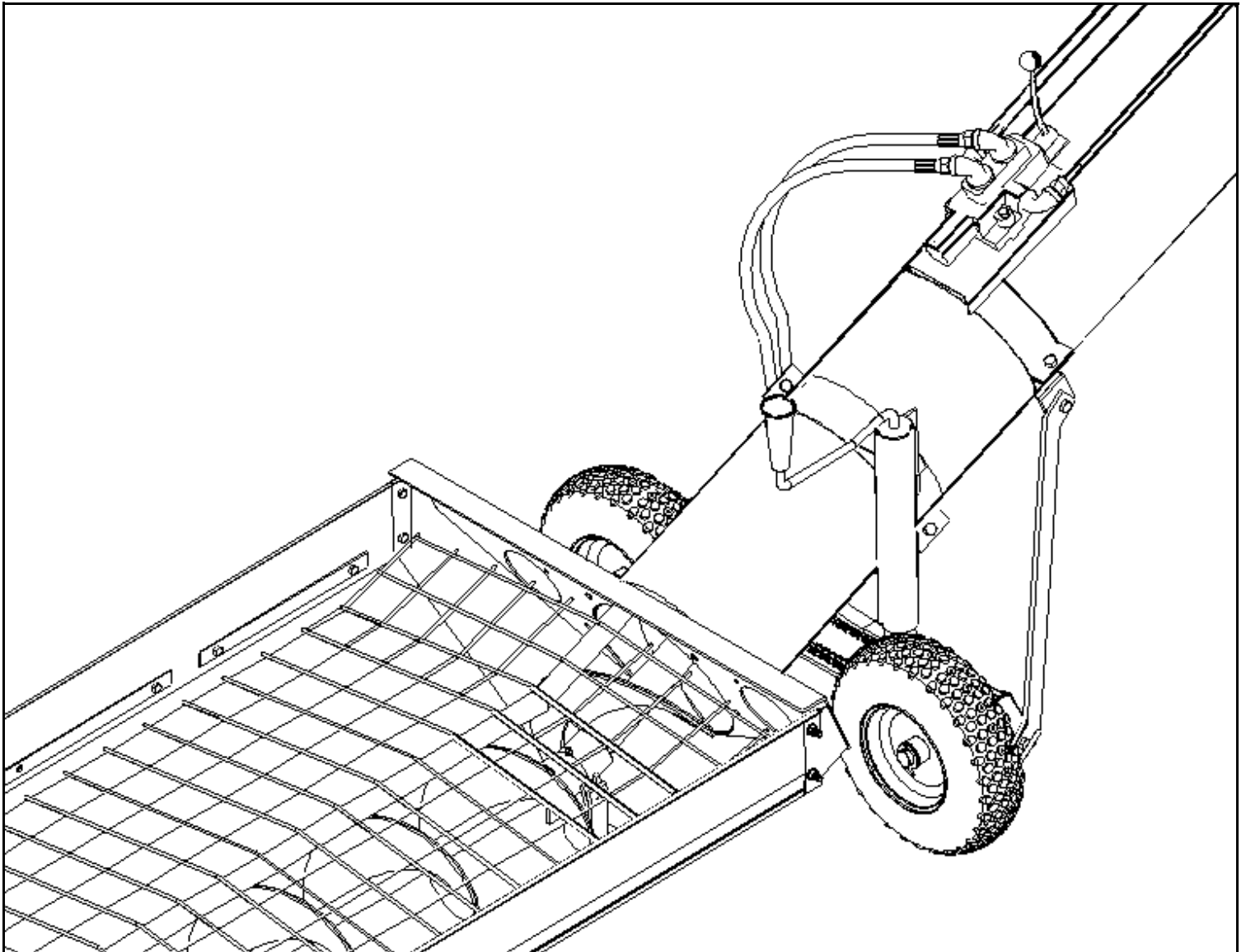


# WESTFIELD®

## MK AUGERS POWER SWING KIT 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: 30386 R0

Revised: 14/9/10



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# 1. 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.

## 1.1. 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 annually 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!



## 1.2. ASSEMBLY SAFETY

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- Read through the instructions to get to know the sub-assemblies and hardware that make up the equipment.
- Do not take chances with safety. The components are large, heavy, and can be hard to handle. Always use the proper tools, stands, jacks, and hoists for the job.
- Always have 2 or more people assembling the equipment. Because of the weight, do not attempt assembly alone.

## 1.3. OPERATIONAL SAFETY

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- 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.
- Do not stand in the path of the Power Swing when it is moving.

Refer to your MK manual for full safety instructions.

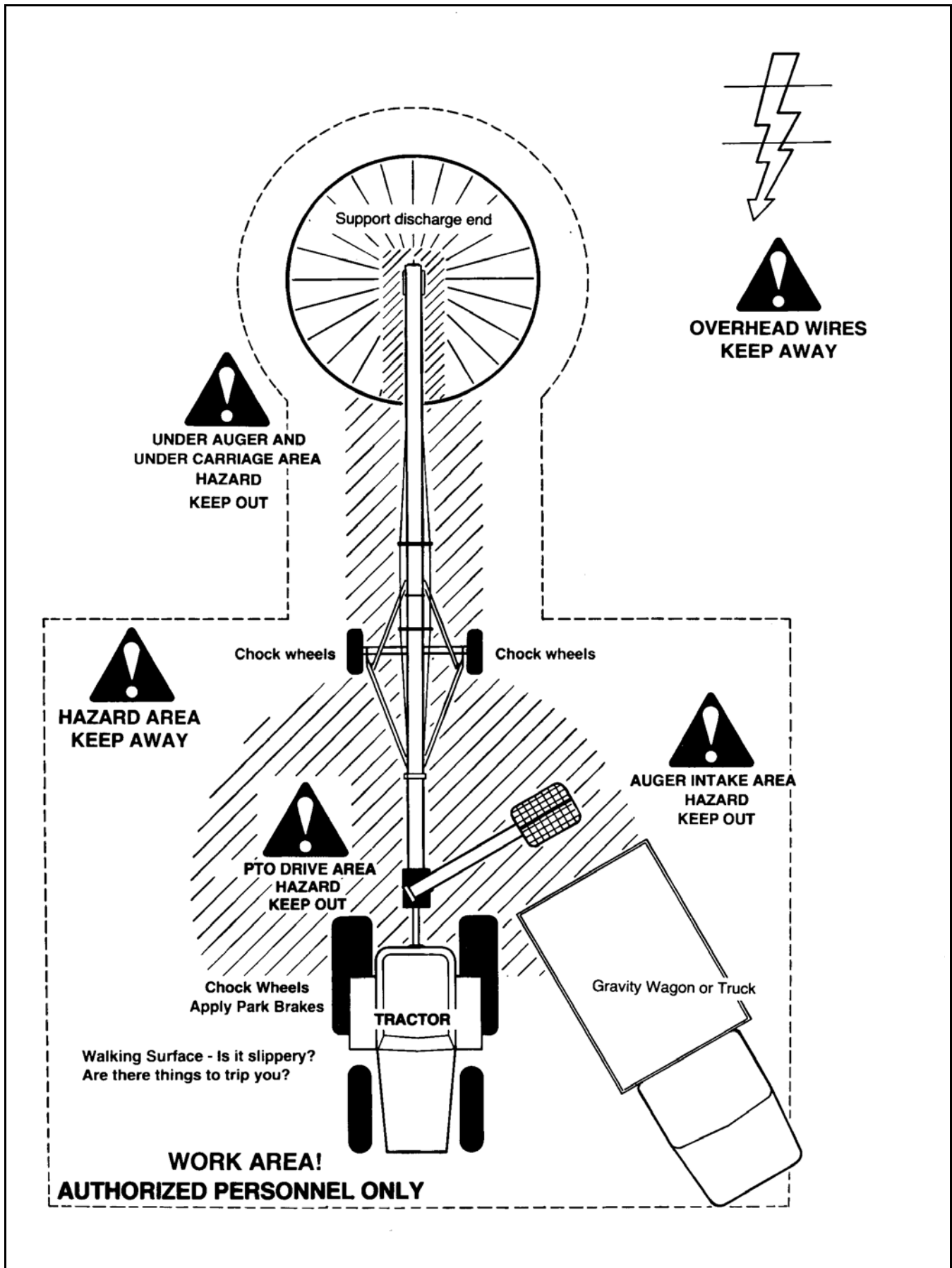


Figure 1.1

## 1.4. MAINTENANCE SAFETY

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- Shut down and lock out all power before attempting maintenance of any kind. **If applicable**, disconnect PTO driveline from tractor or hydraulic hoses on units with hydraulic drive hoppers.
- After maintenance is complete, replace and secure all safety guards and safety devices, and if applicable, service doors and cleanout covers.
- Support auger tube before attempting maintenance on the undercarriage assembly. Auger should be in full down position for maintenance.
- Use only genuine Westfield replacement parts or equivalent. Replacement parts such as intake guards, pulley guards, PTO driveline shields, winches, and lift cables must meet ASABE standards or serious injury may result. Use of unauthorized parts will void warranty. If in doubt, contact Westfield or your Westfield dealer.
- Do not modify any auger components without authorization from Westfield. Modification can be dangerous and result in serious injuries.

## 1.5. HYDRAULIC SAFETY

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- Clean connections before attaching to tractor.
- Inspect hydraulic fittings and hoses for damage on a daily basis. Repair if damaged.
- Do not disconnect hydraulic couplers when hydraulic system is pressurized.
- Wear proper hand and face protection when searching for hydraulic leaks. Escaping fluid under pressure can penetrate the skin, causing infection and/or toxic reactor. In case of accident, see a doctor immediately.
- Repair all leaks and breaks in hydraulic valve or hose immediately. Rupture could cause damage and/or personal injury.

## 1.6. SAFETY DECAL LOCATIONS

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

### 1.6.1. DECAL INSTALLATION

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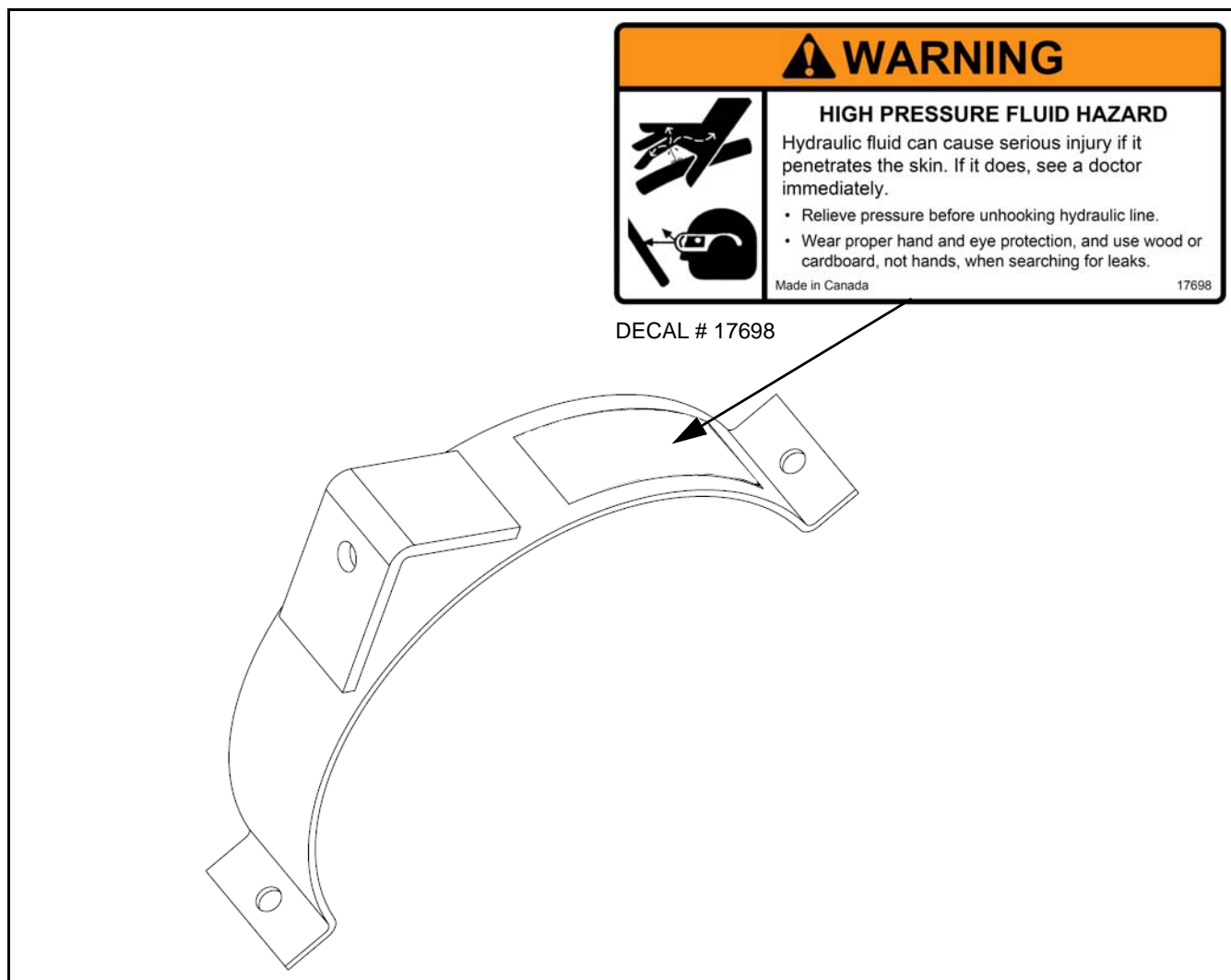
1. Decal area must be clean and dry, with a temperature above 10°C (50°F).
2. Decide on the exact position before you remove the backing paper.
3. Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
4. Slowly peel back the remaining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

## 1.6.2. DECAL LOCATIONS

Replicas of the safety decals that are attached to the equipment are shown in the figure(s) that follow. 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.

*\* Westfield reserves the right to update safety decals without notice. Safety decals may not be exactly as shown.*



# 2. Assembly

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

Before starting assembly of your new MK Power Swing, please read the following instructions carefully and familiarize yourself with all the sub-assemblies and hardware. Arrange all parts for easy access during assembly. Assemble equipment in an open area with a level surface.

## 2.1. INSTALLATION PREPARATION

1. With auger attached to tractor, park auger on level ground. Lower auger to full down position.
2. Lower swing hopper fully to ground and swing it out onto a level surface.
3. Shut down and lock out tractor power.

## 2.2. AXLE ASSEMBLY

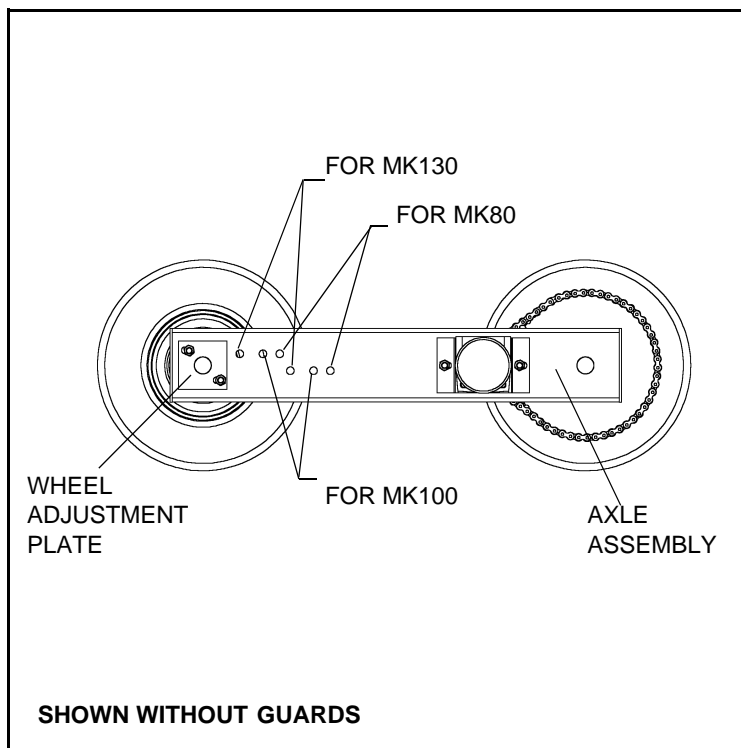


Figure 2.1

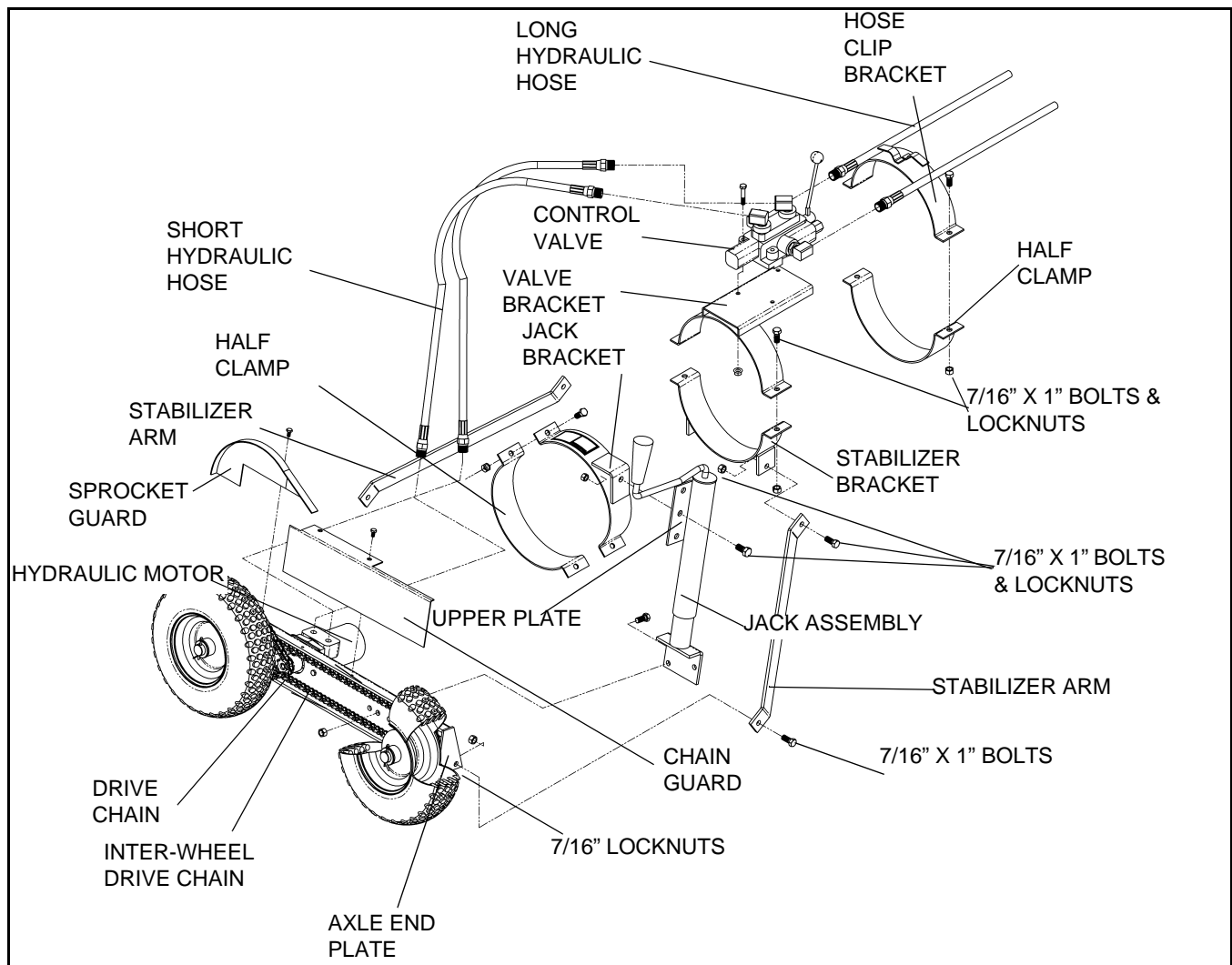


Figure 2.2

1. Attach lower plate of the jack assembly to the axle using two 7/16" x 1" bolts and locknuts as shown in Figure 2.1 and 2.2. Remove chain guard for easier attachment to the jack. **Replace and secure the guard.**
2. Loosely attach stabilizer arms to axle assembly using two 7/16" x 1" bolts and locknuts.



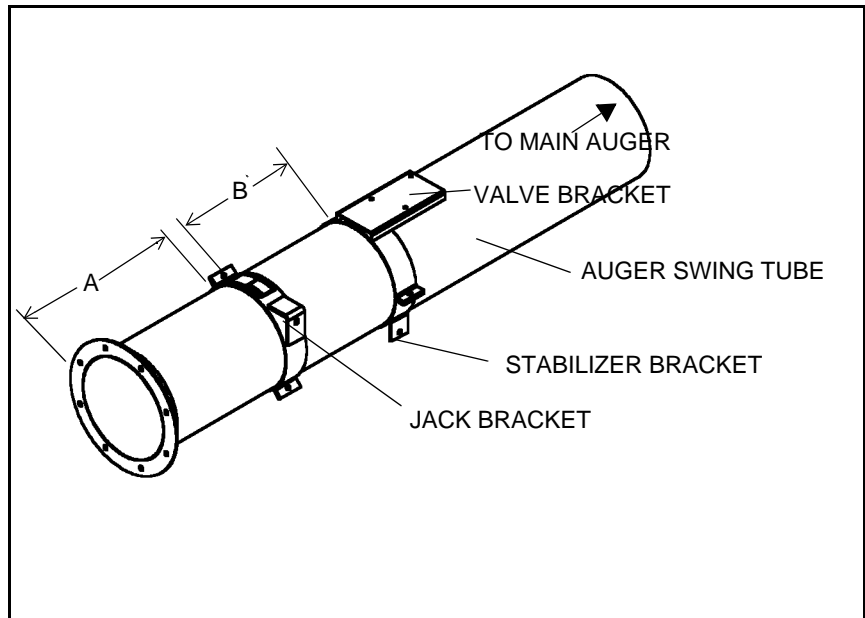
- For the **MK100** and **MK130** series, stabilizer arms attach to the outside of axle end plates.



- For the **MK80** series, stabilizer arms attach to the inside of axle end plates.

## 2.3. TUBE ASSEMBLY

- Place jack bracket with half clamp onto tube, close to where the end of swing tube joins with the hopper (see Table 2.1). Loosely secure these half-rings with two 7/16" x 1" bolts and locknuts. Position ring so that the jack bracket is vertical to the safety decal on top (Figure 2.3).



**Figure 2.3**

- Adjust jack to approximately 1" above its lowest setting. Attach the jack to the jack bracket using the correct hole in upper plate as shown in Figure 2.3. Use a 1/2" x 1" bolt and locknut and tighten only enough to allow the jack to pivot.
- Allowing wheels to touch the ground, slide the jack bracket close to the measurement "A" indicated in Table 2.1. Tighten the jack bracket with half clamp in place.
- Loosely attach other end of the stabilizer arms to stabilizer bracket. Secure the control valve to the valve bracket using three 5/16" x 1-3/4" bolts and locknuts. Then secure this control valve assembly to the swing tube using two 7/16" x 1" bolts and locknuts. Before tightening, adjust the stabilizer bracket to dimension "B" shown in Table 2.1.

**Table 2.1 Jack and Stabilizer Spacing Dimensions**

<b>REGULAR HOPPER</b>		
	<b>A</b>	<b>B</b>
MK80	15"	8"
MK100	14"	8"
MK130 Plus	15"	8"
<b>LOW PROFILE HOPPER</b>		
	<b>A</b>	<b>B</b>
MK100	12"	9"
MK130 Plus	16"	10"

5. Connect the supplied short hydraulic hoses to the hydraulic control valve and hydraulic motor (Figure 2.4).

**Note:** Determine whether your hydraulic system is an open system or a closed system (check tractor manual).

- ➔ For a **closed system**, install the 1/2" NPT Diverter plug that comes with the control valve.
- ➔ For an **open system**, DO NOT install plug (Figure 2.5).

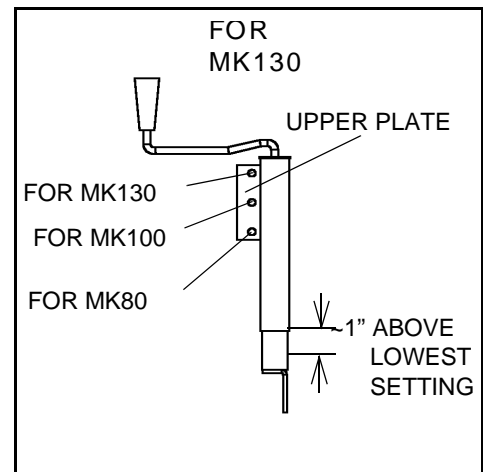


Figure 2.4

**Note:** For a closed system, insert 3/8" NPT plug into control valve as shown.

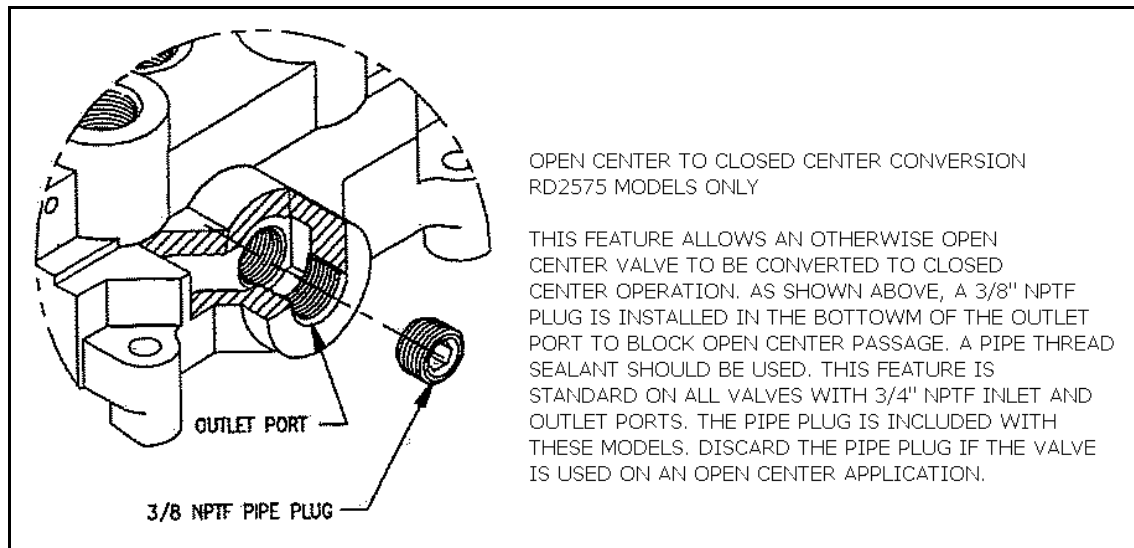


Figure 2.5

6. Attach the hose clip bracket onto the tube approximately 1' - 2' down from the discharge end of the tube, and feed the long hydraulic hoses through the hose clips. Connect long hoses to side ports of the control valve as shown in Figure 2.2.
7. Secure the hose by bending the clips closed with a hammer. Hoses may be looped around the swing hopper discharge spout. Determine the correct type of hydraulic couplers (not supplied) required for your tractor (check tractor manual) and attach these to the other end of the long hoses.

### 2.3.1. RELIEF VALVE (FOR CLOSED CENTER ONLY)


In some cases, the control valve will squeal when it is in neutral position. To correct this, adjust the relief valve:

- Remove the acorn nut and turn the adjusting screw.

- Turning the adjusting screw clockwise will increase the pressure, while counterclockwise will decrease the pressure (a pressure gauge must be installed in the inlet line whenever the relief pressure is adjusted).
- Do not back out adjust screw to the point that it falls out.

An adjustable ball spring relief valve is standard on all RD-2500 valves. The standard factory setting is 1500 psi @ 12 gpm and 1200F.

Other settings can be specified.

<b>WARNING</b>	
	Over pressure may cause sudden and unexpected failure of a component in the hydraulic system, resulting in serious personal injury. Always use a gauge when adjusting a relief valve.

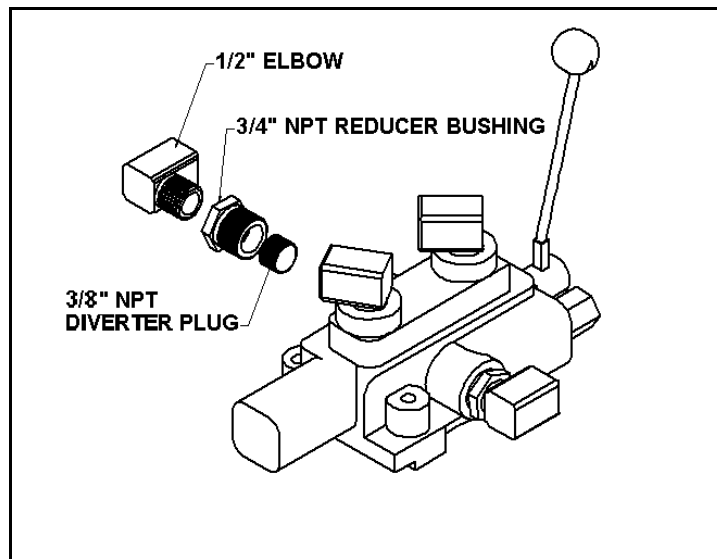


Figure 2.6



# 3. Operation


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

Operators must observe safety procedures at all times and follow the pre-operational checklist before each start-up.

## Pre-Operational Checklist


Before operating Power Swing each time, the operator must confirm the following:

- All fasteners are secure as per assembly instructions.
- Hydraulic hoses are in good condition.
- Hydraulic connections are in place and secure.
- Proper maintenance has been performed.
- Guards are in place and secure.

WARNING	
	High Pressure Fluid Hazard
	Hydraulic fluid can cause serious injury if it penetrates the skin. If this occurs, 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.
	Keep all hoses and other components in good repair

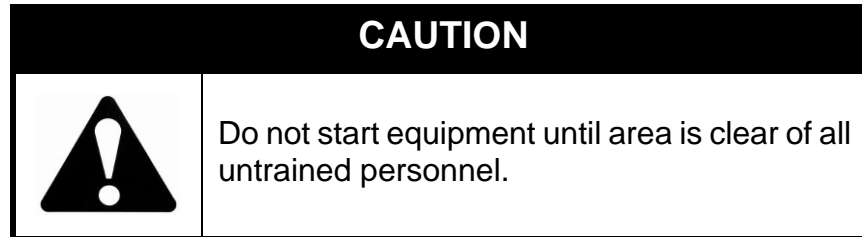
## 3.1. HYDRAULIC DRIVE

1. Check in your tractor manual or with your dealer regarding the correct type of coupler to use on your Power Swing hoses. Clean hose end and apply a thread sealant before securing to coupler.
2. Ensure that the hydraulic lines are properly connected and secure.

CAUTION	
	Do not disconnect coupler under pressure. Relieve pressure and then disconnect.

3. Keep hydraulic lines away from moving parts.
4. Do not disconnect the hydraulic couplers when under pressure. Consult the tractor manual for the correct procedure.

**Important:** *Because the Power Swing has a control valve independent of the tractor, the tractor hydraulic control has to be engaged when you are using the Power Swing.*



## 3.2. OPERATION PROCEDURE

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1. Engage the tractor hydraulic control; lock it open.
2. Lower the Power Swing wheels until they make firm contact with the ground.
3. Engage the Power Swing; if you experience loss of traction, adjust the down pressure of the wheels using the jack.
4. After positioning the hopper, adjust the level of the Power Swing to ensure that the intake hopper is level (so as to not place too much weight on the Power Swing assembly).
5. Keep path of the Power Swing clear of any obstructions.

### 3.2.1. TRANSPORTING

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When transporting the auger, be sure to use the provided saddle pin to lock the swing hopper to the bracket. Since the Power Swing adds more weight to the swing hopper, extra caution is needed when transporting your auger.



**Important:** *The INTAKE FEED side of swing hopper must face main auger when in transport. Do not operate auger with hopper in transport position. This will damage the u-joint.*

**Important:** *Read the MK operation manual for further hydraulic safety instructions.*

# 4. Maintenance & Storage

## 4.1. MAINTENANCE PROCEDURES

Please follow the guidelines below.

Area	Maintenance Procedures	Frequency
General	While auger is in use, observe the checklist in See "Operation" on page 15.	Daily
General	Check all operating, lifting, and transport components. Replace damaged or worn parts before using auger.  For replacement instructions, see Chapter 2.	Regularly
Chain Drive	Keep drive chain tension adjusted to about 1/4" deflection by loosening the 2 bolts on the hydraulic motor mount, then re-tighten. <ul style="list-style-type: none"> <li>• Apply the same procedure to the chain between the wheels.</li> <li>• The tension for the inter-wheel drive chain is adjusted by loosening the two bolts on the wheel adjust plate (Figure 2.3); re-tighten when finished.</li> <li>• Oil chain frequently enough to keep a light film of oil on it.</li> <li>• Ensure that safety guards are in place and secure before operation.</li> </ul>	Frequently
Hydraulic Hose	Check hose and hose couplers for leaks, wear, or damage. Replace if necessary. <ul style="list-style-type: none"> <li>• Use cardboard when searching for hydraulic leaks.</li> </ul>	Frequently
Tire Pressure	Check with a pressure gauge. We recommend that pressure be maintained at 18 to 24 psi (124 - 165 kPa).	Monthly, or as required

## 4.2. STORAGE PROCEDURE

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### **TO PROTECT POWER SWING IN STORAGE DURING THE OFF-SEASON:**

1. Raise wheels to full up position.
2. Clean out axle assembly and lubricate chains with a light coating of oil.
3. Inspect unit for damage and note any repairs required. Order replacement parts from your dealer.
4. Check tire pressure and inflate to 24 psi (165 kPa).

### **TO PREPARE FOR USE AFTER STORAGE:**

6. Check tire pressure and inflate according to recommendation on side wall if necessary.
7. Keep decals clean. Replace any decal that is damaged or not clearly visible.
8. Conduct general maintenance procedure before using auger.

**Important:** *Use only genuine Westfield replacement parts or equivalent. Replacement parts MUST meet ASABE standards or serious injuries may result. Use of unauthorized parts will void warranty. If in doubt, contact Westfield or your local Westfield dealer. Do not modify any components of the MK Power Swing.*

# WARRANTY

Westfield Industries Ltd. warrants products of its manufacture against defects in materials or workmanship under normal and reasonable use for a period of one year after date of delivery to the original purchaser.

Our obligation under this warranty is limited to repairing, replacing, or refunding defective part or parts which shall be returned to a distributor or a dealer of our Company, or to our factory, with transportation charges prepaid. This warranty does not obligate Westfield Industries Ltd. to bear the cost of labor in replacing defective parts. Any defects must be reported to the Company before the end of the one year period.

This warranty shall not apply to equipment which has been altered, improperly assembled, improperly maintained, or improperly repaired so as to adversely affect its performance. Westfield Industries Ltd. makes no express warranty of any character with respect to parts not of its manufacture.

The foregoing is in lieu of all other warranties, expressed or implied, including any warranties that extend beyond the description of the product, and the IMPLIED WARRANTY of MERCHANTABILITY is expressly excluded.

WESTFIELD INDUSTRIES LTD.

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