat level surface.
 - 2. Place all controls in neutral.
 - 3. Engage the parking brake.
 - 4. Stop engine.
 - 5. Wait for all moving parts to stop.
- Carry passengers only in designated seating areas.
 Never allow riders on the machine or equipment.
 Falling off can result in serious injury or death.
- Start the equipment only when properly seated in the operator's seat. Starting a machine in gear can result in serious injury or death.
- Operate the machine and equipment from the operator's position only.
- The parking brake must be engaged before leaving the operator's seat. Roll away can occur because the transmission may not prevent machine movement.

Transport Safety

- Do not exceed 20 mph (32 kph). Reduce speed on rough roads and surfaces.
- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use.
- Local laws should be checked for all highway lighting and marking requirements.
- Always install transport locks, pins or brackets before transporting.
- Always yield to oncoming traffic in all situations and move to the side of the road so any following traffic may pass.
- Always enter curves or drive up or down hills at a low speed and at a gradual steering angle.
- Never allow riders on either tractor or equipment.
- Keep tractor / towing vehicle in a lower gear at all times when traveling down steep grades.
- Maintain proper brake settings at all times (if equipped).
- Stay away from overhead power lines when auger is raised. Electrocution can occur without direct contact.

FIRE PREVENTION



Maintenance

- The machine and some equipment have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.
- Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.
- All fuels, most lubricants and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Operation

- The Farm King machine must be in good operating condition before use.
- Check all of the items listed on the service schedule under the 8 hour column before operation. (See Maintenance section)
- Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

Fire Extinguishers



 Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

Electrical



 Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed. Battery gas can explode and cause serious injury. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

Hydraulic System

 Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage. Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

Fueling



 Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Welding And Grinding

- Always clean the machine and equipment, disconnect the battery, and disconnect the wiring from the machine controls before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding.
- Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.
- Dust generated from repairing nonmetallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

GAS ENGINE SAFETY

- Before starting engine, read and understand the operating and maintenance instructions that came with your engine.
- DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
- DO NOT place hands or feet near moving or rotating parts.
- DO NOT store, spill, or use gasoline near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or devices which can create a spark.
- DO NOT refuel indoors where area is not well ventilated. Outdoor refueling is preferred.
- DO NOT refuel while engine is running. Allow engine to cool for 5 minutes before refueling. Store fuel in approved safety containers.
- DO NOT remove fuel tank cap while engine is running.
- DO NOT operate engine if gasoline is spilled. Move machine away from the spill and avoid creating any ignition until gasoline has evaporated.
- DO NOT smoke while filling fuel tank.
- DO NOT choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.
- DO NOT run engine above rated speeds. This may result in injury.
- DO NOT tamper with governor springs, governor links or other parts which may increase the governed speed.
- DO NOT tamper with the engine speed selected by the original equipment manufacturer.
- DO NOT check for spark with spark plug or spark plug wire removed.
- DO NOT crank engine with spark plug removed. If engine is flooded, crank until engine starts.
- DO NOT strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
- DO NOT operate engine without a muffler. Inspect

- periodically and replace, if necessary. If engine is equipped with a muffler deflector, inspect periodically and replace, if necessary with correct deflector.
- DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible materials in the muffler area.
- DO NOT use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by the operator.
- DO NOT touch hot muffler, cylinder or fins because contact may cause burns.
- DO NOT run engine with air cleaner or air cleaner cover removed.
- Remove the wire from the spark plug when servicing the engine or equipment to prevent accidental starting. Disconnect the negative wire from the battery terminal if equipped with a 12 volt starting system.
- Keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
- Examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
- Use fresh gasoline. Stale fuel can gum carburetor and cause leakage.
- Check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.

OPERATING SAFETY ZONE



WARNING

AVOID INJURY OR DEATH

- Do not allow small children, bystanders or unauthorized persons in the work area during operation.
- Never stand or work under the auger and undercarriage when in the raised position or during operation.
- Always keep PTO shields and all guards in place during operation.
- Keep away from moving parts.
- Keep everyone clear when operating the hopper mover.



DANGER

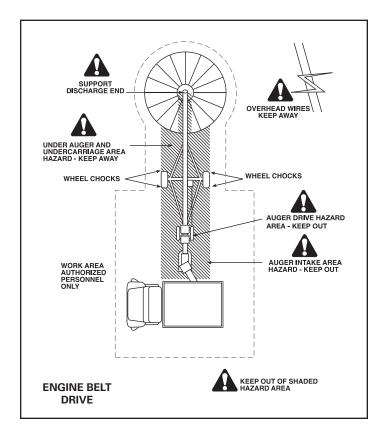
ELECTROCUTION HAZARD

Keep away from power lines, electrocution can occur without direct contact.



CAUTION

- Owners and operators should allow only authorized personnel and grain transport vehicles near the auger or inside the work area.
- Allow adequate space for grain transport vehicles to operate safely.
- Make certain everyone is clear of the equipment before applying power or moving the machine.
- While in operation, always support the discharge end or provide adequate anchorage of the intake end to prevent sudden tipping.



ASSEMBLY

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GENERAL ASSEMBLY INFORMATION

Unload the crate(s) and components in flat level area of adequate size to assemble the auger.



DANGER

ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Keep away from power lines when unloading and assembling the auger.
- Electrocution can occur without direct contact.



WARNING

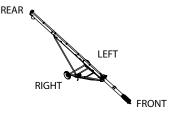
DO NOT permit bystanders to be in the work area when unloading and assembling components.

DO NOT work under suspended parts. Keep away from moving parts.

Always use lifting devices / vehicles, chains or straps of adequate size and strength when unloading and assembling components.



IMPORTANT



The directions left, right, front and rear, as mentioned throughout this manual, are as viewed as the operator sitting in the tractor's seat with the equipment hitched to the tractor.



IMPORTANT

Unload crate(s) and auger components carefully, not to cause damage to any of the components.

Using the packing list, locate and place all components and hardware in one area. Count the individual components and verify that you have received the correct number of components to fully assemble the auger.

If any components are damaged, missing or replacement parts are required, contact your Farm King Dealer.

Assemble the auger mover in the following order:

- 1. Undercarriage / lift arms
- 2. Drive wheels
- 3. Hydraulic pump
- 4. Hydraulic hoses / electrical

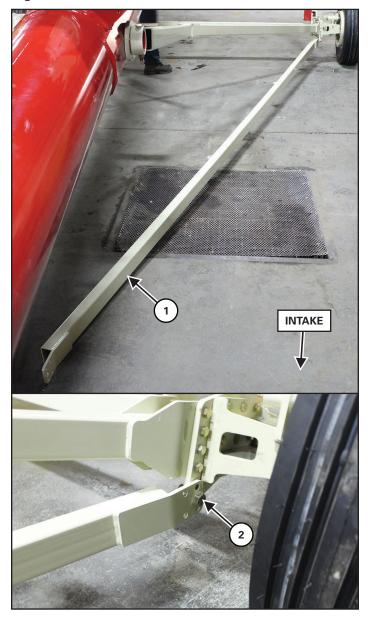
Figure 3



Larger components are marked (Item 1) for identification [Figure 3].

BASE FRAME

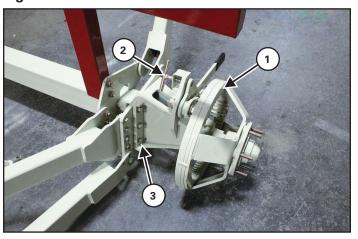
Figure 4



Position the LH and RH mover arms (Item 1) to the axle and towards the intake [Figure 4].

Attach the each mover arm to the bottom bracket on the axle using one 3/4" x 2" hex bolt (Item 2) and one 3/4" lock nut [Figure 4].

Figure 5



Position the LH and RH geared hub assemblies (Item 1) to the axle. The locking pin (Item 2) must be positioned facing upwards [Figure 5].

Attach the each geared hub assembly to the axle using eight $1/2" \times 2"$ hex bolts (Item 3) and eight 1/2" lock nuts [Figure 5].

Note: Geared hub assemblies come preassembled from the factory.

Figure 6



Raise the axle.

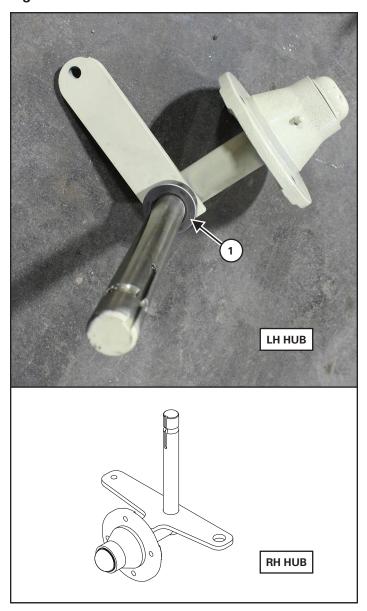
Note: Always use lifting devices, vehicles, chains, or straps of adequate size and strength.

Install the wheels to the geared hubs using six wheel bolts / nuts (Item 1) [Figure 6].

Tighten to proper torque.

Note: Install the wheels with the valve stem facing out.

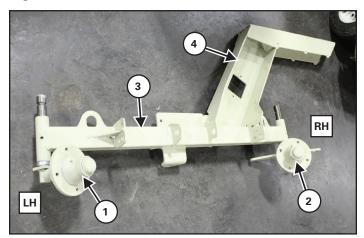
Figure 7



Place one tapered bushing (Item 1) onto the shaft of the LH and RH mover hubs [Figure 7].

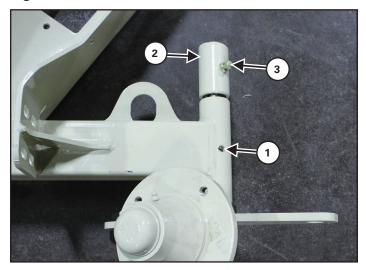
Note: The RH hub has a two hole bracket.

Figure 8



Install the LH (Item 1) and RH (Item 2) hubs into the mover axle (Item 3). The RH hub is installed to the same side as the console mount (Item 4) [Figure 8].

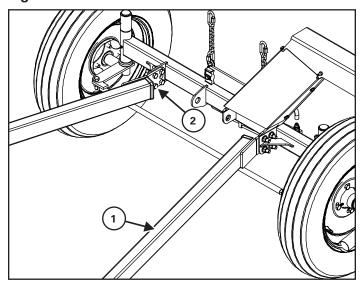
Figure 9



Install one grease zerk (Item 1) to each LH and RH collar of the mover axle [Figure 9].

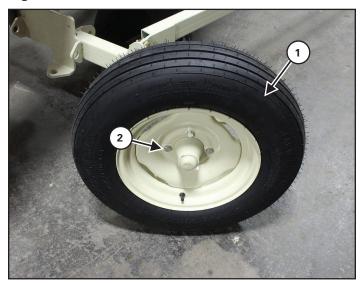
Install one coupler (Item 2) over the exposed shaft of each LH and RH hub. Attach using one $3/8" \times 3/4"$ square-head set screw (Item 3) and 3/8" jam nut [Figure 9].

Figure 10



Position the LH and RH mover arms (Item 1) with the brackets on the axle. Attach each arm using four $1/2" \times 1-3/4"$ hex bolts (Item 2), four 1/2" flat washers, and four 1/2" lock nuts [Figure 10].

Figure 11

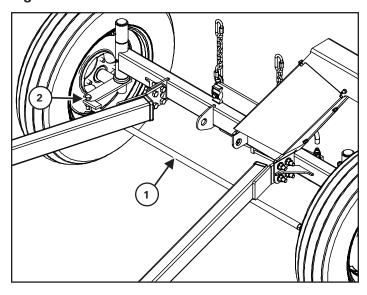


Raise the axle.

Note: Always use lifting devices, vehicles, chains, or straps of adequate size and strength.

Install LH and RH wheels (Item 1) to the mover hubs. Attach each wheel using four 1/2" x 1-1/4" wheel bolts (Item 2) [Figure 11].

Figure 12

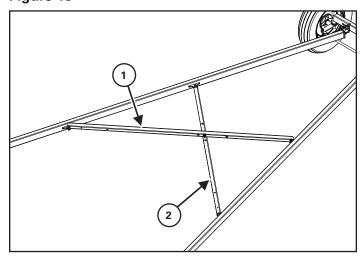


Install one adjustable rod (Item 1) between the LH and RH hub brackets [Figure 12].

Note: Adjust the rod so the two mover wheels are parallel.

Attach each end using one 1/2" X 1-3/4" hex bolts (Item 2) and one 1/2" lock nut [Figure 12].

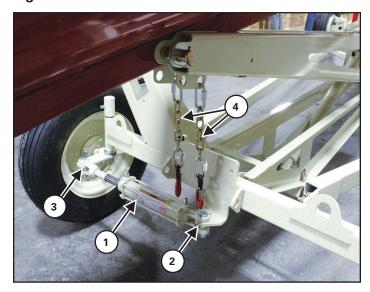
Figure 13



Place one cross-member (Item 1) over top the arm mounts. Attach each connection using one $1/2" \times 1-1/2"$ hex bolt, 1/2" flat washer, and 1/2" lock nut [Figure 13].

Place one cross member (Item 2) underneath the arm mounts. Attach each connection using one 1/2" x 1-1/2" hex bolt, 1/2" flat washer, and 1/2" lock nut [Figure 13].

Figure 14



Position the steering hydraulic cylinder (Item 1) within the axle mounts [Figure 14].

Attach the barrel end (Item 2) of cylinder to the center mount using one clevis pin and clips [Figure 14].

Attach the rod end (Item 3) of the cylinder to the hub bracket using one clevis pin and clips [Figure 14].

Attach two transport chains (Item 4) (with hooks and quick links) to the upper lift arm [Figure 14].

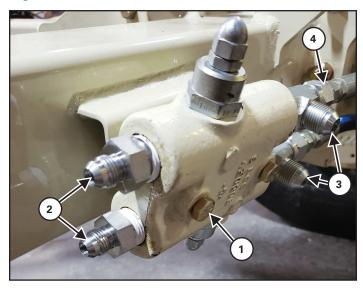
Install fittings to the cylinder barrel port:

- Adapter -6MJIC x -6MPT
- Elbow -6 MPT x -6 FPT 90

Install fittings to the cylinder rod port:

- Adapter -6MJIC x -6MPT
- Orifice -6 MPT x -6 FPT swivel .031

Figure 15



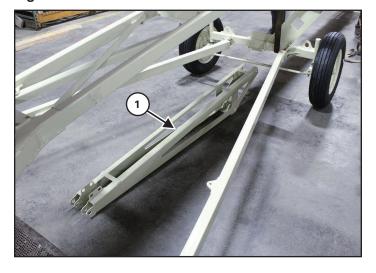
Install the relief valve to the mount on the RH side of the axle using two $5/16" \times 2-1/2"$ hex bolts (Item 1) and two 5/16" lock nuts [Figure 15].

Install two -8 MPT X -6 MJIC adapters (Item 2) to the relief valve [Figure 15].

Install two -8MJIC \times -8MJIC \times -8MPT tee fittings (Item 3) to the relief valve. Install two -08 FJIC \times -06 MJIC adapters (Item 4) to the tee fittings [Figure 15].

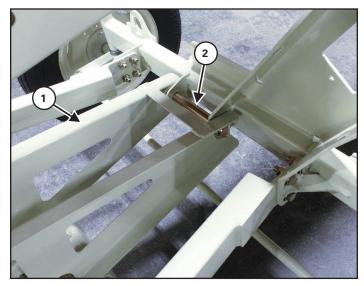
LIFT ARMS

Figure 16



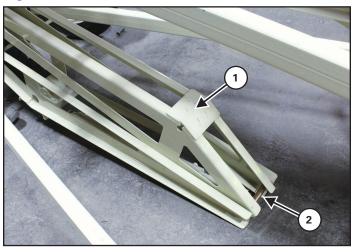
Move the lower lift arm (Item 1) into position [Figure 16].

Figure 17



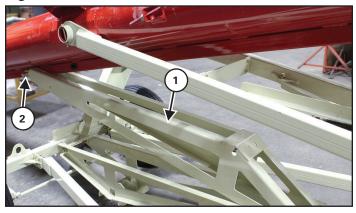
Attach the lower lift arm (Item 1) to the bracket on the axle using one 1" x 8.82" pin (Item 2), two 1" flat washers (both sides), and two cotter pins [Figure 17].

Figure 18



Position the upper lift arm (Item 1) on top of the lower lift arm. Align the holes and install one 1" x 8.82" pin (Item 2), two 1" flat washers (both sides), and two cotter pins [Figure 18].

Figure 19

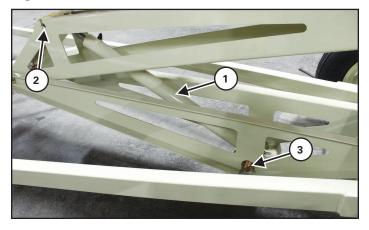


Raise the upper lift arm (Item 1) and align with the tube mounts. Attach to the tube mounts using one 1" x 8.82" pin (Item 2), four 1" flat washers (each side of the lift arm mounts), and two cotter pins [Figure 19].



Models equipped with a light kit will need to route all wire harnesses through the box tube before the 1" pin (Item 2) is installed. Harnesses cannot be routed if the pin is installed.

Figure 20



Place the mover hydraulic cylinder (Item 1) between the upper and lower lift arms [Figure 20].

Attach the rod end to upper lift arm using one 5/8" x 5.51" pin (Item 2), two 5/8" flat washers, and two cotter pins [Figure 20].

Attach the barrel end to the lower lift arm using one $1" \times 8.82"$ pin (Item 3), two 1" flat washers, and two cotter pins [Figure 20].

Install two -6MORB x -6MJIC adapters to the cylinder ports.

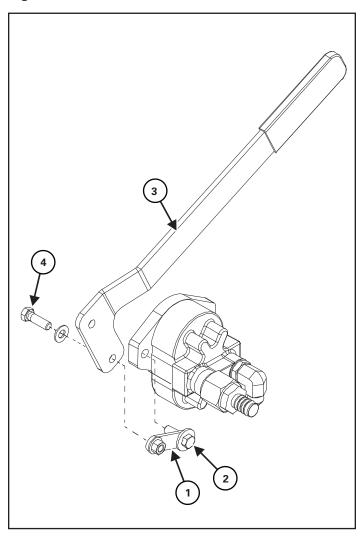


Tighten all fasteners of the mover assembly to the proper torque.



HYDRAULIC PUMP

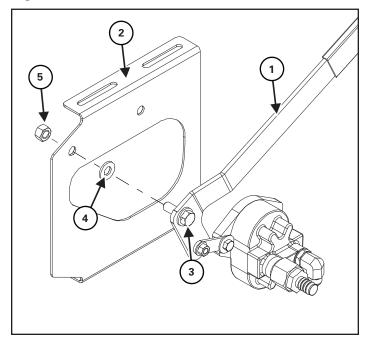
Figure 21



Attach one link plate (Item 1) to the motor mount using one $3/8" \times 1-1/4"$ hex bolt (Item 2) and one 1/2" flat washer [Figure 21].

Attach one handle (Item 3) to the link plate using one $3/8" \times 1-1/4"$ hex bolt (Item 4), two 3/8" flat washers (both sides), and one 3/8" lock nut [Figure 21].

Figure 22



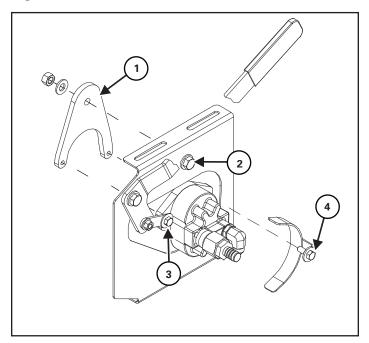
Attach the handle (Item 1) to the pump mount plate (Item 2) using:

- One 1/2" X 1-1/2" hex bolt and one 1/2" flat washer (before the handle) (Item 3)
- One 1/2" flat washer (between handle and plate) (Item 4)
- One 1/2" lock nut (Item 5) [Figure 22]

The contoured portion of the plate must be on the same side as the handle.

The slotted brackets of the plate must face away from the motor.

Figure 23



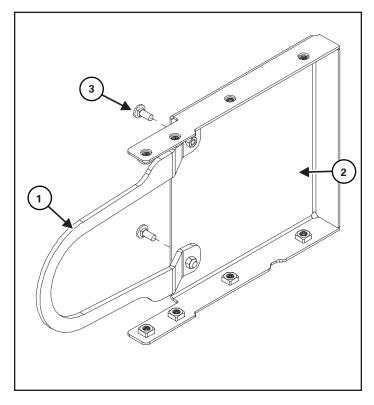
Position the pump arm (Item 1) on the inside of the mount plate.

Attach the top hole of the pump arm to the mount plate using one 1/2" X 1-1/2" hex bolt (Item 2), two 1/2" flat washers (both sides), and one 1/2" lock nut [Figure 23].

Attach the bottom holes of the pump arm to the motor mounts using:

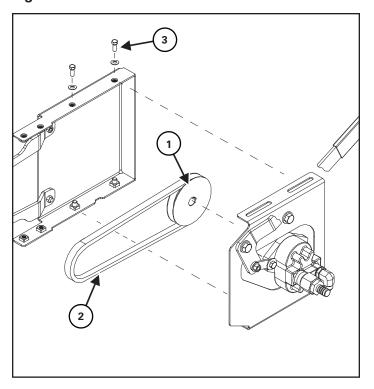
- One 3/8" x 1-1/4" hex bolt and one 1/2" flat washer (already in place) (Item 3)
- One 3/8" x 1" hex bolt, one 1/2" flat washer, and one belt guide (position around the motor shaft) (Item 4) [Figure 23]

Figure 24



Attach one belt guide (Item 1) to the inside of the pump cover plate (Item 2) using two 5/16" x 1" carriage bolts (Item 3), and two 5/16" lock nuts [Figure 24].

Figure 25

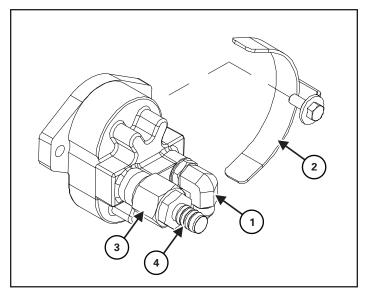


Install one single sheave 4-1/2" pulley (Item 1) and key to the motor shaft [Figure 25].

Route one B-35 belt (Item 2) around the pulley [Figure 25].

Attach the slotted holes of the motor assembly to the belt guide using four 3/8" X 1" hex bolts (Item 3), and four 3/8" flat washers [Figure 25].

Figure 26



Install one -10 MORB x -8 MJIC elbow fitting (Item 1) to the pump port on same side as the belt guide (Item 2) [Figure 26].

Install one -16MORB x -12FORB adapter fitting (Item 3) to the remaining pump port [Figure 26].

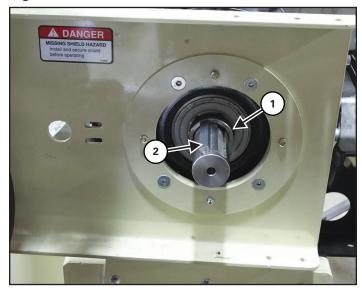
Install one -12 MORB x -12 BARB adapter fitting (Item 4) to the -16MORB x -12FORB adapter [Figure 26].



Portions of the auger engine may be need to be disassembled in order to access the engine drive shaft.

There are specific pump drive components that must be installed to engine shaft.

Figure 27



Install spacer (Item 1) and key (Item 2) to the engine shaft [Figure 27]:

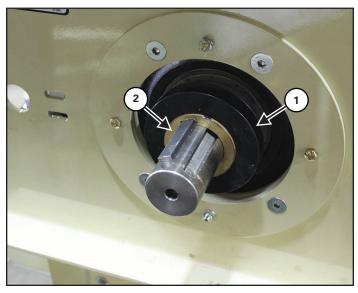
C1342 Models:

- 1.14"ID x 1.75"OD x 1.31"L spacer
- 1/4" x 1/4" x 3" key

C1352, C1362 Models:

- 2"ID x 2.5"OD x 0.55"L spacer
- 1/2" x 1/2" x 3-1/4" key

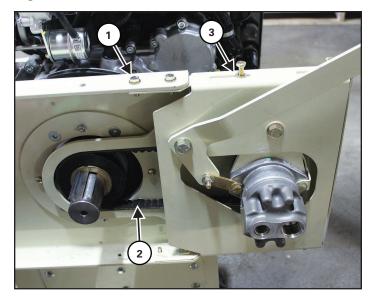
Figure 28



Install one single sheave 4-1/2"OD pulley (Item 1) to the engine shaft [Figure 28].

Install one spacer plate (Item 2) to the engine shaft [Figure 28].

Figure 29



Position the pump motor assembly to the auger belt cover. Attach using four 3/8" x 1" hex bolts to the holes at the edge of the cover (Item 1) [Figure 29].

Route the pump belt (Item 2) around the single sheave pulley [Figure 29].

Adjust the motor assembly in the slotted holes (Item 3) to tighten the belt [Figure 29].

Lower the handle on the motor assembly to fully engage the pulleys and test the belt tension. The belt should be tight, and motor assembly should not move.



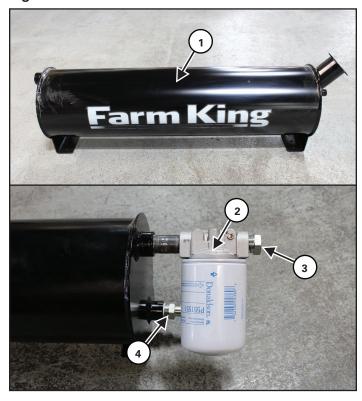
Tighten all fasteners on the pump motor assembly to the proper torque.



Continue assembling the standard auger components once the pump drive, spacers, and pulley are installed.

OIL TANK

Figure 30



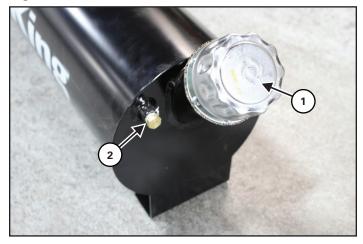
Bring the oil tank (Item 1) [Figure 30] to the assembly area.

Install one 10 micron oil filter (Item 2) to the top port of the tank. Install one plug (Item 3) [Figure 30] to the filter.

Install one -12 MPT x -12 hose barb (Item 4) [Figure 30] to the bottom port of the tank.

Apply Teflon tape to threads.

Figure 31

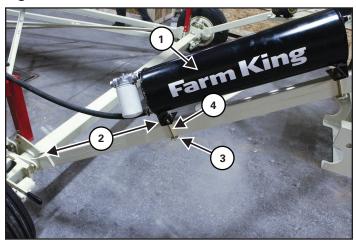


Install one fill cap (Item 1) [Figure 31] to the tank.

Install one -4 MPT plug (Item 2) [Figure 31] to the front port.

Apply Teflon tape to threads.

Figure 32

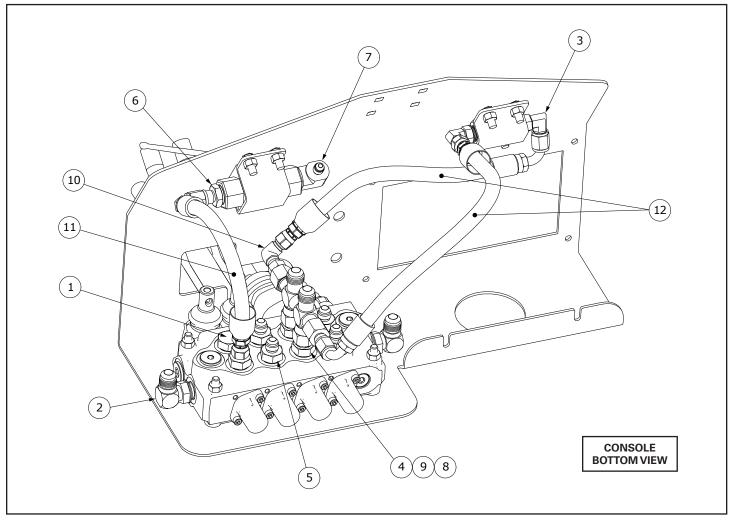


Position the oil tank (Item 1) on the LH lift arm 35" (Item 2) from the arm pivot bolt [Figure 32].

Position two mounting plates (Item 3) beneath the lift arm and tank mounts. Attach each mount plate using two 3/8" x 4" hex bolts (Item 4) and two 3/8" lock nuts [Figure 32].

CONSOLE

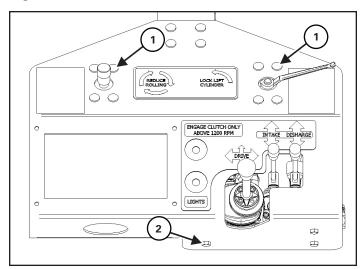
Figure 33



Install fittings and hoses to the valve block, ball valve, and bypass valve [Figure 33], see chart:

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	937638	PLUG-8MORB	1
2	811414	ELBOW 90 3/4 MORB X 3/4 MJIC	2
3	811918	ELBOW 90 9/16SWMORB x 9/16MJIC	2
4	812080	ADAPTER STR 3/4MORB X 3/4MJIC	2
5	812107	ADAPTER STR 3/4MORB X 9/16MJI	5
6	812320	ADAPTER-8 MPT X -6 MJIC	1
7	936001	ELBOW-8MPT X -4MJIC 90DEG	1
8	918981	ADAPTER-08 FJIC X -06 MJIC	2
9	812786	TEE 3/4 MJIC X RUN 3/4 SWFJIC	2
10	812837	ELB90 9/16SWFJIX9/16MJI 106717	1
11	913967	HOSE-6 X -6JIC X -6JIC 90 ELBOW	3

Figure 34



Console top view [Figure 34].

Attach the ball valve and bypass valve using $5/16'' \times 1''$ carriage bolts (Item 1) and 5/16'' lock nuts **[Figure 34]**.

Attach the valve block using $5/16" \times 2-1/2"$ hex bolts (Item 2) and 5/16" lock nuts [Figure 34].

HOSES

Identification

Figure 35

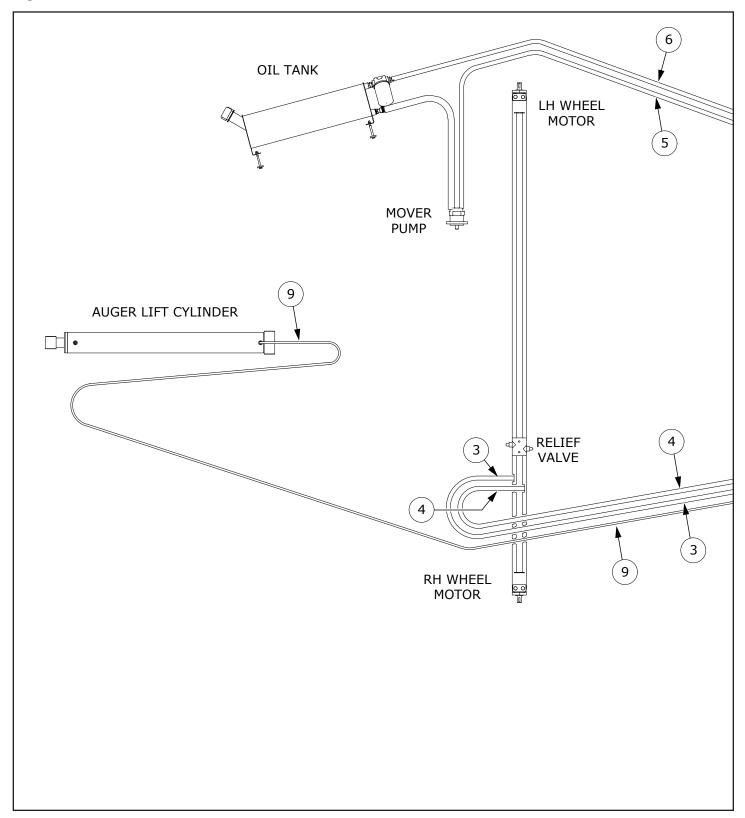
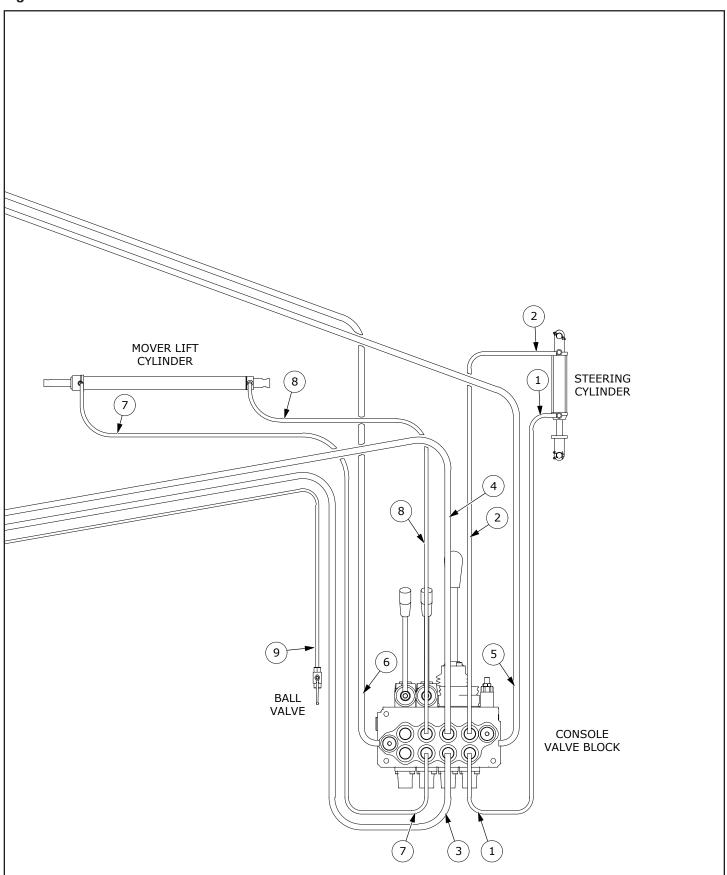


Figure 36



Install hoses, depending on model [Figure 35], [Figure 36].

See chart:

HOSES - C1342

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64"
2	936002	HOSE-6 X -6JIC X -6JIC	64"
3	913756	HOSE-8 X -8JIC X -8JIC	200"
4	913756	HOSE-8 X -8JIC X -8JIC	200"
5	938050	HOSE-8 X -8JIC X -8JIC	262"
6	938150	HOSE-8 X -8JIC X -8JIC	283"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115"
9	938026	HOSE-4 X -4JIC X -4JIC	417"

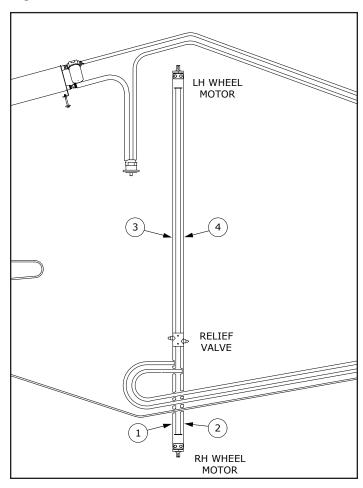
HOSES - C1352

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64"
2	936002	HOSE-6 X -6JIC X -6JIC	64"
3	938145	HOSE-8 X -8JIC X -8JIC	255″
4	938145	HOSE-8 X -8JIC X -8JIC	255"
5	938146	HOSE-8 X -8JIC X -8JIC	326″
6	938147	HOSE-8 X -8JIC X -8JIC	305"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115″
9	938144	HOSE-4 X -4JIC X -4JIC	516"

HOSES - C1362

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64"
2	936002	HOSE-6 X -6JIC X -6JIC	64"
3	938150	HOSE-8 X -8JIC X -8JIC	283"
4	938150	HOSE-8 X -8JIC X -8JIC	283"
5	938149	HOSE-8 X -8JIC X -8JIC	354"
6	938146	HOSE-8 X -8JIC X -8JIC	326"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115″
9	938151	HOSE-4 X -4JIC X -4JIC	564"

Figure 37



Install relief valve hoses (all models) [Figure 37].

See chart:

ITEM	PN	DESCRIPTION	LENGTH
1	913967	HOSE-6 X -6JIC X -6JIC 90 ELBOW	12"
2	913967	HOSE-6 X -6JIC X -6JIC 90 ELBOW	12"
3	913554	HOSE -6 X -6JIC X -6JIC X 90 ELBOW	115"
4	913554	HOSE -6 X -6JIC X -6JIC X 90 ELBOW	115"

Routing

Figure 38

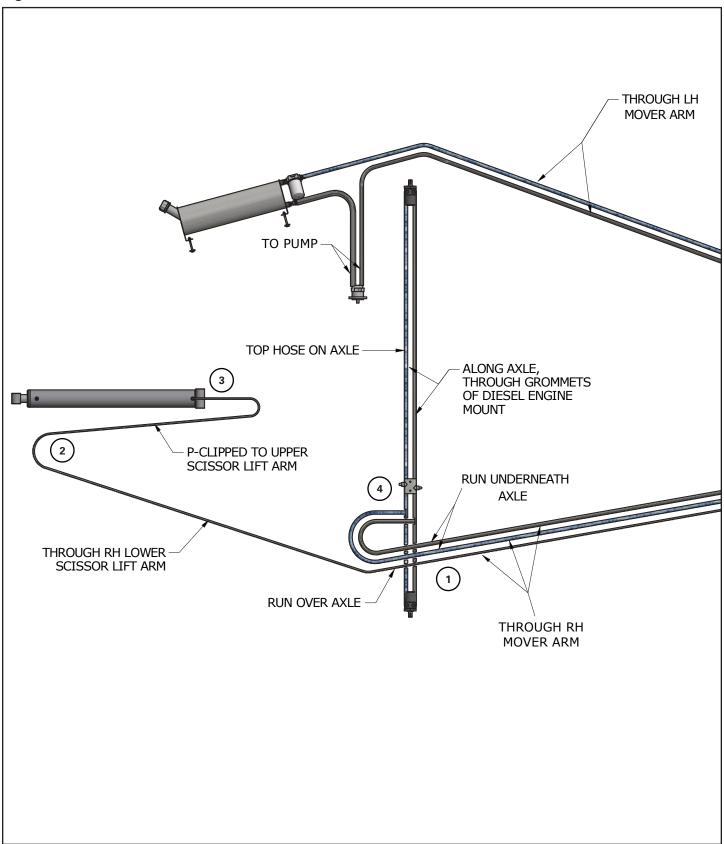
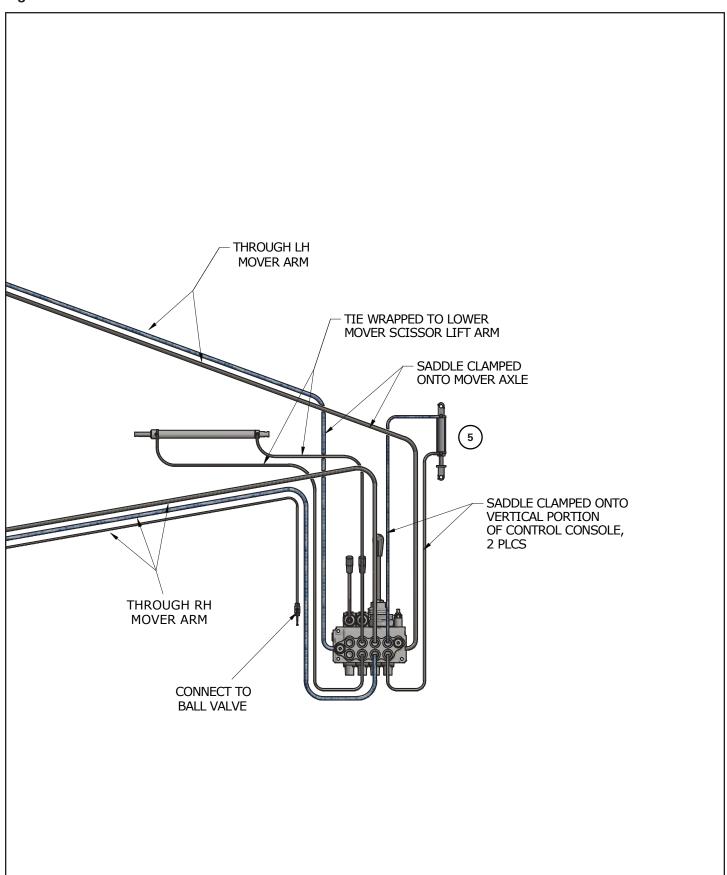


Figure 39



See hose routing [Figure 38], [Figure 39].



HOSE ROUTING

Hoses and wire harnesses are routed together through the mover arms and must be pulled through at the SAME TIME. Cannot be done after or before.

Figure 40

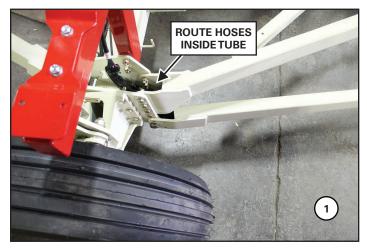


Figure 41



Figure 42

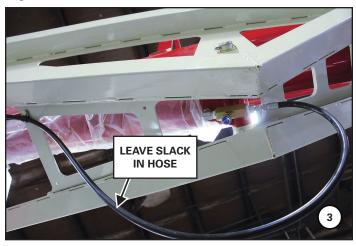


Figure 43

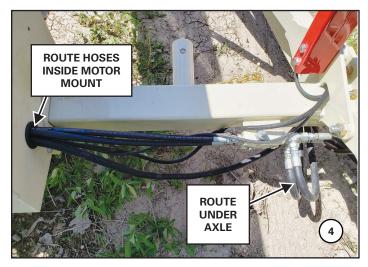
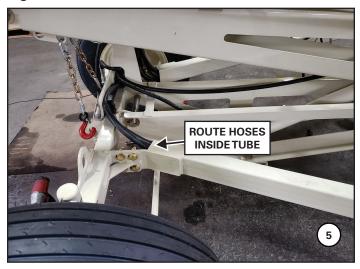
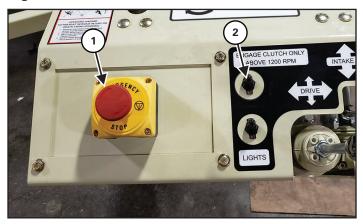


Figure 44



ELECTRICAL

Figure 45



For mover models, route the electrical harness to the console instead of the intake of the auger.

Route the electrical harness up inside the console. Install the E-stop (Item 1) and electric clutch (Item 2) connections [Figure 45].

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OPERATION

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GENERAL INFORMATION

Pre - Operation Checklist

Before operating the auger for the first time and each time thereafter, check the following items:



WARNING

AVOID INJURY OR DEATH

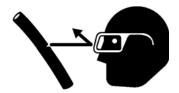
Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.
- 1. Lubricate the equipment per the schedule outline in the Maintenance Section.
- 2. Check the augers. Remove any material build-up or debris that has become entangled.
- 3. Make sure that all guards and shields are in place, secured and functioning as designed.



WARNING





HIGH PRESSURE FLUID HAZARD

Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

4. Check condition of all hydraulic components for leaks. Repair as required.

Note: Do not operate with hydraulic leaks.

- 5. Check and tighten all wheel bolts to proper torque.
- 6. Check tire pressure. Inflate per manufacturer's specification.
- 7. Check gearbox oil level. Fill as required.
- 8. Check the drive belt tension and alignment. Tension or align as required.
- 9. Use only an engine of adequate power to operate the machine.



WARNING





ROTATING PART HAZARD

To prevent serious injury or death from rotating parts:

- Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Install and secure all guards / shields before operating.
- Do not operate with rotating parts exposed.

Break - In Checklist

There are no operational restrictions on the auger or auger mover when used for the first time. It is recommended that the following mechanical items be checked:

Before starting work:

 Review the operator's manual of the auger mover and power unit.

Check the following mechanical items after 1 hour of operation and again after 10 hours of operation:

- Re-torque wheel bolts to proper torque and check tire pressure.
- 2. Check for loose fasteners and hardware. Tighten as required.
- 3. Check the belt tension and alignment. Tension or align as required (See Maintenance section).
- 4. Check the condition of all hydraulic lines, hoses, fittings and couplers for damage or leaks.
- 5. Tighten leaking fittings and repair or replace any damaged components.
- Check the condition of all electrical lines, wires, and connections. Repair or replace any damaged systems or components.
- Check that all guards and shields are in place, secured and functioning as designed.

Engine Requirements

The C13 Conventional Auger Mover is designed to be used with an engine of appropriate power. The following engines are recommended.

Figure 46

Auger	Recommended Engine
C1342	CH980 Kohler 35 HP
C1352	2UEOTIC Diogol Hotz
C1362	3H50TIC Diesel Hatz



Review the engine manufacturer's operator manual for proper engine operation procedure.



WARNING





ROTATING PART HAZARD

To prevent serious injury or death from rotating parts:

- Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Install and secure all guards / shields before operating.
- Do not operate with rotating parts exposed.

ENTERING & LEAVING THE OPERATOR'S POSITION

Entering The Operator's Position

Enter the operator's position, start the engine, and release the parking brake.



Follow the instructions in your tractor's operation manual for the correct procedure.

Leaving The Operator's Position

Always perform the following steps when leaving the operator's position:



WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- Always park on a flat level surface.
- Place all controls in NEUTRAL.
- Engage the park brake.
- Stop the engine and remove the key.
- Wait for all moving parts to stop.

ENGINE BELT DRIVE

Engine model operation:

- 1. Disengage auger drive.
- 2. Move the throttle to its mid-range position.
- 3. Close the choke if the engine is cold or if the unit has not been run for a while.
- 4. Turn the ignition key clockwise to start the engine. Release the key when the engine starts.
- 5. Run for 2-3 minutes to allow the engine to warm.
- 6. Engage the auger drive.
- 7. Start the flow of material and unload.
- 8. Increase engine speed to maximum rpm.
- 9. Stop unloading.
- 10. Run until the auger is empty.
- 11. Move the throttle to its 1/4 position.
- 12. Disengage auger drive.
- 13. Shut off engine and remove ignition key.



Review the engine manufacturer's operator manual for proper engine operation procedure.

MOVING AUGER

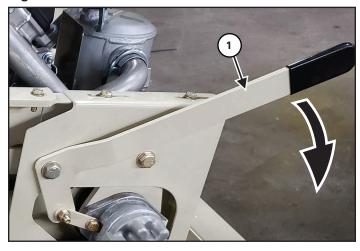
Clear the area of bystanders, especially small children, before starting.

Be sure there is enough clearance from overhead obstructions and power lines or other equipment.

Make sure all hydraulic connections are fully engaged.

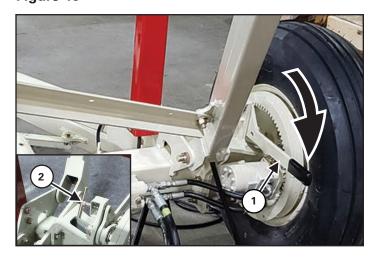
Start engine on auger mover.

Figure 47



Lower the lever (Item 1) to engage pump drive [Figure 47].

Figure 48

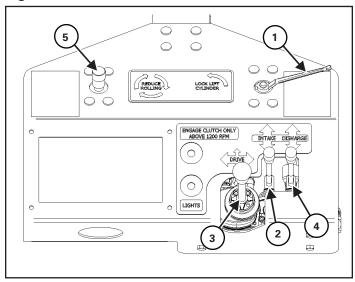


Act on the levers (Item 1) at each drive wheel. Release the locking pin (Item 2) and lower the levers to engage the wheel motors [Figure 48].



The locking pin (Item 2) must always be in place, whether wheel motors are engaged or disengaged [Figure 48].

Figure 49



Release the lift cylinder lock (Item 1) at the control console [Figure 49].

Act on the raise / lower intake lever (Item 2). Use the lever to raise the auger intake off the ground [Figure 49].

IMPORTANT

Do not move the auger while discharge is in the fully raised position. Lower the discharge by acting on the raise / lower discharge lever (Item 4) [Figure 49].

Act on the drive lever (Item 3) at the control console. Use the lever to move the drive wheels and steer [Figure 49].



WARNING

Keep wheels of undercarriage level and on firm ground while moving the auger.

Be aware of any obstructions in the line of travel of the auger.

Adjust the bypass valve (Item 5) to change hydraulic flow to each drive motor [Figure 49].

Valve Closed: The auger will move faster but stop suddenly when the joystick is released. This causes the auger to perform in jerking movements.

Valve Opened: As the valve is opened, the auger speed will become slower but will allow for more gradual movement (soft rolling starts and stops).



IMPORTANT

When the bypass valve is opened, the wheels will roll on slopes.

The open position will reduce force on the drive gears, making them last longer.

Operation recommendations:

- For long straight runs or up inclines, almost close the valve and increase engine rpm.
- For positioning the auger, open the valve slightly and decrease engine rpm.

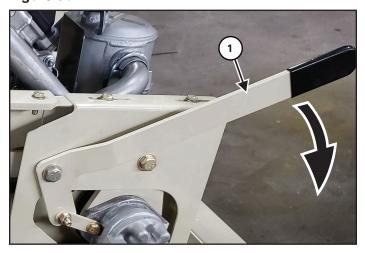
RAISING / LOWERING AUGER

Clear the area of bystanders, especially small children, before starting.

Be sure there is enough clearance from overhead obstructions and power lines or other equipment.

Start engine on auger mover.

Figure 50



Lower the lever (Item 1) to engage pump drive [Figure 50].

Place chocks in the front and rear of each wheel.

Figure 51



Act on the raise / lower discharge lever (Item 1) at the control console. Use the lever to raise the auger discharge to desired height [Figure 51].



WARNING

Never attempt to raise or lower the auger during operation.

Never place blocks under the wheels to increase the elevation of auger.

Keep wheels of undercarriage level and on firm ground.



DANGER

ELECTROCUTION HAZARD

To prevent serious injury or death from electrocution:

- Be aware of overhead power lines.
- Electrocution can occur without direct contact.

TRANSPORTING

Always comply with federal, state, local and provincial laws regarding the transport of farm equipment on pubic roadways.



Never exceed 20 mph (32 kph).

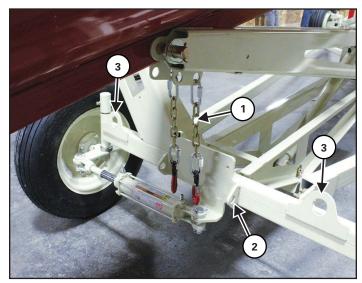


WARNING

Use of an unapproved hitch or tractor / tow vehicle can result in loss of control, leading to serious injury or death.

Tractor / tow vehicle and hitch must have the rated capacity to tow equipment.

Figure 52



Fully raise the mover wheels off the ground. See "Raising / lowering auger" on page 50.

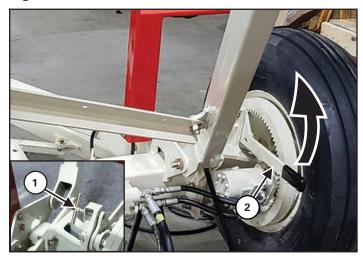
Secure the mover frame by attaching the transport chains (Item 1) to the mounts (Item 2) [Figure 52].



TRANSPORT STRAP

Install the strap around the main tube and to the mounts (Item 3) [Figure 52] during transport.

Figure 53



Release the locking pin (Item 1) and raise both levers (Item 2) to disengage the motors [Figure 53].



WARNING

Make sure both drive wheels are disengaged before transporting the equipment or risk damage to hydraulic system.

Verify that the tractor / tow vehicle is approved for transporting the equipment and that the equipment is securely attached to the tractor / tow vehicle.

Verify safety chain is installed and properly connected before transporting equipment.

Verify that the SMV (Slow Moving Vehicle) emblem, all lights and reflectors are clean and visible.



WARNING

AVOID SERIOUS INJURY OR DEATH

DO NOT transport loaded equipment on public roadways. Excess weight will greatly increase tractor stopping distance and may cause the operator to lose control of the tractor or tow vehicle.

The ratio of the tractor / tow vehicle weight to the loaded equipment weight plays an important role in defining acceptable travel speed.

TRAVEL SPEED - Acceptable travel speed.

WEIGHT RATIO - Weight of fully equipped or loaded implement(s) relative to weight of tractor / tow vehicle.

Maximum Travel Speed	Weight Ratio
20 mph (32 kph)	Less than 1 to 1
10 mph (16 kph)	Less than 2 to 1
DO NOTTOW	More than 2 to 1

MAINTENANCE

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TROUBLESHOOTING



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator And Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

NOTE: If a problem is encountered that is difficult to solve, even after having read through this troubleshooting section, please call your local Farm King dealer. Before you call, please have this Operator And Parts Manual and the serial number of your machine at hand.

PROBLEM CAUSE		CORRECTION	
	No power.	Start engine and engage pump.	
Mover functions not	Drive belt slipping.	Adjust drive belt tension.	
usable.	Plugged filter.	Change oil filter.	
	Low oil level.	Add oil to reservoir.	
	Wheel drive linkage not engaged.	Engage wheel drive.	
Wheel(s) don't move.	Bypass valve open too far.	Adjust bypass valve	
	Drive gears don't mesh.	Adjust linkage to allow gears to mesh.	
Intake digs into ground.	Front wheel does not lower.	Anchor chain still in place.	

SERVICE SCHEDULE

Maintenance work must be done at regular intervals. Failure to do so will result in excessive wear and early failures. The service schedule is a guide for correct maintenance of the equipment.



WARNING

Instructions are necessary before operating or servicing equipment. Read and understand the Operator and Parts Manual and safety signs (decals) on equipment. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

#	DESCRIPTION	SERVICE PROCEDURES					
#		Check	Clean	Lube	Change	Cover	Repack
Wee	ekly (or every 50 hours)	^					
1	Pump Drive Belt Tension	•					
Mon	Monthly (or every 100 hours of use)						
2	Mover Wheel Hubs	•		•			
3	Mover Axle Collars	•		•			
Ann	Annually (or every 400 hours)						
4	Wheel Bearings						•
5	Machine		•				
6	Hydraulic Oil Filter				•		

LUBRICATION

Recommendations

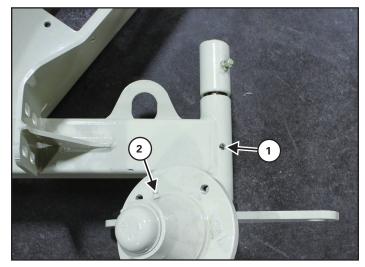
Always use a good quality multi-purpose / lithium base grease when lubricating the equipment.

- Always use a hand-held grease gun.
- Clean fitting before greasing, to avoid injecting dirt and grit.
- Replace and repair broken fittings immediately.
- If fittings will not take grease, remove and clean thoroughly. Replace fitting if necessary.



Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

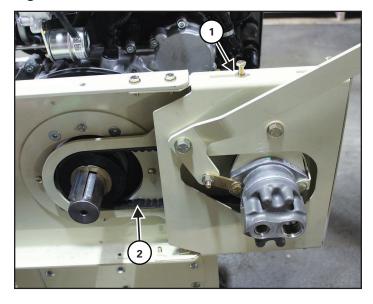
Figure 54



Apply grease to axle collars (Item 1) [Figure 54].
Apply grease to wheel hubs (Item 2) [Figure 54].
Grease monthly (or every 100 hours of use).

PUMP BELTTENSION

Figure 55



Raise the handle to disengage the pump.

Adjust the motor assembly in the slotted holes (Item 1) to tighten the belt (Item 2) [Figure 55].

Lower the handle on the motor assembly to fully engage the pulleys and test the belt tension. The belt should be tight, and motor assembly should not move.



Tighten all fasteners on the pump motor assembly to the proper torque.

HYDRAULIC OIL FILTER

Figure 56



Replace the oil filter (Item 1) [Figure 56].

Apply a light film of oil to the o-ring on the new filter. Hand tighten the new filter.

Run the hydraulic system for 1- 2 minutes and check for leaks around the filter.

Tighten the filter slightly to stop any leaks.

Check hydraulic system oil level. Top up as required.



Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

WHEELS

Torque



Check Wheel Nuts After:

- 1. First 3 (three) hours of field operation.
- 2. First 10 (ten) hours of field operation.
- 3. First 50 (fifty) hours of field operation.

REPEAT PROCEDURE IF A WHEEL IS REMOVED OR REINSTALLED

Torque wheel bolts to proper torque.

Wheel Replacement

Periodically check tires for cuts, bulges and damaged rims.



WARNING

AVOID INJURY OR DEATH

Before you leave the operator's position:

- Always park on a flat level surface.
- Place all controls in NEUTRAL.
- Engage the park brake.
- Stop the engine and remove the key.
- Wait for all moving parts to stop.

Park the tractor / equipment on a flat level surface.

Place all controls in neutral, engage the park brake, stop the engine and wait for all moving parts to stop. Leave the operator's position.



WARNING

AVOID INJURY OR DEATH

Always chock tires before performing any maintenance or service.

Place chock blocks behind and in front of the opposite tire to be removed.

Raise axle frame with jack until the tire / wheel is slightly off the ground.

NOTE: Place blocks / stands under the frame to secure the equipment when tire / wheel is raised off the ground.

Remove the wheel bolts / nuts and wheel.

Figure 57



Install the new wheel with the valve stem facing out.

Reinstall wheel bolts / nuts (Items 1). Tighten wheel bolts in a criss-cross pattern [Figure 57].

Torque wheel bolts to proper torque.

Lower tire / wheel assembly to the ground.

After tightening the wheel bolts, pull the equipment approximately one (1) mile and retighten the wheel bolts to proper torque.

Tire Pressure



CAUTION



When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly.

Check tire pressure daily.

Fill tires per tire manufacturer's recommendation.

See side wall of tire for inflation requirements.



SAFETY SIGN (DECAL) INSTALLATION



When replacing safety signs (decals), the temperature must be above 10° C (50° F).

- Remove all portions of the damaged safety sign (decal).
- Thoroughly clean the area with adhesive remover and glass cleaner. Remove all adhesive residue.
- Allow the area to dry completely before installing the new safety sign (decal).
- Position the safety sign (decal) in the correct location.
- Remove a small portion of the backing paper on the safety sign (decal).
- Press on the safety sign (decal) where the backing paper has been removed.
- Slowly remove the remaining backing paper, pressing on the safety sign (decal) as the backing paper is removed.
- Using the backing paper, pressing firmly, move the backing paper over the entire safety sign (decal) area.

Note: Small air pockets can be pierced with a pin and smoothed out using the piece of the backing paper.

STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store the equipment for an extended period of time. Below is a list of items to perform before storage.



DO NOT permit children to play on or around the stored machine.

 Thoroughly wash the machine with a pressure washer or water hose to remove all dirt, mud, debris or residue.

- Lubricate all bushings to remove any water residue from washing.
- Remove any material that has become entangled around any moving part.
- Inspect the hitch and all welds on the equipment for wear and damage.
- Check for loose hardware, missing guards, or damaged parts.
- Check for damaged or missing safety signs (decals).
 Replace if necessary.
- Replace worn or damaged parts.
- Touch up all paint nicks and scratches to prevent rusting.
- Place the equipment in a dry protected shelter.

Note: If a dry protected shelter is not available, cover with a waterproof tarp and tie down securely.

Place the equipment flat on the ground.

Return To Service

After the equipment has been in storage, it is necessary to follow a list of items to return the equipment to service.

- Be sure all shields and guards are in place.
- Lubricate the equipment.
- Connect to a tractor and operate equipment, verify all functions operate correctly.
- Check for leaks. Repair as needed.

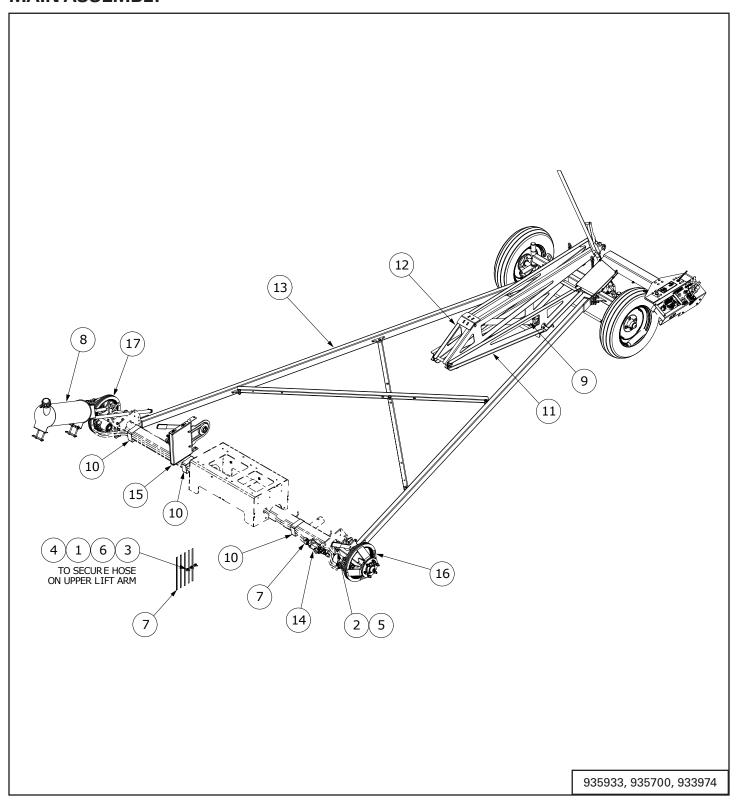
PARTS IDENTIFICATION

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GENERAL PARTS INFORMATION

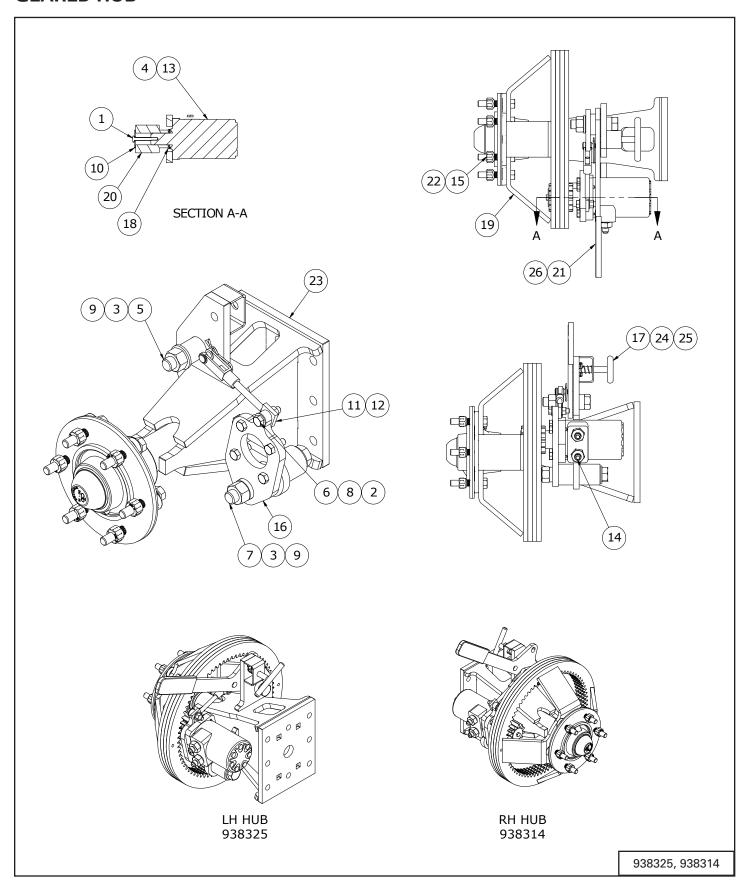
The parts identification section list descriptions, part numbers and quantities for all North America Base Model C13 series augers. Contact your Farm King dealer for additional parts information.

MAIN ASSEMBLY



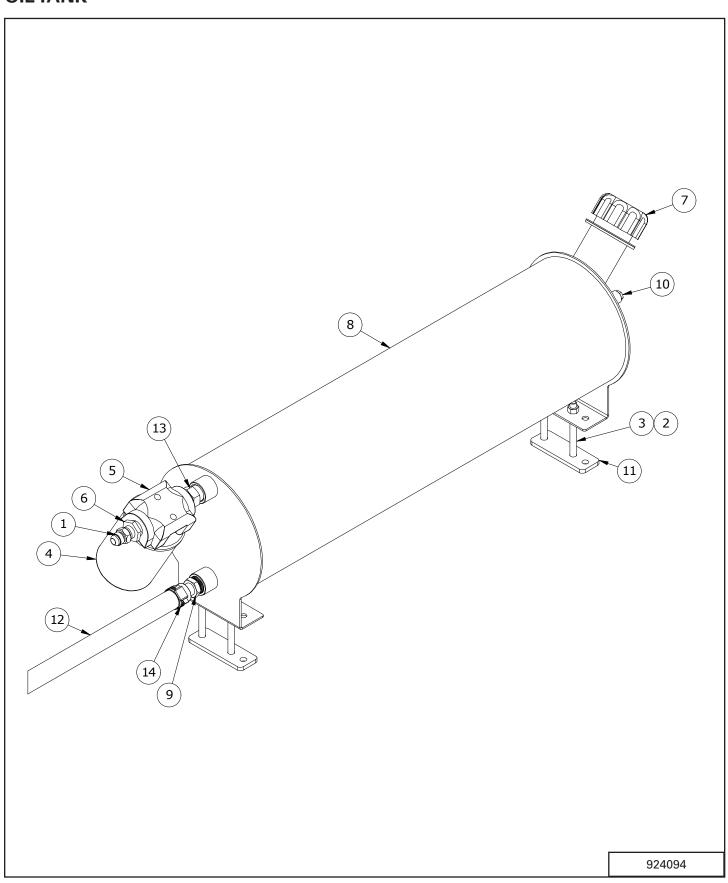
ITEM	PART NUMBER	DESCRIPTION	QTY.		
1	81546	5/16" FLAT WASHER (PL)	3		
2	811791	1/2" X 2" HEX BOLT (PL)	16		
3	812026	5/16" X 1" HEX BOLT (PL)	3		
4	812362	5/16" LOCK NUT (PL)	3		
5	812364	1/2" LOCK NUT (PL)	16		
6	912832	7/16" CABLE CLIP	3		
7	967184	14 1/2" STRAP	5		
8	924094	ASSY-OILTANK	1		
9	938156	ASSY-C1342 MOVER HYD CYLINDER	1		
	929995	ASSY-C1352, C1362 MOVER HYD CYLINDER	1		
10	931999	HOSE STRAP-HOOK AND LOOP			
11	935607	ASSY-C13 MOVER LOWER LIFT ARM			
12	935608	ASSY-C13 MOVER UPPER LIFT ARM			
13	935938	ASSY-C1342 MOVER BASE	1		
	935701	ASSY-C1352 MOVER BASE	1		
	933962	ASSY-C1362 MOVER BASE	1		
14	935995	ASSY-C13 MOVER RELIEF	1		
15	935011	ASSY-C1342 MOVER PUMP	1		
	937042	ASSY-C1352, C1362 MOVER PUMP	1		
16	938314	ASSY-C13 DRIVE MECHANISM RH	1		
17	938325	ASSY-C13 DRIVE MECHANISM LH	1		

GEARED HUB



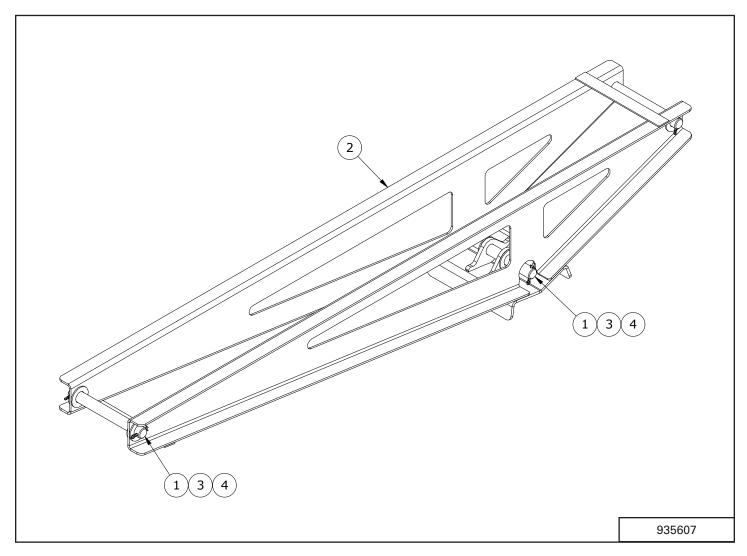
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	81531	BOLT HEX 0.25NC X 2.00 GR5 PL	1
2	84039	WASHER - 3/8" SAE FLAT (PL)	2
3	84050	3/4" S.A.E. FLAT WASHER (PL)	2
4	86170	3/8" X 1" HEX BOLT GR.5 (PL)	4
5	810149	3/4" X 3 1/2" HEX BOLT (PL)	1
6	811792	3/8" X 1 1/2" HEX BOLT GR.5 (PL)	1
7	812114	3/4" X 5 1/2" HEX BOLT (PL)	1
8	812363	3/8" LOCK NUT (PL)	1
9	812365	3/4" LOCK NUT (PL)	2
10	813748	WASHER, FENDER, 1 1/2"OD X 5/16"ID (PL)	1
11	903590	CHAINTIGHTENER ROD WELDMENT	1
12	905043	CLEVIS YOKE W/ PIN & COT PIN	1
13	910245	HYD MOTOR EATON 101-1011-009	1
14	913557	ADAPTER-10 MORB X -6 MJIC	2
15	915665	WHEEL STUD NUT-WB11	6
16	933811	WELDT-MOTOR MOUNT	1
17	933821	T-HANDLE PIN	1
18	933823L	SPACER-MOVER DRIVE	2
19	934020	WELDT-C13 RING GEAR	1
20	934645	GEAR-12TH, 20 DEG, 6 DP	1
21	936707	WELDT-HANDLE LH	1
	935592	WELDT-HANDLE RH	1
22	937291	BOLT HEX 1/2-20 X 2.75, GR 8, FULL, (YZ PL)	6
23	938326	ASSY-C13 STUB AXLE LH	1
	938315	ASSY-C13 STUB AXLE RH	1
24	973280	SPRING - 0.062"T X 0.310"P X 1.380"L	1
25	9812425	1/4" X 1 1/4" SPRING PIN (PL)	1
26	JDCW25634	RUBBER GRIP	1

OIL TANK



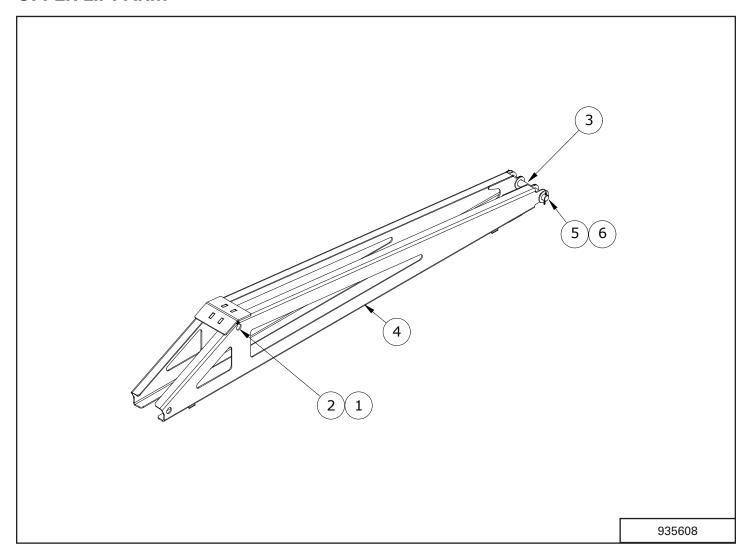
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811422	ADAPTER - 1/2 MNPT X 3/4 MJIC	1
2	812363	3/8" LOCK NUT (PL)	4
3	81587	3/8" X 4" HEX BOLT (PL)	4
4	910202	10 MICRON OIL FILTER	1
5	910212	FILTER HEAD	1
6	910442	REDUCER, 3/4"MNPT X 1/2"FNPT	1
7	913565	FILL CAP-3.14", TANK	1
8	913568	WELDT-TANK	1
9	913571	ADAPTER-12 MPT X -12 HOSE BARB	1
10	913582	PLUG-4 MPT HEX	1
11	913590L	PLATE-TANK MOUNT	2
12	913758	HOSE-12 SUCTION	1
13	913966	NIPPLE-12 NPT X 2.00"	1
14	914220	CLAMP-BAND HOSE, .563" - 1.25"	2

LOWER LIFT ARM



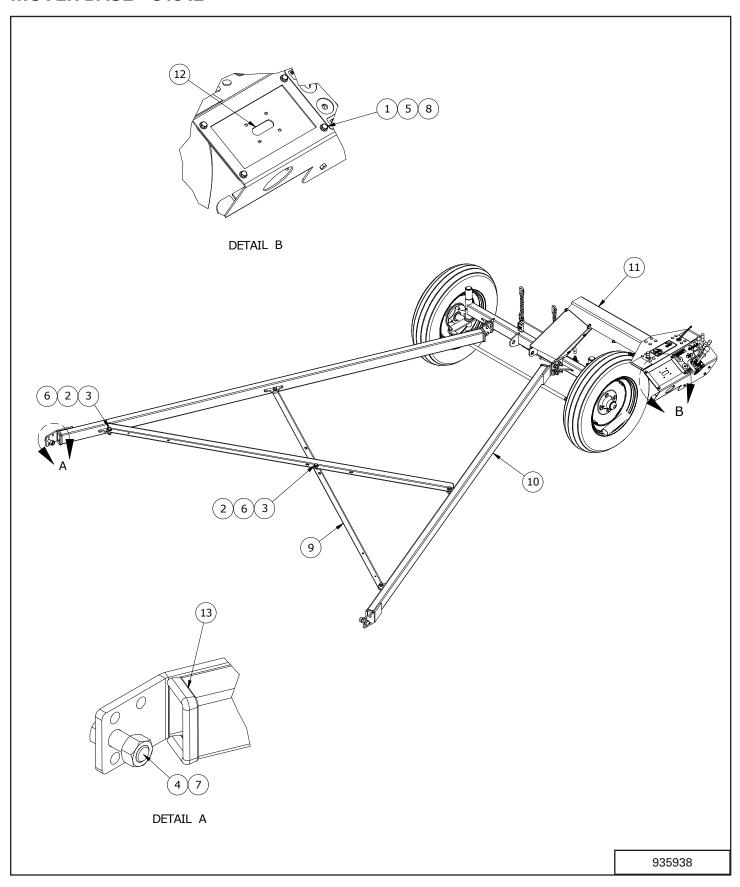
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	913312	PIN-1.00X8.82	3
2	935609	WELDT-LIFTING ARM MOVER	1
3	9812433	3/16" X 1 1/2" COTTER PIN	6
4	84522	1" ID SAE FLAT WASHER (PL)	8

UPPER LIFT ARM



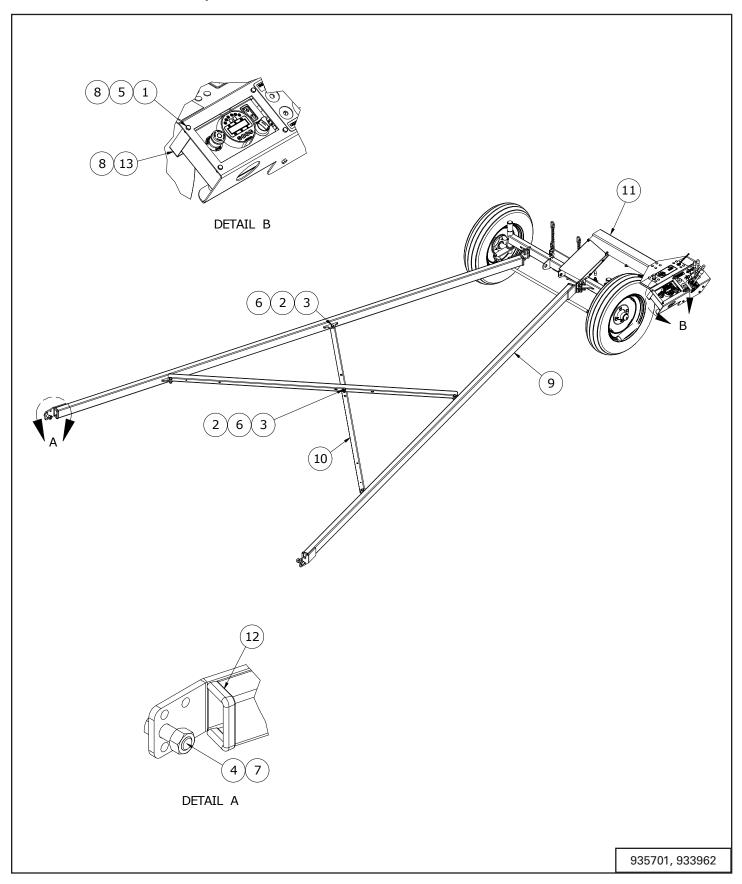
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	812639 WASHER 0.625 SAE FLAT BS PL		2
2	913300	PIN-0.625X5.51	1
3	913312	PIN-1.00X8.82	1
4	937534	WELDT-LIFTING ARM MOVER	1
5	9812433	3/16" X 1 1/2" COTTER PIN	4
6	84522	1" ID SAE FLAT WASHER (PL)	4

MOVER BASE - C1342



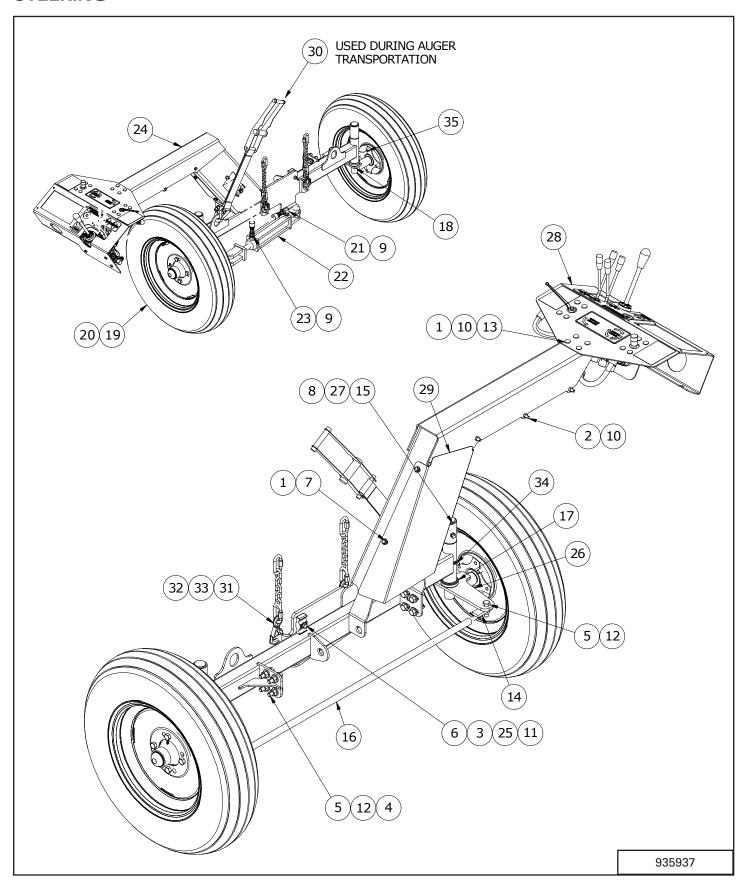
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	81525 1/4" X 3/4" HEX BOLT (PL)		4
2	84048	1/2" SAE FLAT WASHER (PL)	6
3	84277	1/2" X 1 1/2" HEX BOLT (PL)	5
4	84467	3/4" X 2" HEX BOLT (PL)	2
5	84498	1/4" LOCK NUT (PL)	4
6	812364	1/2" LOCK NUT (PL)	5
7	812365	3/4" LOCK NUT (PL)	
8	812624	2624 1/4" FLAT WASHER PL	
9	935907	PLATE-C13 CROSS BRACE	
10	935934	WELDT-C1342 MOVER ARMS	2
11	935937	ASSY-C13 MOVER STEERING	1
12	937181L	PLATE - SWITCH MOUNT	
13	937556	U-TRIM 0.13 X 0.47	2.3 FT

MOVER BASE - C1352, C1362



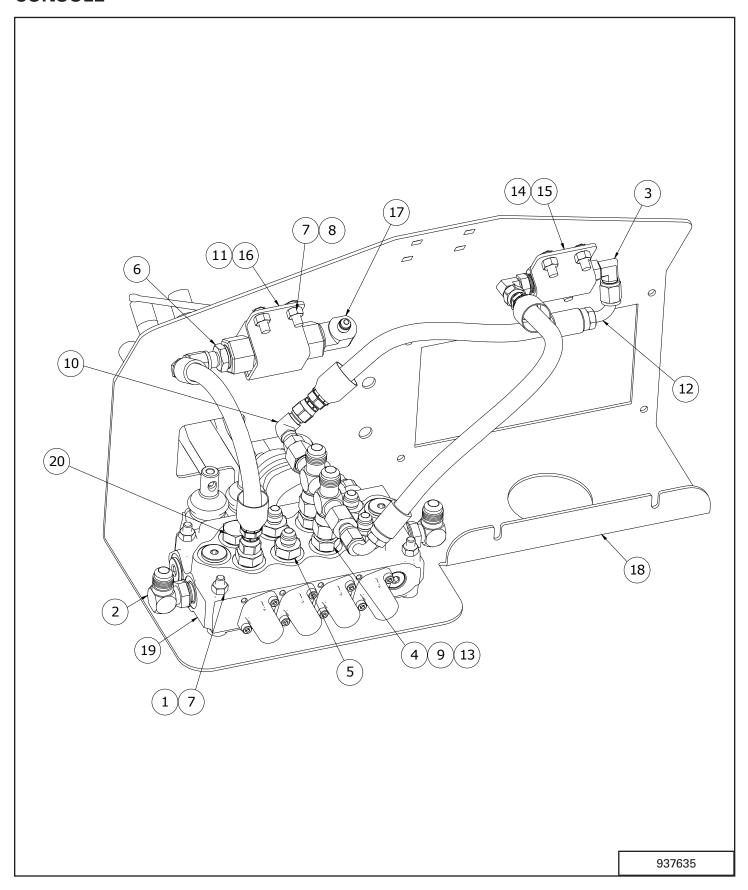
ITEM	PART NUMBER	DESCRIPTION	
1	81525	1/4" X 3/4" HEX BOLT (PL)	4
2	84048	1/2" SAE FLAT WASHER (PL)	6
3	84277	1/2" X 1 1/2" HEX BOLT (PL)	5
4	84467	3/4" X 2" HEX BOLT (PL)	2
5	84498	1/4" LOCK NUT (PL)	4
6	812364	1/2" LOCK NUT (PL)	5
7	812365	3/4" LOCK NUT (PL)	
8	812624	1/4" FLAT WASHER PL	8
9	935702	WELDT-C1352 MOVER ARMS	
	933963	WELDT-C1362 MOVER ARMS	2
10	935907	PLATE-C13 CROSS BRACE	
11	935937	ASSY-C13 MOVER STEERING	
12	937556	U-TRIM 0.13 X 0.47	
13	937927	BRKT - CONTROLS HOLDER	

STEERING



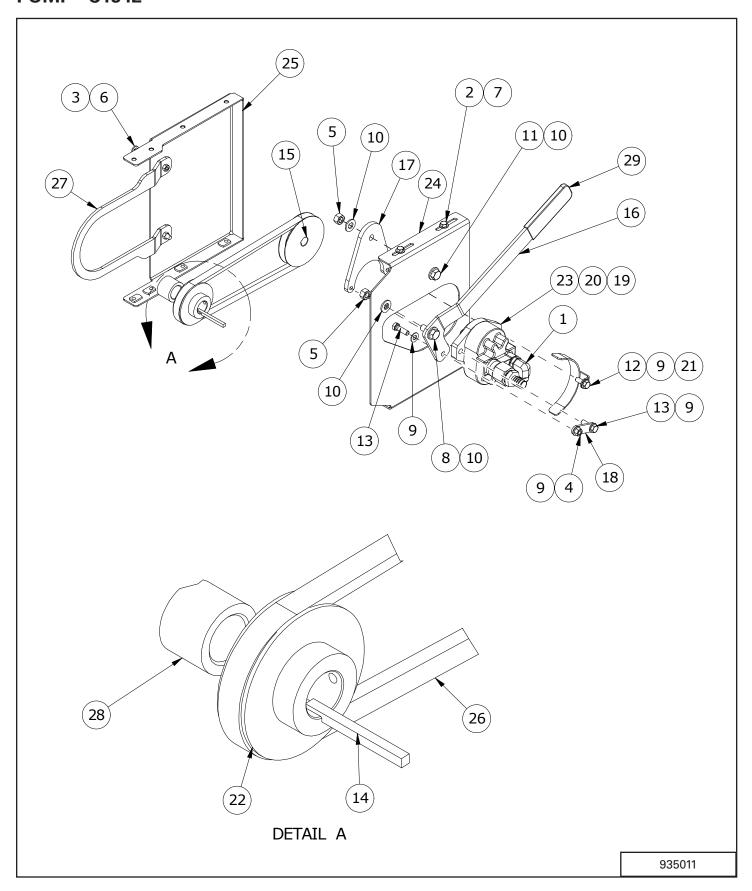
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	81546	5/16" FLAT WASHER (PL)	8
2	81564	5/16" X 4.5" HEX BOLT (PL)	3
3	84039	WASHER - 3/8" SAE FLAT (PL)	3
4	84048	1/2" SAE FLAT WASHER (PL)	16
5	87553	1/2" X 1.75" HEX BOLT UNC GR5 (PL)	10
6	811795	3/8" X 2" HEX BOLT (PL)	3
7	812026	5/16" X 1" HEX BOLT (PL)	4
8	812037	03/8" X 3/4" SQHDCUP SETSCREW (PL)	2
9	812084	ADAPTER-6MJIC X -6MPT	2
10	812362	5/16" LOCK NUT (PL)	7
11	812363	3/8" LOCK NUT (PL)	3
12	812364	1/2" LOCK NUT (PL)	10
13	812626	BOLT CARR 0.313NC X 1.00GR5PL	4
14	910115	ADJUSTMENT ROD WELDMENT	1
15	910117	COUPLER WELDMENT	2
16	910164	ADJABLETUBE WELDT	1
17	910214	TAPERED BEARINGT126	2
18	910261	HUB & STUB SHFT ASSY - R	1
19	F253	ASSY-TIRE MOUNTED 6.70	2
20	F7110	WHEEL-15" X 4.5" X 4 BOLT	2
21	913969	ELBOW-6 MPT X -6 FPT 90	1
22	914022	CYLINDER-2" BORE X 8" STROKE	1
23	914062	ORIFICE-6 MPT X -6 FPT SWIVEL .031	1
24	929991	WELDT-C13 MOVER AXLE	1
25	931881	CLAMP-TWIN	3
26	935645	ASSY-C13 MOVER HUB	1
27	986045	3/8" JAM NUT (PL)	2
28	937635	ASSY - C13 MOVER CONSOLE	1
29	937779	ASSY-COVER W/O TABS	1
30	938495	RATCHET STRAP-2"	
31	960041	HOOK WITH LATCH	
32	960167	QUICK LINK (PL)	
33	966596	CHAIN, 5 LINK_5&6RC	
34	967164	DRIVE-IN GREASE ZERK	2
35	968404	WHEEL BOLT 1/2" X 1 1/4" (PL)	8

CONSOLE



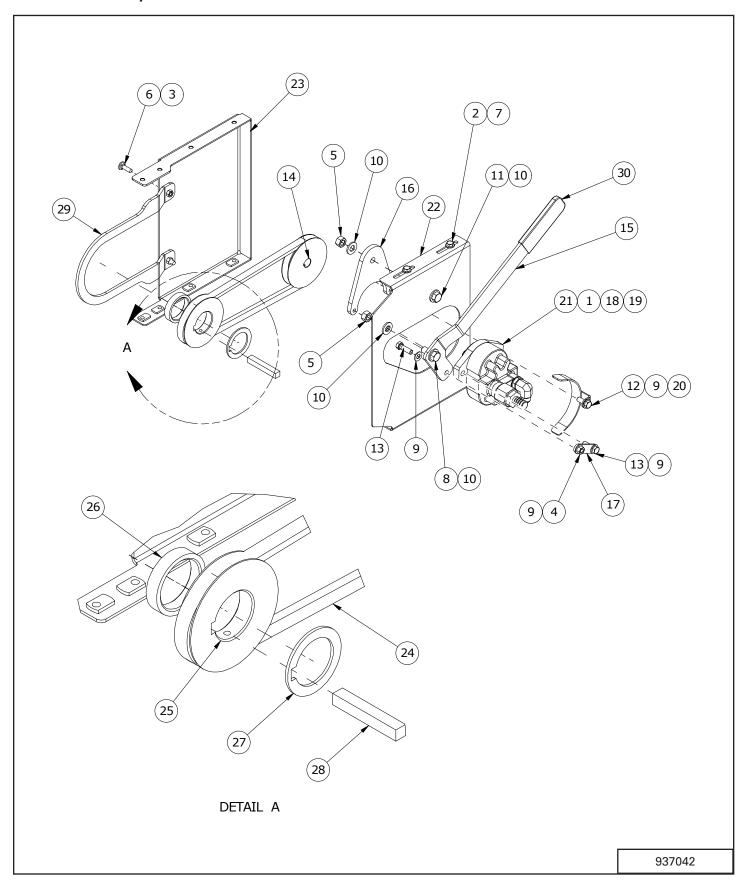
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	810761	5/16" X 2 1/2" HEX BOLT (PL)	3
2	811414	ELBOW 90 3/4 MORB X 3/4 MJIC	2
3	811918	ELBOW 90 9/16SWMORB x 9/16MJIC	2
4	812080	ADAPTOR STR 3/4MORB X 3/4MJIC	2
5	812107	ADAPTOR STR 3/4MORB X 9/16MJI	5
6	812320	ADAPTER-8 MPT X -6 MJIC	1
7	812362	5/16" LOCK NUT (PL)	11
8	812626	BOLT CARR 0.313NC X 1.00GR5PL	8
9	812786	TEE 3/4 MJIC X RUN 3/4 SWFJIC	2
10	812837	ELB90 9/16SWFJIX9/16MJI 106717	1
11	960057	-08 FNPT 2 WAY BALL VALVE	1
12	913967	HOSE-6 X -6JIC X -6JIC 90 ELBOW	3
13	918981	ADAPTOR-08 FJIC X -06 MJIC	2
14	935435	VALVE-NEEDLE	1
15	935999	BRKT-C13 MOVER VALVE HOLDER	1
16	936000	BRKT-C13 MOVER VALVE HOLDER	
17	936001	ELBOW-8MPT X -4MJIC 90DEG	
18	937173	BRKT-C13 MOVER CONSOLE	
19	937388	VALVE BLOCK-4 SPOOL W/JOYSTICK	
20	937638	PLUG-8MORB	1

PUMP - C1342



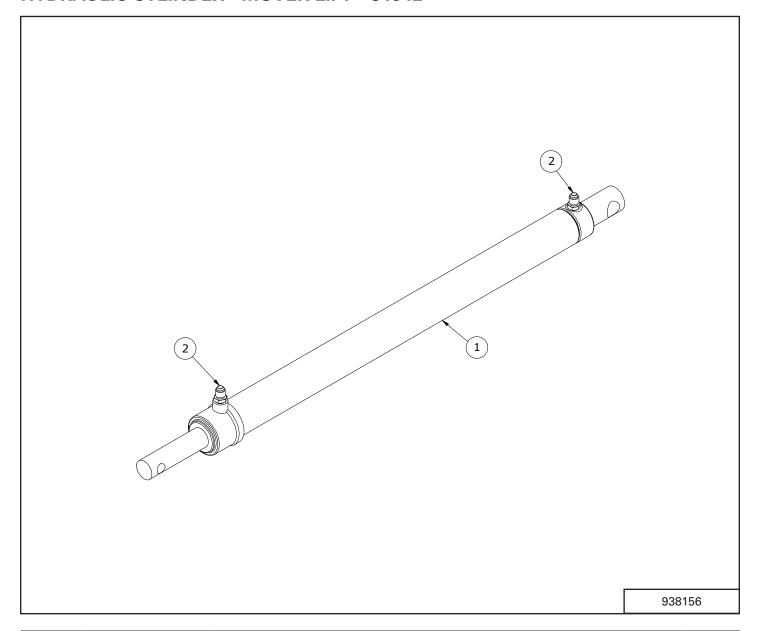
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	811416	ELBOW-10 MORB X -8 MJIC, 90 DEG	1
2	812026	5/16" X 1" HEX BOLT (PL)	
3	812362	5/16" LOCK NUT (PL)	2
4	812363	3/8" LOCK NUT (PL)	1
5	812364	1/2" LOCK NUT (PL)	2
6	812626	BOLT CARR 0.313NC X 1.00GR5PL	2
7	81546	5/16" FLAT WASHER (PL)	4
8	81620	1/2" X 1 1/4" HEX BOLT PL	1
9	84039	WASHER - 3/8" SAE FLAT (PL)	4
10	84048	1/2" SAE FLAT WASHER (PL)	4
11	84277	1/2" X 1 1/2" HEX BOLT (PL)	1
12	86170	3/8" X 1" HEX BOLT GR.5 (PL)	1
13	86171	3/8" X 1 1/4" HEX BOLT (PL)	2
14	903415	KEY STOP 1/4" X 1/4" X 3"	1
15	910199	SGL GRV 4 1/2" SHEAVE C/W HUB	1
16	913184	PLATE-HYD PUMP HANDLE	1
17	913186	PLATE-HYD PUMP ARM	1
18	913520L	PLATE-HYD LINK CA MOVER	1
19	913547	ADAPTER-12 MORB X -12 BARB	1
20	919435	ADAPTER -16MORB X -12FORB	1
21	924394	WELDT-MOVER BELT GUIDE	1
22	931984	SHEAVE-SINGLE 3.75"	1
23	936731	PUMP-26004-RZD	1
24	937043	BRKT-C13 HYD PUMP MOUNT	
25	937044	WELDT-MOVER HYD MOUNT	
26	937062	BELT-BX35	
27	937822	PLATE - BELT GUIDE	
28	938032	SPACER-ENGINE CLUTCH	
29	JDCW25634	RUBBER GRIP	

PUMP - C1352, C1362



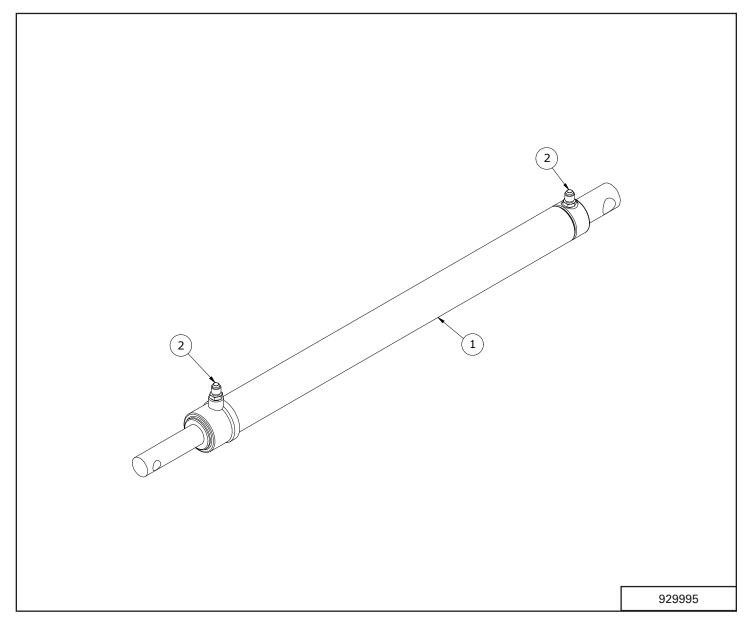
ITEM	PART NUMBER	DESCRIPTION	
1	811416	ELBOW-10 MORB X -8 MJIC, 90 DEG	1
2	812026	5/16" X 1" HEX BOLT (PL)	
3	812362	5/16" LOCK NUT (PL)	
4	812363	3/8" LOCK NUT (PL)	1
5	812364	1/2" LOCK NUT (PL)	2
6	812626	BOLT CARR 0.313NC X 1.00GR5PL	2
7	81546	5/16" FLAT WASHER (PL)	4
8	81620	1/2" X 1 1/4" HEX BOLT PL	1
9	84039	WASHER - 3/8" SAE FLAT (PL)	4
10	84048	1/2" SAE FLAT WASHER (PL)	4
11	84277	1/2" X 1 1/2" HEX BOLT (PL)	1
12	86170	3/8" X 1" HEX BOLT GR.5 (PL)	1
13	86171	3/8" X 1 1/4" HEX BOLT (PL)	2
14	910199	SGL GRV 4 1/2" SHEAVE C/W HUB	1
15	913184	PLATE-HYD PUMP HANDLE	1
16	913186	PLATE-HYD PUMP ARM	1
17	913520L	PLATE-HYD LINK CA MOVER	1
18	913547	ADAPTER-12 MORB X -12 BARB	1
19	919435	ADAPTER -16MORB X -12FORB	1
20	924394	WELDT-MOVER BELT GUIDE	1
21	936731	PUMP-26004-RZD	1
22	937043	BRKT-C13 HYD PUMP MOUNT	1
23	937044	WELDT-MOVER HYD MOUNT	1
24	937062	BELT-BX35	1
25	937719	SGL GRV 4 1/2" SHEAVE	
26	937734	TUBE - SHAFT SPACER	
27	937736L	PLATE - SHAFT SPACER	
28	937806	1/2" X 1/2" X 3-1/4 KEY	
29	937822	PLATE - BELT GUIDE	
30	JDCW25634	RUBBER GRIP	1

HYDRAULIC CYLINDER - MOVER LIFT - C1342



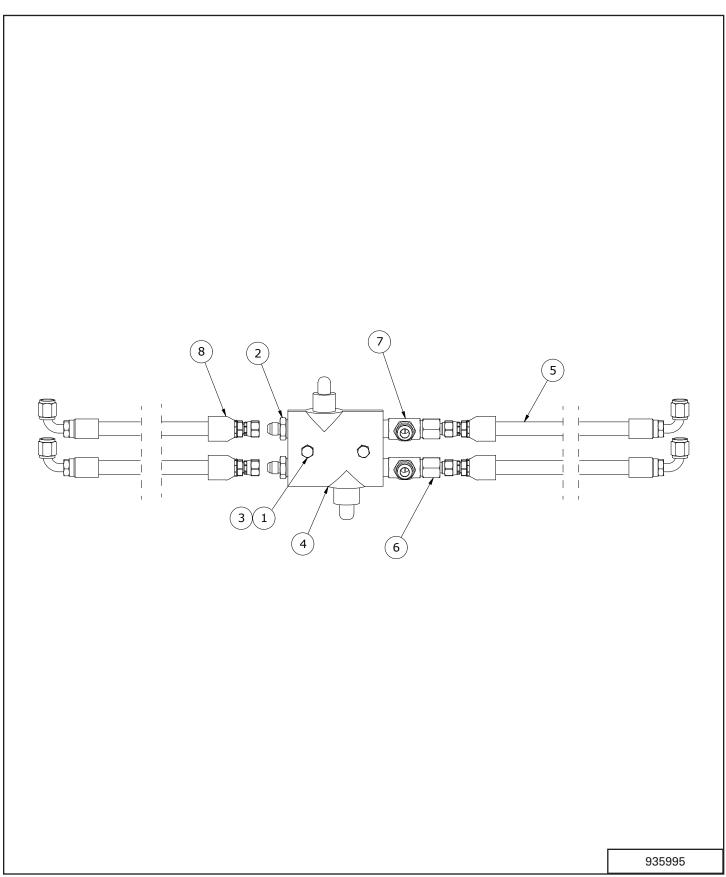
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	938157	CYLINDER-2.00" DIA, 36.75TO 58.50	1
2	921099	ADAPTER-6MORB X -6MJIC R.047	2

HYDRAULIC CYLINDER - MOVER LIFT - C1352, C1362



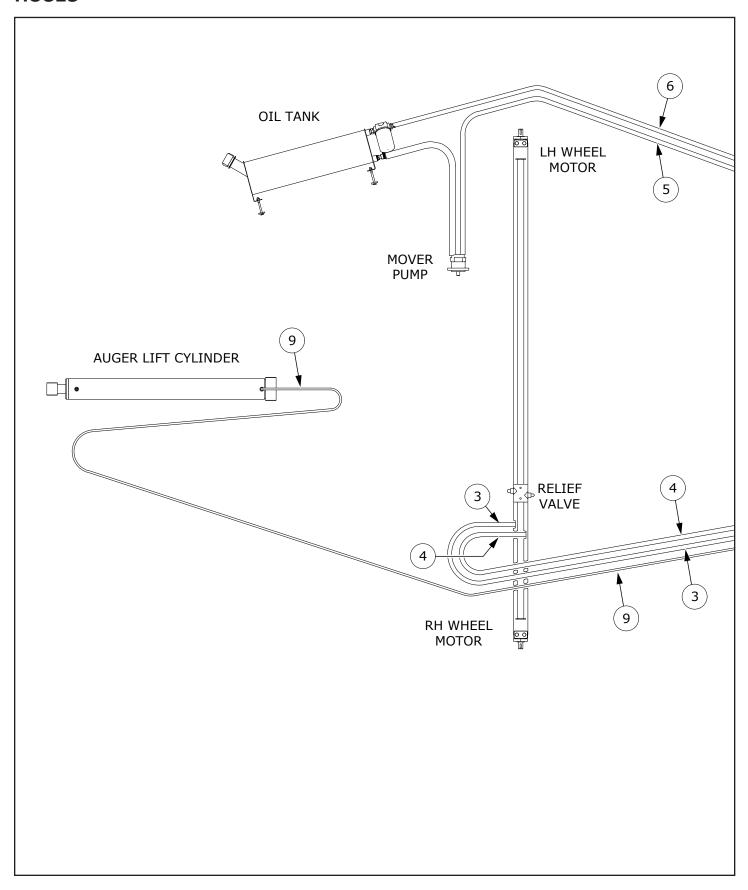
ITEM	PART NUMBER	DESCRIPTION	QTY.
1	916438	916438 CYLINDER-2.00" DIA, 36.75TO 63.25	
2	921099	ADAPTER-6MORB X -6MJIC R.047	2

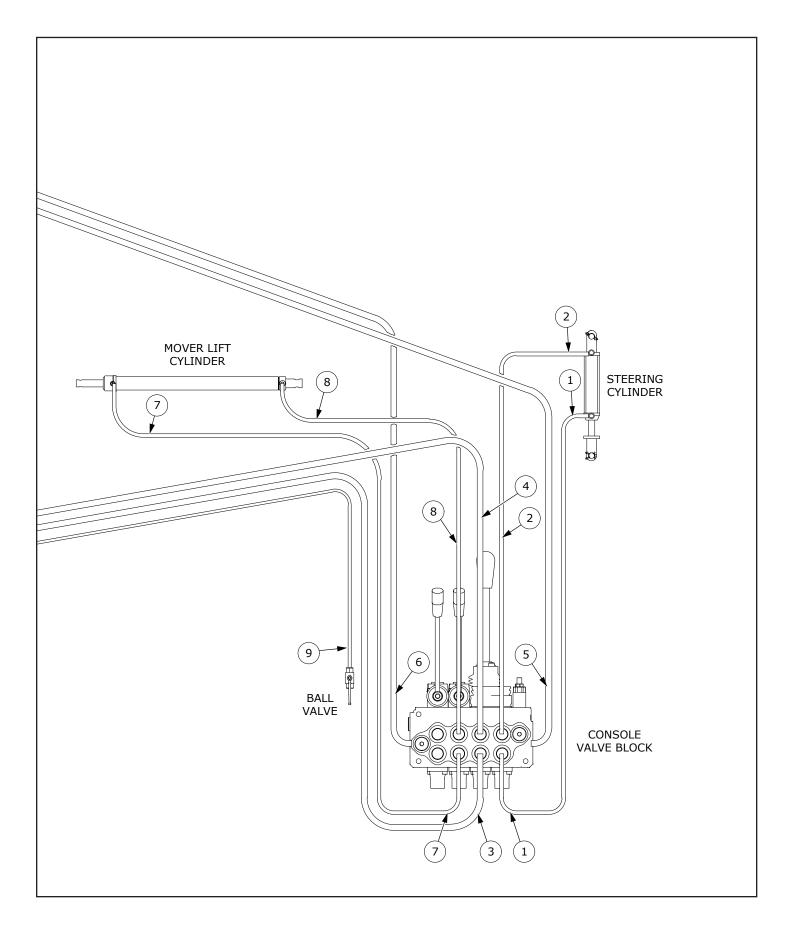
RELIEF VALVE



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	810761	5/16" X 2 1/2" HEX BOLT (PL)	2
2	812320	ADAPTER-8 MPT X -6 MJIC	2
3	812362	5/16" LOCK NUT (PL)	2
4	912909	VALVE-RELIEF, DOUBLE	1
5	913967	HOSE-6 X -6JIC X -6JIC 90 ELBOW - LENGTH = 12"	2
6	918981	ADAPTOR-08 FJIC X -06 MJIC	2
7	935678	TEE-8MJIC X -8MPT	2
8	913554	HOSE -6 X -6JIC X -6JIC X 90 ELBOW - LENGTH = 115"	2

HOSES





HOSES - C1342

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64"
2	936002	HOSE-6 X -6JIC X -6JIC	64"
3	913756	HOSE-8 X -8JIC X -8JIC	200"
4	913756	HOSE-8 X -8JIC X -8JIC	200"
5	938050	HOSE-8 X -8JIC X -8JIC	262"
6	938150	HOSE-8 X -8JIC X -8JIC	283"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115"
9	938026	HOSE-4 X -4JIC X -4JIC	417"

HOSES - C1352

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64.4"
2	936002	HOSE-6 X -6JIC X -6JIC	64.4"
3	938145	HOSE-8 X -8JIC X -8JIC	255″
4	938145	HOSE-8 X -8JIC X -8JIC	255″
5	938146	HOSE-8 X -8JIC X -8JIC	326"
6	938147	HOSE-8 X -8JIC X -8JIC	305"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115"
9	938144	HOSE-4 X -4JIC X -4JIC	516″

HOSES - C1362

ITEM	PN	DESCRIPTION	LENGTH
1	936002	HOSE-6 X -6JIC X -6JIC	64.4"
2	936002	HOSE-6 X -6JIC X -6JIC	64.4"
3	938150	HOSE-8 X -8JIC X -8JIC	283″
4	938150	HOSE-8 X -8JIC X -8JIC	283"
5	938149	HOSE-8 X -8JIC X -8JIC	354"
6	938146	HOSE-8 X -8JIC X -8JIC	326"
7	913650	HOSE-6 X -6JIC X -6JIC ELBOW X 24	83"
8	913554	HOSE-6 X -6JIC X -6JIC 90 ELBOW	115"
9	938151	HOSE-4 X -4JIC X -4JIC	564"

SPECIFICATIONS

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PERFORMANCE

Model	C1342	C1352	C1362	
Engine Recommended	CH980 Kohler 35 HP 3H50TIC Diesel Hatz			
Mover Wheel	Wheel 15" X 4.5"			
Mover Hub Type	4-Bolt	4-Bolt	4-Bolt	
Mover Oil Tank Capacity	-	-	-	
Mover Oil Tank Filter	-	-	-	

DIMENSIONS

Model	C1342	C1352	C1362
Max Field Height	316″	398″	465″
Field Width	137" (+14" with mover)	137" (+14" with mover)	137" (+14" with mover)
Transport Width	137" (+14" with mover)	137" (+14" with mover)	137" (+14" with mover)
Transport Height	145″	151"	155″
Transport Length	516″	637"	759″

Note: Dimensions are approximate measurements.

HARDWARE TORQUE VALUES

Metric Chart

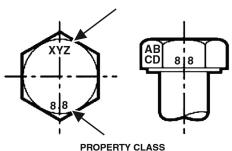
NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. **Torque values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.**

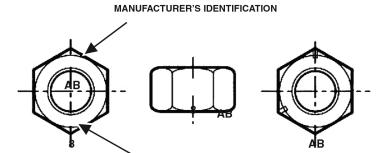
Nominal			Class 8.8		Class 10.9		Lock nuts	
Size	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	Unplated	Plated W / ZnCr	CL.8 w/ CL. 8.8 Bolt	
M4	1.7 (15*)	2.2 (19*)	2.6 (23*)	3.4 (30*)	3.7 (33*)	4.8 (42*)	1.8 (16*)	
M6	5.8 (51*)	7.6 (67*)	8.9 (79*)	12 (102*)	13 (115*)	17 (150*)	6.3 (56*)	
M8	14 (124*)	18 (159*)	22 (195*)	28 (248*)	31 (274*)	40 (354*)	15 (133*)	
M10	28 (21)	36 (27)	43 (32)	56 (41)	61 (45)	79 (58)	30 (22)	
M12	49 (36)	63 (46)	75 (55)	97 (72)	107 (79)	138 (102)	53 (39)	
M16	121 (89)	158 (117)	186 (137)	240 (177)	266 (196)	344 (254)	131 (97)	
M20	237 (175)	307 (226)	375 (277)	485 (358)	519 (383)	671 (495)	265 (195)	
M24	411 (303)	531 (392)	648 (478)	839 (619)	897 (662)	1160 (855)	458 (338)	
	NOTE: Torque values shown with * are inch pounds.							

Identification of Hex Cap Screws and Carriage Bolts - Classes 5 and up





Identification of Hex Nuts and Lock Nuts - Classes 5 and up



PROPERTY CLASS

Imperial Chart

NOTE: Do not use the values listed in the charts if a different torque value or tightening procedure is specified in this manual for a specific application. Torque values listed are for general use only.

Use the following charts to determine the correct torque when checking, adjusting or replacing hardware. **Torque** values are listed in newton-meters (inch* or foot pounds) for normal assembly applications.

Nominal	SAE G	SAE Grade 5		SAE Grade 8		LOCK NUTS			
Size	Unplated or Plated Silver	Plated W / ZnCr Gold	Unplated or Plated Silver	Plated W / ZnCr Gold	Unplated or Plated Silver	Plated W / ZnCr Gold	Grade W / Gr. 5 Bolt	Grade W / Gr. 8 Bolt	
1/4	6.2 (55*)	8.1 (72*)	9.7 (86*)	12.6 (112*)	13.6 (121*)	17.7 (157*)	6.9 (61*)	9.8 (86*)	
5/16	13 (115*)	17 (149*)	20 (178*)	26 (229*)	28 (250*)	37 (324*)	14 (125*)	20 (176*)	
3/8	23 (17)	30 (22)	35 (26)	46 (34)	50 (37)	65 (48)	26 (19)	35 (26)	
7/16	37 (27)	47 (35)	57 (42)	73 (54)	80 (59)	104 (77)	41 (30)	57 (42)	
1/2	57 (42)	73 (54)	87 (64)	113 (83)	123 (91)	159 (117)	61 (45)	88 (64)	
9/16	81 (60)	104 (77)	125 (92)	163 (120)	176 (130)	229 (169)	88 (65)	125 (92)	
5/8	112 (83)	145 (107)	174 (128)	224 (165)	244 (180)	316 (233)	122 (90)	172 (127)	
3/4	198 (146)	256 (189)	306 (226)	397 (293)	432 (319)	560 (413)	217 (160)	306 (226)	
7/8	193 (142)	248 (183)	495 (365)	641 (473)	698 (515)	904 (667)	350 (258)	494 (364)	
1	289 (213)	373 (275)	742 (547)	960 (708)	1048 (773)	1356 (1000)	523 (386)	739 (545)	
	NOTE: Torque values shown with * are inch pounds.								

Identification of Hex Cap Screws and Carriage Bolts





5 BOLTS



8 BOLTS







Identification of Hex Nuts and Lock Nuts



Grade A - No Notches

Grade B - One Circumferential Notch

Grade C - One Circumferential Notches



Grade A - No Mark

Grade B - Letter B

Grade C - Letter C



Grade A - No Marks

Grade B - Three Marks

Grade C - Six Marks

(Marks not always located at corners)

HYDRAULIC CONNECTION SPECIFICATIONS

O-Ring Fitting (Straight Thread)

Lubricate the O-ring before installing the fitting. Loosen the jam nut and install the fitting. Tighten the jam nut until the washer is tight against the surface.

O-Ring Face Seal Connection

O-ring Face Seal Tightening Torque					
Tube Line O.D.	Thread Size	N•m (ft-lb)			
1/4"	9/16" - 18	13 (18)			
3/8"	11/16" - 16	22 (30)			
1/2"	13/16" - 16	40 (54)			
5/8"	1" - 14	60 (81)			
3/4"	1-3/16" - 12	84 (114)			
7/8"	1-3/16" - 12	98 (133)			
1"	1-7/16" - 12	118 (160)			
1-1/4"	1-11/16" - 12	154 (209)			
1-1/2"	2" - 12	163 (221)			

When the fitting is tightened, you can feel when the fitting is tight to eliminate leakage caused by under or over torqued fittings. Use petroleum jelly to hold the O-ring in position until the fittings are assembled.

Flare Fitting

Flare Fitting Tightening Torque					
Tube Line O.D.	Thread Size	N • m (ft-lb)			
1/4"	7/16" - 20	13 (18)			
5/16"	1/2" - 20	17 (23)			
3/8"	9/16" - 18	22 (30)			
1/2"	3/4" - 16	40 (54)			
5/8"	7/8" - 14	60 (81)			
3/4"	1-1/16" - 12	84 (114)			
7/8"	1-3/16" - 12	98 (133)			
1"	1-5/16" - 12	118 (160)			
1-1/4"	1-5/8" - 12	154 (209)			
1-1/2"	1-7/8" - 12	163 (221)			
2"	2-1/2" - 12	252 (342)			

Tighten until the nut makes contact with the seat. Use the chart [Figure 57] to find the correct tightness needed.

Port Seal (O-Ring Boss) Fitting

Port Seal And O-ring Boss Tightening Torque					
Tube Line O.D.	Thread Size	N•m (ft-lb)			
1/4"	7/16" - 20	13 (18)			
3/8"	9/16" - 18	22 (30)			
1/2"	3/4" -1 6	40 (54)			
5/8"	7/8" - 14	60 (81)			
3/4"	1-1/16" - 12	84 (114)			
7/8"	1-3/16" - 12	98 (133)			
1"	1-5/16" - 12	118 (160)			
1-1/8"	1-7/16" - 12	154 (209)			
1-1/4"	1-5/8" - 12	163 (221)			

Note: Port seal and nut, washer and O-ring (O-ring Boss) fittings use the same tightening torque valve chart [Figure 58].

If a torque wrench cannot be used, use the following method.

Tighten the nut until it just makes metal to metal contact, you can feel the resistance.

Tighten the nut with a wrench no more than one hex flat maximum.

Do not over tighten the port seal fitting.

Note: If a torque wrench cannot be used, use the hex flat tightening method as an approximate guideline.

Note: Port seal fittings are not recommended in all applications. Use O-ring boss fittings in these applications.

Tube Lines And Hoses

Replace any tube Lines that are bent or flattened. They will restrict flow, which will slow hydraulic action and cause heat.

Replace hoses which show signs of wear, damage or weather cracked rubber.

Always use two wrenches when loosening and tightening hose or tube Line fittings.

WARRANTY

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Farm King



FARM KING BASE LIMITED WARRANTY

Farm King provides this warranty only to original retail purchasers of its products. Farm King warrants to such purchasers that all Farm King manufactured parts and components used and serviced as provided for in the Operator's Manual shall be free from defects in materials and workmanship for a period following delivery to the original retail purchaser of two (2) years. This limited warranty applies only to those parts and components manufactured by Farm King. Parts and components manufactured by others are subject to their manufacturer's warranties, if any.

Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Parts must be returned through the selling representative and the buyer must prepay transportation charges.

Farm King will not be responsible for repairs or replacements that are necessitated, in whole or part, by the use of parts not manufactured by or obtained from Farm King. Under no circumstances are component parts warranted against normal wear and tear. There is no warranty on product pump seals, product pump bearings, rubber product hoses, pressure gauges, or other components that require replacement as part of normal maintenance.

Repair Parts Limited Warranty

Farm King warrants genuine Farm King replacement parts purchased after the expiration of the Farm King Limited Warranty, and used and serviced as provided for in the Operator's Manual, to be free from defects in materials or workmanship for a period of thirty (30) days from the invoice date for the parts. Farm King will fulfill this limited warranty by, at its option, repairing or replacing any covered part that is defective or is the result of improper workmanship, provided that the part is returned to Farm King within thirty (30) days of the date that such defect or improper workmanship is, or should have been, discovered. Such parts must be shipped to the Farm King factory at the purchaser's expense.

What Is Not Covered

Under no circumstances does this limited warranty cover any components or parts that have been subject to the following: negligence; alteration or modification not approved by Farm King; misuse; improper storage; lack of reasonable and proper maintenance, service, or repair; normal wear; damage from failure to follow operating instructions; accident; and/or repairs that have been made with parts other than those manufactured, supplied, and or authorized by Farm King.

Authorized Dealer And Labor Costs

Repairs eligible for labor under this limited warranty must be made by Farm King or an authorized Farm King dealer. Farm King retains the exclusive discretion to determine whether it will pay labor costs for warranty repairs or replacements, and the amount of such costs that it will pay and the time in which the repairs will be made. If Farm King determines that it will pay labor costs for warranty work, it will do so by issuing a credit to the dealer's or distributor's account. Farm King will not approve or pay invoices sent for repairs that Farm King has not previously approved. Warranty service does not extend the original term of this limited warranty. Payment of labor costs will only be considered on repairs made to manufactured parts and components that have been found defective during a period of one (1) year following delivery to the original retail purchaser.

Warranty Requirements

To be covered by warranty, each new product must be registered with Farm King within thirty (30) days of delivery to original retail purchaser. If the customer decides to purchase replacement components before the warranty disposition of such components is determined, Farm King will bill the customer for such components and then credit the replacement invoice for those components later determined to be covered by this limited warranty. Any such replacement components that are determined not be covered by this limited warranty will be subject to the terms of the invoice and shall be paid for by the purchaser.

EXCLUSIVE EFFECT OF WARRANTY AND LIMITATION OF LIABILITY

TO THE EXTENT PERMITTED BY LAW, FARM KING DISCLAIMS ANY WARRANTIES, REPRESENTATIONS, OR PROMISES, EXPRESS OR IMPLIED, AS TO THE QUALITY, PERFORMANCE, OR FREEDOM FROM DEFECT OF THE COMPONENTS AND PARTS COVERED BY THIS WARRANTY AND NOT SPECIFICALLY PROVIDED FOR HEREIN.

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Farm King neither assumes nor authorizes any person or entity, including its selling representatives, to assume any other obligations or liability in connections with the sale of covered equipment, or to make any other warranties, representations, or promises, express or implied, as to the quality, performance, or freedom from defect of the components and parts covered herein. No one is authorized to alter, modify, or enlarge this limited warranty, or its exclusions, limitations and reservations.

Corrections of defects and improper workmanship in the manner, and for the applicable time periods, provided for herein shall constitute fulfillment of all responsibilities of Farm King to the purchaser, and Farm King shall not be liable in negligence, contract, or on any other basis with respect to the subject equipment.

This limited warranty is subject to any existing conditions of supply which may directly affect Farm King's ability to obtain materials or manufacturer replacement parts.

Buhler Industries Inc. reserves the right to make improvements in design or changes in specifications to its products at anytime, without incurring any obligation to owners of units previously sold.

Farm King

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