

MERIDIAN

SAFETY AND OPERATOR'S MANUAL



RELIABELT CONVEYOR

20-80 • 20-90 • 20-100

20-110 • 20-120

www.meridianmfg.com

DECLARATION OF CONFORMITY

We the Manufacturer:

**Meridian Manufacturing Inc.
PO Box 1996 2800 Pasqua Street North
Regina, Sk,Canada
S4P 3E1**

Declare the Conveyors listed below conform to the 2006/42/EC Machinery
Directive

RELIABELT 20-80
RELIABELT 20-90
RELIABELT 20-100
RELIABELT 20-110
RELIABELT 20-120

The Meridian Reliabelt Conveyor Series
is designed for the movement of Grains and Cereals.

INTRODUCTION

CONGRATULATIONS

Congratulations on your choice of a Reliabelt Conveyor. This conveyor has been designed and manufactured to meet the exacting standards for such equipment in the agricultural industry and will keep your seed delivery system at optimum efficiency.

Safe, efficient, and trouble-free operation of your conveyor requires that you and anyone else who will be operating or maintaining the conveyor, read and understand the Safety, Operation, Maintenance, and Troubleshooting information contained within this manual.

This manual covers the operating procedures and maintenance of the conveyor designed by Meridian Manufacturing, Inc. Use the Table of Contents as a guide to locate required information.

INTENDED USE

This Conveyor is designed to elevate grain being dumped from a vehicle or container and deposited into another conveyor or container. It is not intended to convey any other product, such as fertilizer.

OWNER/OPERATOR

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 conveyor. Follow all safety instructions exactly. Safety is everyone's business. By following recommended procedures, a safe working environment is provided for the operator, bystanders, and the area around the work site. Untrained operators are not qualified and must not operate the conveyor.

In addition to the design and configuration of the conveyor, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the conveyor. Follow all safety instructions as provided in this manual.

Keep this manual accessible for easy reference. Call your Meridian Manufacturing, Inc. dealer if you need assistance, information, or additional copies of the manuals.

The information, specifications, and illustrations in this manual are those in effect at the time of printing. We reserve the right to change specifications or design at any time without notice.

OWNERSHIP CHANGES

If any of the equipment associated with this conveyor changes ownership, then the new owner(s) must be given all applicable documentation associated with all the components/equipment of the site. The new owners need to notify the individual manufactures of the ownership changes so that updates to product or documentation can be forwarded to the new owner(s). This should be done even if the conveyor is out of warranty because many manufacturers supply update notifications as long as they have valid ownership information.

 **WARNING**

DO NOT use an entire assembly, or even a component of an assembly, for anything other than the manufacture's original intended use. Not only is the warranty voided, but the component can fail in the unintended application creating a hazard to the conveyor and the personnel using that conveyor.

END OF LIFE DISPOSAL

The Reliabelt conveyors are designed for the specific purpose of conveying grain. When this conveyor is no longer capable of doing its designed purpose, it should be dismantled and scrapped. Do not use any materials or components from this conveyor for any other purpose.

REPORTING HAZARD

If any of the equipment associated with this conveyor appears to pose a hazard, then it is the duty of the individual to report it immediately. If the hazard is the conveyor, then the manufacturer and site manager must be notified. If the hazard is a process, then the site manager must be notified. Unreported hazards can lead to serious injury or death to personnel.

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SAFETY SYMBOLS

This Safety Alert Symbol means:
ATTENTION! BECOME ALERT!
YOUR SAFETY IS INVOLVED!



The Safety Alert Symbol identifies important safety messages on the Meridian Equipment and in the manual. When you see this symbol, be alert to the possibility of personal injury or death. Follow the instructions in the safety message.

Why is SAFETY important to you?

3 Big Reasons:

Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided

SIGNAL WORDS:

Note the use of the signal words **DANGER**, **WARNING** and **CAUTION** with the safety messages. The appropriate signal word for each message has been selected using the following guidelines.

DANGER:

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING:

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION:

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have any questions not answered in the manual, require additional copies of the manual, or the manual is damaged,

please contact your dealer or Meridian Manufacturing Inc.
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SAFETY AND GENERAL SAFETY

SAFETY

YOU are responsible for the **SAFE** operation and maintenance of your Reliabelt conveyor. **YOU** must ensure that you and anyone else who is going to operate, maintain or work on the conveyor be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to good safety practices that should be adhered to while operating the conveyor.

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this conveyor is familiar with the recommended operating and maintenance procedures and follow the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Conveyor owners must give operating instructions to operators and employees before allowing them to operate the conveyor, and then annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety feature on this conveyor is a **SAFE** operator. It is the operator's responsibility to read and follow **ALL** Safety and Operating instructions in the manual. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the conveyor. An untrained operator exposes himself and bystanders to possible serious injury or death. Always be and stay alert to any possible unsafe operating or maintenance procedures or conditions.
- Do not modify the conveyor in any way. Unauthorized modification may impair the function and/or safety of the components and systems and could affect the life of the equipment, possibly invalidating the warranty coverage.
- Improper operation, lubrication, maintenance or repair of this conveyor can be dangerous and could result in injury or death.
- Think SAFETY! Work SAFELY!

GENERAL SAFETY

1. Read and understand the operator's Manual for all safety signs before operating or maintaining the conveyor.



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



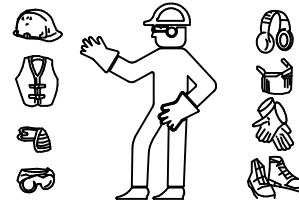
3. Have a fire extinguisher available for use should the need arise and know how to use it.



4. Do not stand or jump over conveyor.

5. When working around or operating this conveyor, wear appropriate personal protective equipment. This list includes but is not limited to:

- A Hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses or face shield
- Heavy gloves
- Protective clothing
- Respirator



6. Do not allow long hair, loose fitting clothing or jewelry around the conveyor as it can be caught in moving parts.

7. Install and secure all guards before starting the conveyor.

8. Establish a Lock-out/Tag-out policy for the work site. Be sure all personnel are trained in and follow all procedures. Lock-out/Tag-out all power sources before working around the conveyor.

9. Clear the work area of people, especially small children, before starting.

10. Review safety related items annually with all personnel who will be operating, using or maintaining the Conveyor.

EQUIPMENT SAFETY GUIDELINES

1. Safety of the operator and bystanders is one of the main concerns in designing and developing a conveyor system. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you, follow them.
2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, the conveyor should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.
3. Never use alcoholic beverages or sedative drugs while operating this conveyor. Consult your doctor about operating this conveyor while taking prescription medications.
4. Under no circumstances should young children be allowed to operate this conveyor. Do not allow persons to operate or maintain this conveyor until they have read this manual and have developed a thorough understanding of the safety precautions and how the conveyor works. Review the safety instructions with all users annually.
5. This conveyor is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible, properly trained and physically able person familiar with farm machinery and trained in this conveyor's operation. If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.
6. Never exceed the limits of the conveyor. If its ability to do a job, or to do so safely, is in question - DO NOT TRY IT.
7. Do not modify the conveyor in any way. Unauthorized modifications can result in serious injury or death and may impair the function and life of the conveyor.
8. In addition to the design and configuration of this conveyor, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation and maintenance of the conveyor system. Also refer to Safety messages and operation instructions in manuals for auxiliary equipment. Make sure all Safety Signs are affixed to the auxiliary equipment.

SAFETY TRAINING

1. Safety is a primary concern in the design and manufacture of our conveyors. Unfortunately, our efforts to provide a safe conveyor can be cancelled out by a single careless act of an operator or bystander.
2. The best safety feature is an informed, careful operator. It is the operator's responsibility to read and comply with ALL Safety and Operating instructions in the manual. Accidents can be avoided.
3. Working with an unfamiliar conveyor system can lead to injuries. Read this manual, as well as the manual for any auxiliary equipment, before assembling or operating to acquaint yourself with the equipment. If this conveyor is used by any person other than yourself, it is your responsibility to make certain that the operator reads and understands the operator's manuals and is instructed in safe and proper use.
4. Know your controls and how to immediately stop the conveyor belt and any other auxiliary equipment in an emergency. Read this manual and the one provided with all auxiliary equipment.
5. Train all new personnel and review instructions frequently with employees. Be certain only a properly trained and physically able person will operate the conveyor. A person who has not read and understood all operating and safety instructions is not qualified to operate the conveyor. An untrained operator exposes himself and bystanders to possible serious injury or death.

SAFETY SIGNS

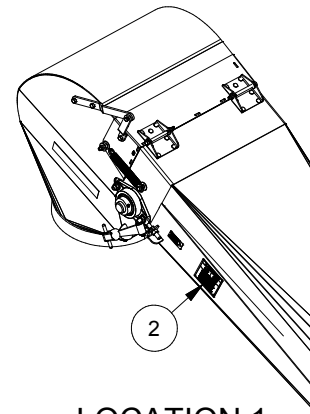
SAFETY SIGN LOCATIONS

The types of safety signs and locations on the conveyor are shown in the following pages. Good SAFETY AWARENESS requires that you familiarize yourself with the various safety signs, the type of warning and the area, or a particular function related to that area.

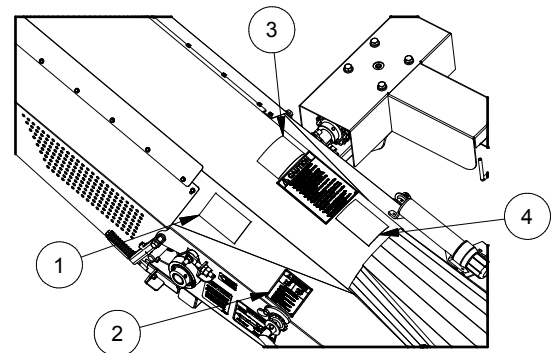
1. If safety signs have been damaged, removed, become illegible, or parts replaced without signs, new signs must be applied.
2. Replacement parts that displayed a safety sign should also display the current sign.
3. Replacement safety signs (labels) are available from your authorized Dealer Parts Department or the factory at no cost.

HOW TO INSTALL SAFETY SIGNS

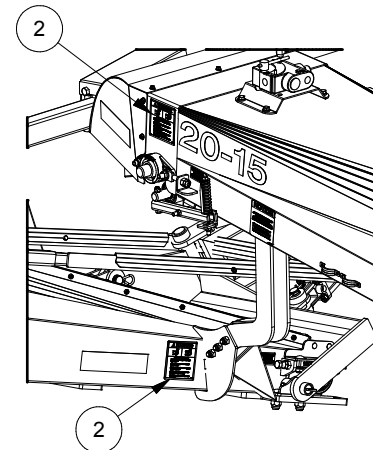
1. Be sure the installation area is clean and dry.
2. Be sure temperature is above 50°F (10°C).
3. Determine exact position before you remove the backing paper.
4. Remove the smallest portion of the split backing paper.
5. Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
6. Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
7. Small air pockets can be pierced with a pin and smoothed out using a piece of sign backing paper.



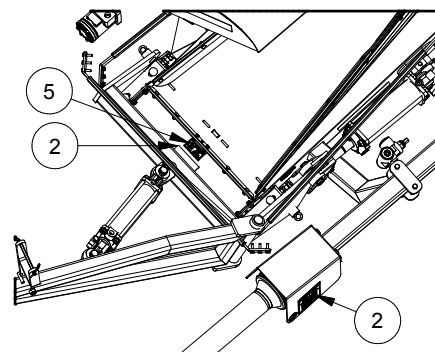
LOCATION 1



LOCATION 2

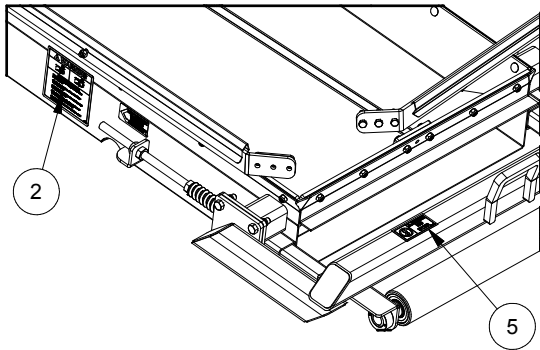


LOCATION 3



LOCATION 4

(3) WARNING - Prevent Serious Injury or Death
(PN# 13000001654-00)



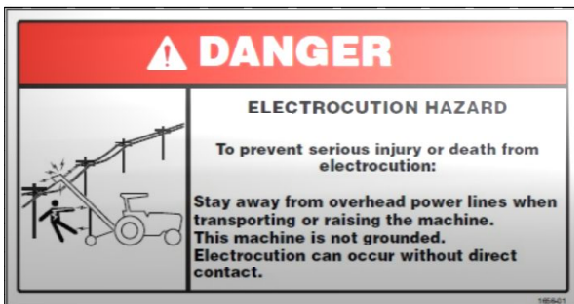
LOCATION 5



(4) DANGER - Upending Hazard
(PN# 13000001655-00)



(1) DANGER - Electrocutation Hazard
(PN# 13000001656-00)



(2) WARNING - Moving Part Hazard
(PN# 13000001658-00)



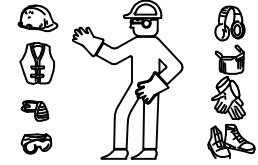
(5) WARNING - No Step
(PN# 13000006010-00)



PREPARATION

1. Never operate the Equipment and auxiliary equipment until you have read and completely understand this manual, the auxiliary equipment operator's manual, and each of the safety messages found on the safety signs on the equipment and auxiliary equipment.

2. Personal protection equipment including hard hat, safety glasses, safety shoes and gloves are recommended during assembly, installation, operation, adjustment, maintaining, repairing, removal, or moving the implement. Do not allow long hair, loose fitting clothing or jewelry to be around the equipment.



3. **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!** The motor or equipment attached can often be noisy enough to cause permanent or partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the operator's position exceeds 80db. Noise over 85db on a long-term basis can cause severe hearing loss. Noise over 90db adjacent to the operator over a long-term basis may cause permanent, total hearing loss.



NOTE: Hearing loss from loud noise (from tractors, chain saws, radios and other sources close to the ear) is cumulative over a lifetime without hope of natural recovery.

4. Clear area of debris, trash or hidden obstacles that might be hooked or snagged, causing injury, damage or tripping.
5. Operate only in daylight or good artificial light.
6. Be sure machine is properly anchored, adjusted and in good operating condition.
7. Ensure that all safety shields and safety signs are properly installed and in good condition.
8. Before starting, give the machine a look over for any loose bolts, worn parts, cracks, leaks, frayed belts and make necessary repairs. Always follow maintenance instructions.

OPERATING SAFETY

1. Make sure that anyone who will be operating the equipment or working on or around the unit read and understand all the operating, maintenance and safety information in the operator's manual.
2. Have another person nearby who can shut down the equipment in case of accident. It is good practice to always work with a second person around the equipment.
3. Do not operate with any safety shields removed.
4. Inspect the lift cable before using the equipment. Replace if frayed or damaged.
5. Ensure that equipment is empty before raising or lowering.
6. Operate equipment on level ground. Even though the equipment is connected to the tractor during operation, tipping can occur.
7. Keep hands, feet and clothing away from moving parts. Loose clothing can become entangled in rotating parts and cause serious injury.
8. Keep all bystanders, especially children, away from the equipment in use, or when authorized personnel are carrying out maintenance work.
9. Establish a Lock-out/Tag-out policy for work site. Be sure all personnel are trained in and follow all procedures. Lock-out/Tag-out all power sources before working around the equipment.
10. Review safety related items annually with all personnel who will be operating, using or maintaining the equipment.

MAINTENANCE & LOCK-OUT/TAG-OUT SAFETY

MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
2. Follow good shop practices.
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for job at hand.
3. Review safety related items annually with all personnel who will be operating, using or maintaining the equipment.
4. Use personal protection devices such as eye, hand, breathing and hearing protection, when performing any services or maintenance work.
5. A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.
6. Periodically tighten all bolts, nuts and screws to ensure the unit is in safe condition.
7. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.



LOCK-OUT/TAG-OUT SAFETY

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 equipment.
3. Provide tags at the work site and sign-up sheets to record tag out details.

REQUIRED TOOLS FOR ASSEMBLY AND MAINTENANCE



HARD HAT



WORK GLOVES



SAFETY GLASSES



WRENCHES



EAR PROTECTION



WRENCH & SOCKETS



STEEL TOE WORK BOOTS



GREASE & OIL

SAFETY ALERT SYMBOLS



This symbol is used to call your attention to instructions concerning your personal safety. Watch for this symbol - it points out important safety precautions. It means "ATTENTION - Become Alert! Your Safety Is Involved!" Read the message that follows and be alert to the possibility of personal injury or death.

MACHINE INSPECTION

- Check to see that all guards listed in the assembly instructions are in place and secured, and functional.
- 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.
- Are all fasteners tight?
- Are all chains properly adjusted? (See Maintenance Section)
- Check oil levels in gear box. (See Maintenance Section)

OPERATOR QUALIFICATIONS

Operation of this transport equipment shall be limited to competent and experienced persons. In addition, anyone who will operate or work around portable equipment must use common sense. In order to be qualified, they must know and meet all other requirements, such as:

- Some regulations specify that no one under the age of 16 may operate power machinery. This includes augers and flight type elevators. It is your responsibility to know what these regulations are in your area or situation.
- Current OSHA regulations state in part: "At the time of initial assignment and at least annually thereafter, the employer will instruct **every** employee in the safe operation and servicing of all equipment with which the employee is, or will be involved."
- Unqualified persons are to **stay out** of the work areas.
- A person who has not read and understood all the operating and safety instructions is not qualified to operate the machine.

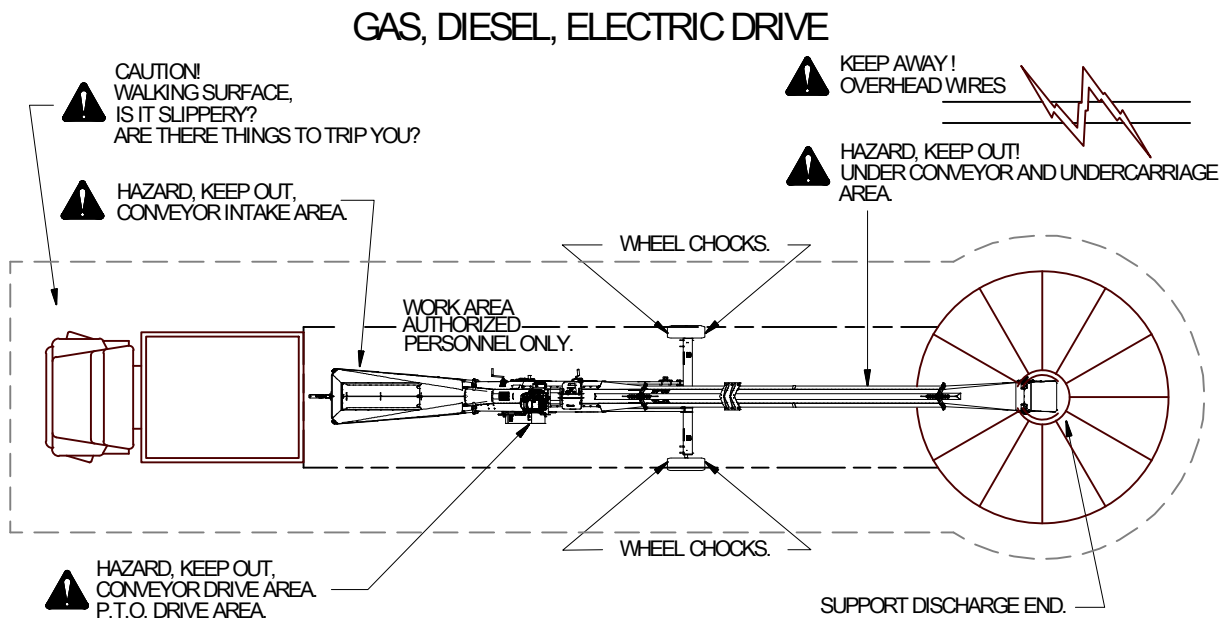
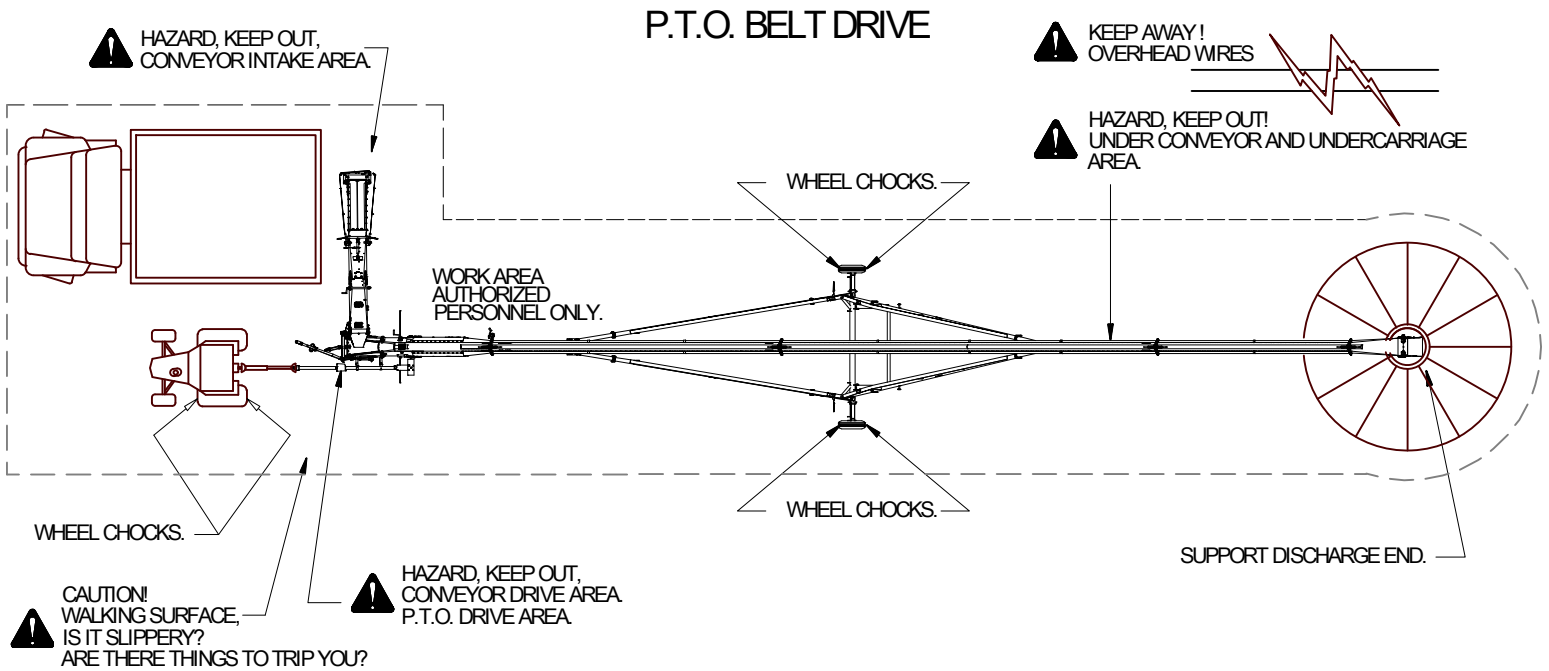
DESIGNATED WORK AREA

The following diagrams will show the designated work areas. These areas shall be marked off with coloured nylon or plastic rope hung by portable barriers to define the designated work areas.

Under no circumstance should persons not involved in the operation be allowed to trespass into the work area.

It shall be the duty of all operators to see that children and/or other persons stay out of the work area! Trespass into the area by anyone not involved in the actual operation, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

Prior to start up and during operation, it shall be the responsibility of the operators to see that the work area has secure footing, is clean and free from all debris, and tools which might cause accidental tripping and/or falling.



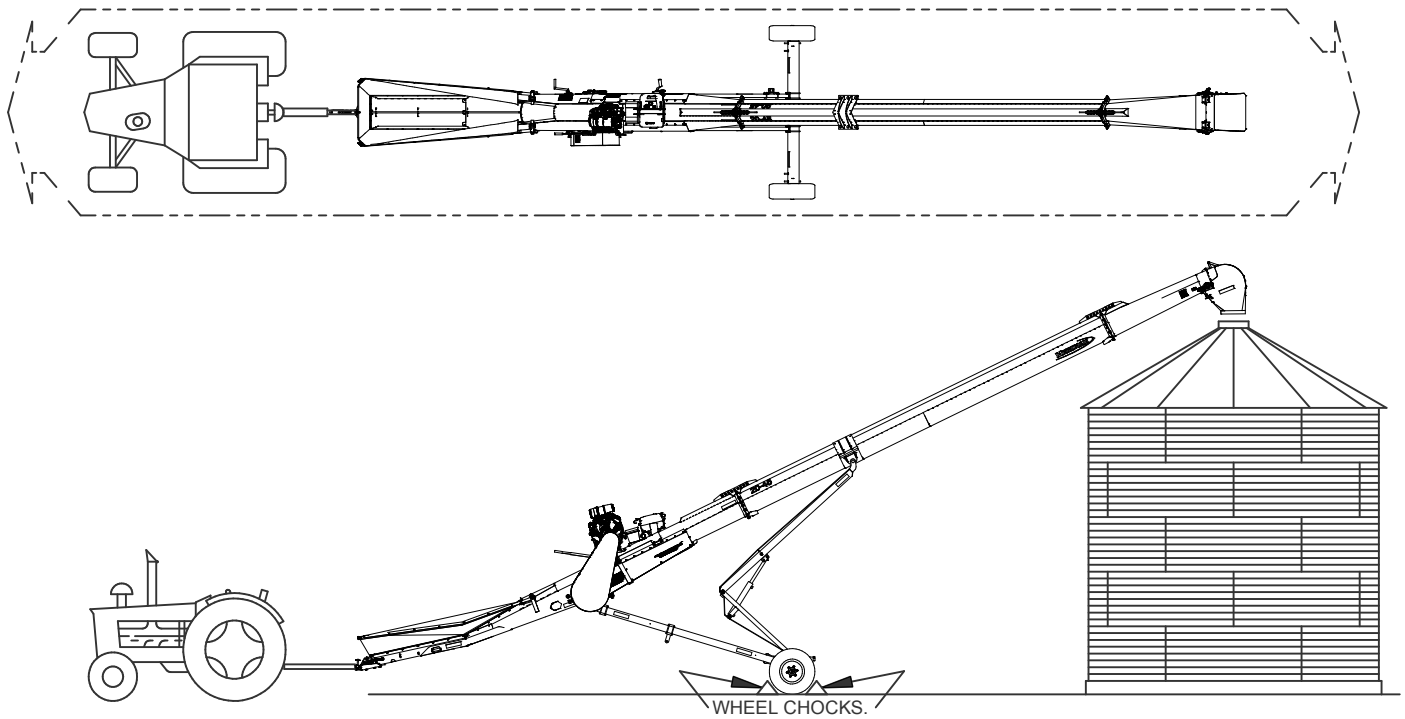
TRANSPORT AND PLACEMENT

MOVING THE CONVEYOR WITH THE TOWING VEHICLE TO OR FROM THE WORK AREA

- Always transport your conveyor in the full down position. The Tube Structure should be seated in the Main Frame cradle.
- Make sure that the hitch pin is securely attached and an alternate safety chain is secure to the conveyor and towing vehicle.
- Once the conveyor is hitched to the vehicle, ensure that the jack is swung up into the transport position
- Be alert of overhead obstructions and electrical wires. Electrocution can occur without direct contact. Failure to do so will result in severe injury or death.
- Never allow persons to stand underneath or ride on the conveyor when it is being transported.

MOVING THE CONVEYOR WITH THE TOWING VEHICLE INTO OR OUT OF ITS WORKING POSITION.

- Always move a conveyor with a vehicle, never manually.
- Lift slowly, no higher than hitch bar. Be sure grain is out of tube and conveyor is on level surface.
- Do not place lumber under wheels for increased height.
- Before raising, check for power lines.
- When conveyor is in place, anchor intake end and/or discharge end and chock wheels.
- When in transport or placement PTO shaft to be disconnected.



TOWING

GENERAL TOWING SAFETY

- Comply with local, state, and federal laws governing safety and conveyance of farm machinery on public roads.
- Ensure all lights, reflectors, and other lighting requirements are installed and in good working condition.
- Stay away from overhead power lines (minimum 10 feet). Electrocutation can occur without direct contact.
- Plan your route to avoid heavy traffic.
- Fully lower the lift frame before transporting.
- Do not drink and drive.
- Be a safe and courteous driver. Yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when operating near or crossing roadways.
- Use approved accessory lighting, flags, or other warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport.
- When towing the conveyor on the road or highway, use flashing amber warning lights and/or a slow moving vehicle (SMV) identification emblem.

MAXIMUM TOWING SPEED

- Do not exceed a towing speed of more than 20 mph (32 KPH).
- Remember, tires supplied by the manufacturer are designed to operate LESS THAN 20 mph (32 KPH). Do not exceed or tire failure may occur.
- Ensure your speed will enable an emergency stop. Keep speed to a minimum. Reduce speed prior to turns to avoid the risk of overturning. Avoid sudden uphill turns on steep slopes.

INSPECTION BEFORE TOWING

- Be sure the conveyor is securely hitched to the towing vehicle and a retainer pin or padlock is used through the hitch. Always attach a safety chain between the hitch and the towing vehicle.
- Make sure the hitch and coupling on the towing vehicle are rated equal to or greater than the unit's "gross vehicle weight rating" (GVWR).
- Check the tires for tread wear, inflation pressure, and overall condition.
- Inspect the hitch and coupling for wear or damage. DO NOT tow the conveyor using a defective hitch or coupling!
- Make sure the lug nuts holding the wheels are tight (torque to specifications) and that none are missing.
- When towing the conveyor on the highway, make sure the "Slow Moving Vehicle" placard is clearly visible.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the conveyor.

SAFETY CHAINS

- If the conveyor will be transported on a public highway, the safety chain must be attached to the tow vehicle.
- Always follow state and local regulations regarding a safety chain when towing Farm equipment on a public highway.

BYSTANDERS

- Make sure the area is clear of children, animals, and other obstacles before using/moving the conveyor! This is particularly important in areas with high noise levels, as you may not hear people shouting.
- Never allow riders on the conveyor.

CONVEYOR DRIVES AND LOCK OUT

PTO

Lock Out

PTO - Shaft

1. Never use a PTO Shaft without a rotating shield in good working order. Also see that the power drive system safety shields are in place.
2. Be certain that the PTO shaft is securely attached to the gear box and the power source.
3. Before starting power source, be certain power to PTO is off.
4. Stay out of the hazard area of an operating PTO.

1. A main power disconnect switch capable of being locked only in the Off position shall be provided. This shall be locked whenever work is being done on the conveyor.

GASOLINE / DIESEL DRIVES

Power Source

1. Never attempt to adjust or service engine while it is in operation.
2. Shut down and allow engine to cool before filling with fuel.
3. Keep all guards and shields in place.

Lock Out

1. Remove ignition key or coil wire from power source. If this is impossible, remove the PTO shaft from the work area.

Lock Out

1. For engines with ropes or crank start remove spark plug wire or spark plug.
2. For engines with electric start remove ignition key, spark plug wire or spark plug.

ELECTRIC

Power Source

1. Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Standards Electrical Code.
2. A magnetic starter should be used to protect your motor.
3. You must have a manual reset button.
4. You must disconnect power before resetting your motor.
5. Reset and motor controls must be located so the operator has full view of the entire operation.
6. Keep all guards and shields in place.

PRE-OPERATING INSTRUCTIONS

CONVEYOR BREAK-IN PERIOD

A special break-in procedure has been developed to ensure the integrity of the conveyor when first put into service. Follow the Before Starting instructions and then follow the Inspections for 1/2, 5, and 10 Hours instructions at the appropriate interval.

After completing these instructions, follow the normal service schedule in the Maintenance section.

Before Starting

1. Read and follow the instructions in the Operator's Manual.
2. Review and follow the Daily Pre-Operation Checklist below before starting the conveyor.
3. Check the wheel bolt torque as listed in the service schedule. Refer to the Wheel Bolt Torque Requirements section in this manual for tightening instructions.
4. Start the conveyor and check the controls. Be sure they function properly.

DAILY PRE-OPERATION CHECKLIST

Efficient and safe operation of the Meridian conveyor requires that each operator reads and follows the operating procedures and all related safety precautions outlined in this section.

A pre-operational checklist is provided for the operator. It is important for both personal safety and maintaining the efficient operation of the delivery system that this checklist be followed.

Before operating the delivery system and each time thereafter, the following areas should be checked:

1. Before positioning the conveyor, be sure all guards and shields are in place, securely fastened and fully operational.
2. Check and fill, if necessary, all lubricating fluids and grease all fittings.
3. Check hardware and fasteners; support frame, bolts, and all other fasteners. Tighten to their specified torque.
4. Make sure the wheel bolt lug nuts are tight.
5. Check the tires and ensure that they are inflated to their specified pressure.
6. Remove all entangled material.
7. Visually inspect the conveyor belts, conveyor belt tube, and delivery spout for damage.
8. Check the tension of the V-belt and ensure that it applies enough force to keep the belts tight.

Inspections for 1/2, 5, and 10 Hours

1. Recheck the tension and alignment of the conveyor belt.
2. Recheck hardware and fasteners; all fasteners, and wheel bolts. Tighten to their specified torque.

Caution

1. Observe work area restrictions (see work area diagram).
2. Keep all safety guards and shields in place.
3. Make certain everyone is clear before operating or moving the machine.
4. Keep hands, feet and clothing away from all moving parts
5. Lock out power sources to adjust, service or clean.

Emergency Shut-Down

1. Should the Conveyor be immediately shut down under load - disconnect and lock out the power source. Clear as much grain from the hopper and auger as you can. Never attempt to start the conveyor full.
2. Starting the Conveyor under load may result to damaging it. Such damage is considered abuse of the equipment.
3. Reconnect power source and clear grain gradually.

Normal Shut-Down

1. Make sure that the hopper and auger are empty before stopping unit.
2. Before the operator leaves the work area, the power source shall be locked out.

OPERATION

RAISING AND LOWERING THE CONVEYOR

Non-Mover Conveyor

1. Check for overhead obstructions or electrical lines before raising the conveyor.
2. Use the Tractor controls to raise or lower the conveyor (refer to your Tractor Operator's Manual).

With Mover Conveyor

1. Check for overhead obstructions or electrical lines before raising the conveyor.
2. Use the Control Valve joysticks to raise, lower or move the conveyor (see Figure 1 and 2 below).

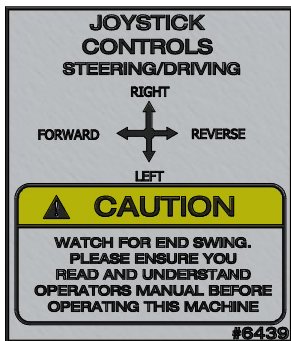


FIGURE 1

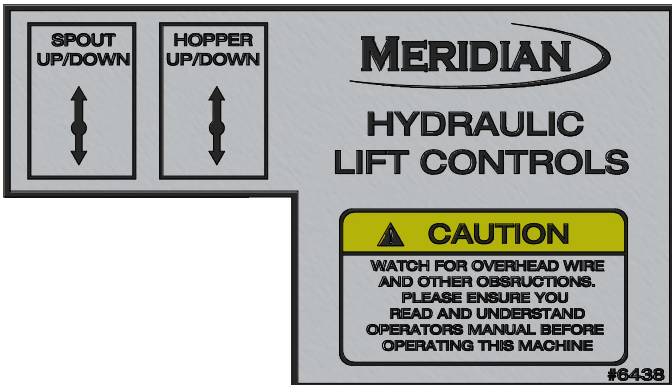


FIGURE 2

CONVEYOR BELT OPERATION

Use the supplied control switch for clutch, lights and stop the conveyor belt.

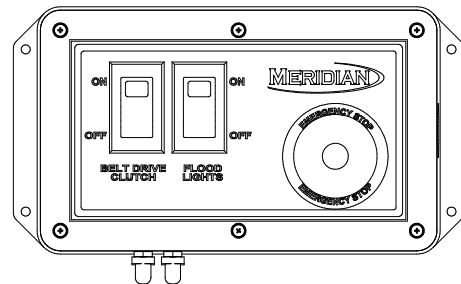


FIGURE 3

CONVEYING FERTILIZER

Fertilizer may be conveyed using the conveyor when strictly operated at a reduced capacity and additional care is taken to thoroughly clean the conveyor after operation.

Important

Fertilizer weakens the belt lacing and warranty is void on all lacing used with fertilizer. The belt lacing may need to be replaced more often if you move fertilizer.

Operating Requirements

To prevent problems that can be caused by conveying fertilizer:

1. Do not allow fertilizer to fill over the edge of the belt. This will allow fertilizer to get under the belt and start building up.
2. Reduce the flow if the conveyor belt starts to slip. Denser fertilizers will slow the conveyor belt down due to the weight of the product. Too much material will cause the drive roller to slip and lead to additional wear on the roller.
3. Do not move fertilizer with your conveyor in humid, wet or rainy conditions. This will cause buildup of fertilizer under your conveyor belt.

STORAGE

GENERAL INFORMATION

After harvesting, or when the conveyor will not be used for a period of time, completely inspect all major systems of the conveyor. Replace or repair any worn or damaged components to prevent unnecessary downtime during the next use.

PLACING IN STORAGE

1. Remove all seed from the conveyor.
2. Store the conveyor in a dry, level area.
3. Thoroughly wash the conveyor with a pressure washer or water hose to remove all dirt, mud, or debris. Inspect rotating parts for entangled material. Remove all entangled materials.
4. Check the condition of the conveyor belts and delivery spout. Replace or adjust, as required.
5. Touch up paint nicks and scratches to prevent rusting.
6. It is best to store the conveyor inside and if that is not possible, cover with a waterproof tarp and tie down securely.

REMOVING FROM STORAGE

When removing the conveyor from storage, follow this procedure:

1. Remove the tarp, if covered.
2. Review and follow the Pre-Operation Checklist.
3. Review and follow the Service Checks in the Maintenance section.

MAINTENANCE

LUBRICATION

Use the Conveyor Service Record in the Maintenance section to keep a record of all scheduled maintenance.

1. Use an SAE multi-purpose high temperature grease or a multi-purpose lithium base grease.
2. Use only a handheld grease gun for all greasing. An air-powered greasing system can damage the seals on the bearings and lead to early failures.
3. Wipe grease fitting with a clean cloth before greasing to avoid injecting dirt and grit.
4. Replace broken fittings immediately.
5. If fittings will not take grease, remove and clean thoroughly. Also, clean lubricant passageway. Replace damaged fittings.
6. Clean up any spilled fluids immediately to eliminate the slip/fall hazard.

CONVEYOR SERVICE RECORD

Date:																			
Serviced by:																			
8 hours or daily																			
Inspect Tire Inflation																			
Check Belt Tension and Alignment																			
Lubricate All Roller Bearings																			
50 Hours or Weekly																			
Check Belt Tension																			
Check Belt Tension and Alignment																			
400 hours or annually																			
Check Wheel Bolt Torque																			
Check Scissor Lift for Cracks and Damage																			
Check All Lift Linkage Pivot Pins for Damage and make sure Retaining Pins are in Place																			
Check Conveyor Belt for Damage																			
Check Conveyor Tube for Damage																			
Check All Roller Bearings for Unusual Noise While Belt Is Operating																			
Check/Grease Wheel Bearings																			
Inspect Axle Grease Seal																			
Inspect Tires for Damage																			
Check Hopper Canvas for Damage																			
Thoroughly Clean Conveyor																			

MAINTENANCE INTERVALS

* Daily (8 Hours)

1. Initially check wheel bolt torque at 10, 25, and 50 hours of operation.
2. Check conveyor belt for proper tension and tracking.

* Weekly (50 Hours)

1. Check the tension on the conveyor belt. Adjust tension as needed.
2. Check the tire pressure. Inflate the tires to the recommended pressure stated on the tire.

* Annually (400 Hours)

1. Check wheel bolt torque.
2. Repack the wheel bearings and check for excessive end play in the bearings.
3. Check frame and conveyor tube for cracks and damage.
4. Thoroughly clean the entire conveyor.

TIRES

1. Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.
2. Check tires for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.
3. Do not exceed 20 mph (32 kph) or tire failure will occur.
4. Keep wheel lug nuts tight.

Wheel Bearings

Each hub for the trailer tires has wheel bearings that are lubricated with grease. The wheel bearings should be checked and repacked annually for excessive end play.

To adjust the wheel bearings.

1. Raise the axle enough to allow the wheel and tire to freely rotate.
2. Remove the dust cap.
3. Remove the cotter pin from the castle nut and turn the castle nut clockwise until no play exists in the wheel bearings.
4. Rotate the castle nut counterclockwise until the next available slot in the nut aligns with the hole in the axle shaft.
5. Install the cotter pin, bend over the ends of the cotter pin to retain it.
6. Install the dust cap.

WELDING REPAIRS

Repair welding must be done with care and with procedures that may be beyond the capabilities of the ordinary welder. Before performing any type of welding repair to the conveyor, contact Meridian for approval.

PTO SHAFT AND ATTACHMENT

PTO shaft and attachment should be greased once a day with good quality grease.

REPLACING DRIVE BELTS

To replace the belts, remove the Guard and loosen the Belt Tensioner. Replace the belts with new ones, and tighten it using the Belt Tensioner.

Note: These belts must be replaced as a matched set or the service life of the belts will be dramatically reduced.

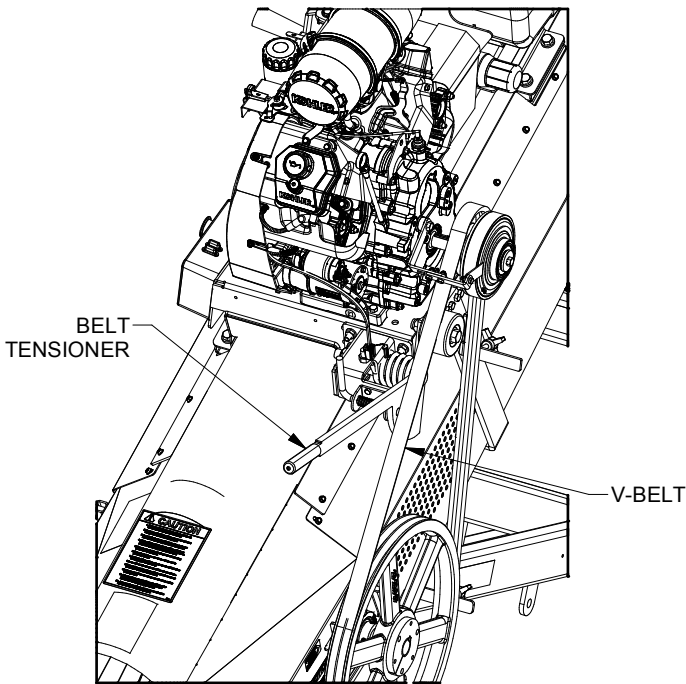


FIGURE 4

NOTE: GUARD NOT SHOWN FOR CLARITY

CONVEYOR BELT REPLACEMENT

1. Chock the wheels to ensure they will not roll.

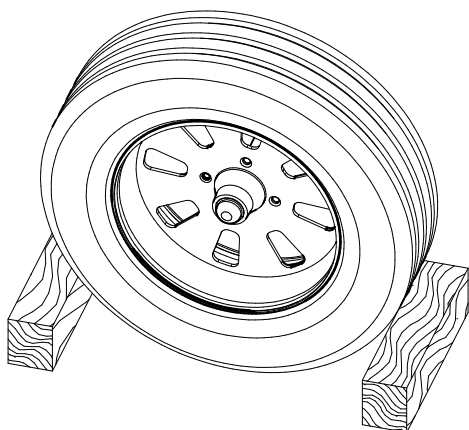


FIGURE 5

2. Open lower access cover (1) by removing fasteners (2) on both sides.

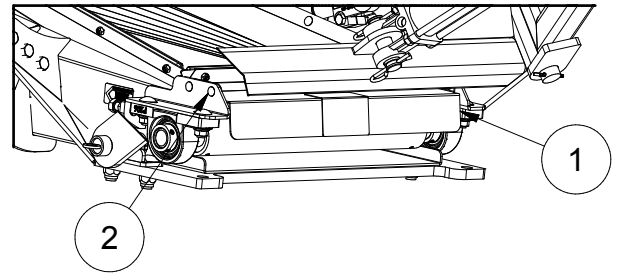


FIGURE 6

3. It may not be necessary to remove the upper discharge housing to replace the worn conveyor belt.

4. If the old belt is in place, attach the new belt to the old one at the splice. Pull the new conveyor belt into place using the old belt.

5. If the old belt is no longer inside the conveyor tube, follow the steps below.

a. Attach one end of the conveyor belt to 1/4 cable or rope to the loops of the belt connector. Insert the Belt in the Intake and pull it into the tube structure with the cable or rope until it comes out from the Discharge.

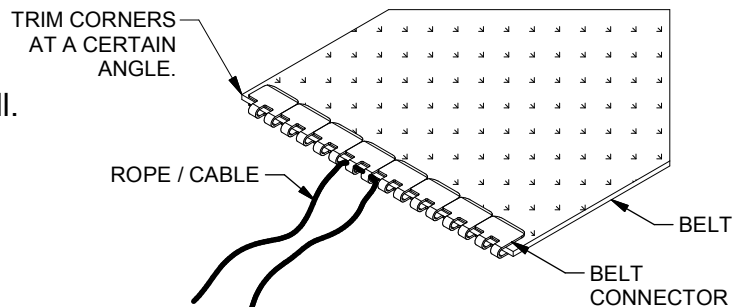


FIGURE 7

b. Feed the belt back through the tube structure.

- c. Remove the middle guards of the intake. Loop the conveyor belt to the Rollers as per the directions shown below.

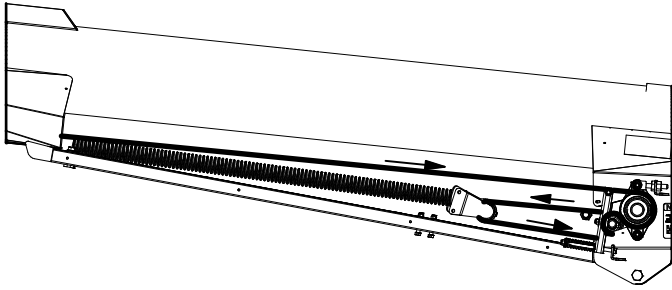


FIGURE 8

NOTE: GUARDS NOT SHOWN FOR CLARITY

- d. Pull the belt with the cable or rope until it comes out from the Intake.
- e. Join the two ends together using the belt connectors. Then re-place all guards and covers afterwards.

the belt return side with the electric motor not running. Turn on the conveyor to expose the belt that was previously in the tube. Turn off the conveyor and inspect the belt on the belt return, along with the lacing.

- 3. Shutdown and lockout power to the conveyor and vacuum or sweep out any remaining products from the hopper.
- 4. Remove the S-drive bottom cover and remove any buildup from this area and clean cover. Replace the cover when complete.
- 5. If buildup is evident on or under the belt, remove the buildup to ensure proper operation of the conveyor. When necessary remove product buildup from under the belt by scraping and washing the belt.

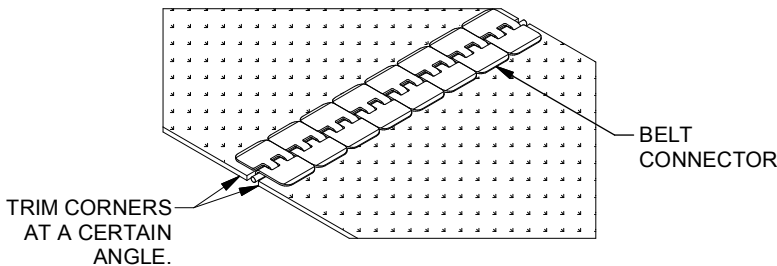


FIGURE 9

CLEAN-OUT PROCEDURES

Proper cleaning will help to ensure longer belt life and prevent excess rust formation.

- 1. Run conveyor empty at full speed for 5-10 minutes after using it. This will help ensure that any product that may be under the belt will be cleaned out and prevent build up. Do not attempt to manually remove build-up while conveyor is running.
- 2. Next, run the belt at low idle and inspect for damage on the belt and lacing, such as notches or cut outs caused by mice and normal wear. Any damage on the belt may result in getting the products under the belt creating a buildup. Consider replacing the conveyor belt if it is in poor condition. If equipped with an electric motor, inspect on

LIMITED WARRANTY STATEMENT

1. Meridian Manufacturing Inc warrants each new Meridian Manufacturing Inc product (the "Goods") to be free from defects in material and workmanship under normal use and service for a period of one (1) year or ninety (90) days in the case of commercial use, from the shipment date from the Meridian dealer (FCA).
2. Meridian warrants replacement parts and components either manufactured or sold by, will be free from defects in materials or workmanship under normal use and service for thirty (30) days from the shipment date from the Meridian dealer (FCA), or the remainder of the original warranty period on the Goods, whichever is longer.
3. This warranty does not apply to:
 - a) to any merchandise or components thereof, which in the sole and unfettered opinion of Meridian, have been subject to misuse, unauthorized modifications, alteration, accident, negligence, product abuse or lack of required maintenance.
 - b) if repairs have been made with parts or by persons other than those parts or persons approved by Meridian.
 - c) to parts and accessories not manufactured by Meridian including, but not limited to, engines, batteries, tires, belts, PTO shafts or other trade accessories. Such parts shall be covered by the warranty given by the actual manufacturer, if any.
 - d) to failure of parts; or failure of parts to perform due to wear under normal or excessive service conditions; or to failure due to use by the Purchaser for purposes other than originally intended at time of manufacture, including without limitation using the Goods for mixing fertilizer, canola, etc.; or used in excess of the built specifications.
 - e) to Goods used in areas exposed to corrosive or aggressive conditions including, but not limited to, salt water from either inside or outside the Goods.
 - f) to failures or defects arising out of damage during shipment or during storage.
 - g) to materials replaced or repaired under this warranty, except to the extent of the remainder of the applicable warranty.
4. The obligation of Meridian under this warranty shall not arise unless Meridian is notified and this warranty is presented together with a written statement specifying the claim or defect within thirty (30) days after the failure is first detected or made known to the Purchaser and within: (i) one (1) year, or ninety (90) days in the case of commercial use; or (ii) thirty (30) days in the case of replacement parts and components manufactured by Meridian; from the shipment date from the Meridian dealer (FCA). Meridian in its sole and unfettered discretion shall determine if the claim is valid and whether correction of the defect or failure shall be made by repair or replacement of the materials.
5. Title to any replaced materials Meridian wishes to have pass to it, shall pass to Meridian.
6. The obligation of Meridian hereunder extends only to the original Purchaser or Buyer to whom the Goods were initially sold. This warranty shall not be subject to any assignment or transfer without the written consent of Meridian.
7. The purchaser acknowledges that it has made its own independent decision to approve the use of the Goods and also the specific fabrication and construction procedures utilized to complete the Goods, and has satisfied itself as to the suitability of these products for its use.

8. This warranty is subject to the following limitations, provisions and conditions:
- a) Meridian shall have no liability hereunder for any claims, including field re-work.
 - b) Meridian shall not be liable for any incidental loss or damage, however caused, including, without limitation, normal wear and tear.
 - c) Meridian makes no express or implied warranties of any nature whatsoever except for such express warranties as set out herein. The warranty provided herein is in lieu of and excludes all other warranties, guarantees or conditions pertaining to the Goods, written or oral, statutory, express or implied, (except the warranty as to title) including any warranty as to the merchantability or fitness for any particular purpose. Meridian expressly disclaims all other representations, conditions or warranties, expressed or implied, statutory or otherwise and any representations, warranties or conditions that may arise from a course of dealing or usage of trade. The warranty provided herein shall constitute Meridian's sole obligation and liability and the Purchaser's sole remedy for breach of warranty. No other warranty has been made by any employee, agent, or representative of Meridian and any statements contained in any other printed material of Meridian is expressly excluded herefrom. Meridian shall not be responsible for any warranty offered by the Purchaser to its customers with respect to the Goods and the Purchaser shall indemnify Meridian with respect to same if any of those customers makes a claim against Meridian relating to any such warranty.
 - d) Subject to Meridian's obligations contained in paragraphs 1 and 2 herein, none of Meridian, its officers, directors, servants or agents shall be liable, or responsible for any loss or damage (including strict liability and liability for loss or damage due to items which the manufacturing processes are designed to identify) whether such loss or damage is caused by negligence in any manner whatsoever (including gross negligence, error, misrepresentation, misstatement, imprudence, lack of skill or lack of judgement).
9. The sole financial obligation of Meridian under this warranty shall be limited to the repair or replacement of the Goods as originally supplied and in no event shall they exceed the original cost of the Goods supplied.
10. Meridian shall not have any obligation under any warranty herein until all accounts have been paid in full by the Purchaser.
11. The construction and interpretation of this Warranty shall be governed by the laws of the Province of Saskatchewan.

Warranty Claim Procedure

- 1. Purchaser must register the Goods with Meridian.
- 2. Purchaser must contact the dealer where the unit was purchased from upon discovery of any defects.
- 3. A completed warranty claim form must be submitted by the dealer to Meridian's warranty representative for review and any subsequent course of action.
- 4. Warranty repair work will only be performed by Meridian or an approved representative of Meridian. No warranty work completed prior to approval by Meridian will be honored. Failure to follow procedure may affect any or all of this warranty.
- 5. Claims will be adjudicated at the sole discretion of Meridian and in accordance with the terms and conditions of the limited warranty.

MERIDIAN MANUFACTURING INC.

With over 65 years of experience,
Meridian is your storage and handling expert.



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