

CONVEY-ALL[®]

TCP-1620 - TCP-1645

PADDLE BELT CONVEYOR



OPERATOR'S MANUAL

SIGN-OFF FORM

Meridian Manufacturing Inc. 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 tube conveyor 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 such information has been reviewed. Annually review this information before the season start-up.

Make these periodic reviews of SAFETY and OPERATION a standard practice for all of your equipment. We feel that an untrained operator is unqualified to operate this machine.

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

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**PRODUCT REGISTRATION FORM
and INSPECTION REPORT**

CONVEY-ALL®

The Dealer must fill out this form, and be signed by both the Dealer and Buyer at the time of delivery. Scan or photograph the completed form (must be legible), and email it to: register@convey-all.com
A copy of this form may also be mailed to: Box 760, 275 Hespler Ave, Winkler Manitoba R6W 4A8.

Buyer's Name _____	Dealer's Name _____
Address _____	Address _____
City _____	City _____
Province/State _____	Province/State _____
Postal/Zip Code _____	Postal/Zip Code _____
Country _____	Country _____
Phone Number _____	Phone Number _____
Model Number _____	Serial Number _____
Delivery Date _____	General Purpose: <input type="checkbox"/> Private <input type="checkbox"/> Commercial

UNIT INSPECTION

- ☐ All Fasteners Tight
- ☐ Machine and All Bearings Lubricated
- ☐ Conveyor Belt Aligned and Tensioned
- ☐ Conveyor Belt Moves Freely
- ☐ Conveyor Tube Raises and Lowers Smoothly
- ☐ Tire Pressure Checked

SAFETY INSPECTION

- ☐ All Guards/Shields Installed and Secured
- ☐ All Safety Decals Clear and Legible
- ☐ Reflectors, Slow Moving Vehicle Sign are Clean
- ☐ All Lights are Clean and Working
- ☐ Safety Chain on Hitch
- ☐ Reviewed Operating and Safety Instructions

I have thoroughly instructed the buyer on the above described equipment. The review included the content of the Operator's Manual, equipment care, adjustments, safe operation and warranty policy.

Date _____ Dealer's Signature _____

The above equipment and Operator's Manual have been received by me. I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date _____ Buyer's Signature _____

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Section 1: INTRODUCTION

Thank you for choosing a Convey-All® Tube Conveyor with Paddle Belt (TCP).

Convey-All® products are built by Meridian Manufacturing Inc. The equipment we design and manufacture meet the exacting standards of the agriculture industry.

Keep this manual handy for future reference. Call your dealer or distributor if you need assistance, information, additional/replacement copies, or a digital version of this document.

Information provided herein is of a descriptive nature. Meridian Manufacturing Inc. reserves the right to modify the machinery design and specifications without any preliminary notice.

Performance quality may depend on the material being handled, weather conditions and other factors.

1.1 OPERATOR ORIENTATION

The directions left, right, front and rear, as mentioned throughout this manual, are as seen from the tow vehicle drivers' seat and facing the direction of travel. The hopper is the front of the conveyor.

1.2 SERIAL NUMBER LOCATION

Always give your dealer the serial number when ordering parts, requesting service or asking for other information. The conveyor's serial number is located at the hopper.

Use the space provided for easy reference:

Conveyor Model No: _____

Conveyor Serial No: _____

Motor Model No: _____

Motor Serial No: _____



Fig 1 - Serial number location

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Section 2: SAFETY

3 Big Reasons why safety is important to you:

- Accidents Disable and Kill
- Accidents Cost
- Accidents Can Be Avoided

The Safety Alert Symbol means:

**ATTENTION!
BECOME ALERT!
YOUR SAFETY IS INVOLVED!**

The Safety Alert Symbol identifies important safety messages on the conveyor and in this manual.

The following signal words are used in this manual to express the degree of hazard for areas of personal safety.

When you see the symbol and/or the signal words described below, obey the accompanying message to avoid possible injury or death.



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



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



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



Indicates practices or situations which may result in the malfunction of, or damage to equipment.



Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

2.1 SAFETY ORIENTATION

YOU are responsible for the SAFE operation and maintenance of your Convey-All® Paddle Belt Conveyor. Be sure that everyone who will operate, maintain or work around it, is familiar with the safety, operating and maintenance procedures.


This manual will take you step-by-step through your working day. It will alert you to all the safe 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 regular part of your safety program. Be certain that everyone who will work with this equipment follows these procedures.


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 machine.
 - Procedures must be reviewed annually thereafter, as per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
 - The operator must be responsible, properly trained and physically able. They should be familiar with farm machinery in general.
- Think SAFETY! Work SAFELY!

2.2 GENERAL SAFETY

- Read and understand the Operator's Manual and all safety decals before operating, maintaining, adjusting or unplugging the conveyor. 

- Only trained, competent persons shall operate the conveyor. An untrained person is not qualified to operate the machine.

- Have a first-aid kit available for use should the need arise. 

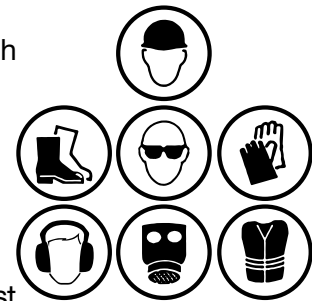
- Provide a fire extinguisher for use in case of an accident. Store in a highly visible place. 

- Do not allow riders.

- Do not allow children, spectators or bystanders within hazard area around the machine.

- Wear personal protective equipment (PPE). This list may include but is not limited to:

- Hard hat
- Protective shoes with slip resistant soles
- Eye protection
- Work gloves
- Hearing protection
- Respirator or filter mask
- Hi-Visibility safety vest



- Never use alcoholic beverages or drugs which can hinder alertness or coordination while operating this equipment.
 - Consult your doctor about operating this machine while taking prescription medications.

- If the elderly are assisting with farm work, their physical limitations need to be recognized and accommodated.

- Review safety related items annually with all personnel who will be operating or maintaining the conveyor.

2.3 EQUIPMENT SAFETY GUIDELINES

Safety of the operator and bystanders is one of the main concerns when designing and developing this conveyor. 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.

- In order to provide a better view, certain images in this manual may show an assembly with safety guards removed.
 - Equipment should never be operated in this condition. All guards must be in place. If removal becomes necessary for repairs, replace the guard prior to use.
- This equipment is dangerous to children and persons unfamiliar with its operation.
- Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - DO NOT TRY IT.
- Do not modify the equipment in any way. Unauthorized modification result in serious injury or death and may impair the function and life of the equipment.
- The design and configuration of this conveyor includes safety decals and equipment. They need to be clean, readable and in good condition.



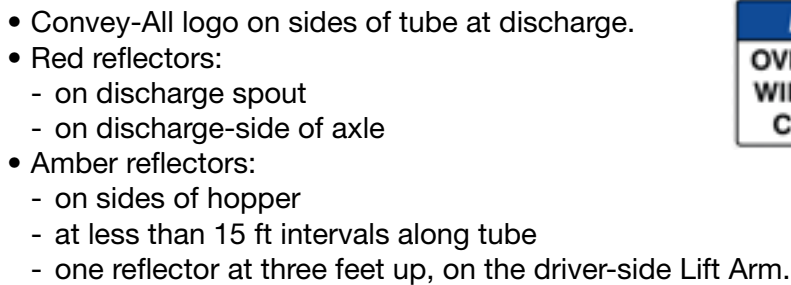
2.4 SAFETY DECALS

- Keep safety decals clean and legible at all times.
- Replace safety decals that are missing or have become illegible.
- Replaced parts must display the same decal(s) as the original parts.
- All safety decals have a part number in the lower right hand corner. Use this part number when ordering replacements.
- Safety decals are available from your authorized distributor, dealer's parts department or from Meridian Manufacturing Inc.

2.4.1 Applying Decals:

1. Be sure the application area is clean and dry. Ensure the surrounding temperature is above 10°C (50°F).
 - a. Remove all dirt, grease, wax from surface.
 - b. Clean the area with a non-ammonia based cleaner.
 - c. Wipe the clean surface with isopropyl alcohol on paper towel, and allow to dry.
2. Determine the exact position before you remove the backing paper.
3. Peel a small portion of the split backing paper.
4. Align the decal over the specified area. Use a squeegee to carefully press the small portion, with the exposed adhesive backing, into place.
5. Slowly peel back the remaining paper and carefully smooth the rest of the decal into place.
6. Small air pockets can be pierced with a pin and smoothed out using the squeegee, or a piece of sign backing paper.

The following illustration shows the general location of decals on this conveyor. The position of decals may vary depending on the machine's options. Decals are not shown at actual size.



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2.6 WORK PREPARATION

- Never operate the conveyor until you have read this manual, and understand the information.
- Be familiar with the safety messages found on the decals around this unit.

- Personal protective equipment (PPE) include:
 - Hard hat
 - Eye protection
 - Protective shoes
 - Work gloves



They are recommended during installation, placement, operation, maintenance and removal of the equipment.

- Do not allow long hair, loose fitting clothing or jewelry to be around equipment.
- **PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!**

Agricultural equipment can often be noisy enough to cause permanent, partial hearing loss. We recommend that you wear hearing protection on a full-time basis if the noise in the Operator's position exceeds 80 db.



Noise over 85 db on a long-term basis can cause severe hearing loss.

Noise over 90 db adjacent to the operator over a long-term basis may cause permanent, total hearing loss.

Note:

Hearing loss from loud noise (tractors, chain saws, radios, etc.) is cumulative over a lifetime without hope of natural recovery.

- Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.
- Operate only in daylight or good artificial light.
- Be sure machine is in a stable position, is adjusted and in good operating condition.
- Ensure that all safety guards and safety decals are properly installed and in good condition.
- Before starting, inspect the unit for any loose bolts, worn parts, cracks, leaks or frayed belts. Make the necessary repairs.
 - Always follow the maintenance instructions.

2.7 PLACEMENT SAFETY

- Stay away from overhead power lines when operating or moving the conveyor. Electrocution can occur without direct contact.



- Keep conveyor as low as possible.
- Chock conveyor wheels before operating.
- Position conveyor providing enough space for trucks to load or unload.
- Operate conveyor on level ground, free of debris.

2.8 LOCK-OUT TAG-OUT SAFETY

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

2.9 MAINTENANCE SAFETY

- Review Section 4: Service and Maintenance, before maintaining or operating the conveyor.
- 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.
- Place all controls in neutral or off. Stop motor. Wait for all moving parts to stop before servicing, adjusting, repairing.
- Keep hands, feet, hair, and clothing away from all moving/rotating parts.
- Replace parts with genuine factory replacements parts to restore your equipment to original specifications.
 - Meridian Manufacturing Inc. will not be responsible for injuries or damages caused by using unapproved parts and/or accessories.
- Clear the area of bystanders, especially children, when carrying out any maintenance, repairs or making adjustments.
- Place stands or blocks under the frame before working beneath the machine.
- Before resuming work, install and secure all guards when maintenance work is completed.
- Replace damaged or not clearly visible decals.



2.10 ELECTRICAL SAFETY

- Have only a qualified electrician supply power. All wiring should comply with the ANSI/NFPA 70 electrical requirements.
- Make certain that the conveyor motor is properly grounded at the power source.
- Be sure all electrical switches are in the OFF position before plugging in the conveyor.
- Turn machine OFF, shut down and lock out power supply. Wait for all moving parts to stop before assembling, servicing, adjusting, maintaining or repairing.
- Disconnect power before resetting any motor.
- Replace any damaged electrical plugs, cords, switches and components immediately.
- Do not work on the conveyor's electrical system unless the power cord is unplugged or the power supply is locked out.



2.11 TIRE SAFETY

- Failure to follow procedure when mounting a tire on a wheel or rim can produce an explosion and may result in serious injury or death.
- Do not attempt to mount a tire unless you have proper equipment and trained to do the job.
- Have a qualified tire dealer or repair service perform required tire maintenance.
- When replacing worn tires, make sure they meet the original tire specifications.
- Reference the tire side wall for information on the maximum cold tire pressure (PSI). Keep the tires inflated to this setting.



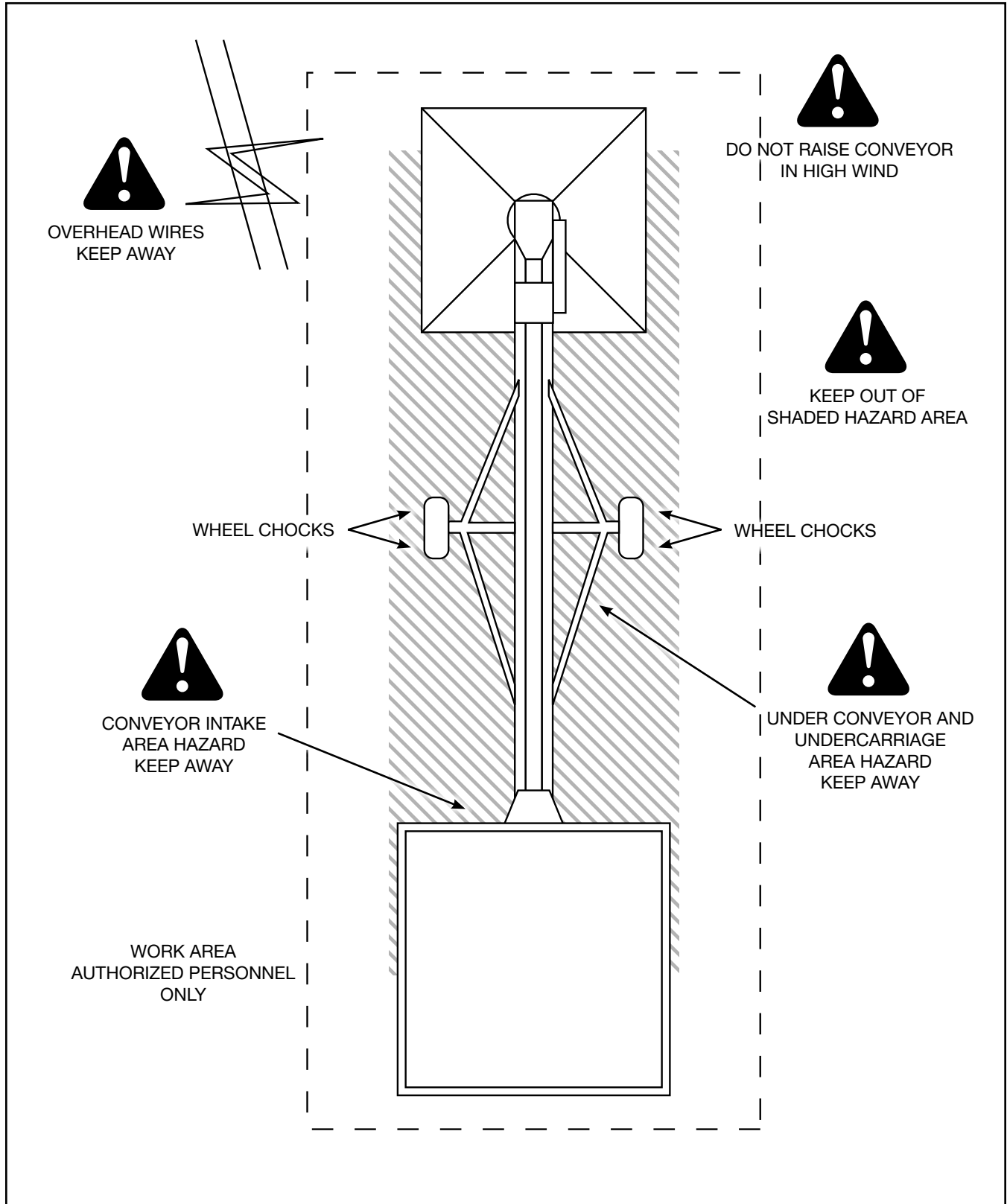
2.12 WORKPLACE HAZARD AREA

Fig 3 - Workplace hazard area

2.13 OPERATING SAFETY

- Anyone who will be operating this conveyor, or working around it, must read this manual. They must know operating, maintenance, safety info.



- Review the manual annually.
- Clean or replace all safety decals if they cannot be clearly read and understood.
- Place all controls in neutral, and stop the electric motor. Unplug power supply and wait for all moving parts to stop before adjusting, repairing or unplugging.
- Keep all bystanders, especially children, away from the machine when running.
 - Also, when authorized personnel are carrying out maintenance work.
- 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 servicing the unit.
- Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
- Keep hands, feet, hair and clothing away from all moving/rotating parts.



- Do not allow riders on the conveyor when moving or transporting it.

- Keep working area clean and free of debris to prevent slipping or tripping.





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



- Do not operate the conveyor when any guards are removed.
- Chock wheels of conveyor before starting.
- Be sure that conveyor tube is empty before raising or lowering.
- High winds may overturn conveyor. To avoid damage to structures and equipment, do not raise conveyor fully in windy conditions.
 - Do not leave the conveyor raised, when it is not in use.

2.14 TRANSPORT SAFETY

- The conveyor belt must be empty before raising or lowering the tube.
- Always transport conveyor in collapsed position.
- Ensure all lights, reflectors and other lighting requirements are installed and in good condition. 
- Never allow riders on the conveyor.
- Comply with all local laws governing safety and transporting of equipment on public roads.
- Do not exceed a safe travel speed. Slow down for rough terrain and when cornering.
- Stay away from overhead power lines. Electrocution can occur without direct contact. 
- Plan your route to avoid heavy traffic.
- Do not drink and drive.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Watch for traffic when driving near or crossing roadways.

2.15 STORAGE SAFETY

- Store the conveyor on a firm, level surface.
- Store in an area away from human activity.
- If required, make sure the unit is solidly blocked up.
- Make certain all mechanical locks are safely and positively connected before storing.
- Do not permit children to play on or around the stored machinery.

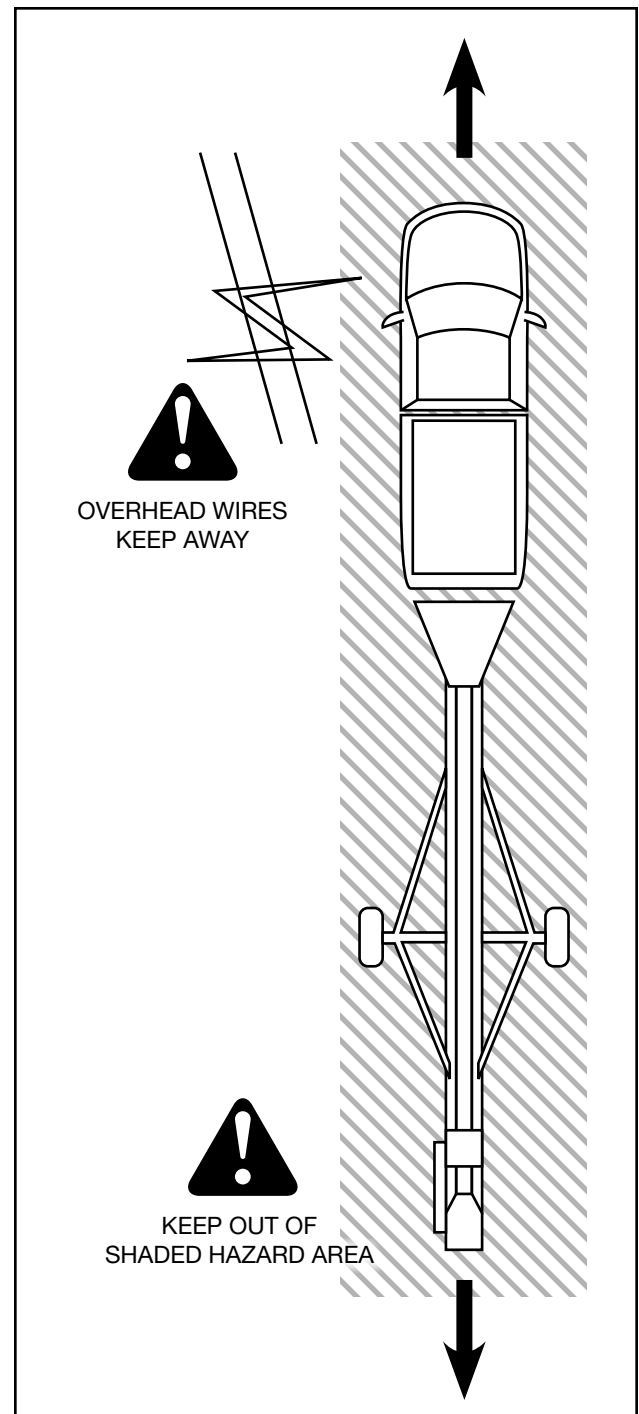


Fig 4 - Transporting hazard area

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Section 3: OPERATION

WARNING

- Read and understand the Operator's Manual, and all safety decals, before using.
- Stop the motor, unplug, place all controls in neutral and wait for all moving parts to stop before servicing, adjusting, repairing.
- Clear the area of bystanders, especially children, before starting.
- Keep working area clean and free of debris to prevent slipping or tripping.
- Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
- Do not allow riders on the conveyor when transporting it.
- Stay away from overhead obstructions and power lines. Electrocution can occur without direct contact.
- Do not operate conveyor with guards removed.
- Chock wheels of conveyor before starting.
- Be familiar with machine hazard areas. If anyone enters, shut down machine immediately. Clear area before restarting.
- 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 servicing.

The Convey-All® Paddle Belt Conveyor's has many features incorporated into it as a result of suggestions made by customers like you.

Hazard controls and accident prevention are dependent upon the personnel operating and maintaining it. Their awareness, concern, prudence and proper training are crucial.

It is the responsibility of the owner and operators to read this manual and to train all personnel before they start working with the machine. By following recommended procedure, a safe working environment is provided for the operator, co-workers and bystanders in the area around the work site.

By following the operating instructions, in conjunction with a good maintenance program, your conveyor will provide many years of trouble free service.

3.1 MACHINE COMPONENTS

The main components are listed below:

- a. Main Tube with Belt Housing Guard
- b. Intake Hopper
- c. Conveyor Belt Adjustment Bolts and Tension Springs
- d. Discharge Spout
- e. Undercarriage or Stationary Support Stand
- f. Conveyor Tube Lift Winch
- g. Electric Switch Mount Plate
- h. Top Slide Bracket
- i. Electric Motor Mount
- j. Drive Belt Guard
- k. Document Holder



Fig 5 - Components of conveyor

3.2 COMPONENTS AND CONTROLS

Before starting to work, all operators must familiarize themselves with the location and function of the components and controls of their specific unit.

Options and locations may change without notice.

Electric Motor:

All conveyors with electric power option rely on the dealer and customer to select the motor with the appropriate horsepower. Hire a licensed electrician to connect the power.

- A variety of switches can be used.
- Beside the winch, is a plate where the electric switch can be mounted.

Table 1 - Power Requirements

MODEL	ELECTRIC HP
1620	420 fpm
1625	420 fpm
1630	420 fpm
1635	420 fpm
1640	450 fpm
1645	450 fpm

Discharge Spout:

The discharge spout is designed with six settings to position the spout in the preferred position. Product can be directed further out or straight down.

Remove the spout to throw the product as far as possible. This configuration works well when making piles or working inside buildings.

Conveyor Tube Lift Winch:

A manual winch and Top Slide Bracket are used to raise and lower the tube.



Fig 6 - Electric motor with direct drive



Fig 7 - Speed reducer with counter shaft



Fig 8 - Discharge Spout



Fig 9 - Winch

Paddle Belt with Alligator® Lacing:

The 16 inch rubber paddle belt is fastened using Alligator® Lacing.

Undercarriage or Stationary Support Stand:

The conveyor may include an undercarriage with wheels, or it can be permanently installed on site using a support stand.

Metal Hopper:

The metal hopper is standard for the paddle belt conveyors.

• **Hopper Lid (Optional):**

A lid is available, to cover and protect the belt when not in use.

Collapsible Canvas Hopper (Optional):

A collapsible, canvas hopper is available. It is designed with a spring loaded frame.

Adjustment Bolts:

The adjustment bolts on both sides of the tail roller, at the hopper, are used to tension and correct the tracking of the belt.

Hopper End Belt Guard:

The belt guard can be removed for full access to clean out the hopper.

Hitch:

The hitch is designed to be adjustable. It can pivot to the preferred height.



Fig 10 - Metal hopper with lid



Fig 11 - Optional collapsible hopper



Fig 12 - Adjustment bolts



Fig 13 - Adjustable hitch. Belt guard is shown removed

3.3 MACHINE BREAK-IN

There is no operational restrictions on the conveyor when used for the first time.

The conveyor belt alignment is set at the factory, to track correctly without carrying a load.

Before Starting Work:

1. Read the conveyor's manual.
2. Run the unit for half an hour to seat the conveyor belt and hopper flashing.

After Operating for 1/2 hour:

3. Re-torque all the wheel bolts.
4. Check the drive and conveyor belt tension and alignment. Adjust as required.
5. During the conveyors first few minutes of operation, check belt alignment to ensure preset alignment and tension does not vary under loaded conditions.
6. Check that all guards are installed and working as intended.

After Operating For 5 Hours and 10 Hours:

Repeat steps 1 through 6 above.

Service and maintain the conveyor as defined in Section 4: Service and Maintenance.

3.4 PRE-OPERATION CHECKLIST

Efficient and safe operation of the conveyor requires that each operator knows the operating procedures.

It is important for both the personal safety and maintaining the good mechanical condition of the machine that this checklist is followed.

Before operating the conveyor, and each time thereafter, the following areas should be checked.

1. Check work site. Clean up working area to prevent slipping or tripping.
2. Lubricate and service the machine as per the schedule outlined in the Section 4.2.
3. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
4. Check the drive and conveyor belt tension and alignment. Adjust as required.
 - Ensure it is not frayed or damaged.
5. Be sure conveyor wheels are chocked.
6. Check that discharge and intake areas are free of obstructions.

NOTICE

UPENDING HAZARD

Anchor or support conveyor during operation. When lower half empties of material, the weight balance transfers to the discharge end of the machine, which can cause upending.

3.5 ATTACHING TO TOW VEHICLE

⚠ WARNING

ELECTROCUTION HAZARD

Ensure enough clearance from overhead obstructions, power lines, other equipment.

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. Align the vehicle hitch with the drawbar of the conveyor while backing up.
4. Set the park brake before dismounting.
5. The drawbar is removable. Install it and secure with the anchor pin and retainer before using it.
6. The hitch receptacle is adjustable to the preferred height and angle.



Fig 14 - Hitch and drawbar

NOTICE

UPENDING HAZARD

The machine is closely balanced. Do not lift unless there is downward weight on the hopper end to prevent upending.

7. Connect the conveyor to the tow vehicle.
8. Tow the conveyor to work site, and back into position.

3.6 CONVEYOR PLACEMENT

Follow this procedure when placing the conveyor into its working position:

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

⚠ WARNING

ELECTROCUTION HAZARD

Ensure enough clearance from overhead obstructions, power lines, other equipment.

2. Attach conveyor to the tractor.
Refer to Section 3.5
3. Back conveyor up to the storage facility while it is in its lowered configuration.
4. Set the park brake on the tractor before dismounting.
5. Winch slowly, to raise machine into position.
Stay away from power lines.
6. Slowly back the conveyor until the discharge spout is over the opening in the storage facility.
7. Use the winch to lower the spout.
8. Place chocks around each wheel.
9. Unhook the unit from the tractor or towing vehicle and lower to the ground.



Fig 15 - Conveyor in position



Fig 16 - In position to feed scale tower



Fig 17 - Chocked wheels

NOTICE**UPENDING HAZARD**

The machine is closely balanced. Do not lift unless there is downward weight on the hopper end to prevent upending.

10. Stake or weigh down the hopper end to prevent upending when the machine is emptying.
11. Lower machine until discharge spout is in final position above the storage facility.
12. Have a licensed electrician provide power to the electric motor.



Fig 18 - Discharge spout



Fig 19 - Motor control box

⚠ CAUTION**SAFETY HAZARD**

Remove drawbar from conveyor to prevent interference and clear a tripping hazard.

13. Remove the drawbar from the conveyor hitch to remove a tripping hazard and prevent interfering with other equipment.



Fig 20 - Hitch and drawbar

3.7 OPERATING ON SITE

When operating the conveyor, follow this procedure:

1. Clear the area of bystanders, especially small children, before starting.
2. Review the Pre-Operation Checklist before starting. Refer to Section 3.4
3. Review the Workplace Hazards illustration and use extra care when inside the hazard area. Keep all spectators and bystanders out of this area.

Should anyone enter this hazard area, stop the machine immediately.

4. Check that all guards are in place and working as intended.
5. Back the equipment into position for unloading.

NOTICE

HIGH WIND HAZARD

Do not operate or leave conveyor fully raised, in high winds. It may blow over, damaging structures and equipment.

3.7.1 Starting Conveyor:

1. Turn power on at master control box.

Note:

Have a licensed electrician provide power to motor.

2. Plug in power cord.
3. Turn conveyor motor on.

3.7.2 Stopping Conveyor:

4. Stop unloading.
5. Run until conveyor is empty.
6. Turn power off.
7. Turn main power off at master panel and unplug power cord.

3.7.3 Emergency Stopping:

Although it is recommended that the tube be emptied before stopping, in an emergency situation, stop or shut-down the power source immediately.

Correct the emergency before resuming work.



Fig 21 - Conveyors at seed site

3.7.4 Restarting after Emergency Stop:

When the machine is shut down inadvertently or for an emergency, the belt will probably be full of product.

Remove as much product from the hopper as possible before restarting.

Note:

Maintain tail roller tension spring at 3-3/4 inches for most operating conditions.



Fig 22 - Hopper end belt guard removed



Fig 23 - Tension spring

3.7.5 Operating Angle:

The conveyor can be set at any angle between 12° and 40° when operating.

Do not position at more than 45°.

Note:

The lower the angle, the greater the capacity.

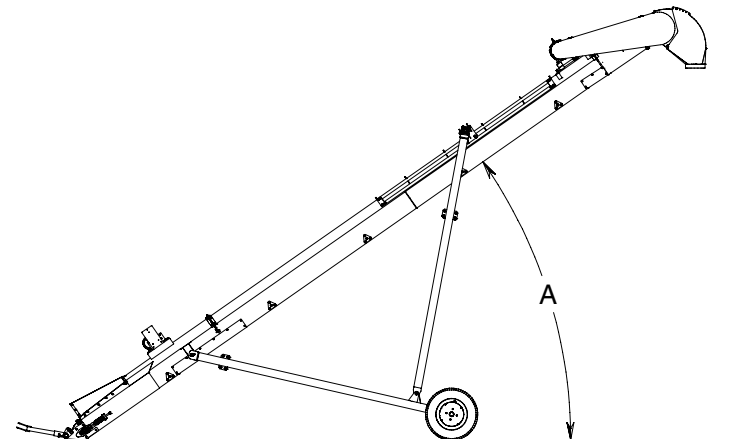


Fig 24 - Operating angle

3.8 OPERATING HINTS

- Keep the hopper full for maximum capacity.
- 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.
- Never allow anyone into the workplace hazard area. If anyone enters, stop immediately. The visitor must leave before resuming work.
- Do not run the machine for long periods of time with no product on the belt. This increases the wear.
 - Run belt only when moving product.
- Do not move the machine by hand. Always use a tractor.
- Stake the hopper or weight it down to prevent up ending.
- 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 400 ft/min.

Count the number of belt revolutions per unit time to determine belt speed. Use the belt lacing as a reference when counting belt revolutions.

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 conveyor can be set at any angle between 12° and 40° when operating.

- a lower angle means a greater capacity.
- Do not position at more than 45°.



Fig 25 - Conveyor setup



Fig 26 - Feeding a scale tower

3.9 TRANSPORTATION

Convey-All® conveyors are designed to be easily and conveniently moved from place to place.

When transporting, follow this procedure:

1. Refer to Section 3.5: Attaching to Tow Vehicle.
2. Be sure all bystanders are clear of the machine.
3. Unplug the power cord, wrap it around frame and secure to prevent dragging.

NOTICE

UPENDING HAZARD

Ensure the conveyor is balanced. Remove stakes/weights slowly to prevent upending.

4. Remove the stakes, or weights from the hopper end.
5. Reinstall the drawbar and jack onto the conveyor.

Note:

It may be necessary to raise the discharge end above the storage facility to provide clearance to raise the intake end.

6. Attach to a tractor or truck using a hitch pin with a retainer and a safety chain.
7. Remove chocks from around conveyor wheels.
8. If equipped with transport lights, connect the wiring harness across the hitch.
 - Secure with clips, zip ties or tape. Provide slack for turning.



Fig 27 - Hitch



Fig 28 - Wheel Chocks



Fig 29 - Ball hitch with safety chains

⚠ WARNING**ELECTROCUTION HAZARD**

Ensure enough clearance from overhead obstructions, power lines or other equipment before moving the conveyor.

9. Slowly pull away from the storage facility and stop as soon as the discharge end clears.
10. Stop and lower the conveyor into its fully collapsed position.
11. Ensure the SMV (Slow Moving Vehicle) emblem and all lights and reflectors, which are required by law, are in place.

They must be clean and able to be seen by all overtaking and oncoming traffic.
12. Do not allow riders on the conveyor.
13. Slowly pull away from the working area.
 - Be sure everything is connected and nothing is hanging.
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. Never travel across slopes of more than 20°. It is better to go straight up and down.
16. It is not recommended that the machine be transported faster than 80km/h (50mph).
17. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.
18. Always use hazard flashers on the tow vehicle when transporting unless prohibited by law.



Fig 30 - Conveyor hitched to truck

3.10 STORAGE

After the season's use, or when the conveyor will not be used for an extended period of time, it should be inspected and prepared for storage.

Repair or replace any worn or damaged components to prevent unnecessary down-time next season.

For a long, trouble-free life, this procedure should be followed when preparing the machine for storage:

1. Remove all left over product or residue from the hopper and inside tube.
2. Inspect all moving or rotating parts and remove anything which has become entangled.
3. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris or residue.
 - Wash on top and under the belt.
 - Clean inside the tube.
4. Lubricate all grease fittings.
Refer to Section 4.2
 - Ensure all grease cavities have been filled with grease to remove any water residue from having been washing.
5. Check the condition of the conveyor belt.
Replace if necessary.
6. Touch up all paint nicks and scratches to prevent rusting.
7. Select an area that is dry, level and free of debris.

If the machine cannot be placed inside, cover the motor with a waterproof tarpaulin and tie securely in place.

8. Do not allow children to play on or around the conveyor.



Fig 31 - Transport Position

Section 4: SERVICE AND MAINTENANCE

WARNING

- Review the Operator's Manual and all safety items before maintaining the conveyor.
- Clear the area of bystanders, especially children, before repairing or adjusting.
- Place all controls in neutral. Stop motor, unplug the cord. Wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
- Place stands or blocks under frame before working beneath the unit.
- 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.
- When maintenance is complete, before resuming work, install and secure all guards.
- Keep decals clean, replace if not readable.

By following the operating instructions, in conjunction with a good maintenance program, your conveyor will provide many years of trouble free service.

4.1 FLUIDS AND LUBRICANTS

Grease:

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

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.

4.1.1 Greasing:

NOTICE

GREASING HAZARD

Too much grease causes excessive overheating.
Under-greasing accelerates equipment wear.

No grease should be seen around bearings.
If there is, too much grease was applied
and the seal has ruptured!

IMPORTANT:

Grease bearings only one pump per month
under normal usage conditions.

Bearing greasing frequency should be
determined by usage and conditions.

1. Use a hand-held grease gun for all greasing.
2. Wipe grease fitting with a clean cloth before greasing, to avoid injecting dirt and grit.
3. All bearings are greasable, but require only minimal grease.

Recommended greasing is one small stroke
every month. Be careful not to over-grease
as this may push the seal out.

4. Repair or replace broken fittings immediately.
5. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.



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Fig 32 - Lubricate decal



Fig 33 - Discharge roller bearings



Fig 34 - Grease zerk on pulley

4.2 SERVICING INTERVALS

Use the Service Record provided on page 4-11, to keep a record of all scheduled maintenance.

The conveyor 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 loaded operation.

Check bearings for wear daily.

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

Schedules may vary depending on options and motor model contained in your equipment.

4.2.1 Every 10 Hours or Daily:

1. Inspect conveyor belt lacing for wear.
2. Check the conveyor belt tension daily while breaking-in the conveyor.
 - Refer to Section 4.3.1
3. Check the conveyor belt alignment frequently during the first 10 hours of operation until it seats itself. Refer to Section 4.3.2
4. Inspect all rollers and bearings for play and wear.
 - Replace if necessary.

4.2.2 Every 50 Hours or Weekly:

5. Check the conveyor belt tension.

Watch the tension more often while breaking-in the conveyor, because the belt might stretch. Refer to Section 4.3.1

Note:

A properly tensioned belt will not slip when in operation.

6. Check the conveyor belt alignment.

Watch the alignment more frequently during the first 10 hours of operation. It usually seats itself and can be checked weekly after that. Refer to Section 4.3.2

7. Check the condition of rubber hopper flashing located beneath the metal hopper panels, and can be seen without removing them. Be sure it still seals the hopper to prevent leaking.



Fig 35 - Hopper flashing

4.2.3 Every 100 hours or Monthly:**Note:**

Recommended greasing is one small stroke every month. Be careful not to over grease as this may push the seal out.

8. Grease tail roller bearings.
9. Grease top slide bracket bearings.
10. Grease counter shaft bearings.
11. Grease discharge roller bearings.

4.2.4 Every 200 hours or Annually:

12. Repack the wheel bearings.
13. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris or residue.
 - Wash the outside.
 - Wash around the hopper.
 - Leave the belt running while washing inside the tube and around the belt.



Fig 36 - Tail roller bearing



Fig 37 - Top slide bracket bearing



Fig 38 - Countershaft



Fig 39 - Discharge bearing

4.3 MAINTENANCE PROCEDURES

This section contains more detailed information regarding conveyor belt and drive system care.

4.3.1 Conveyor Belt Tension:

The tension of the belt should be checked weekly, or more often if required, to be sure that it does not slip under load.

Use the adjustment bolt, at the tail roller, to adjust the belt.

WARNING

ROTATING BELT HAZARD

If tension is adjusted while belt is moving, avoid contact with belt and rollers.



Fig 40 - Adjustment bolt and tension spring

1. Components of the adjustment bolt system:
 - a. Tail roller spring adjustment bolt
 - b. Tension spring
 - c. Lock nut
2. Use the tail roller spring tension bolts to set the tension of the belt.
 - Tighten adjustment bolts until spring measures 3-3/4" (95 mm).

Note:

The belt should not slip on the drive or tail rollers during operation.

IMPORTANT:

Adjust both sides the same amount to keep the alignment.

3. When done, tighten the adjustment bolt lock nuts.

4.3.2 Conveyor Belt Alignment:

NOTICE

BELT DAMAGE HAZARD

Alignment of the belt must be checked at the hopper and discharge. Inspect weekly. Unaligned belt will cause damage and void warranty.

NOTICE

BEARING FAILURE

If a roller is replaced, ensure both ends are evenly aligned with the frame before running. If not, bearing failure may occur.

The belt is properly aligned when it runs in the centre of all rollers.

Check frequently during the first few minutes of operation with a new belt, and then several times during the first 10 hours.

The new belt normally seats itself during the first 10 hours of operation and can be checked weekly after that.

⚠ WARNING

ROTATING PART HAZARD

Turn off electric motor and unplug power cord before working on belt.

1. Remove the hopper guard and discharge spout to view the belt position on the roller.
2. Rotate the conveyor belt slowly to see the alignment.

Note:

If belt is out of alignment, it will move to the loose side.

Tighten the loose side or loosen the tight side.

3. Tighten or loosen the adjustment bolt by a 1/4 turn to 2 turns.
4. Run a couple of revolutions and check again.
- Adjust again as necessary.
5. Tighten adjustment bolt lock nut.
6. Reinstall the hopper guard and discharge spout when done.



Fig 41 - Hopper end belt, guard in place



Fig 42 - Hopper end belt, guard removed

4.3.3 Conveyor Belt Replacement:

1. Open the belt access panel underneath the conveyor wind guard.
2. Rotate the belt until the Alligator® Lacing is positioned at the open access panel.
3. Move the adjustment bolts at the tail housing to its loosest position.
4. Pull all the slack to the lacing area.
5. Remove the lacing cable and open the belt.
6. Attach the new belt to the lacing end of the old belt which is hanging closest to the hopper.
7. Pull the end of the old belt which is coming from the direction of the discharge spout.

The new belt will follow and be threaded into place.

8. Disconnect the old belt.
9. Link the ends of the new belt lacing.
10. Push the lacing cable through the lacing to fasten the belt.

Note:

Cordless drill can be used to thread cable.
Proceed slowly.

11. Cut off excess cable.
12. Crimp lacing at one end to lock the cable in place.
13. Set belt tension. Refer to Sections 4.3.1
14. Set the belt alignment.
Refer to Section 4.3.3



Fig 43 - Conveyor belt access panel

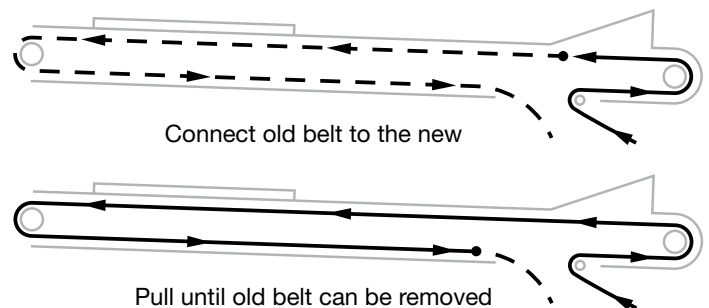


Fig 44 - Thread belt through conveyor



Fig 45 - Conveyor belt seam, as seen in hopper



Fig 46 - Crimp lacing and taper belt corner

4.3.4 Speed Reduction Drive:

To adjust belt tension, follow this procedure:

⚠ WARNING

ROTATING PART HAZARD

Turn off electric motor and unplug power cord before working on belt.

First,

Set Tension On Countershaft To Drive Belt:

1. Open the guard over the V-belt pulley.
2. Loosen countershaft bearing mount anchor nuts and jam nuts.
3. Use bearing mount position bolts to set countershaft position and set belt tension.
4. Calculate the tension (See Figure 48):
 - Measure length of span between pulleys.
 - Allow 1/64" of deflection per inch of span.
5. Tighten bearing mount anchor nuts.
6. Tighten adjusting bolt(s) and lock nut(s).
7. Close and secure guard over pulleys.

Second,

Set Tension On Motor To Countershaft Belt:

8. Open the guard over the V-belt pulley.
9. Loosen motor mount nuts and jam nuts.
10. Use motor mount nuts to set belt tension.
11. Calculate the tension (See Figure 48):
 - Measure length of span between pulleys.
 - Allow 1/64" of deflection per inch of span.
12. Tighten motor mount anchor nuts.
13. Tighten adjusting bolt(s) and lock nut(s).
14. Close and secure guard over pulleys.

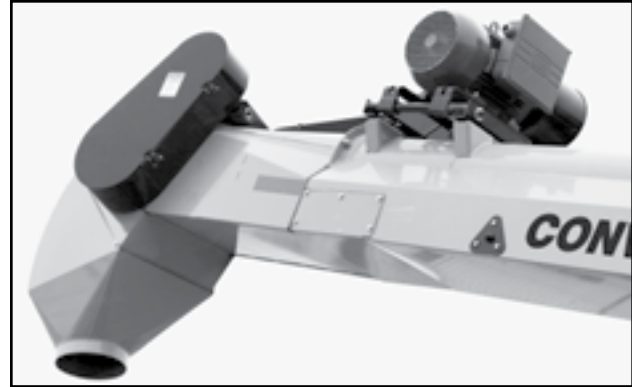


Fig 47 - Speed Reduction Drive

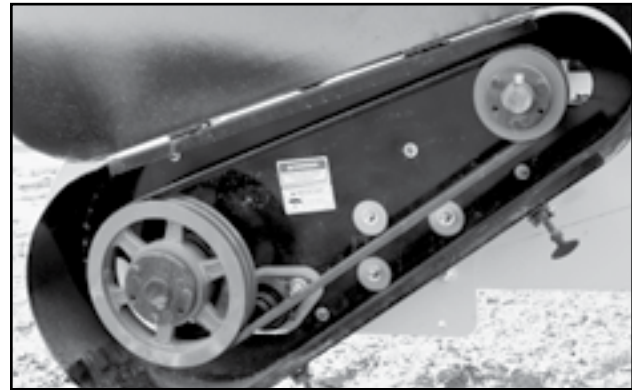


Fig 48 - Speed Reduction Drive with Guard Opened

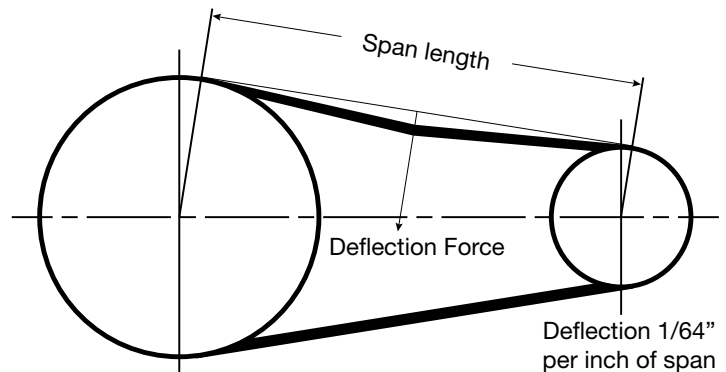


Fig 49 - Tension Calculation



Fig 50 - In-Line Drive

4.3.5 In-Line Drive:

1. Open the guard over the V-belt drive system.
2. Loosen the lock nuts on the motor mount position bolts.
3. Use the nuts on the position bolt to move the motor mount to the required position to set belt tension.
4. Check the belt tension.
5. Calculate the tension. See Figure 48:
 - Measure length of span between pulleys.
 - Allow 1/64" of deflection per inch of span.
6. Tighten lock nuts.
7. Close and secure guard.



Fig 51 - In-Line Drive with Guard Opened

4.3.6 Check Pulley Alignment:

1. Use a straight edge across both drive and driven pulleys to check alignment.
2. Use the tapered lock hub in the centre of the pulley to adjust the position of a pulley if required.
3. Move a pulley to align if there is more than a 1/32 inch gap between the edge of the pulley and the straight edge.

4.3.7 Drive Belt Replacement:

1. Place drive system into its loosest position.
2. Remove old belt.
3. Install replacement belt.
4. Set belt tension.
5. Check pulley alignment.

Table 2 - Belt Deflection Force

CROSS SECTION	Smallest Sheave Diameter Range	RPM Range	Belt Deflection (Force Pounds)			
			Uncogged Hy-T® Belts and Uncogged Hy-T® Torque Team®		Cogged Torque Flex® and Machined Edge Torque Team® Belts	
			USED BELT	NEW BELT	USED BELT	NEW BELT
A, AX	3.0 - 3.6	1000-2500 2501-4000	3.7 2.8	5.5 4.2	4.1 3.4	6.1 5.0
	3.8 - 4.8	1000-2500 2501-4000	4.5 3.8	6.8 5.7	5.0 4.3	7.4 6.4
	5.0 - 7.0	1000-2500 2501-4000	5.4 4.7	8.0 7.0	5.7 5.1	9.4 7.6
B, BX	3.4 - 4.2	860-2500 2501-4000	n/a	n/a	4.9 4.2	7.2 6.2
	4.4 - 5.6	860-2500 2501-4000	5.3 4.5	7.9 6.7	7.1 6.2	10.5 9.1
	5.8 - 8.6	860-2500 2501-4000	6.3 6.0	9.4 8.9	8.5 7.3	12.6 10.9
C, CX	7.0 - 9.0	500-1740 1741-3000	11.5 9.4	17.0 13.8	14.7 11.9	21.8 17.5
	9.5 - 16.0	500-1740 1741-3000	14.1 12.5	21.0 18.5	15.9 14.6	23.5 21.6
D	12.0 - 16.0	200-850 851-1500	24.9 21.2	37.0 31.3	n/a	n/a
	18.0 - 20.0	200-850 851-1500	30.4 25.6	45.2 38.0	n/a	n/a
			Uncogged Hy-T® Wedge Belts and Uncogged Hy-T® Wedge Torque Team®		Cogged Hy-T® Wedge Belts and Hy-T® Wedge Machine Edge Torque Team®	
			USED BELT	NEW BELT	USED BELT	NEW BELT
5V	4.4 - 6.7	500-1749 1750-3000 3001-4000	n/a	n/a	10.2 8.8 5.6	15.2 13.2 8.5
	7.1 - 10.9	500-1740 1741-3000	12.7 11.2	18.9 16.7	14.8 13.7	22.1 20.1
	11.8 - 16.0	500-1740 1741-3000	15.5 14.6	23.4 21.8	17.1 16.8	25.5 25.0

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4.4 SERVICE RECORD

See Section 4.2 for service intervals. This section is only a general guide under good conditions. Under extreme, or unusual circumstances adjust service timing accordingly.

For more detailed schedule pertaining to the specific engine model, consult its Operator Manual.

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4.5 ORDERING PARTS

Always give the Model Number and Serial Number when ordering parts.

To get your parts promptly the following information will be required:

- The part name and number
- Your Name, Address, Town, Province/State, Country
- Complete information for shipping

Confirm all phoned in orders in writing. If Purchase Orders are required please note the number on the written order.

Unless claims for shortages or errors are made immediately upon receipt of goods, they will not be considered.

Inspect all goods received immediately upon receipt. When damaged goods are received, insist that a full description of the damage is made with the carrier against the freight bill. If this is insisted upon, full damage can be collected from the transport company.

No responsibility is assumed for delay or damage to merchandise while in transit. Dealers responsibility ceases upon delivery or pickup of shipment from or to the transportation company. Any freight damage claims must be made with the transportation company, not with the dealer.

Section 5: TROUBLESHOOTING

This section contains a list of common problems, causes and offers quick solutions to those issues.

If problems are confronted which are difficult to solve, even after having read through this section, please contact your authorized dealer, distributor or Meridian Manufacturing Inc. Before you call, please have this Operator's Manual and the unit's serial number ready.

Problem

Possible Cause	Possible Remedy
----------------	-----------------

Electric motor labouring

Belt is sticky on the back side, because of oily product or wet/snowy conditions	Clean the belt
Hopper flashing too tight	Adjust to loosen the flashing

Conveyor belt doesn't turn

Hopper flashing may be stuck to belt, because it is running dry and rubber is heating up	Turn off unit! Manually peel flashing up and off hopper. Then run dry product through to create barrier between flashing and belt
Belt loose	Tighten and align
Belt frozen to tube from operating in high humidity conditions in extreme cold	Remove conveyor from area of high humidity and continue to run empty so the belt dries prior to freezing.
Drive belt loose	Tighten drive belt
No power	Start motor, increase speed to maximum RPM
Seized bearing	Check all bearings, Replace any that are rough or seized
Belt/roller is jammed	Check for sticks, stones, other objects jammed in belt drive area and remove.

continued on next page

Problem

Possible Cause	Possible Remedy
----------------	-----------------

Conveyor belt doesn't track correctly

Roller lagging may be worn	Replace roller or have it re-lagged
----------------------------	-------------------------------------

Conveyor Belt Fraying

Belt not aligned	Align and adjust tension
------------------	--------------------------

Product leakage

Product may be getting under the belt at the hopper, traveling up inside the belt and leaking off delivery end	Replace hopper flashing
--	-------------------------

Low capacity

Drive roller worn out or is slipping	Replace drive belt
Electric system - drive roller is slipping	Replace V-belt
Conveyor angle exceeds 45 degrees	Reposition with a lower tube slope

Section 6: REFERENCE

For information not included here, or for a digital copy of this manual, please call your dealer or Meridian Manufacturing Inc. directly for assistance: (800) 665-7259.

Specifications and measurements are subject to change without notice.

Table 3 - Specifications

MODEL	TYPE OF UNDER-CARRIAGE	TUBE DIAMETER	BELT WIDTH	CAPACITY PER HOUR	WHEEL TRACK	TRANSPORT HEIGHT	TRANSPORT LENGTH
TCP-1620	A-frame	10"	16"	4000bu/hr*	6' 9"	6' 10"	24' 4"
TCP-1625					8' 5"	9' 11"	28' 9"
TCP-1630						11' 9"	33' 4"
TCP-1635						12' 8"	38' 4"
TCP-1640						12' 9"	43' 7"
TCP-1645						13' 4"	48' 7"

* 4000 bushels per hour at 40 degrees
Transport lengths are measured from end to end
Transport heights use 19 inch hitch height

Table 4 - Working Measurements

MODEL	30°		35°		40°	
	HEIGHT	LENGTH	HEIGHT	LENGTH	HEIGHT	LENGTH
TCP-1620	8' 9"	18' 2"	10' 3"	17' 6"	11' 8"	16' 8"
TCP-1625	11' 3"	22' 6"	13' 1"	21' 7"	14' 11"	20' 6"
TCP-1630	13' 9"	26' 10"	16' 0"	25' 8"	18' 1"	24' 3"
TCP-1635	16' 3"	31' 2"	18' 10"	29' 9"	21' 4"	28' 2"
TCP-1640	18' 9"	35' 6"	21' 9"	33' 10"	24' 6"	32' 0"
TCP-1645	21' 3"	39' 10"	24' 7"	38' 10"	27' 9"	35' 9"

Working lengths are measured from centre of hopper to centre of discharge

6.1 BOLT TORQUE

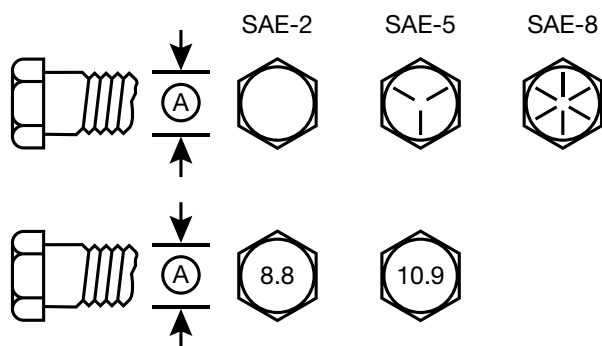
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

Table 5 - English Torque Specifications

BOLT DIA. "A"	BOLT TORQUE*					
	SAE 2 (Nm) (ft-lb)		SAE 5 (Nm) (ft-lb)		SAE 8 (Nm) (ft-lb)	
1/4"	8	6	12	9	17	12
5/16"	13	10	25	19	36	27
3/8"	27	20	45	33	63	45
7/16"	41	30	72	53	100	75
1/2"	61	45	110	80	155	115
9/16"	95	60	155	115	220	165
5/8"	128	95	215	160	305	220
3/4"	225	165	390	290	540	400
7/8"	230	170	570	420	880	650
1"	345	225	850	630	1320	970

Table 6 - Metric Torque Specifications

BOLT DIA. "A"	BOLT TORQUE*			
	8.8 (Nm) (ft-lb)		10.9 (Nm) (ft-lb)	
M3	0.5	0.4	1.8	1.3
M4	3	2.2	4.5	3.3
M5	6	4	9	7
M6	10	7	15	11
M8	25	18	35	26
M10	50	37	70	52
M12	90	66	125	92
M14	140	103	200	148
M16	225	166	310	229
M20	435	321	610	450
M24	750	553	1050	774
M30	1495	1103	2100	1550
M36	2600	1917	3675	2710



Torque figures indicated above are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* Torque value for bolts and capscrews are identified by their head markings.

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LIMITED WARRANTY STATEMENT

1. Meridian Manufacturing Inc, hereafter referred to as Meridian®, warrants each new 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, 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 here from. 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 Manitoba.

Register your product at: www.meridianmfg.com
For warranty information send an email to: warranty@meridianmfg.com

WARRANTY REQUEST PROCEDURE

1. The product must be registered with Meridian Manufacturing Inc.
2. The purchaser must contact the dealer, from where the unit was purchased, immediately upon discovery of any defects.
3. A completed Warranty Request (Claim) Form must be submitted by the dealer to Meridian's warranty representative for review and any subsequent course of action.
 - Warranty requests must be completed with ALL required information in order it to be considered for approval.
 - Send photographs of the entire piece of equipment, and of the specific area of concern.
4. Warranty repair work will only be performed by Meridian or an approved representative of Meridian. Warranty work completed prior to Meridian's approval will NOT be honoured. Failure to follow this procedure may affect any or all of this warranty.
5. All warranty requests will be adjudicated at the sole discretion of Meridian and in accordance with the terms and conditions of the warranty.

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