Kwik-Belt

1800 Series Models: 1837- 1848
2200 Series Models: 2237- 2248
2600 Series Models: 2637- 2648

Top Drive Field Loader
Owner’s Manual
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Any trademarks not directly mentioned are also acknowledged.

Read and Understand

WARNING

Read and follow all instructions and safety precautions in this manual and all other manuals for products associated with this machine as well as in all on-product warning decals. Failure to do so could result in death or serious injury, or property damage. Contact your Kwik Belt dealer if any of your decals are missing or illegible or you have questions.

Preface
This manual is intended for use with the following Top Drive Kwik Belt Field Loader Models:

1800 Series
1837, 1838, 1842, 1843, 1847, 1848

2200 Series
2237, 2238, 2242, 2243, 2247, 2248

2600 Series
2637, 2638, 2642, 2643, 2647, 2648

Revision History

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<td>50-5-00001</td>
<td>September 22nd 2017</td>
<td>Initial Release</td>
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1 - GENERAL INFORMATION

Note to the Owner

This manual contains important information about the safe operation, adjustment and maintenance of your Kwik Belt Top Drive Field Loader. Refer to the table of contents at the beginning or the Index at the end of this manual for locating specific items about your machine.

**DO NOT** operate or permit anyone to operate or service this machine until you or the other persons have read this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely.

All persons who will be operating this machine shall possess applicable local age work permits.

This Kwik Belt Top Drive Field Loader, with standard equipment and authorized attachments, is intended to be used for seed and grain with stainless steel configurations for dry fertilizer applications.

**DO NOT** use this machine for any purpose or in any manner other than as described in the manual, decals, or other product safety information provided with the machine. These materials define the machine's intended use.

Use only approved accessories and attachments designed for your machine.

Consult your dealer on changes, additions or modifications that may be required for your machine.

Do not make any unauthorized modifications to your machine.

This operator's manual is to be stored in the “Operators Manual Canister” on the left side of the machine on the upper transport arm for reference during field operation. *(See Fig. # 1-1)* Make sure this manual is complete and in good condition. Contact your dealer to obtain additional manuals and approved service parts. Your dealer has technicians with special training that know the best methods of repair and maintenance for your Top Drive Kwik Belt Field Loader.
Top Drive Kwik Belt Field Loader Model / Serial Number Location

Always give your authorized Kwik Belt dealer the Model / Serial Number of your Kwik Belt product when ordering parts, requesting service, or any other information to provide the most efficient service.

The Model / Serial Number is identified in (See Fig. # 1-3) below.

Make a copy of the number below and keep in a safe place. If the machine is stolen, report the numbers to your local law enforcement agency.

Write the Model / Serial Number on the line provided.

Model Number  __________________________________

Serial Number  __________________________________

Fig. # 1-3 Model / Serial Number Decal

The Model / Serial Number is located where indicated below. (See Fig. # 1-4)
Determining Left and Right Side of the Machine

Operator Orientation - The directions Front (1), Back (2), Left (3), and Right (4) as mentioned throughout the manual, are determined when standing at the discharge spout and looking toward the intake hopper.

Determining Orientation Using Directional Arrows

The symbols shown below, may be illustrated on certain pages in this manual, and where indicated, determine the front of the machine.
2 - Safety Information

Safety Rules And Signal Word Definitions

Personal Safety

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Read and understand all the safety messages in this manual and associated equipment manuals before you operate or service the machine. Obey all safety messages that follow this symbol to avoid possible death or serious injury.

Throughout this manual and on machine decals, you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

**DANGER**

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury. The color associated with DANGER on the machine decals is RED.

**WARNING**

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury. The color associated with WARNING on the machine decals is ORANGE.

**CAUTION**

CAUTION used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. The color associated with CAUTION on the machine decals is YELLOW.

**FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.**

Machine Safety

**NOTICE**

Notice indicates a situation which, if not avoided, could result in machine or property damage. The color associated with Notice on the machine decals is BLUE.

**IMPORTANT**

Important indicates a situation which, if not avoided, could result in machine or property damage. The color associated with Important on the machine decals is WHITE.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

**NOTE**

Note indicates additional information which clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.
Safety Rules

Read Entire Section Before Use.

Understand that your safety and the safety of other persons is measured by how you service and operate this machine. Know the positions and operations of all controls before you try to operate. MAKE SURE YOU CHECK ALL CONTROLS IN A SAFE AREA BEFORE STARTING YOUR WORK.

READ THIS MANUAL COMPLETELY AND MAKE SURE YOU UNDERSTAND THE CONTROLS. All equipment has a limit. Make sure you understand the stability and load characteristics of this machine before you start to operate.

NOTE: Safety messages in this section point out specific safety hazards which can be encountered during the normal operation and maintenance of your machine. These safety messages also give possible ways of dealing with these conditions.

The safety information given in this manual does not replace safety codes, insurance needs, federal, state and local laws. Make sure your machine has the equipment required by the local laws and regulations.

Owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.

The most important safety device on this equipment is a SAFE operator. It is the operator’s responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.

A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.

Additional safety messages are used in the text of the manual to indicate specific safety hazards. See your dealer for more information if you have any questions.

Use caution when operating the machine on slopes. Raised equipment, full tanks and other loads will change the center of gravity of the machine. The machine can tip or roll over when near ditches and embankments or uneven surfaces.

Travel speed must be such that complete control and machine stability is maintained at all times. Reduce speed when turning, crossing slopes and when on rough, slick or muddy surfaces.

Never permit anyone to ride on any part of the machine.

Some illustrations in this manual will show shields or cover panels removed for purposes of clarity. DO NOT operate this machine with any of the shields or cover panels removed.

Never operate the machine under the influence of alcohol, drugs or while otherwise impaired.

Pay attention to overhead power lines and hanging obstacles. High voltage lines may require significant clearance for safety. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines.

General Safety

Read and understand the Operator’s Manual and all safety signs before operating, maintaining, adjusting or unplugging.

Have a first-aid kit available for use should the need arise and know how to use it.

Only trained persons shall operate the machine. An untrained operator is not qualified to operate the machine.

Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.

Do not allow children, spectators or bystanders within hazard area of machine.

Keep clear of moving parts. Loose clothing, jewelry, watches, long hair and other loose or hanging items should be avoided as they can become entangled in moving parts.

Wear protective equipment when appropriate.

DO NOT attempt to remove material from any part of the machine while it is being operated or components are in motion.

Make sure all guards and shields are in good condition and properly installed before operating the machine. Never operate the machine with shields removed. Always close access doors or panels before operating the machine.

Dirty or slippery steps, ladders, walkways and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.

A person or pet within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.

Raised equipment and/or loads can fall unexpectedly and crush persons underneath. Never allow anyone to enter the area underneath raised equipment at any time.
Review this manual and any other associated manuals before each season of use.

Never allow anyone unfamiliar, untrained, or complacent to operate the machine.

Use extreme care when cleaning, filling, or adjusting the machine.

**DO NOT** enter hoppers unless another person is present.

**DO NOT** work around rotating equipment. Loose clothing, rings, watches, etc. may get caught and cause death or serious injury.

**Hydraulic Safety**

Hydraulic oil leaking under pressure can penetrate the skin, causing death or serious injury, or infection.

**DO NOT** use your hand to check for leaks. Use a piece of cardboard or plywood.

Stop engine, remove key and relieve the pressure before connecting or disconnecting fluid lines.

Make sure all components are in good condition and tighten all connections before starting the engine or pressurizing the system.

Do not attempt any makeshift repairs to the hydraulic fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high-pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.

Replace any worn, cut, abraded, flattened or cramped hoses.

If hydraulic fluid penetrates the skin, seek medical attention immediately.

Continuous long term contact with hydraulic fluid may cause skin cancer. Avoid long term contact and wash the skin promptly with soap and water.

---

**Operating Safety**

1. Read and understand the Operator’s Manual and all safety signs before using.

2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging any area of the machine.

3. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

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

5. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.

6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.

7. **DO NOT** step on or touch moving Field Loader belt.

8. Do not allow riders on the Field Loader or tractor when transporting.

9. Stay away from overhead obstructions and power lines during operation and transporting. Electrocution can occur without direct contact.

10. Do not operate machine when any guards are removed.

11. Set park brake on tractor before starting.

12. Lower Field Loader to its lowest position before moving or transporting or when not in use. Keep lift point at drawbar height.

13. Anchor intake end and/or support discharge end to prevent upending.

14. Empty Field Loader and fully lower before moving.

15. Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.

16. Inspect lift cable before using Field Loader. Replace if frayed or damaged.

17. Make certain lift cable is properly seated in cable pulleys.
Personal Protective Equipment (PPE)  

Wear personal protective equipment. This list includes but is not limited to:

- A hard hat
- Protective shoes with slip resistant shoes
- Safety glasses or goggles
- Heavy gloves
- Hearing protection
- Respirator or filter mask
- Protective clothing

Lock-Out Tag-Out Safety

Before you start servicing the machine: Turn machine OFF, shut down and lock out power source, remove key, unplug power cord and wait for all moving parts to stop. Attach a “Do Not Operate” warning tag to the machine in an area that will be visible.

1. Establish a formal Lock-Out Tag-Out program for your operation.
2. Train all operators and service personnel before allowing them to work around the area.
3. Provide tags on the machine and a sign-up sheet to record tag out details.

General Maintenance Safety

1. Review the Operator’s Manual and all safety items before working with, maintaining or operating the Field Loader.
2. 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.
3. Do not attempt to clean, lubricate, clear obstructions or make adjustments to the machine while it is in motion or while the engine is running.
4. 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.
5. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
6. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
7. **DO NOT** step on or touch moving Field Loader belt.
8. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
9. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
10. Place stands or blocks under the frame before working beneath the machine.
11. Before resuming work, install and secure all guards when maintenance work is completed.
12. Support the Field Loader main tube before attempting maintenance on the under carriage assembly. Where possible, the Field Loader should be in the full down position.
13. Keep safety signs clean. Replace any sign that is damaged or not clearly visible.
14. Always make sure working area is clear of tools, parts, other persons and pets before you start operating the machine.
Placement Safety

1. Move only with a tractor or vehicle capable of the load. Never move by hand.
2. Stay away from overhead power lines when moving machine. Electrocution can occur without direct contact.
3. Keep conveyor discharge end as low as possible.
4. Chock the conveyor and tractor wheels front and rear before operating.
5. Locate the machine to provide ample space for trucks to unload.
6. Keep Conveyor as low as possible when moving. Raise only when it is next to storage facility.
7. Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
8. Operate the Conveyor on level ground free of debris. If ground is uneven, anchor the Conveyor to prevent tipping or upending.

Wheels and Tires

Make sure tires are correctly inflated. Do not exceed recommended load or pressure. Follow instructions in the manual for proper tire inflation.

Always have a qualified tire technician service the tires and rims. If a tire has lost all pressure, take the tire and rim to a tire shop or your dealer for service. Explosive separation of the tire can cause death or serious injury.

Electrical Storm Safety

Do not operate machine during an electrical storm.

If you are on the ground during an electrical storm, stay away from machinery and equipment. Seek shelter in a permanent, protected structure.

If an electrical storm should strike during operation, remain in the cab. Do not leave the cab. Do not make contact with the ground or objects outside the machine.

Working at Heights (If Applicable)

Do not stand on surfaces which are not designed as steps or platforms.

Do not use the machine as a lift, ladder or platform for working at heights.

Noise Level Safety

Exposure to loud noises can cause hearing damage. Always wear hearing protection when operating noisy equipment or when working in a noisy environment.

Chemical Safety and the Environment

Soil, air, and water are vital factors of agriculture and life in general. When legislation does not yet rule the treatment of some of the substances which are required by advanced technology, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

NOTICE: The following are recommendations which may be of assistance:

• Become acquainted with and ensure that you understand the relative legislation applicable to your country.
• Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, antifreeze, cleaning agents, etc., with regard to their effect on man and nature and how to safely store, use and dispose of these substances.
• Agricultural consultants will, in many cases, be able to help you as well.

Helpful Hints

• Avoid filling tanks using cans which may cause considerable spillage.
• In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of them contain substances which may be harmful to your health.
• Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
• Avoid spillage when draining off used gearbox and hydraulic oils, etc. Do not mix drained fluids with lubricants. Store drained fluids safely until they can be disposed of properly to comply with local legislation and available resources.
• Repair any leaks or defects in the hydraulic system immediately.
• Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
• Protect hoses during welding as penetrating weld splatter may burn a hole or weaken them, allowing the loss of hydraulic fluid.
Fig. # 2-6 Workplace Hazard Area (Electric Drive)
Fig. # 2-7 Workplace Hazard Area (Hydraulic Drive)
**Transport Safety**

1. Read and understand ALL the information in the Operator’s Manual regarding procedures and SAFETY when moving or transporting the machine.

2. Check with local authorities regarding conveyor transport on public roads. Obey all applicable laws and regulations.

3. Always travel at a safe speed. Use caution when making corners or meeting traffic. Travel speed should be such that complete control and machine stability is maintained at all times.

4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.

5. Do not allow riders on the Conveyor or the tractor when transporting.

6. Attach Conveyor to towing vehicle with a pin and retainer. Always attach the safety chain.

7. Lower Conveyor to its lowest position for transporting. Keep lift point at drawbar height.

8. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.

9. Do not exceed 25 m.p.h. (40 km/h). Reduce speed on rough roads and surfaces.

10. Stay away from overhead obstructions and power lines when transporting. Electrocution can occur without direct contact. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines. Should a contact between the machine and an electric power source occur, the following precautions must be taken: Stop the machine movement immediately. Apply the park brake, stop the engine. Check if you can safely leave the cab or your actual position without contacting the electrical wires. If not, stay in your position and call for help. If you can leave your position without touching lines, jump clear of the machine to make sure you do not make contact with the ground and the machine at the same time. Do not permit anyone to touch the machine until power has been shut off to the power lines.

11. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

12. Slow down and signal before turning.

13. Follow correct towing procedure for equipment with or without brakes.
Safety Decals

The following safety decals are placed on your machine as a guide for your safety and for those working with you. Walk around the machine and note the content and location of these safety decals before operating your machine.

Keep safety decals clean and legible. Clean safety decals with a soft cloth, water, and a gentle detergent. Do not use solvent, gasoline, or other harsh chemicals. Solvents, gasoline, and other harsh chemicals may damage or remove safety decals.

Replace all safety decals that are damaged, missing, painted over, or illegible. If a safety decal is on a part that is replaced, make sure the safety decal is installed on the new part. See your dealer for replacement safety decals.

Safety decals that display the “Read Operator’s Manual” symbol are intended to direct the operator to the operator’s manual for further information regarding maintenance, adjustments, or procedures for particular areas of the machine. When a safety decal displays this symbol, refer to the appropriate page of the operators manual.

NOTE: Replacement decals are available from your dealer.

Safety Decal Locations

<table>
<thead>
<tr>
<th>Item</th>
<th>Part Number</th>
<th>Description</th>
<th>Qty.</th>
<th>Item</th>
<th>Part Number</th>
<th>Description</th>
<th>Qty.</th>
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<tr>
<td>1</td>
<td>90-44-0262</td>
<td>Decal, Safety Information</td>
<td>1</td>
<td>9</td>
<td>90-44-0264</td>
<td>Decal, Warning Upending Hazard</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>*90-44-0263</td>
<td>Decal, Danger Belt Conveyor Elec Hazard</td>
<td>1</td>
<td>10</td>
<td>90-44-0269</td>
<td>Decal, Notice Wheel Movement</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>90-44-0167</td>
<td>Decal, Rotating Parts Hazard Decal</td>
<td>2</td>
<td>11</td>
<td>90-44-0270</td>
<td>Decal, Winch Operation</td>
<td></td>
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<tr>
<td>4</td>
<td>90-44-0173</td>
<td>Decal, High Pressure Decal</td>
<td>2</td>
<td>12</td>
<td>90-44-0296</td>
<td>Decal, Warning - Entang and Open Belt Hazard</td>
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<tr>
<td>5</td>
<td>90-44-0257</td>
<td>Decal, Warning Transport Hazard</td>
<td>1</td>
<td>13</td>
<td>*90-44-0350</td>
<td>Decal, Electrocution Hazard</td>
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<tr>
<td>6</td>
<td>*90-44-0258</td>
<td>Decal, Caution Belt Guard Slip Hazard</td>
<td>1</td>
<td>14</td>
<td>*90-44-0021</td>
<td>Decal, Danger Missing Guard (2 x 3.5)</td>
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<td>7</td>
<td>90-44-0260</td>
<td>Decal, Warning Entanglement Hazard</td>
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<td>15</td>
<td>90-44-0275</td>
<td>Decal, Warning - Entanglement Hazard</td>
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<td>8</td>
<td>90-44-0261</td>
<td>Decal, Warning Open Belt Conveyor</td>
<td>2</td>
<td>16</td>
<td>90-44-0295</td>
<td>Decal, Warning - Read &amp; Understand - Man</td>
<td></td>
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* Not shown In this view

Fig. # 2-9 Safety Decal Locations (Hydraulic Drive Option)

Fig. # 2-10 Safety Decal Locations (Hydraulic Winch Option)
## Safety Decal Locations Cont...

![Safety Decal Locations (Electric Option) Diagram]

### DANGER

**MISSING GUARD HAZARD**  
*Machine is shown with guard removed for illustrative purposes.*

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

---

### Table: Safety Decal Locations

<table>
<thead>
<tr>
<th>Item</th>
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<td>1</td>
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<td>Decal, Warning Open Belt Conveyor</td>
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<td>Decal, Warning Upending Hazard</td>
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<td>90-44-0167</td>
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<td>10</td>
<td>90-44-0269</td>
<td>Decal, Notice Wheel Movement</td>
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<td>*90-44-0173</td>
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<td>90-44-0270</td>
<td>Decal, Winch Operation</td>
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<td>90-44-0257</td>
<td>Decal, Warning Transport Hazard</td>
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<td>90-44-0296</td>
<td>Decal, Warning - Entang and Open Belt Hazard</td>
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<td>Decal, Caution Belt Guard Slip Hazard</td>
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<td>90-44-0350</td>
<td>Decal, Electrocution Hazard</td>
<td>1</td>
</tr>
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<td>90-44-0260</td>
<td>Decal, Warning Entanglement Hazard</td>
<td>3</td>
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<td>90-44-0021</td>
<td>Decal, Danger Missing Guard (2 x 3.5)</td>
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</tr>
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<td></td>
<td></td>
<td>15</td>
<td>90-44-0295</td>
<td>Decal, Warning - Read &amp; Understand - Man</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

*Not shown in this view*
SAFETY INFORMATION

Failure to follow these instructions can cause serious injury or death.

- Read and understand the manual before assembling, operating, or maintaining the equipment.
- Only trained personnel may assemble, operate, or maintain the equipment.
- Children and untrained personnel must be kept outside of the work area.
- If the manual, guards, or decals are missing or damaged, contact the factory or dealer for replacements.
- Lock out power before performing maintenance.
- To prevent equipment collapse, support equipment tube while disassembling certain components.
- Electric motors must be grounded. Disconnect power before resetting overloads.

Fig. # 2-12 Warning Decal Qty 1 Per Machine P/N 90-44-0262

(See Fig. # 2-12)

Fig. # 2-13 Safety Decal Location
**WARNING**

Improper operation or maintenance can result in serious injury or death.

Read and understand the Operator's Manual, and all safety signs before using or maintaining the machine. If you do not understand the information in the manual, consult your supervisor, the owner, or the manufacturer.

Fig. # 2-14 Warning Decal Qty 1 Per Machine P/N 90-44-0295

Fig. # 2-15 Safety Decal Location
ELECTROCUTION HAZARD

- When operating or moving, keep equipment away from overhead powerlines and devices.
- Fully lower equipment before moving.
- Electrocution can result without direct contact.
- If the equipment should become electrically charged, keep clear of equipment and load.

Failure to comply will result in serious injury or death.
**WARNING**

UPENDING HAZARD

Can cause serious injury or death.

- Anchor intake end and/or support discharge end to prevent upending.
- Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.
- Do not raise intake end above tow bar height.
- Empty conveyor and fully lower before moving.

Fig. # 2-18 Warning Decal Qty 1 Per Machine P/N 90-44-0264

Fig. # 2-19 Safety Decal Location
**DANGER**

**MISSING GUARD HAZARD**

To Prevent Injury or Death:
1. Shut off and lockout power source.
2. Reattach guard before operating.

(See Fig. # 2-20)

---

**DANGER**

**MISSING GUARD HAZARD**

*Machine is shown with guard removed for illustrative purposes.*

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

(See Fig. # 2-20)

---

Fig. # 2-20 Danger Decal Qty 2 Per Machine P/N 90-44-0021

Fig. # 2-21 Safety Decal Location Qty. 2 (1 Each Side)

Fig. # 2-22 Safety Decal Location Qty. 2 (1 Each Side)
Fig. # 2-23 Warning Decal Qty 1 Per Machine, P/N 90-44-0167

Rotating Part Hazard
Can cause serious injury or death.

1. Keep hands, feet, clothing and hair away from moving parts.
2. Do not operate with guards removed.
3. Keep others away from moving parts.

(See Fig. # 2-23)

Fig. # 2-24 Warning Decal Location (Electric Option)
WARNING
HIGH-PRESSURE FLUID HAZARD
TO PREVENT SERIOUS INJURY OR DEATH:
1. Relieve pressure on system before repairing, adjusting or disconnecting.
2. Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
3. Keep all components in good repair.

Fig. # 2-25 Warning Decal Qty 2 Per Machine (Hydraulic Option) P/N 90-44-0173

Fig. # 2-26 Warning Decal Location

Fig. # 2-27 Warning Decal Location (Hydraulic Winch Option)

Fig. # 2-28 Warning Decal Location (Hydraulic Winch Option)
**WARNING**

TRANSPORT HAZARD

Can cause serious injury or death.

- Securely attach equipment to vehicle with correct pin and safety chains.
- Use a tow vehicle to move equipment.

Fig. # 2-29 Warning Decal Qty 1 per machine P/N 90-44-0257

(See Fig. # 2-29)

Fig. # 2-30 Safety Decal Location
**WARNING**

ENTANGLEMENT AND OPEN BELT HAZARD

Can cause serious injury or death.

- DO NOT step on or touch moving conveyor belt.
- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order.

*Fig. # 2-31 Warning Decal Qty 1 per Machine P/N 90-44-0296*

*(See Fig. # 2-31)*

*Fig. # 2-32 Safety Decal Location*
**OPEN BELT HAZARD**

Can cause serious injury or death.

- **DO NOT** step on or touch moving conveyor belt.
- Shut off and lock out power to adjust, service, or clean.

Fig. # 2-33 Warning Decal Qty 2 per Machine P/N 90-44-0261

(See Fig. # 2-33)

Fig. # 2-34 Safety Decal Location

(See Fig. # 2-33)

Fig. # 2-35 Safety Decal Location
**WARNING**

ENTANGLEMENT HAZARD

Can cause serious injury or death.

- Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
- Do not operate with any guards removed or modified. Keep guards in good working order.
- Shut off and remove key or lock out power source before inspecting or servicing machine.

---

Fig. # 2-36 Warning Decal Qty 2 Per Machine P/N 90-44-0260

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Fig. # 2-37 Safety Decal Location

(See Fig. # 2-36)

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Fig. # 2-38 Warning Decal Location

(See Fig. # 2-36)

---

Fig. # 2-39 Safety Decal Location

(See Fig. # 2-36)
Fig. # 2-40 Caution Decal Qty 1 Per Machine P/N 90-44-0258

Fig. # 2-41 Caution Decal

SLIP HAZARD
Can cause injury or damage to equipment
• DO NOT use belt guard as a step.

(See Fig. # 2-40)
**CAUTION**

**WINCH OPERATION**

Can cause equipment damage.

- After lowering equipment, always tighten brake lock by turning winch handle clockwise at least two clicks.
- Rotate winch handle until cable has light tension, when in towing position.
- Do not lubricate winch brake discs.

**WARNING**

**ENTANGLEMENT HAZARD**

Can cause serious injury or death.

- Keep away from rotating cable drum and winch cable.
- Inspect lift cable periodically; replace if damaged.
- Inspect cable clamps periodically; tighten if necessary.

---

Fig. # 2-42 Caution / Warning Decal Qty 1 Per Machine P/N 90-44-0270

Fig. # 2-43 Warning Decal Location
2 - SAFETY INFORMATION

**DANGER**

**ELECTROCUTION HAZARD**

1. Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before servicing or repairing electrical components.
2. Keep electrical components in good repair.

Fig. # 2-44 Danger Decal Qty 1 Per Machine P/N 90-44-0350

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(See Fig. # 2-44)

Fig. # 2-45 Warning Decal Location
**WARNING**

**ENTANGLEMENT HAZARD**

Can cause serious injury or death.

- Keep away from rotating cable drum and winch cable.
- Inspect lift cable periodically; replace if damaged.
- Inspect cable clamps periodically; tighten if necessary.
- 12 gal/min **Maximum** hydraulic flow rate

Fig. # 2-46 Warning Decal Qty 1 Per Machine (Hydraulic Winch Option Only) P/N 90-44-0275

Fig. # 2-47 Warning Decal Location
Important, Notice & Informative Decal Locations

**NOTICE**

**WHEEL MOVEMENT**
Can cause equipment damage.
- Wheels must be free to move when raising or lowering equipment.
- When equipment is positioned, chock all wheels.

Fig. # 2-48 Informational Decal Qty 1 Per Machine P/N 90-44-0269

Fig. # 2-49 Informational Decal
3 - TRANSPORT OPERATIONS

⚠️ Transport Safety ⚠️

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the machine.

2. Check with local authorities regarding conveyor transport on public roads. Obey all applicable laws and regulations.

3. Always travel at a safe speed. Use caution when making corners or meeting traffic. Travel speed should be such that complete control and machine stability is maintained at all times.

4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.

5. Do not allow riders on the Conveyor or the tractor when transporting.

6. Attach Conveyor to towing vehicle with a pin and retainer. Always attach the safety chain.

7. Lower Conveyor to its lowest position for transporting. Keep lift point at drawbar height.

8. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.

9. Do not exceed 25 m.p.h. (40 km/h). Reduce speed on rough roads and surfaces.

10. Stay away from overhead obstructions and power lines when transporting. Electrocution can occur without direct contact. Contact local authorities or utilities to obtain safe clearance distances from high voltage power lines. Should a contact between the machine and an electric power source occur, the following precautions must be taken: Stop the machine movement immediately. Apply the park brake, stop the engine. Check if you can safely leave the cab or your actual position without contacting the electrical wires. If not, stay in your position and call for help. If you can leave your position without touching lines, jump clear of the machine to make sure you do not make contact with the ground and the machine at the same time. Do not permit anyone to touch the machine until power has been shut off to the power lines.

11. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

12. Slow down and signal before turning.

13. Follow correct towing procedure for equipment with or without brakes.

Fig. # 3-1 Transport Hazard Area
Transport Preparation

Top Drive Kwik Belt Field Loaders are designed to be easily and conveniently moved from place to place. When transporting, follow this procedure:

1. Review the Transport Safety Schematic before starting.
2. Be sure all bystanders are clear of the machine.
3. On electric motor drive units, unplug the power cord, and secure to prevent dragging.
4. On hydraulic powered units, disconnect hydraulic hoses, remove power source and secure to prevent dragging.
5. If the Standard Hitch (A) was removed during operation, then re-install the Standard Hitch (A), Bent Pull Clevis Pin (B), and Hairpin (C).

6. Attach to a tractor or truck using a hitch pin with a retainer and safety chains. (Refer to “Connect the Conveyor to the Towing Vehicle”).

7. If equipped with an optional lighting package, connect wiring harness to the towing vehicle and secure across the hitch. Do not allow the harness to hang or drag on the ground.

8. Remove chocks from the wheels.

9. Slowly pull away from the storage facility and stop as soon as the discharge end clears the storage facility.

10. Stop and lower the field loader into its fully down position. (Refer to “Lowering The Field Loader”)

11. Stay away from overhead power lines. Electrocution can occur without direct contact. (See Fig. # 3-4)
12. Never go across slopes of more than 20°. It is better to go straight up or straight down a slope.

**WARNING**

Avoid transporting field loader along slopes of 20° or more, failure to heed may result in serious injury or death.

13. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.

14. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.

15. It is not recommended that the machine be transported faster than 25 mph (40 km/h). (See Fig. # 3-7) This table gives the acceptable transport speed as the ratio of towing vehicle weight to machine weight.

<table>
<thead>
<tr>
<th>Road Speed</th>
<th>Weight of fully equipped or loaded implement(s) relative to weight of towing machine.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 25 mph (40 km/h)</td>
<td>1 to 1, or less</td>
</tr>
<tr>
<td>Up to 10 mph (16 km/h)</td>
<td>2 to 1, or less</td>
</tr>
<tr>
<td>Do not tow if</td>
<td>More than 2 to 1</td>
</tr>
</tbody>
</table>

Fig. # 3-7 Speed vs Weight Ratio

16. Do not allow riders on the machine or tractor.

17. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.

18. Always use hazard flashers on the towing vehicle when transporting unless prohibited by law.

19. Longer conveyors have a large turning radius. Allow ample room for turning as discharge end may swing dramatically.
Connect the Conveyor to the Towing Vehicle

Follow all safety precautions when transporting the Top Drive Kwik Belt Field Loader and use a proper towing vehicle. The Field Loader may be attached to a truck or tractor whenever it is moved. It is road worthy and may be transported by a truck over long distances. Follow this procedure when attaching to or unhooking from a towing unit:

1. Make sure that bystanders, especially small children, are clear of the working area.
2. Be sure that there is sufficient room and clearance to back up to the conveyor.

3. Set the park brake before dismounting.
4. Place the conveyor in the full down position. The frame should be in the full down position with slight tension on the lift cable. (Refer to “Raising And Lowering The Machine”)
5. Lift the hopper section to the drawbar height on the towing vehicle, avoid an upending hazard. (See Fig. # 3-9)
6. Place and secure hitch pin and safety chains. (See Fig. # 3-10)

**IMPORTANT**

The safety chains should be threaded around the drawbar cage and form a cradle that will prevent the machine from digging into the road surface, should a breakaway occur. (See Fig. # 3-10)

**IMPORTANT**

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

**IMPORTANT**

It is the customers responsibility to provide safety chains to secure the Top Drive Kwik Belt Field Loader to the towing vehicle before transporting the machine.

7. Replace the safety chain if one or more links or end fittings are stretched, broken, damaged, or deformed.
8. The safety chains should have a load rating at least as high as the conveyor weight, refer to Specifications.
9. Remove the chocks from the wheels.
10. Move the machine out of its working or storage location.
11. Reverse the above procedures when unhooking.
# Operating Safety

1. Read and understand the Operator’s Manual and all safety signs before using.

2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging any area of the machine.

3. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

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

5. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.

6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.

7. **DO NOT** step on or touch moving Field Loader belt.

8. Do not allow riders on the Field Loader or tractor when transporting.

9. Stay away from overhead obstructions and power lines during operation and transporting. Electrocution can occur without direct contact.

10. Do not operate machine when any guards are removed.

11. Set park brake on tractor before starting.

12. Lower Field Loader to its lowest position before moving or transporting or when not in use. Keep lift point at drawbar height.

13. Anchor intake end and/or support discharge end to prevent upending.

14. Empty Field Loader and fully lower before moving.

15. Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.

16. Inspect lift cable before using Field Loader. Replace if frayed or damaged.

17. Make certain lift cable is properly seated in cable pulleys.

It is the responsibility of the owner or operator to read this manual and to train all other operators before they start working with the Field Loader. Follow all safety instructions exactly. It is everyone’s business. By following recommended procedure, a safe working environment is provided for the operator, bystanders and the area around the work site. The design and configuration of this machine includes safety decals and equipment. Hazard controls and accident prevention are dependent upon the personnel operating and maintaining it. Their awareness, concern, prudence and proper training are crucial. Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely. There are instructions on how to set it, and to provide maximum efficiency. By following the operating instructions, in conjunction with a good maintenance program, your Top Drive Kwik Belt Field Loader will provide many years of trouble free service.
### Machine Components (Page 1 of 2)

![Diagram of machine components]

**DANGER**

**MISSING GUARD HAZARD**

*Machine is shown with guard removed for illustrative purposes.*

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main Tube</td>
<td>16</td>
<td>Top Drive Belt Guard (Optional Equipment)</td>
</tr>
<tr>
<td>2</td>
<td>Discharge Spout</td>
<td>17</td>
<td>Hydraulic Controls (Optional Equipment)</td>
</tr>
<tr>
<td>3</td>
<td>Collapsible Intake Hopper</td>
<td>18</td>
<td>Electric Motor (Optional Equipment)</td>
</tr>
<tr>
<td>4</td>
<td>Collapsible Intake Hopper Handle</td>
<td>19</td>
<td>Electric Control Box (Optional Equipment)</td>
</tr>
<tr>
<td>5</td>
<td>Transport Slide</td>
<td>20</td>
<td>Hydraulic Motor (Optional Equipment)</td>
</tr>
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<td>6</td>
<td>Transport Rail</td>
<td>21</td>
<td>Axle Assembly</td>
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<td>7</td>
<td>Lower Transport Arm</td>
<td>22</td>
<td>Hopper Section</td>
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<td>8</td>
<td>Upper Transport Arm</td>
<td>23</td>
<td>Discharge Section</td>
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<td>9</td>
<td>Conveyor Belt</td>
<td>24</td>
<td>Wind Guards</td>
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<tr>
<td>10</td>
<td>Hitch</td>
<td>25</td>
<td>Transition Rollers</td>
</tr>
<tr>
<td>11</td>
<td>Jack</td>
<td>26</td>
<td>Guided Return roller</td>
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<tr>
<td>12</td>
<td>Owners Manual Canister</td>
<td>27</td>
<td>Return Rollers</td>
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<tr>
<td>13</td>
<td>Manual Winch</td>
<td>28</td>
<td>Hopper Pulley</td>
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<td>14</td>
<td>Hydraulic Winch (Optional Equipment)</td>
<td>29</td>
<td>Drive Pulley</td>
</tr>
<tr>
<td>15</td>
<td>Discharge Section Cover</td>
<td>30</td>
<td>Snub Pulley</td>
</tr>
</tbody>
</table>
Machine Components Contd.

The Top Drive Kwik Belt Field Loader uses an endless belt that travels in a frame for moving grain or almost any granular product. The machine is portable for easy moving and can be raised or lowered as required for filling storage facilities.

An electric motor, or hydraulic motor can supply power to the conveying belt drive located at the discharge end. Material enters the system through an intake on the bottom end and exits through the discharge on the top end.

A manual or electric winch is used to raise or lower the frame. The main components are shown above and on the previous page in this manual.

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* There are some options shown which may not be available on all models.
* The position of components may vary depending on the model.
MACHINE BREAK-IN

Although there are no operational restrictions on the Field Loader when used for the first time, it is recommended that the following mechanical items be checked:

A. Before starting:
   1. Read the Owner / Operator’s Manual.
   2. During the machines first few minutes of operation, check conveying belt alignment to ensure preset alignment does not vary under loaded conditions.

B. After operating or transporting for 1/2 hour:
   1. Re-torque all the wheel bolts.
   2. Re-torque fasteners and hardware.
   3. Check that all safety decals are installed and legible. Apply new decals if required.
   4. Check the drive belt and roller chain tension and alignment. Tension or align as required.
   5. Check the conveying belt tension and alignment. Tension or align as required.
   6. Check that all guards are installed and working as intended.

C. After operating for 5 hours and 10 hours:
   1. Re-torque all wheel bolts, fasteners and hardware.
   2. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
   3. Check safety decals. Install new ones if required.
   4. Check the drive belt, roller chain, and conveying belt tension and alignment. Tension or align as required.
   5. Check that all guards are installed and working as intended.

PRE-OPERATION CHECKLIST

Efficient and safe operation of the Top Drive Kwik Belt Field Loader requires that each operator reads and understands the operating procedures and all related safety precautions outlined in this section. A pre-operation checklist is provided for the operator. It is important for both the personal safety and maintaining the good mechanical condition of the Field Loader that this checklist is followed.

Before operating the Field Loader and each time thereafter, the following areas should be checked off:

1. Service the machine per the schedule outlined in Section 5 Service and Maintenance.
2. Use only a tractor, or electric motor of adequate power to operate the machine.
3. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
4. Check worksite. Clean up working area to prevent slipping or tripping.
5. Check winch and cable for security and operation. There should be at least 3 complete wraps of cable around winch drum in full down position. Cable anchor on winch drum must be tight. Inspect cable for fraying or damage and replace if damaged or frayed.
6. Check that cable clamps are secure.
7. Check that drive belts and chains and conveying belts are not frayed or damaged and that they are properly adjusted and aligned.
8. Be sure Field Loader wheels are chocked.
9. Check that discharge and intake areas are free of obstructions.

IMPORTANT

Anchoring and/or support of Field Loader during operation is necessary. When lower half of Field Loader empties of material, the weight balance transfers to the upper end of the machine, which can cause upending.
CONTROLS

Before starting to work, all operators should familiarize themselves with the location and function of the controls.

1. Electric Drive Motor (Standard Equipment)

   **IMPORTANT**
   
   In some cases, not all Field Loaders are supplied with ON/OFF switches. If your machine was not supplied with a ON/OFF switch, have a licensed electrician to provide power to the machine per the National Electrical Code ANSI/NFPA 70 and local codes. Install an ON, OFF switch for the convenience of the operator.

2. Hydraulic Drive (Optional Equipment)

   **IMPORTANT**
   
   Dirt in the hydraulic system can damage the hydraulic motor and flow control and can cause failure to the system.

   2. Connect the hydraulic hoses and ensure the connections are tight.
   
   3. Start tractor and idle at low rpm. Engage hydraulic lever in the tractor to the flow control. Increase tractor rpm until desired belt speed is reached. The flow control has a maximum of 15 GPM flow.

1. Turn the electric motor switch on to start the Field Loader.

2. Discharge the desired amount of material from the Field Loader discharge spout.

3. Run until the belting is empty.

4. Turn off motor and lock out power source.

5. Unplug the power cord, wrap around the equipment and secure to prevent dragging, especially when transporting or placing the conveyor.

Fig. # 4-13 Electric Motor ON/OFF Switch

Fig. # 4-14 Electric Motor

Fig. # 4-15 Hydraulic Flow Control
4. Place all tractor controls in neutral.

5. Start the tractor and run at low idle.

6. Engage the tractor hydraulic control lever and increase the engine to desired speed.

**IMPORTANT**

The correct operation of a hydraulic system is directly linked to the pump’s ability to supply the correct oil flow and pressure. If you cannot obtain the correct belt speed, check with your dealer to ensure the tractor is delivering the correct oil volume and pressure.

7. Run until the belting is empty.

8. Reduce tractor engine speed to low idle.

9. Place hydraulic control lever in neutral.

10. Shut off engine and remove ignition key.
4. **Manual Winch (Standard Equipment)**

A winch is located on the main tube and is used to raise and lower the conveyor. Turn the handle clockwise to raise and counterclockwise to lower. *(See Fig. # 4-20)*

**Before using the hand winch, ensure that:**

- The cable anchor on the winch drum is tight.
- All cable clamps are secure.
- The lift cable is seated in cable pulley.
- The cable is in good condition, if damaged, replace it immediately.
- There is a minimum of 3 cable wraps on the winch drum when the conveyor fully lowered.

**To operate:**

1. Turn the winch handle to raise and lower the conveyor.
   The winch must make a clicking sound when raising the conveyor. If clicking sound stops, retain grip on handle, lower the conveyor fully and repair winch.

   **DANGER**
   Do not touch, grab, or guide cable while equipment is being raised or lowered.

**IMPORTANT**

Do not continue to crank the winch when the conveyor has reached full up position as this can cause damage.

4. While raising the Field Loader, stop raising prior to hitting the transport slide with the cable clamp. *(See Fig. # 4-23)*

   **Fig. # 4-21 Stop Raising Prior to Cable Clamp Hitting Transport Slide**

2. When lowering, if the cable becomes slack before conveyor is in full down position, this indicates that the track shoe is stuck. To correct the problem, reverse the winch and raise the conveyor until the cable is taut and the track slides normally. Do not lubricate the winch brake discs.

3. After lowering the conveyor, always tighten the brake lock by turning the winch handle clockwise at least two clicks.

4. After lowering, rotate the winch handle until cable has light tension.
5. **Hydraulic Winch (Optional Equipment)**

A hydraulic Winch is located as shown (See Fig. # 4-22) and is used to raise and lower the conveyor.

**Fig. # 4-22 Hydraulic Winch Option**

Before using the hydraulic winch, ensure that:

- The cable anchor on the winch drum is tight.
- All cable clamps are secure.
- The lift cable is seated in cable pulley.
- The cable is in good condition, if damaged, replace it immediately.
- There is a minimum of 3 cable wraps on the winch drum when the conveyor is fully lowered.
- The hydraulic hoses are free from leaks, binding, flattening, kinks, or wear.

**To operate:**

1. Wipe the hydraulic hose couplers clean before connecting the tractor to the winch.

**IMPORTANT**

Dirt in the hydraulic system can damage the winch motor and can cause failure to the system.

2. Connect the hydraulic hoses and ensure the connections are tight.

3. Start tractor and idle at low rpm. Engage hydraulic lever in the tractor to the power winch. Test the direction of rotation of winch to ensure drum is moving in the direction required. Increase tractor rpm until desired rate of lift or descent is reached.

**DANGER**

Do not touch, grab, or guide cable while equipment is being raised or lowered.

**IMPORTANT**

Do not continue to supply power to winch when the conveyor has reached full up position as this can cause damage.

4. While raising the Field Loader, stop raising prior to hitting the transport slide with the cable clamp. (See Fig. # 4-23)

**Fig. # 4-23 Stop Raising Prior to Cable Clamp Hitting Transport Slide**

5. When lowering, if the cable becomes slack before the conveyor is in the full down position, this indicates that the track shoe is stuck. To correct the problem, reverse the winch and raise the conveyor until the cable is taut and track slides normally.

6. After lowering, adjust the hydraulic winch until cable has light tension.
6. **Jack**

It is recommended that the jack be used to raise the Field Loader to the drawbar height to connect to a towing vehicle.

Follow this procedure when attaching to or unhooking from a tow unit.

1. Make sure that bystanders, especially small children, are clear of the working area.

2. Use the jack to raise the hopper end of the machine only high enough to connect to the towing vehicle.

3. Make sure that the pin that secures the jack to the anchor bracket is installed before lowering the jack to the ground. (See Fig. # 4-26)

4. Rotate the handle CCW to raise the jack which lowers the hopper end of the machine.

---

**DANGER**

**ELECTROCUTION HAZARD**

- When operating or moving, keep equipment away from overhead powerlines and devices.
- Fully lower equipment before moving.
- Electrocution can result without direct contact.
- If the equipment should become electrically charged, keep clear of equipment and load.

Failure to comply will result in serious injury or death.

---

**WARNING**

**UPENDING HAZARD**

Can cause serious injury or death.

- Anchor intake end and/or support discharge end to prevent upending.
- Intake end must always have downward weight. Do not release until attached to tow bar or resting on ground.
- Do not raise intake end above tow bar height.
- Empty conveyor and fully lower before moving.

---

Fig. # 4-24 Danger, Electrocution Hazard

Fig. # 4-25 Warning, Upending Hazard

Fig. # 4-26 Lowering Jack

Fig. # 4-27 Raising the Jack
5. Rotate the handle CW to lower the jack which raises the hopper end of the machine.

![Fig. # 4-28 Raising the Hopper End](image)

6. The jack can be rotated CW out of position for transporting or to lessen a trip hazard.

![Fig. # 4-29 Jack Transporting Position](image)

7. The jack can also be removed completely from the Field Loader.
When using the Field Loader, follow this procedure:

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

2. Review the Pre-Operation Checklist (Section 4.4) before starting.

3. Review the Workplace Hazards schematics and use extra care when inside the hazard area. Keep all spectators and bystanders out of this area. Should anyone enter this area, stop the machine immediately.
MACHINE PLACEMENT

Follow this procedure when placing the Field Loader into its working position:

1. Clear the area of bystanders, especially small children, before starting.
2. Be sure there is enough clearance from overhead obstructions and power lines or other equipment to move the machine into its working position.
3. Attach the Field Loader to the tractor.
4. Back the machine up to the storage facility while it is in its lowered configuration.
5. Set the park brake on the towing vehicle before dismounting.
6. Use the winch to raise the machine so it clears the storage facility. Stay away from power lines.
7. Slowly back the machine until the discharge is over the opening in the storage facility.
8. Use the winch to slowly lower the discharge end of the machine until the spout is protruding into the storage facility without making contact.
9. Place chocks in the front and rear of each wheel.
10. Unhook the unit from the tractor or towing-vehicle and lower to the ground.
11. Remove the hitch from the machine to prevent interfering with other equipment.
12. If the Field Loader is not being used with a storage facility, it will be necessary to stake or weight the intake end to prevent upending when the machine is emptying.
13. Review the Workplace Safety Diagram for your model prior to starting work. Follow all setup instructions and do not allow any unauthorized people into the working area.
14. For the Hydraulic Drive Models:
   A. Back tractor into position.
   B. Chock tractor wheels.
   C. Plug hydraulic hoses into tractor couplers.
15. For the Electric Motor Models:
   A. Have a certified electrician provide power to the machine.
   B. Provide convenient shutdown switches and comply with local electrical codes.
16. Reverse the above procedure when removing the machine from its working position.
OPERATING HINTS

Follow this procedure when placing the Field Loader into its working position:

• Keep the hopper full for maximum capacity. Most efficient results will be obtained when flow of incoming material is directed to the center of the hopper. (See Fig. # 4-35) (See Fig. # 4-36)
• Always listen for any unusual sounds or noises. If any are heard, stop the machine and determine the source. Correct the problem before resuming work.
• Do not run the machine for long periods of time with no material on the belting. This increases the wear. Try to run only when moving material.
• Do not support discharge end directly on the storage facility.
• Stake the hopper or weigh it down to prevent upending.
• The hopper is designed with flashing to seal the junction of the belt with the sides of the hopper. It must be kept in good condition to prevent the material from “leaking” out of the hopper. Replace flashing if “leakage” occurs.
• Belt Speed:
  The best results are obtained when the drive is set to provide a belt speed of 600 - 650 ft./min.

  **Count the number of belt revolutions per minute to determine belt speed:** Use the connector splice as a reference when counting belt revolutions.

  **Find your Belt Length:** Use the specifications section to find your belt length.

  **Example:** A model 1843 has a belt length of 90 ft. After running the Field Loader for 1 Minute, the count is 7 complete revolutions. (See Formula Below)

  \[
  \text{Belt Revolutions Per/Min.} \times \text{Belt Length ft} = \text{Belt Speed ft/Min.}
  \]
  \[
  7 \times 90 = 630
  \]
  \[
  \text{Belt Speed} = 630 \text{ ft/Min.}
  \]
  Contact your dealer or the factory for the appropriate drive components to give the recommended belt speed.

• Belt Tension:
  There may be a rapid decrease in belt tension during the first few hours of operation until the belt has worn in.
  The correct operating tension is the lowest tension at which the belt will not slip under peak load conditions.

• Operating Angle:
  The manual or hydraulic winch can set the tube angle at any position between the lowest position and the highest position when operating. Because the belt does not have roll-back barriers, the product will roll-back if the angle is too steep. Do not position at more than 30°.

  **IMPORTANT**
  The lower the angle of the Field Loader, the greater the capacity.

  **Loading Area**
  To achieve maximum capacity:
  • Gradually increase flow of material onto the loading area of the belt until it can no longer support the flow into the tube.
  • Direct the flow of material into the input hopper in the direction of the belt travel for the best capacity.
  **Do not:**
  • Unload material into the transition area.
  • Flood feed the hopper.
Emergency Shutdown
In an emergency situation:
1. Stop or shut down the power source immediately and lock out all power.
2. Stop the flow of material (if applicable).
3. Ensure the machine components come to a stop before inspecting.
4. Correct the emergency situation before resuming work.

Restarting with a Full Tube
When the conveyor is shut down inadvertently or due to an emergency, the tube may still be filled with grain.

**WARNING**
- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

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

**IMPORTANT**
Starting under load may result in damage to the Field Loader if grain is not removed as much as possible.

2. If guards or covers have been opened or removed, close or replace them before restarting the unit.
3. Electric Drive Models: It may be necessary to tighten the drive belts slightly to handle the heavier than normal loads.
4. Hydraulic Drive Models: Since the start-up torque loads are so much higher than normal when the conveyor belting is full, restart at low speed. Do not let the conveyor belt drive roller spin on the belt if conveying belt does not start moving immediately. This will damage the drive roller and conveying belt.
5. Once the conveyor has been started, you may resume normal operation.

Shutdown
When operation has been completed:
1. Once the conveyor is clear of grain, lock out the power source.
2. Lower the conveyor fully.
3. Clean out any remaining grain from the conveyor with a vacuum or sweep out.
4. Clean the entire work area.
5. Remove anchors, supports, and chocks.

Clean Out
After using your conveyor, follow the clean out steps below to ensure longer belt life and trouble free operation. Failure to clean out the conveyor can cause build up of product on the belt and roller shafts, causing spillage, roller misalignment, and excess wear/damage to the belt.

Failure to lock out power can cause severe injury.
1. Remove any product remaining in the hopper and spout with a vacuum or sweep out.
2. Remove debris from shafts, sheaves, and drive belts (as equipped).
3. Once the conveyor is empty of all product, check for damage on belt and lacing such as notches or cut outs. Any damage on belt may result in product getting under it creating a build-up. If belt replacement and replacing is necessary, refer to the Maintenance Section.

**IMPORTANT**
Ensure the conveyor is free from all product and debris to prevent build-up. Any build-up on belt and shaft becomes a source of spillage and can cause belt misalignment with the possibility of belt edges sustaining damage on the fixed structure. Build-up on the hopper and spout will cause the belt to wear faster due to drag.

4. Once cleaned out, cover intake to prevent moisture from collecting in hopper.
# 5 - MAINTENANCE

## General Maintenance Safety

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Review the Operator’s Manual and all safety items before working with, maintaining or operating the Field Loader.</td>
</tr>
<tr>
<td>2.</td>
<td>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.</td>
</tr>
<tr>
<td>3.</td>
<td>Do not attempt to clean, lubricate, clear obstructions or make adjustments to the machine while it is in motion or while the engine is running.</td>
</tr>
<tr>
<td>4.</td>
<td>Follow good shop practices:</td>
</tr>
<tr>
<td></td>
<td>- Keep service area clean and dry.</td>
</tr>
<tr>
<td></td>
<td>- Be sure electrical outlets and tools are properly grounded.</td>
</tr>
<tr>
<td></td>
<td>- Use adequate light for the job at hand.</td>
</tr>
<tr>
<td>5.</td>
<td>Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.</td>
</tr>
<tr>
<td>6.</td>
<td>Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.</td>
</tr>
<tr>
<td>7.</td>
<td><strong>DO NOT</strong> step on or touch moving Field Loader belt.</td>
</tr>
<tr>
<td>8.</td>
<td>Keep hands, feet, hair and clothing away from all moving and/or rotating parts.</td>
</tr>
<tr>
<td>9.</td>
<td>Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.</td>
</tr>
<tr>
<td>10.</td>
<td>Place stands or blocks under the frame before working beneath the machine.</td>
</tr>
<tr>
<td>11.</td>
<td>Before resuming work, install and secure all guards when maintenance work is completed.</td>
</tr>
<tr>
<td>12.</td>
<td>Support the Field Loader main tube before attempting maintenance on the under carriage assembly. Where possible, the Field Loader should be in the full down position.</td>
</tr>
<tr>
<td>13.</td>
<td>Keep safety signs clean. Replace any sign that is damaged or not clearly visible.</td>
</tr>
<tr>
<td>14.</td>
<td>Always make sure working area is clear of tools, parts, other persons and pets before you start operating the machine.</td>
</tr>
</tbody>
</table>
FLUIDS AND LUBRICANTS

Hydraulic Oil:
Use an ISO grade 36 hydraulic oil for all operating conditions (Hydrex MV36 or comparable).

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

Grease:
Use an SAE multipurpose high temperature grease with extreme pressure (EP) performance. Also acceptable, SAE multipurpose lithium based grease.

Greasing

Use the Maintenance Chart provided on page 5-3 to keep a record of all scheduled maintenance.

1. Use only a hand-held grease gun for all greasing. An air-powered greasing system can damage the seals on bearings and lead to early failures.
2. Wipe grease fitting with a clean cloth before greasing to avoid injecting dirt and grit.
3. All roller bearings are sealed and not greasable, (Unless repacked by greasable bearings) only the wheel hubs are greasable. They require minimal lubricant. Recommended greasing is 1 small stroke every 2 weeks. Be careful not to over-grease, as this may push the seal out.
4. Replace and repair broken fittings immediately.
5. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

SERVICING INTERVALS

Make sure your Field Loader is ready to go to the field when you are. Perform the service and maintenance procedures that are recommended in this section to prepare for the next season. Careful maintenance preparation will save time and expense as you enter the busy season.

The periods recommended on page 5-3 are based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication and oil changes.

Schedules may vary depending on equipment options contained in the present unit.

The Field Loader belt alignment is preset to run true under a condition of no load. It is important to check alignment and make adjustments, if required, during the initial few minutes of operation.
# MAINTENANCE CHART

<table>
<thead>
<tr>
<th>Interval</th>
<th>Page #</th>
<th>Maintenance Action</th>
<th># of Pts.</th>
<th>1</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIRST 1 HOUR</td>
<td>5-4</td>
<td>Field Loader Conveyor Belt Tension</td>
<td>1</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-5</td>
<td>Field Loader Conveyor Belt Alignment</td>
<td>3</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>Re-torque Wheel Lug Bolts</td>
<td>8/12</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>EVERY 10 HOURS OR EACH DAY</td>
<td>5-4</td>
<td>Field Loader Conveyor Belt Tension</td>
<td>1</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-5</td>
<td>Field Loader Conveyor Belt Alignment</td>
<td>3</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>Visually Inspect The Equipment</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>40 HOURS</td>
<td>5-7</td>
<td>Re-torque Wheel Lug Bolts</td>
<td>8/12</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>5,000 Miles</td>
<td>5-7</td>
<td>Grease Wheel Bearings</td>
<td>2</td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td>MONTHLY</td>
<td>5-8</td>
<td>Check Roller Lagging</td>
<td>2</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-9</td>
<td>Inspect Hopper Flashing</td>
<td>3</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-9</td>
<td>Inspect Belt Lacing</td>
<td>1</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-9</td>
<td>Inspect Hydraulic Hoses And Fittings</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Yearly</td>
<td>5-10</td>
<td>Repack Wheel Bearings</td>
<td>2</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>As Required</td>
<td>5-10</td>
<td>Clean and Wash the Equipment</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
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<tr>
<td></td>
<td>5-11</td>
<td>Replace the Hopper Flashing</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>5-12</td>
<td>Replacing the Conveyor Belt</td>
<td>1</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>5-13&amp;5-14</td>
<td>Replace the Belt Lacing</td>
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<td></td>
<td></td>
<td>X</td>
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<tr>
<td></td>
<td>5-16</td>
<td>Tension And Alignment of the Drive Belts</td>
<td>2</td>
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<td>X</td>
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<tr>
<td></td>
<td>5-16</td>
<td>Replacing the Drive Belts</td>
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<td>X</td>
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<tr>
<td></td>
<td>5-17</td>
<td>Inspect and Service the Hand Winch and Lift Cable</td>
<td>1</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>
First 1 Hour

Field Loader Conveyor Belt Tension

Adjusting your conveyor belt for proper tension helps to ensure trouble-free operation and long belt life. A conveyor belt only needs to be tight enough to eliminate slipping on the drive roller. If the belt is too loose, it will slip on the drive roller making smoke or a noticeable sound, with the belt slowing down. To correct belt slippage and set proper tension on the belt, follow the steps below.

IMPORTANT
Failure to stop using the machine with a slipping belt will damage it and/or the drive roller lagging. In extreme cases, sections of burnt belt will have to be replaced. This type of damage is not covered by warranty.

1. Clear area of bystanders.

2. Loosen bearing bolts and jam nut at hopper pulley. (See Fig. # 5-37)

3. Tighten adjustment bolts equally in small increments.

4. Tighten bearing bolts and jam nuts.

5. Check belt tension by running conveyor for one (1) minute. If belt is not slipping, then proceed to next step, otherwise repeat previous steps.

6. If belt tracks to either side abruptly, then the belt is too loose.

7. If belt is not slipping, but is running to one side gradually, the tensioned roller needs to be realigned. See “Field Loader Conveyor Belt Alignment” section to correct this problem.

8. Ensure that all covers and guards are securely in place before operation.

First 1 Hour

Field Loader Conveyor Belt Alignment

The Field Loader Conveyor Belt should be checked during the first hour of operation, then weekly to ensure it is properly aligned. If the belt is tracking to one side, use the following steps to correct the problem.

IMPORTANT
Failure to stop using the machine with a misaligned belt will damage it. In extreme cases, sections of the belt will have to be replaced. This type of damage is not covered by warranty.

1. Clear area of bystanders.

2. Ensure the conveyor is completely empty of all product.

3. Loosen bearing bolts and jam nuts if equipped.

WARNING
• Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
• Keep body, hair, and clothing away from moving conveyor belt and rollers.
• Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.
4. Start checking the alignment at the hopper end, transition rollers, then followed by the discharge end. (See Fig. # 5-38) (See Fig. # 5-39)

**IMPORTANT**

The transition roller is slotted on one side, therefore the transition roller is only adjustable on one side. Start the adjustment with the bearing centered in the slot.

5. If belt is not centered, adjust the bearing on the side the belt is moving toward. The bearing should be moved in the direction which would tighten the belt. (See Fig. # 5-40).

6. Start the conveyor and run empty for one (1) minute.
7. Stop conveyor, remove ignition key or lockout power source.

8. If belt is centered continue to the next step, if not repeat alignment process.
9. Tighten bearing bolts and jam nuts.
10. Replace any covers or guards that may have been removed.
First 1 Hour

Re-torque Wheel Lug Bolts

1. Check after the first 1 hour of use. If lug nut torque is not at the specified torque, re-torque all lug nuts. (See Fig. # 5-41) (See Fig. # 5-42) (See Fig. # 5-43)

<table>
<thead>
<tr>
<th>Hub Design</th>
<th>Torque</th>
<th>Number of Lug Nuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 BOLT</td>
<td>70 ft-lbs (95 N-m)</td>
<td>8</td>
</tr>
<tr>
<td>6 BOLT</td>
<td>70 ft-lbs (95 N-m)</td>
<td>12</td>
</tr>
</tbody>
</table>

EVERY 10 HOURS OR EACH DAY

Visually Inspect The Equipment

Check the following during a visual inspection:

1. Ensure all guards are in place and in good working order.
2. Examine the belt conveyor for damage or unusual wear.
3. Check tightness of bolts/nuts, fasteners, and hardware (re-torque if necessary).
4. Be sure all safety decals are in place and are legible.
5. Check that the discharge and intake area are free of obstructions.
6. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove any entangled material.
7. **When equipped**: Inspect hydraulic hoses and fittings for leaks and wear. Fix or replace where necessary.
8. Examine tires for gashes, uneven wear, or loss of air pressure. Maintain pressure according to tire sidewall recommendations.
9. Check all operating, lifting, and transport components. Replace damaged or worn parts before using the conveyor.
10. Inspect the winch cable for fraying, kinking, unwinding, or other possible damage.
Every 40 Hours

**Re-torque Wheel Lug Bolts**

1. Check at the beginning of the season, and at 10 hour intervals (daily). If bolt torque is stable, check at 40 hour intervals. If lug nut torque is not at the specified torque, re-torque all lug nuts.

![Re-torque Wheel Lug Bolts](image1)

**Fig. # 5-44 Re-torque Wheel Lug Bolts**

<table>
<thead>
<tr>
<th>Hub Design</th>
<th>Torque</th>
<th>Number of Lug Nuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 BOLT</td>
<td>70 ft-lbs (95 N-m)</td>
<td>8</td>
</tr>
<tr>
<td>6 BOLT</td>
<td>70 ft-lbs (95 N-m)</td>
<td>12</td>
</tr>
</tbody>
</table>

![Table Wheel Lug Bolt Torque Values](image2)

**Fig. # 5-45 Table Wheel Lug Bolt Torque Values**

Every 5,000 Miles

**Grease Wheel Bearings**

Grease the (2) points on the wheel hubs every 5,000 miles of travel. Use Multi-Purpose Grease 251H EP or equivalent. (Pump until the grease becomes visible)

![Grease Wheel Bearings](image3)

**Fig. # 5-47 Grease Wheel Bearings**
Every Month

Check Roller Lagging
Visually Inspect roller lagging on the Hopper Pulley and Drive Pulley to see if it is showing signs of wear. (See Fig. # 5-48) (See Fig. # 5-49)

**IMPORTANT**
Operating the Field Loader with a damaged roller will result in a damaged conveyor belt.

⚠️ **WARNING**
- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

![Fig. # 5-48 Check Roller Lagging At Hopper Pulley](image)

![Fig. # 5-49 Checking Roller Lagging At Drive Pulley](image)
Every Month

**Inspect Hopper Flashing**

Worn flashing will cause hopper leakage. Check the condition of the rubber hopper flashing. *(See Fig. # 5-50)* Be sure it still seals the hopper to prevent leaking. If any product comes out of the hopper around the flashing, See "Replacing The Hopper Flashing"

![Hopper Flashing](Fig. # 5-50 Check Hopper Flashing)

**Every Month**

**Inspect Belt Lacing**

Inspect the condition of the belt lacing, if any clips are worn through, replace all lacing.

![Belt Lacing](Fig. # 5-51 Inspect Belt Lacing)

**Every Month**

**Inspect Hydraulic Hoses And Fittings**

It is important to regularly check the hydraulic system for leaks. Follow this procedure when checking for leaks.

---

**WARNING**

**Hydraulic Hazard**

Hydraulic oil leaking under pressure can penetrate the skin, causing death or serious injury, or infection. Stop engine, remove key and relieve the pressure before connecting or disconnecting fluid lines.

1. Pressurize the system.
2. Using a piece of cardboard or plywood, run it along the length of the hose and around all fittings.
3. Replace the hose or tighten/replace the fitting if a leak is found.
4. Replace any hose that is badly cut, nicked, abraded, or is separating from the cramped end of the fitting.
5. Secure hoses to the machine.
Yearly

Repack Wheel Bearings

Follow these steps to repack the wheel bearings. Refer to (See Fig. # 5-52)

1. Block wheels and ensure unit is stable.
2. Remove the wheel bolts ① and the wheels ②.
3. Remove Dust Cap ③, Cotter Pin ④, Castle Nut ⑤ and Washer ⑥.
4. Slide Hub ⑦ off the Spindle ⑧ along with the Outer Bearing ⑨, and Inner Bearing ⑩.
5. Only remove Seal ⑪ if damaged.

6. Clean wheel and hub mounting surfaces to ensure there is no rust or debris.
7. Clean the wheel bearings and pack with grease. Use SAE multi-purpose high-temperature grease with extreme pressure (EP) performance. SAE multi-purpose lithium-based grease is also acceptable.
8. Reverse disassembly procedure.
8. Tighten the wheel bolts (diagonal pattern) (See Fig. # 5-54) with a torque wrench to (70 ft-lbs) (See Fig. # 5-53) of torque. Inspect to make sure the wheel is sitting flush with the hub.

<table>
<thead>
<tr>
<th>Hub Design</th>
<th>Torque</th>
<th>Number of Lug Nuts</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 BOLT</td>
<td>70 ft-lbs</td>
<td>8</td>
</tr>
<tr>
<td>6 BOLT</td>
<td>70 ft-lbs</td>
<td>12</td>
</tr>
</tbody>
</table>

Fig. # 5-53 Table Wheel Lug Bolt Torque Values

As Required

Clean and Wash the Equipment

⚠️ WARNING ⚠️

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Clean out excess material from all areas of the Field Loader.
2. Make sure water can drain from the conveyor tube and intake hopper, then wash the tube with a water hose or pressure washer until all dirt, mud, debris, or residue is gone.
3. Provide sufficient time for the water to drain from the Field Loader.
As Required

Replace The Hopper Flashing
If any product leaks out of the hopper around the flashing, replace the worn hopper flashing.

⚠️ WARNING
- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

⚠️ WARNING
The Collapsible Intake Hopper is under extreme torsion. Removing all elevator bolts securing the Collapsible Intake Hopper to the Hopper Section of the frame will result in the Collapsible Intake Hopper suddenly swinging upward with force. Secure the front of the Collapsible Intake Hopper to the hitch cross member before servicing, repairing or adjusting. Failure to comply could result in serious injury or death.

1. Secure the front of the Collapsible Intake Hopper to the hitch cross member before servicing, repairing or adjusting.
2. Loosen and remove the 1/4-20 Nuts. (See Fig. # 5-56)
3. Remove the 1/4-20 Elevator Bolts. (See Fig. # 5-56)
4. Remove and replace the worn flashing.
5. Re-install the elevator bolts and nuts.
6. Run the Field Loader again. Repeat until no grain is lost. If the flashing is stuck to the belt, manually peel the flashing up and off the hopper. Replace it if necessary.

Fig. # 5-55 Secure Collapsible Intake Hopper to Hitch
Fig. # 5-56 Replacing Hopper Flashing
As Required

Replacing the Conveyor Belt

The belt provided on your Field Loader should last for several years under normal working conditions, providing it is maintained properly. If a new belt is to be installed, be sure to loop the belt through the loader properly. Looping the Conveyor belt improperly will cause belt tracking, belt tensioning, and belt lacing problems. The recommended procedure to replace a belt is:

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Rotate the conveyor belt until the lacing is by the hopper or is easily accessible. Most likely position is the lowest position below the Main Tube under the Wind Guards.
2. Loosen bearing bolts and jam nut at hopper pulley. (See Fig. # 5-37)
3. Loosen adjustment bolts equally, and move hopper pulley backwards to it's loosest position.
4. Loosen the conveyor belt by pulling all slack to the seam area and remove the old lacing pin. If required, use a ratchet strap clamped to both ends of belt to cinch belting ends together. (See Fig. # 5-58)
5. Attach one end of the replacement belt to the belt end being removed, closest to the hopper end of the machine.
6. Pull the old belt out and the new belt will be threaded into place.
7. Disconnect the old belt.
8. Reattach conveyor belt ends together. If required, use a ratchet strap clamped to both ends of belt to cinch belting ends together.
9. Install the lacing pin and crimp the retainer clips onto each end of the lacing pin, (see “Replacing The Belt Lacing”)
10. Remove the ratchet strap and tighten the conveyor belt (see “Tension the Conveyor Belt”).
11. Check and set the belt alignment (see “Align the Conveyor Belt”).
12. Engage the conveyor drive. Allow it to run for 30 seconds, then shut down the conveyor and inspect the lacing.

**Fig. # 5-57 Adjusting Conveyor Belt Tension At Hopper Pulley**

**Fig. # 5-58 Replacing The Belt Lacing**
As Required

Replacing the Belt Lacing

The most common method of joining belt ends is the metal fastener such as the “Clipper” type wire lace or the “Alligator” type steel hinge, as well as others. Fastener manufacturer’s catalogs should be consulted for proper size and method of application. Refer to the instructions that came with your type of belt lacing, or consult your Kwik Belt dealer.

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Rotate the conveyor belt until the lacing is by the hopper or is easily accessible. Most likely position is the lowest position below the Main Tube under the Wind Guards.

2. Loosen bearing bolts and jam nut at hopper pulley. (See Fig. # 5-37)

3. Loosen adjustment bolts equally, and move hopper pulley backwards to it’s loosest position.

4. Loosen the conveyor belt by pulling all slack to the seam area and remove the old lacing pin. If required, use a ratchet strap clamped to both ends of belt to cinch belting ends together. (See Fig. # 5-58)

5. Using a square and sharp knife, cut the lacing off right behind the lacing clips. The cut belt MUST have a square end.

**IMPORTANT**

If the belt is not cut off truly square, improper belt tracking will occur and serious belt damage can result. Always use a large T-square or equivalent method to make sure that belt ends are cut square at the lacing ends.

A. To properly square the belt ends, we recommend the center line method. To properly establish the belt center line, start near the belt end as shown in (See Fig. # 5-61)

B. Measure the belt width at six points approximately 10” apart. Divide each measurement in two and mark these center points as shown. Using these six “center points”, draw the resultant “average” center line. (See Fig. # 5-61)

C. Using a carpenter square or “tee” square, draw a “cut line” across the width of the belt near the belt end (See Fig. # 5-62). It is also a good idea to mark several right angle reference lines across the belt surface for use as guidelines later on.

D. Using the “cut line” as the guide, cut off the end of the belt with a sharp razor knife. Make sure that the cut is clean and vertical. This operation should then be repeated on the other end of the belt.
5. Use a lacing tool to install new lacing clips. Lacing clips are one clip shorter than the belt width. **For example:** The lacing for a 18” wide belt is 17 clips. Center the lacing on the belt and install the lacing as per instructions on the lacing tool.

6. Notch the conveyor belt as necessary in order to keep belt from catching conveyor framework. Notch only the trailing end of the conveyor belt. (**See Fig. # 5-64**)

7. Install the lacing pin and bend the ends of the lacing pin away from belt travel direction or crimp the retainer clips onto each end of the lacing pin. (**See Fig. # 5-65**)

8. Remove the ratchet strap and tighten the conveyor belt (see **Field Loader Conveyor Belt Tension**).

9. Check and set the belt tension and alignment (see **Field Loader Conveyor Belt Alignment**).

10. Engage the Field Loader drive. Allow the conveyor to run for 30 seconds, then shut down the conveyor and inspect the lacing.
As Required

Tension and Alignment of the Drive Belts

Power to the conveyor belt is transmitted through a V belt primary drive. The drive system must be maintained at the proper belt tension and pulley alignment to obtain the desired performance and life. When maintaining the primary belt drive system, follow this procedure:

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

**Tensioning the Drive Belt**

1. Remove the guard.

2. Push on the center of the belt span with a force of approximately 5 lb. (See Fig. # 5-67)

3. The belts will deflect approximately 1" (25 mm) when properly tensioned. (See Fig. # 5-67)

**IMPORTANT**

The drive belt should be just tight enough to not slip on the drive pulley when operating. If the belt is too loose, it will slip, possibly causing a squeaking sound and slowing the belt down. If the belt is too tight, it will cause excess wear.

4. Move the motor or engine base to set drive belt tension.

5. Tighten Jam Nuts when the proper tension is set.

6. Close and secure guards.
As Required

Tension and Alignment of the Drive Belts Contd...

Alignment of the Drive Belt

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Lay a straightedge across the pulley faces to check the alignment. *(See Fig. # 5-69)*

![Steel Straightedge](image)

*Fig. # 5-69 Belt Alignment*

2. Use the tapered lock hub in the center of the pulley to adjust the position of a pulley if required
3. Tighten hub bolts to secure pulley on shaft.
4. Check belt tension.
5. Close and secure guards.

---

As Required

Replace the Drive Belts

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Move motor base to its loosest position.

![Adjusting Drive Belt Tension](image)

*Fig. # 5-70 Adjusting Drive Belt Tension*

2. Remove old belts and replace with new ones.
3. Move motor base to set the belt tension.
4. Check pulley alignment. Adjust if required.
5. Close and secure guards.
As Required

Inspect and Service the Hand Winch and Lift Cable

Place conveyor in fully lowered position with slack in cable.

**WARNING**

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Inspect the cable for damage such as fraying, kinking, or unwinding. Replace if damaged.
2. Check to make sure cable clamps are secure.
3. Oil cable pulleys as needed.
4. Do not get oil or grease on brake discs.
5. Replace brake discs if less than 1/16” (1.6 mm) thick.
6. Check for proper ratchet pawl operation:
   - When cranking in (clockwise) = loud clicking
   - When cranking out (counterclockwise) = no clicking and ratchet pawl fully engaged into gear teeth.

To Replace the Lift Cable:

1. Unwind the winch drum until cable is slack and remove all cable clamps.
2. Remove the cable.
3. Reverse the above steps to install the new cable.
STORAGE

Preparing For Storage

After the season’s use or when the Field Loader will not be used for a period of time, completely inspect all major systems of the Field Loader.

Replace or repair any worn or damaged components to prevent any unnecessary down time at the beginning of the next season.

Follow these procedures before storing:

⚠️ WARNING

- Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before inspecting, servicing or repairing machine.
- Keep body, hair, and clothing away from moving conveyor belt and rollers.
- Do not operate with any guards removed or modified. Keep guards in good working order. Failure to comply could result in death or serious injury.

1. Remove all left over material from the machine.
2. Thoroughly wash the unit to remove all dirt, mud and debris.
3. Inspect all rotating parts for entanglements. Remove anything caught in the mechanisms.
4. Check the condition of the components in the hydraulic system. Repair, replace or adjust as required.
5. Check the condition of the Field Loader Belt, replace any damaged areas by splicing a new section.
6. Lubricate all fittings and fill grease cavities.
7. Touch up all paint nicks and scratches to prevent rusting.
8. Store the Field Loader inside for protection from the weather. If the Field Loader must be stored outside, cover with a waterproof tarpaulin and tie down securely, place boards under the wheels and parking stands to prevent sinking into the soil.
## 6 - TROUBLESHOOTING

### SYMPTOM(S)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belt slipping</td>
<td>Conveyor belt is loose.</td>
<td>Tighten and align belt.</td>
</tr>
<tr>
<td></td>
<td>Drive roller lagging worn or damaged.</td>
<td>Replace drive roller lagging.</td>
</tr>
<tr>
<td></td>
<td>Drive belt loose.</td>
<td>Tighten and align. See Belt Tension and Belt Alignment in Maintenance.</td>
</tr>
<tr>
<td></td>
<td>Belt frozen to tube from operating in high humidity and cold temperatures.</td>
<td>Remove conveyor from area of high humidity and warm belt to de-ice.</td>
</tr>
<tr>
<td>Excessive belt edge fraying</td>
<td>Belt not in alignment.</td>
<td>Align and tension belt.</td>
</tr>
<tr>
<td>Belt loose</td>
<td>Belt stretches over time... also can be caused by oily grain products.</td>
<td>Re-tension belt If tightener is fully engaged, you may need to shorten belt.</td>
</tr>
<tr>
<td>Low conveying capacity</td>
<td>Conveyor angle is too high.</td>
<td>Re-position with lower tube angle, see Operation.</td>
</tr>
<tr>
<td></td>
<td>Incorrect belt speed.</td>
<td>Verify and adjust belt speed to appropriate speed, see Belt Speed in Operation.</td>
</tr>
<tr>
<td></td>
<td>Conveyor belt slipping.</td>
<td>Tighten Field Loader belt, see Belt Tension in Maintenance.</td>
</tr>
<tr>
<td>Low capacity for some grains.</td>
<td>Smaller and smoother grains will slide at shallower angles.</td>
<td>Reduce conveyor height, see Conveyor Operating Angles in Operation.</td>
</tr>
<tr>
<td>Excessive belt edge fraying</td>
<td>Belt not aligned.</td>
<td>Align belt, see Belt Alignment in Maintenance.</td>
</tr>
<tr>
<td>Conveyor belt loose.</td>
<td>Belt stretches over time.</td>
<td>Re-tension belt, see Belt Tension in Maintenance.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>If belt is fully tensioned, you may need to shorten belt and re-lace, see Belt Relacing in Maintenance.</td>
</tr>
<tr>
<td>Grain leaking from collapsible Intake hopper.</td>
<td>Belt not aligned (centered).</td>
<td>Align belt, see Belt Alignment in Maintenance.</td>
</tr>
<tr>
<td></td>
<td>Flashing installed incorrectly or worn.</td>
<td>Inspect flashing for wear and replace if required.</td>
</tr>
<tr>
<td></td>
<td>Hopper cloth worn or damaged.</td>
<td>Replace damaged hopper cloth.</td>
</tr>
<tr>
<td>Hopper cloth collapsing under grain.</td>
<td>Misaligned or broken spring</td>
<td>Check spring installation and repair as required.</td>
</tr>
<tr>
<td></td>
<td>Pivot shafts improperly installed.</td>
<td>On some machines, switching pivot shafts left to right will increase hopper tension.</td>
</tr>
<tr>
<td>Problem</td>
<td>Possible Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Grain leaking from discharge end between belt and tube.</td>
<td>Belt not aligned (centered).</td>
<td>Align belt, see Belt Alignment in Maintenance.</td>
</tr>
<tr>
<td>Grain leaking from conveyor discharge between hood and belt.</td>
<td>Belt speed is too fast, hood plugging.</td>
<td>Decrease belt speed, see Belt Speed in Operation.</td>
</tr>
<tr>
<td>U-clamps or brackets sliding on tube.</td>
<td>U-clamps or brackets not properly crimped to tube.</td>
<td>Contact dealer or Norwood to correct positioning.</td>
</tr>
<tr>
<td>The conveyor will not raise or lower.</td>
<td>The conveyor is already at it’s maximum or minimum height.</td>
<td>If at maximum height, lower the conveyor.</td>
</tr>
<tr>
<td></td>
<td>The cable clamp has hit the transport slide</td>
<td>Maximum height has been achieved. Do not try to raise any further.</td>
</tr>
<tr>
<td></td>
<td>Obstruction in the slide.</td>
<td>Clear the obstruction.</td>
</tr>
<tr>
<td></td>
<td>Faulty cable.</td>
<td>Replace cable.</td>
</tr>
<tr>
<td></td>
<td>Faulty winch.</td>
<td>Consult your local dealer.</td>
</tr>
<tr>
<td></td>
<td>The bottom or top of the conveyor is obstructed.</td>
<td>Clear the obstruction.</td>
</tr>
<tr>
<td>Drive making noise.</td>
<td>Electric Drive:</td>
<td>Tighten belts, see Drive Belt Tension in Maintenance.</td>
</tr>
<tr>
<td></td>
<td>Slipping drive belt.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hot shaft, pulley or bearing.</td>
<td>Overheated components indicate a failed bearing that must be repaired.</td>
</tr>
<tr>
<td></td>
<td>Broken drive roller.</td>
<td>Replace damaged component.</td>
</tr>
</tbody>
</table>
## Kwik Belt Specifications:

### Standard Features

**18 Series**
- 10” x 12 Ga tube w/ 18” 2ply chevron belt (10,000 Bu/hr)

**22 Series**
- 12” x 12 Ga tube w/ 22” 2ply chevron belt (14,000 Bu/hr)

**26 Series**
- 14” x 12 Ga tube w/ 26” 2ply chevron belt (18,000 Bu/hr)

### Drive Options:
- Electric
- Hydraulic
- Gas
- PTO

#### KWIK BELT DIMENSIONAL DATA

<table>
<thead>
<tr>
<th>Model</th>
<th>Low Position</th>
<th>High Position</th>
<th>Width</th>
<th>Belt Length</th>
<th>Weight</th>
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<td>A</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>B</td>
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<td><strong>1800 Series</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1837</td>
<td>9’ - 0”</td>
<td>11’ - 3”</td>
<td>15’ - 7”</td>
<td>16’ - 10”</td>
<td>18’ - 11”</td>
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<tr>
<td>1838</td>
<td>9’ - 0”</td>
<td>11’ - 3”</td>
<td>15’ - 11”</td>
<td>17’ - 2”</td>
<td>19’ - 3”</td>
</tr>
<tr>
<td>1842</td>
<td>9’ - 10”</td>
<td>12’ - 2”</td>
<td>17’ - 4”</td>
<td>19’ - 4”</td>
<td>21’ - 5”</td>
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<tr>
<td>1843</td>
<td>9’ - 4”</td>
<td>11’ - 8”</td>
<td>17’ - 8”</td>
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<tr>
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<td>21’ - 10”</td>
<td>23’ - 11”</td>
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<td><strong>2200 Series</strong></td>
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<td></td>
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<td>2238</td>
<td>8’ - 4”</td>
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<tr>
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<tr>
<td>2248</td>
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<td>22’ - 8”</td>
<td>22’ - 0”</td>
<td>24’ - 3”</td>
</tr>
<tr>
<td><strong>2600 Series</strong></td>
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<td>2638</td>
<td>7’ - 8”</td>
<td>10’ - 3”</td>
<td>15’ - 11”</td>
<td>17’ - 0”</td>
<td>19’ - 3”</td>
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<tr>
<td>2642</td>
<td>8’ - 4”</td>
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<td>17’ - 4”</td>
<td>17’ - 0”</td>
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<td>2643</td>
<td>8’ - 10”</td>
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<td>21’ - 0”</td>
<td>19’ - 6”</td>
<td>22’ - 11”</td>
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<tr>
<td>2648</td>
<td>9’ - 7”</td>
<td>13’ - 4”</td>
<td>22’ - 8”</td>
<td>19’ - 9”</td>
<td>23’ - 3”</td>
</tr>
</tbody>
</table>

---

**SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**
Torque – Hydraulic Tubes and Fittings

Standard torque data for hydraulic tubes and fittings

<table>
<thead>
<tr>
<th>Size</th>
<th>Tubing OD</th>
<th>Thread Size</th>
<th>ft-lbs</th>
<th>Nm</th>
<th>ft-lbs</th>
<th>Nm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inches</td>
<td>mm</td>
<td>Min</td>
<td>Max</td>
<td>Min</td>
<td>Max</td>
</tr>
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<td>9</td>
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<tr>
<td>5</td>
<td>5/16</td>
<td>7.9</td>
<td>1/2-20</td>
<td>12</td>
<td>15</td>
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<tr>
<td>6</td>
<td>3/8</td>
<td>9.5</td>
<td>9/16-18</td>
<td>21</td>
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<tr>
<td>8</td>
<td>1/2</td>
<td>12.7</td>
<td>3/4-18</td>
<td>35</td>
<td>40</td>
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<tr>
<td>10</td>
<td>5/8</td>
<td>15.9</td>
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<td>53</td>
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<tr>
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<td>3/4</td>
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<td>1-1/6-12</td>
<td>77</td>
<td>82</td>
<td>104</td>
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<tr>
<td>14</td>
<td>7/8</td>
<td>22.2</td>
<td>1-3/16-12</td>
<td>90</td>
<td>100</td>
<td>122</td>
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<tr>
<td>16</td>
<td>1</td>
<td>25.4</td>
<td>1-5/16-12</td>
<td>110</td>
<td>120</td>
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<tr>
<td>20</td>
<td>1-1/4</td>
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<td>1-5/8-12</td>
<td>140</td>
<td>150</td>
<td>190</td>
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<tr>
<td>24</td>
<td>1-1/2</td>
<td>38.1</td>
<td>1-7/8-12</td>
<td>160</td>
<td>175</td>
<td>217</td>
</tr>
<tr>
<td>32</td>
<td>2</td>
<td>50.8</td>
<td>2-1/2-12</td>
<td>225</td>
<td>240</td>
<td>305</td>
</tr>
</tbody>
</table>

The above torque figures are recommended for plain, cadmium or zinc plated fittings, dry or wet installations and swivel nuts either swagged or brazed. These torques are not recommended for tubes 12.7 mm (0.5 in) OD and thicker with wall thickness of 0.889 mm (0.035 in) or less. The torque is specified for 0.889 mm (0.035 in) wall tubes on each application individually.
Torque – Fasteners

Society of Automotive Engineers (SAE) fastener torque

Use these torques, unless special torques are specified. Values are for Unified Coarse (UNC) and Unified Fine (UNF) thread fasteners, plated or unplated, as received from supplier. Fasteners can be dry or lubricated with normal engine oil. Values do not apply if graphite, molydisulphide or other extreme pressure lubricant is used.

NOTE: Bolt head identification marks as per grade. Manufacturing marks will vary.
NOTE: Thick nuts must be used with Grade 8 bolts.

<table>
<thead>
<tr>
<th>SAE Grade No.</th>
<th>Grade No.</th>
<th>Grade Identification (See Note below.)</th>
<th>Grade 2</th>
<th>Grade 5</th>
<th>Grade 8 (See Note below.)</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>Grade 5</td>
<td>Grade 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ft-lbs</td>
<td>Nm</td>
<td>ft-lbs</td>
<td>Nm</td>
<td>ft-lbs</td>
</tr>
<tr>
<td>1/4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>5/16</td>
<td>10</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>3/8</td>
<td>20</td>
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<td>31</td>
<td>35</td>
</tr>
<tr>
<td>7/16</td>
<td>30</td>
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<td>41</td>
<td>47</td>
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<tr>
<td>1/2</td>
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<td>52</td>
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<td>88</td>
<td>102</td>
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<td>129</td>
<td>142</td>
<td>150</td>
</tr>
<tr>
<td>3/4</td>
<td>150</td>
<td>185</td>
<td>203</td>
<td>251</td>
<td>270</td>
</tr>
<tr>
<td>7/8</td>
<td>160</td>
<td>200</td>
<td>217</td>
<td>271</td>
<td>240</td>
</tr>
<tr>
<td>1</td>
<td>250</td>
<td>300</td>
<td>339</td>
<td>406</td>
<td>380</td>
</tr>
<tr>
<td>1-1/8</td>
<td>800</td>
<td>880</td>
<td>1085</td>
<td>1193</td>
<td>1280</td>
</tr>
<tr>
<td>1-1/4</td>
<td>1120</td>
<td>1240</td>
<td>1519</td>
<td>1681</td>
<td>1820</td>
</tr>
<tr>
<td>1-3/8</td>
<td>1460</td>
<td>1680</td>
<td>1980</td>
<td>2278</td>
<td>2380</td>
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<td>1-1/2</td>
<td>1940</td>
<td>2200</td>
<td>2631</td>
<td>2983</td>
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</tbody>
</table>
Metric International Standards Organization (ISO) Fastener Torque

Use these torques, unless special torques are specified. Values are for coarse thread fasteners, plated or unplated, as received from supplier. Fasteners can be dry or lubricated with normal engine oil. Values do not apply if graphite, molydisulphide or other extreme pressure lubricant is used.

NOTE: Bolt head identification marks as per grade. Manufacturing marks will vary.

<table>
<thead>
<tr>
<th>ISO Class No.</th>
<th>8.8</th>
<th>10.9</th>
<th>12.9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bolt Head Identification (See Note below.)</strong></td>
<td>![8.8]</td>
<td>![10.9]</td>
<td>![12.9]</td>
</tr>
<tr>
<td><strong>Bolt Size</strong></td>
<td><strong>ft-lbs</strong></td>
<td><strong>Nm</strong></td>
<td><strong>ft-lbs</strong></td>
</tr>
<tr>
<td>M4</td>
<td>Min. 2</td>
<td>Max. 3</td>
<td>Min. 3</td>
</tr>
<tr>
<td>M5</td>
<td>Min. 5</td>
<td>Max. 6</td>
<td>Min. 7</td>
</tr>
<tr>
<td>M6</td>
<td>Min. 8</td>
<td>Max. 9</td>
<td>Min. 11</td>
</tr>
<tr>
<td>M8</td>
<td>Min. 19</td>
<td>Max. 23</td>
<td>Min. 26</td>
</tr>
<tr>
<td>M10</td>
<td>Min. 38</td>
<td>Max. 45</td>
<td>Min. 52</td>
</tr>
<tr>
<td>M12</td>
<td>Min. 66</td>
<td>Max. 79</td>
<td>Min. 90</td>
</tr>
<tr>
<td>M14</td>
<td>Min. 106</td>
<td>Max. 127</td>
<td>Min. 144</td>
</tr>
<tr>
<td>M16</td>
<td>Min. 160</td>
<td>Max. 200</td>
<td>Min. 217</td>
</tr>
<tr>
<td>M20</td>
<td>Min. 320</td>
<td>Max. 380</td>
<td>Min. 434</td>
</tr>
<tr>
<td>M24</td>
<td>Min. 500</td>
<td>Max. 600</td>
<td>Min. 675</td>
</tr>
<tr>
<td>M30</td>
<td>Min. 920</td>
<td>Max. 1100</td>
<td>Min. 1250</td>
</tr>
<tr>
<td>M36</td>
<td>Min. 1600</td>
<td>Max. 1950</td>
<td>Min. 2175</td>
</tr>
</tbody>
</table>

Because of the low ductility of these fasteners, the torque range is to be determined individually for each application. As a general rule, the torque ranges specified for Grade 10.9 fasteners can be used satisfactorily on 12.9 fasteners.
8 - FORMS AND DECLARATIONS

Norwood follows the general Safety Standards specified by the American Society of Agricultural Engineers (ASAE), and the Occupational Safety and Health Administration (OSHA). Anyone who will be operating and/or maintaining the equipment must read and clearly understand all Safety, Operating and Maintenance information presented in this manual.

Do not operate, or allow anyone else to operate, this equipment until this document has been read. Review this information annually, before the season start-up.

Make periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment.

The following Sign-Off Form is provided for your record keeping. Use it to show that all personnel who will be working with the equipment have read and understand the provided information. Also, they have been instructed in the operation of the equipment. Copy this page to continue the record.

### SIGN - OFF FORM

<table>
<thead>
<tr>
<th>DATE</th>
<th>EMPLOYEES SIGNATURE</th>
<th>EMPLOYERS SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Warranty

Warranty Registration

Customer’s Name

________________________________________

Dealier’s Name

________________________________________

Address

________________________________________

________________________________________

________________________________________

________________________________________

City

State

Area Code

City

State

Area Code

Phone Number

Phone Number

Model

Serial Number

Check One Below:

Commercial Use _____  Farm Use _____

Dealer Inspection Report

_____ Wheel Nuts Tight  _____ Signal Lights Work Properly

_____ Tire Pressure  _____ Safety Chain Installed

_____ Fasteners Tight  _____ Review Operating & Safety Instructions

_____ All Decals Installed  _____ Operator Manual Supplied

I have thoroughly instructed the buyer on the above described equipment including a review of the Operator’s Manual content, equipment care, adjustments, safe operation and applicable warranty policy.

________________________________________________________

Date  Dealer’s Signature

I have received the above equipment and Operator’s Manual and I have been thoroughly instructed on its care, adjustments, safe operation and applicable warranty policy.

________________________________________________________

Date  Owner’s Signature
Warranty

Limited Warranty Policy

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

This warrant is only effective on new machinery, which has not been altered, changed or repaired since its delivery to the buyer.

Norwood Sales Inc. shall only be liable for defects in materials or workmanship and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with Norwood Sales Inc. operator’s manual, specifications, or printed instructions.

Written notice shall be given by registered mail, to Norwood Sales Inc. within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows: Norwood Sales Inc., 11202 38th Street South, Horace, ND 58047.

A Warranty Registration Form and Dealer Inspection Report must be completed at the time of delivery and returned to Norwood Sales Inc., 11202 38th Street South, Horace, ND 58047 within thirty (30) days.

Warranty Period

<table>
<thead>
<tr>
<th></th>
<th>Warranty Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Farm Use</td>
<td>One (1) year from date of purchase.</td>
</tr>
<tr>
<td>Commercial, Custom, or</td>
<td>Ninety (90) days from date of</td>
</tr>
<tr>
<td>Rental Use</td>
<td>purchase.</td>
</tr>
<tr>
<td>Replacement Parts</td>
<td>Ninety (90) days from date of</td>
</tr>
<tr>
<td></td>
<td>replacement</td>
</tr>
</tbody>
</table>

If these conditions are fulfilled, Norwood Sales Inc. at its option will either repair or replace any defect. The buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work, unless Norwood Sales Inc. authorizes such expenses in advance.

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

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

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

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