

CONVEY-ALL

INDUSTRIES INC.



TRANSLOADER CONVEYOR

Models:

TCSNH-1045-HDMK, TCSNH-1052.5-HDMK

OPERATOR'S MANUAL

LIMITED WARRANTY

Convey-All warrants to the buyer that the new machinery is free from defects in material and workmanship.

This warranty is only effective as to any new machinery which has not been altered, changed, repaired or treated since its delivery to the buyer, other than by Convey-All or its authorized dealers or employees, and does not apply to accessories, attachments, tools or parts, sold or operated with new machinery, if they have not been manufactured by Convey-All.

Convey-All shall only be liable for defects in the materials or workmanship attributable to faulty material or bad workmanship that can be proved by the buyer, and specifically excludes liability for repairs arising as a result of normal wear and tear of the new machinery or in any other manner whatsoever, and without limiting the generality of the foregoing, excludes application or installation of parts not completed in accordance with Convey-All operator's manual, specifications, or printed instructions.

Written notice shall be given by registered mail, to Convey-All within seven (7) days after the defect shall have become apparent or the repairs shall have become necessary, addressed as follows:

**Convey-All Industries Inc, Box 2008, 130 Canada Street
Winkler Manitoba R6W 4B7
Canada**

This warranty shall expire one (1) year after the date of delivery of the new machinery.

If these conditions are fulfilled, Convey-All shall at its own cost and at its own option either repair or replace any defective parts provided that the buyer shall be responsible for all expenses incurred as a result of repairs, labor, parts, transportation or any other work, unless Convey-All has authorized such expenses in advance.

The warranty shall not extend to any repairs, changes, alterations, or replacements made to the new equipment other than by Convey-All or its authorized dealers or employees.

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

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

This machine is subject to design changes and Convey-All shall not be required to retrofit or exchange items on previously sold units except at its own option.

WARRANTY VOID IF NOT REGISTERED

CONVEY-ALL WARRANTY REGISTRATION FORM & INSPECTION REPORT

This form must be filled out by the dealer and signed by both the dealer and buyer at the time of delivery.

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

UNIT INSPECTION

- ☐ All Fasteners Tight
- ☐ Engine Fluid Levels Checked
- ☐ Machine and All Bearings Lubricated
- ☐ Tire Pressure Checked
- ☐ Drive Belts Rotate Freely
- ☐ Drive Belts Tensioned, Pulleys Aligned
- ☐ Conveyor Belt Aligned and Tensioned
- ☐ Conveyor Belt(s) Move Freely
- ☐ Conveyor Tube Moves/Folds Freely
- ☐ Hydraulic Hoses Free and Fittings Tight

SAFETY INSPECTION

- ☐ All Guards, Shields Installed and Secured
- ☐ All Safety Decals Installed and Legible
- ☐ Reflectors and SMV Clean
- ☐ All Lights Clean and Working
- ☐ Safety Chain on Hitch
- ☐ Reviewed Operating and Safety Instructions

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

Date _____ Dealer's Rep. Signature _____

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

Date _____ Buyer's Signature _____

WHITE	YELLOW	PINK
CONVEY-ALL	DEALER	CUSTOMER

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PRODUCT INFORMATION

Always give your dealer the serial number of your Transloader Conveyor when ordering parts or requesting service or other information.

The serial number for the conveyor is located on the left side above the transition between the hopper and the inclined tube. Please mark the number in the space provided for easy reference.



Fig 1 - Serial Number Location

Conveyor Model Number: _____

Conveyor Serial Number: _____

Engine Model Number: _____

Engine Serial Number: _____

Production Year: _____

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Section 1: INTRODUCTION

Congratulations on your choice of a Convey-All Transloader Conveyor to complement the seed delivery system in your farming operation. This equipment has been designed and manufactured to meet the exacting standards for such equipment in the agricultural industry and will keep your seed delivery operation working at optimum efficiency.

This manual covers the Transloader Conveyor manufactured by Convey-All Industries Inc.

Safe, efficient and trouble free operation of your conveyor system requires that you and anyone else who will be operating or maintaining the machine, read and understand the Safety, Operation, Maintenance and Trouble Shooting information contained within this Operator's Manual.

Use the Table of Contents as a guide to locate required information.

Keep this manual handy for frequent reference and to pass on to new operators or owners.

Call your Convey-All Industries Inc, dealer or distributor if you need assistance, information, additional/replacement copies or a digital copy of this manual.

OPERATOR ORIENTATION - The directions: left, right, as mentioned throughout this manual, are as seen from the hopper, facing the discharge spout.

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Section 2: SAFETY

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

Why is SAFETY important to you?

3 Big Reasons:

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



The Safety Alert symbol identifies important safety messages on the Convey-All Transloader Conveyor and in this manual. When you see this symbol, be alert to the possibility of equipment damage, personal injury or death. Follow the instructions in the safety message.

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 guide-lines.

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.





2.1 SAFETY ORIENTATION

YOU are responsible for the SAFE operation and maintenance of your Convey-All Transloader Conveyor. Ensure that you, and anyone else who will operate, maintain or work around the machine, be familiar with the safety, operating and maintenance procedures in this manual. This manual will take you step-by-step through your working day. It will alert you to all the 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 equipment follows all 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 or 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 most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand all safety and operating instructions in this manual, and to follow them.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Think SAFETY! Work SAFELY!

2.2 GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety decals before operating, maintaining, adjusting or unplugging the conveyor. 
2. Only trained, competent persons shall operate the conveyor. An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise and know how to use it. 
4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place. 
5. Do not allow riders.
6. Do not allow children, spectators or bystanders within hazard area around the machine.
7. Wear appropriate protective gear. This list may include but is not limited to:
 - Hard Hat
 - Protective shoes with slip resistant soles
 - Eye protection
 - Heavy gloves
 - Hearing protection
 - Respirator or filter mask
 - Hi-Visibility Safety Vest
8. Review safety related items annually with all personnel who will be operating or maintaining the conveyor.

2.3 EQUIPMENT SAFETY GUIDELINES

1. Safety of the operator and bystanders is one of the main concerns in 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.

You, the operator, can avoid many accidents by observing the following precautions described in this section. To avoid personal injury or death, study these precautions and insist those working with you, or for you, follow them also.

2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety guards removed. Equipment should never be operated in this condition. Keep all guards in place. If removal becomes necessary for repairs, replace the guard prior to use.
3. Replace any safety or instruction decal that is not readable or is missing.
4. 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.

5. Do not allow persons to operate this unit until they have read this manual. They should have a thorough understanding of the safety precautions.

Review the safety instructions with all users annually.

6. This equipment 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 equipment's operations.

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

7. Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - DON'T TRY IT.
8. 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.
9. 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 TRAINING

1. Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by a single careless act of an operator or bystander.
2. Hazard control and accident prevention are dependent upon the personnel operating and maintaining the conveyor. Their awareness, concern, prudence and proper training are crucial.
3. It has been said, "The best safety feature is an informed, careful operator." We ask you to be that kind of an operator. It is the operator's responsibility to read and understand all safety and operating instructions in this manual and to follow them.
4. Working with unfamiliar equipment can lead to careless injuries. Read this manual before operating, to acquaint yourself with the machine. If this machine is used by any person other than yourself, or is loaned or rented, it is the machine owner's responsibility to make certain that the operator, prior to operating:
 - Reads and understands the operator's manuals.
 - Is instructed in safe and proper use.
5. Know your controls and how to stop the engine, and conveyor belt quickly in an emergency. Read this manual and the one provided with your power unit.
6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will operate the machinery.



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

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




2.5 SAFETY DECALS

1. Keep safety decals clean and legible at all times.
2. Replace safety decals that are missing or have become illegible.
3. Replaced parts that displayed a safety decal should also display the current decal.
4. All safety decals have a part number in the lower right hand corner. Use this part number when ordering replacements.
5. Safety decals are available from your authorized distributor, dealer's parts department or from Convey-All Industries Inc.

2.5.1 How to Install Safety Decals:

1. Be sure that the installation area is clean and dry.
2. Ensure 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 decal 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 decal in place.
7. Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

2.6 WORK PREPARATION

1. Never operate the conveyor and its engine until you have read and completely understand this manual. Also read the operator's manual for the power unit. Be familiar with the safety messages found on the decals around this unit.
2. Personal protection equipment including:
 - Hard Hat
 - Eye protection
 - Protective shoes
 - Heavy glovesare recommended during installation, placement, operation, adjustment, maintaining, repairing and removal of the implement.
3. Do not allow long hair, loose fitting clothing or jewelry to be around equipment.
4. **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 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
(tractors, chain saws, radios, etc.)
is cumulative over a lifetime
without hope of natural recovery.

2.7 MAINTENANCE SAFETY

1. Review the Section 4: Service and Maintenance of this Manual before working with, maintaining or operating the conveyor.
2. 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.
3. Place all controls in neutral or off, stop the engine, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing.
4. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
5. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
7. Replace parts with genuine factory replacements parts to restore your equipment to original specifications. Convey-All Industries Inc. will not be responsible for injuries or damages caused by the use of unapproved parts and/or accessories.
8. Make sure there is plenty of ventilation. Never operate the engine in a closed building. The exhaust fumes may cause asphyxiation.
9. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
10. Place stands or blocks under the frame before working beneath the machine.
11. Before resuming work, install and secure all guards when maintenance work is completed.
12. Keep safety decals clean. Replace any decal that is damaged or not clearly visible.



2.8 TIRE SAFETY

1. 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.
2. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
3. Have a qualified tire dealer or repair service perform required tire maintenance.
4. When replacing worn tires, make sure they meet the original tire specifications. Never undersize.
5. Reference the tire side wall for information on the maximum cold tire pressure (PSI). Keep the tires inflated to this setting.






2.9 BATTERY SAFETY

1. Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
2. Avoid contact with battery electrolyte: wash off any spilled electrolyte immediately.
3. Wear safety glasses when working near batteries.
4. Do not tip batteries more than 45 degrees, to avoid electrolyte loss.
5. To avoid injury from spark or short circuit, disconnect battery ground cable before servicing any part of electrical system.
6. Boosting the engine through the battery, or recharging the battery, will cause a short in the remote control system, killing it.
7. Before using the battery, after it has been in storage, be sure it has the optimal charge.



2.10 ENGINE SAFETY

1. Read and understand the operating manual provided with the engine. 
2. Use proper tools to service engine.
3. Do not run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
4. Store fuel in approved safety containers.
5. Do not store fuel near an open flame. 
Appliances such as a stove, furnace, or water heater use a pilot light which can create a spark.
6. No smoking when filling fuel tank. 
7. Do not remove fuel cap while engine is running.
8. Do not refuel indoors where area is not well ventilated. Outdoor refueling is preferred.
9. Do not refuel while engine is running. Allow engine to cool for 5 minutes before proceeding.
10. Use fresh fuel. Stale fuel can gum carburetor and cause leakage.
11. Check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.
12. Do not operate engine if fuel has spilled. Move machine away. Avoid creating any ignition until the fuel has evaporated.
13. Do not run engine above rated speeds. This may result in damage and injury.
14. Do not tamper with the engine speed selected by the original equipment manufacturer.
15. Do not tamper with governor springs, governor links or other parts which may increase the governed engine speed.
16. Do not strike flywheel with a hard object or metal tool. This may cause it to shatter in operation.

17. Keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
18. Do not operate engine with grass, leaves, dirt or other combustible materials in muffler area.
19. Do not operate engine without muffler.

**WARNING: Hot Equipment**

Do not touch muffler, cylinder or fins while engine is running. Contact will cause burns.

20. Do not use this engine on any forest covered, brush covered, or grass covered unimproved land unless a spark arrester is installed on the muffler. The arrester must be maintained in effective working order by the operator.



In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands.

21. Inspect muffler periodically. Replace if necessary.

If engine is equipped with a muffler deflector, inspect periodically. Replace with correct part.

22. Do not check for spark, or crank engine with spark plug or spark plug wire removed.
23. Do not run engine with air filter or air it's cover removed.

**WARNING: Possible Engine Damage**

Decelerate engine slowly to stop. Avoid choking the carburetor to stop engine. Choke only for an emergency stop.

2.11 WORKPLACE HAZARD AREA

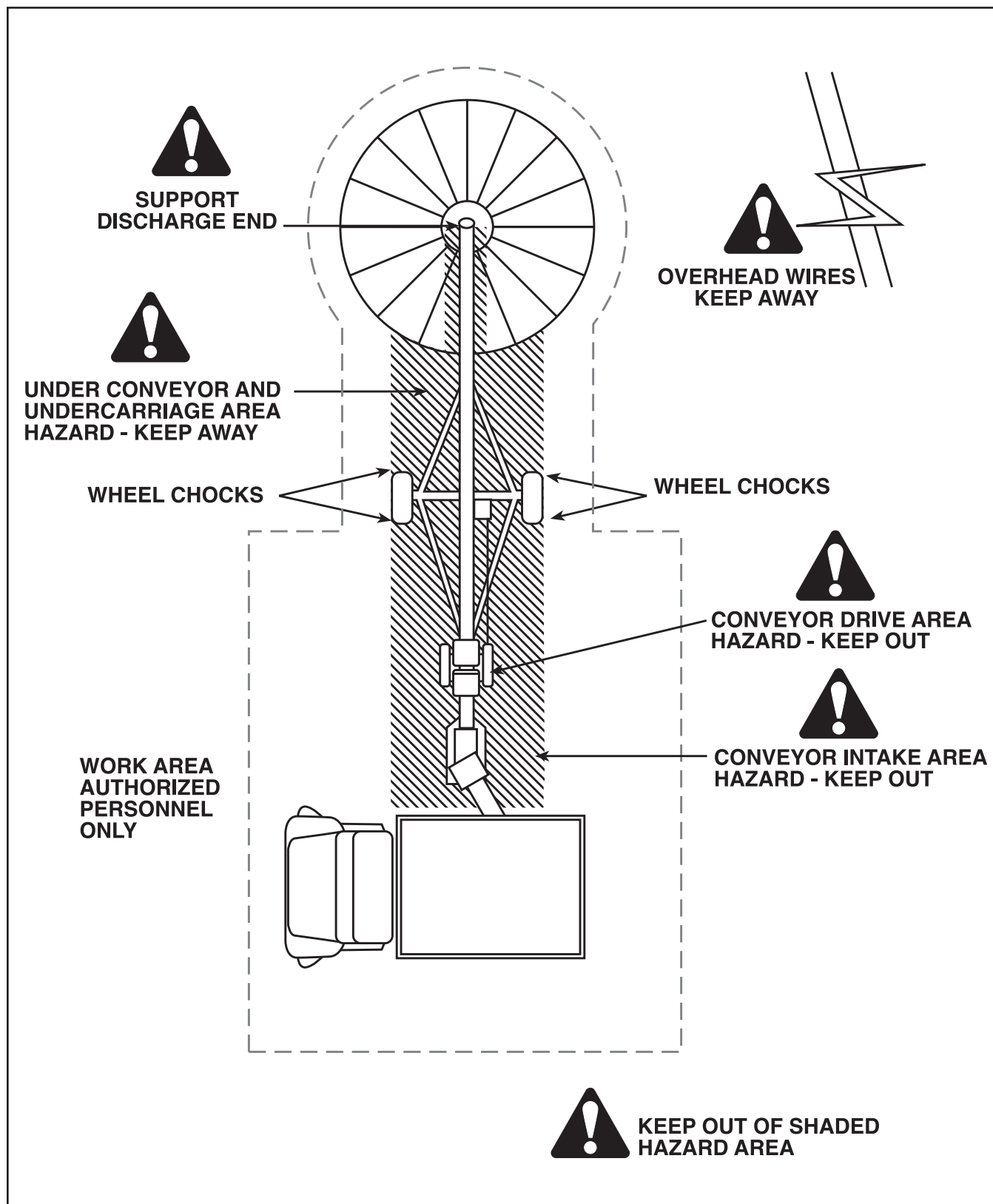


Fig 2 - Workplace Hazard Area

2.12 OPERATING SAFETY

1. Be sure that anyone who will be operating the machine or working on or around the unit reads and understands the operating, maintenance and safety information in this operator's manual.



Review the manual annually.

2. Clean or replace all safety decals if they cannot be clearly read and understood.
3. Place all controls in neutral, stop the engine, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Keep all bystanders, especially children, away from the machine when running, or when authorized personnel are carrying out maintenance work.
5. 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 or working around equipment.

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

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



8. Do not allow riders on the conveyor when transporting.

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



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



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

12. Chock wheels of conveyor before starting.

13. Be sure that conveyor tube is empty before raising or lowering.

14. Close valves in hydraulic line when machine is in position or before transporting.

2.13 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 unloading system.
3. Provide tags on the machine and a sign-up sheet to record tag out details.

2.14 TRANSPORT SAFETY

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

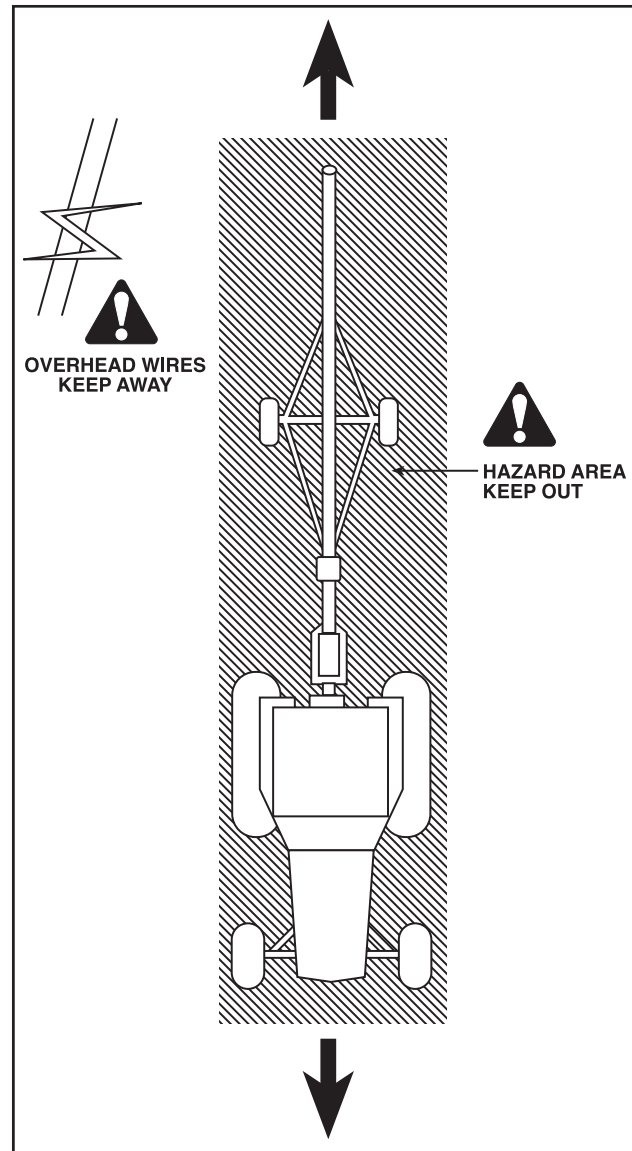


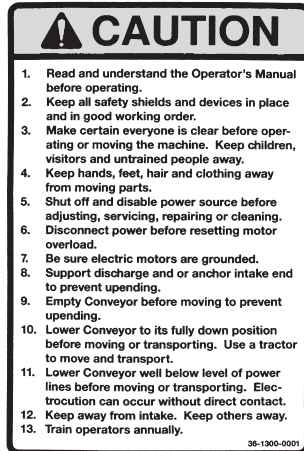
Fig 3 - Transporting Hazard Area

2.15 STORAGE SAFETY

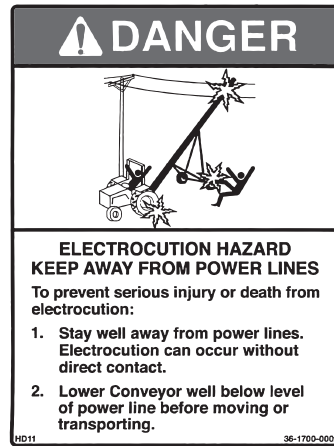
1. Store the conveyor on a firm, level surface.
2. Store in an area away from human activity.
3. If required, make sure the unit is solidly blocked up.
4. Remove battery and store in dry location. Do not sit on cold concrete floor.
5. Make certain all mechanical locks are safely and positively connected before storing.
6. Do not permit children to play on or around the stored machine.

2.16 SAFETY SYMBOL IDENTIFICATION

There are many types of safety symbols on decals placed in various locations on the conveyor. Good safety practices include being familiar with these signs, the type of warning, the area, and the particular function related to that area.



36-1300-0001



36-1700-0002



36-3000-0010



36-3000-0004



36-1700-0004



36-1700-0009

REMEMBER - If safety decals have been damaged, removed, become illegible, or parts were replaced without signage, new ones must be applied. New decals are available from your authorized dealer.



13-1100-0017
36-1100-0017



HD12 36-3000-0014
36-3000-0014



36-1700-0005



HD09 36-3000-0001
36-3000-0001

REMEMBER - If safety decals have been damaged, removed, become illegible or parts were replaced without decals, new decals must be applied. New decals are available from your authorized dealer.

Section 3: OPERATION



Operating Safety

- Read and understand the Operator's Manual, and all safety decals, before using.
- Place all controls in neutral, stop the engine. remove ignition key and wait for all moving parts to stop before servicing, adjusting, or repairing or unplugging.
- Clear the area of bystanders, especially children, before starting.
- 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 and/or rotating parts.
- Do not allow riders on the conveyor when transporting.
- Stay away from overhead obstructions and power lines during operation. Electrocution can occur without direct contact.
- Do not operate machine when any guards are removed.
- Chock wheels of conveyor before starting.
- Keep working area clean and free of debris to prevent slipping or tripping.
- 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 or working around loading/unloading equipment.

The Convey-All Transloader Conveyor is designed to efficiently move grain, pulse crops, or granular material from a truck or trailer, to a storage facility. Power is provided by a gas or diesel engine. Be familiar with the machine before starting.

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 machine. Follow all safety instructions exactly. It is everyone's business. By following recommended procedure, a safe working environment is provided for the operator, bystanders and the area around the work site.

The design and configuration of this conveyor includes safety decals and equipment. Hazard controls and accident prevention are dependent upon the personnel operating and maintaining it. Their awareness, concern, prudence and proper training are crucial.

Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely. There are instructions on how to set it, to provide maximum efficiency. By following the operating instructions, in conjunction with a good maintenance program, your Transloader Conveyor will provide many years of trouble free service.

3.1 MACHINE COMPONENTS

The Transloader Conveyor is available in two lengths and is designed for the most demanding needs.

A gas or diesel engine supplies power to the conveyor belt. It also powers the hydraulics which makes this conveyor a self-contained, self propelled unit.

A hydraulic cylinder is used to raise or lower the frame. A tractor supplies the hydraulic system.

The main components are listed below:

- a. Main Tube
- b. Hopper
- c. Discharge Spout
- d. Discharge Spout Electric Actuator
- e. A-Frame Undercarriage and Document Holder
- f. Hopper Winch
- g. Conveyor Belt Wind Guard
- h. Conveyor Belt Tension Springs
- i. Engine
- j. Hydraulic Reservoir and Fuel Tank
- k. Drive Wheels
- l. Steering Wheels
- m. Working Lights
- n. Drive Box
- o. Hitch
- p. Jack

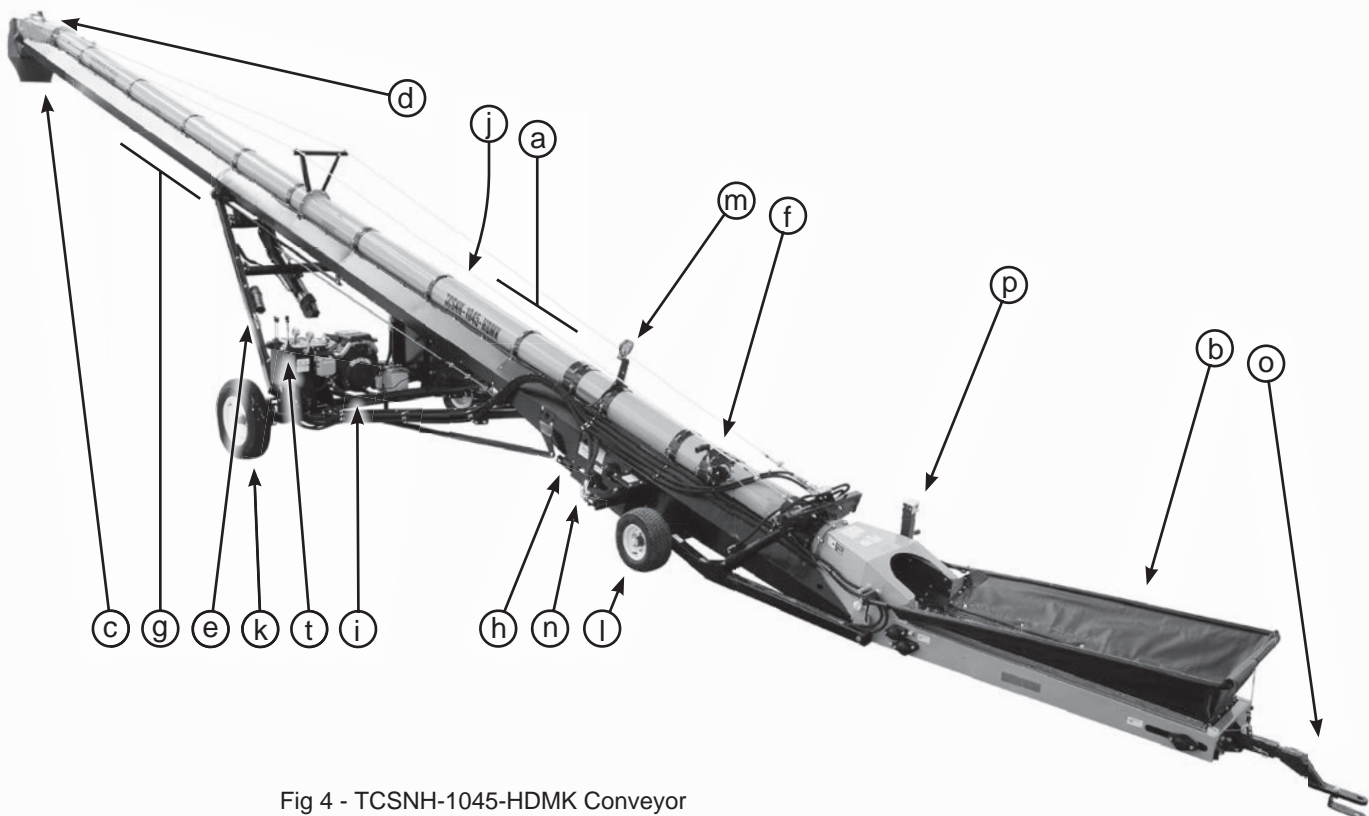


Fig 4 - TCSNH-1045-HDMK Conveyor

3.2 MACHINE BREAK-IN

There are no operational restrictions on the conveyor when used for the first time. Even though, it is recommended that the following mechanical items be checked:

Before Starting Work:

1. Read the conveyor and power unit operator's manuals.
2. Run the unit for half an hour to seat the conveyor belt and flashing around the intake hopper. It is normal for rubber from the flashing to be expelled out the discharge and form a pattern on the belt.

After Operating or Transporting for 1/2 hour:

1. Re-torque all the wheel bolts fasteners and hardware.
2. Check the drive and conveyor belt tension and alignment. Tension or align as required.
3. During the conveyors first few minutes of operation, check belt alignment to ensure preset alignment and tension does not vary under loaded conditions.
4. Check the flashing seal on the input hopper. If any product comes out of the hopper around the flashing; stop the belt, loosen flashing mounting screws and adjust. Retighten anchor screws and try again. Repeat until no grain is lost.
5. Check condition of all hydraulic lines, hoses and connections. Repair or replace any damaged system components.
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.

Go to the normal servicing and maintenance schedule as defined in the Section 4: Service and Maintenance.

3.3 PRE-OPERATION CHECKLIST

Efficient and safe operation of the conveyor requires that each operator reads and understands the operating procedures and all related safety precautions. A pre-operation checklist is provided for the operator. It is important for both the personal safety and maintaining the good mechanical condition of the conveyor that this checklist is followed.

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

1. Check worksite. Clean up working area to prevent slipping or tripping.
2. Be sure that the battery has optimal charge.
3. Service the machine as per the schedule outlined in the Section 4.2.
4. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
5. Check that conveyor belt is properly tensioned and aligned. Ensure it is not frayed or damaged. Refer to Section 4.3.1 and 4.3.2
6. Check the drive belt tension and alignment. Refer to Section 4.3.4 and 4.3.5
7. Be sure conveyor wheels are chocked.
8. Check that discharge and intake areas are free of obstructions.

**CAUTION: Upending Hazard**

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

3.4 COMPONENTS AND CONTROLS

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

Refer to the engine operator's manual for more detailed information.

Gas Engine (Optional):

Below are descriptions of the controls. The engine location and controls may vary depending on the model.

a. Ignition Switch:

This switch controls the electrical power to the engine ignition system. Insert the key, turn clockwise to start. Turn counterclockwise to turn OFF.

b. Choke:

This lever controls the position of the choke. Slide the lever to the right to close the choke valve for starting when the engine is cold. Slide to the left to open the choke as the engine warms.

Always open the choke fully when operating the conveyor.

c. Throttle:

This lever controls the engine RPM. Move the lever right to increase the engine speed and left to decrease.

Always run at maximum engine RPM when operating the conveyor belt.

d. Winter/Summer Valve:

Make sure this valve is in the correct location relative to the weather conditions. See Figure 4

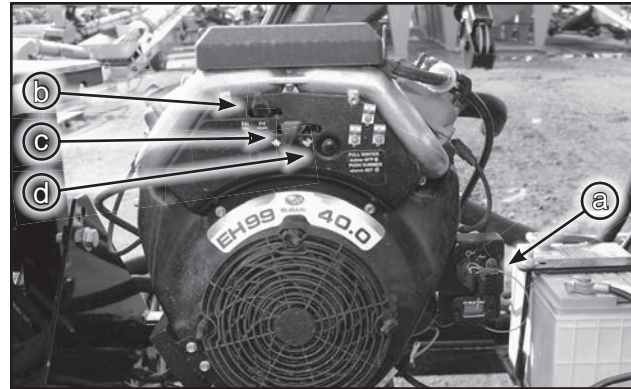


Fig 5 - Subaru Gas Engine

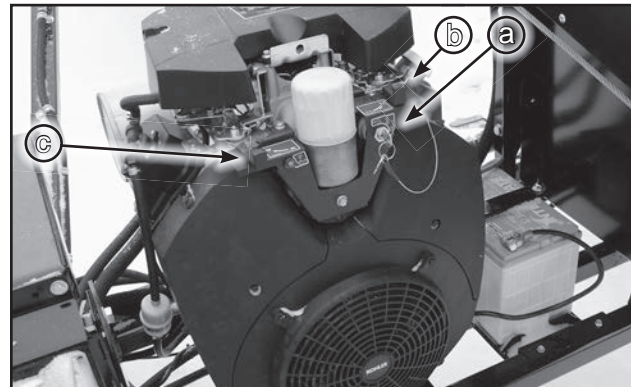


Fig 6 - Kohler Gas Engine



Fig 7 - Fuel Tank and Hydraulic Reservoir

Diesel Engine (Optional):

Below are descriptions of the controls. The engine location and controls may vary depending on the model.

a. Ignition Switch:

This switch controls the electrical power to the engine ignition system. Turn clockwise to start. It will spring back to the Run position.

Turn the key counterclockwise to turn OFF.

b. Throttle:

The red dial, between the hydraulic valve levers, control the engine RPM. Rotate to increase or decrease the engine speed.

Always run at maximum engine RPM when operating the conveyor belt.

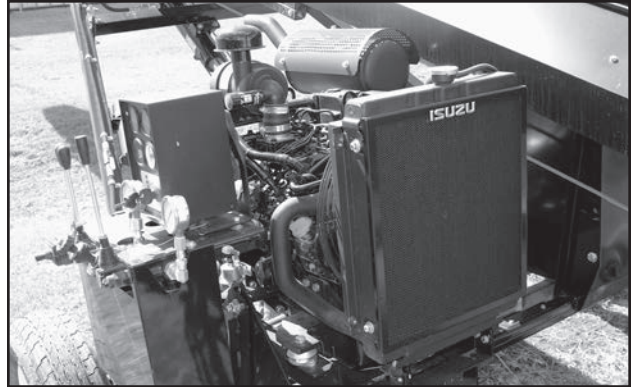


Fig 8 - Isuzu Diesel Engine

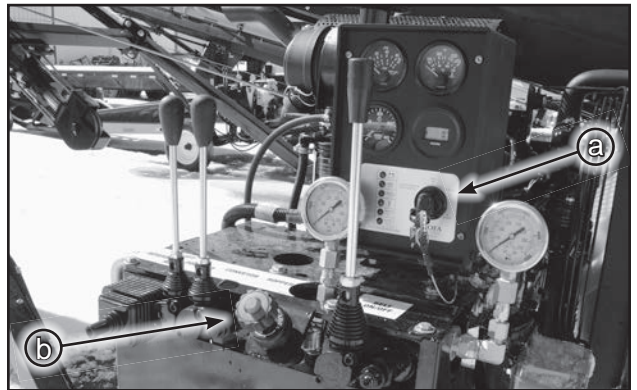


Fig 9 - Engine Controls



Fig 10 - Fuel Tank and Hydraulic Reservoir

Hydraulic Controls:

The hydraulic valve bank is beside the engine.

a. Conveyor Lift:

This lever raises/lowers the conveyor tube to the working height.

Note:

There is a hydraulic valve located on the scissor lift frame. Open, to raise or lower the conveyor. Close, to lock it in position. See Figure 12

b. Hopper Lift:

This lever controls the height of the steering wheels below the hopper.

- Push the lever forward and hold, to lower the wheels for driving the unit.
- Pull and hold, to raise the wheels, lowering the hopper into position for unloading.

c. Conveyor Belt Control:

The conveyor belt is turned on and off with this lever.

d. Mover Kit Lever:

This 4 position, spring-loaded lever controls the movement of the conveyor. It drives the wheels forward and reverse, and also turns the steering wheels left or right.

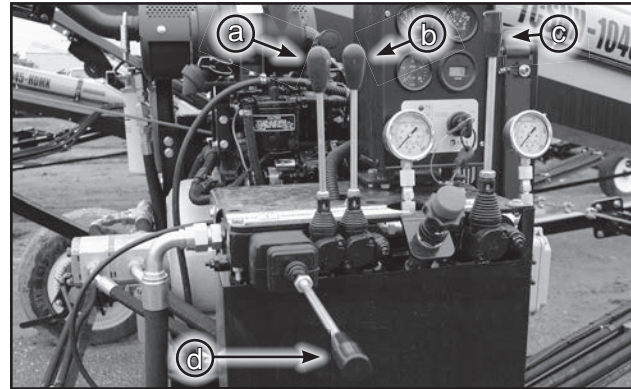


Fig 11 - Valve Bank

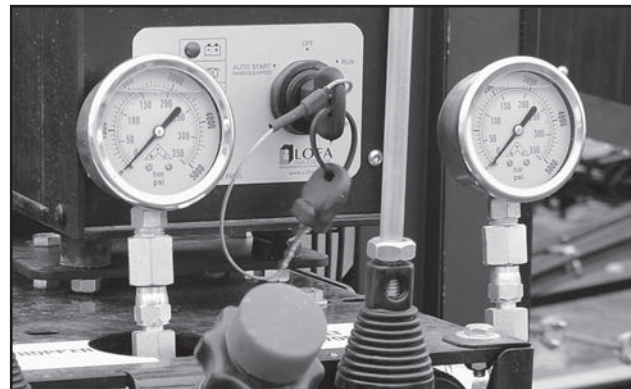


Fig 12 - Hydraulic Pressure Gauges

Hydraulic Pressure Gauges:

There are two gauges on the hydraulic valve bank. The one on the left displays the hydraulic pressure in the moving and lifting circuit. The one on the right is for the conveyor belt circuit. See Figure 11

Hydraulic Valve to Conveyor Tube Lift Cylinder:

This valve allows oil into or out of the hydraulic cylinder that raises/lowers the tube. See Figure 12

IMPORTANT:

Hydraulic valve must be fully opened prior to raising/lowering the conveyor. The valve must be closed fully when conveyor is to remain in fixed position. This is to prevent the ram from creeping downward during operation.



Fig 13 - Hydraulic Valve to the Lift Cylinder

Hopper:

Hoppers are designed with spring loaded frames. This will allow the truck box to push the hopper frame down.

All hoppers have rubber flashing to seal the junction between the belt and the sides of the hopper.

Some hopper designs come with a clip to hold the canvas frame down when required.



WARNING: Unexpected Movement
Do not release handle when ratchet lever is in unlocked position with load on winch. Handle could spin violently causing serious injury.

Hopper Winch:

This winch is located on the side of the tube just above the hopper. It is used to lower the hopper frame.

Rail Car Hopper (Optional):

This hopper has a very low profile to allow for positioning under a rail car hopper.

A manual winch is used to raise and lower the hopper sides.



Fig 14 - Hopper

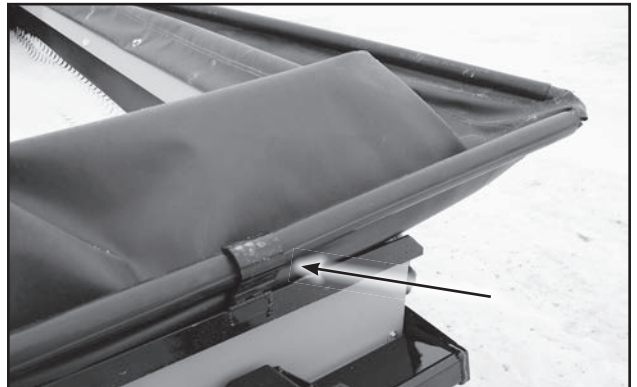


Fig 15 - Hopper Clip

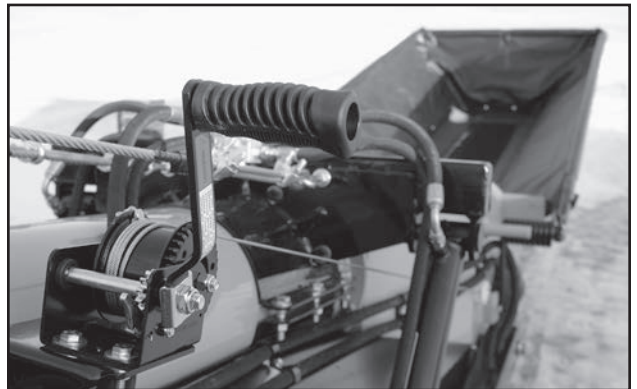


Fig 16 - Hopper Winch

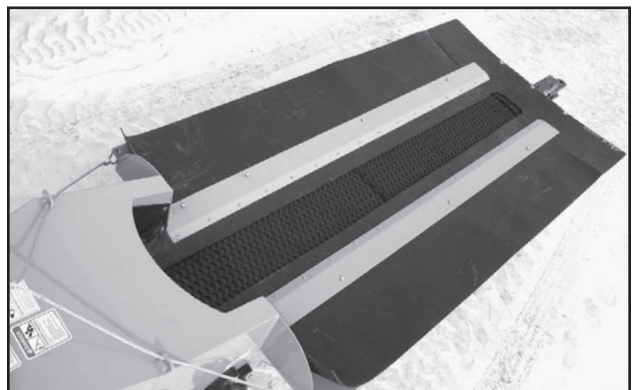


Fig 17 - Rail Car Hopper

Discharge Spout:

The standard discharge spout is made of a molded black plastic.

It is also available in stainless steel.

If the material needs to be directed further out rather than straight down, the spout can be tilted back.

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

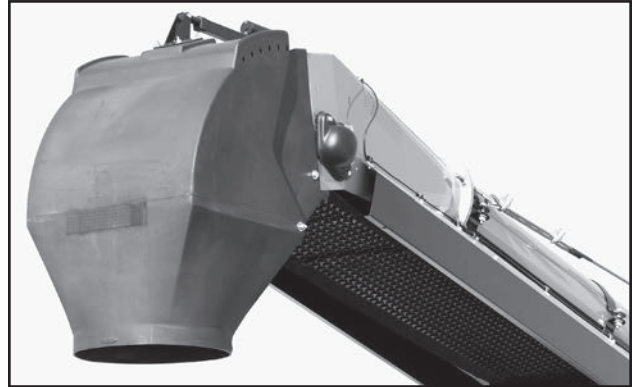


Fig 18 - Discharge Spout

Electric Actuator on Discharge Spout:

The discharge spout comes with a 12 volt DC electric actuator. This repositions the spout, tilting it for precise control over product output.



Fig 19 - Electric Actuator

Working Lights Packages:

Working lights are available to illuminate the hopper and discharge ends of the machine. The 12 volt DC working lights make operating the conveyor at any time safe and convenient.

Transport Light Packages (Optional):

On certain models, a 12 volt DC transport light package is available. The wiring harness would plug into a truck.



Fig 20 - Working Light

Electric Switches:

On the side of the valve bank, is a fuse box with two switches.

- Top switch works the lights.
- Bottom toggle switch angles the discharge spout.

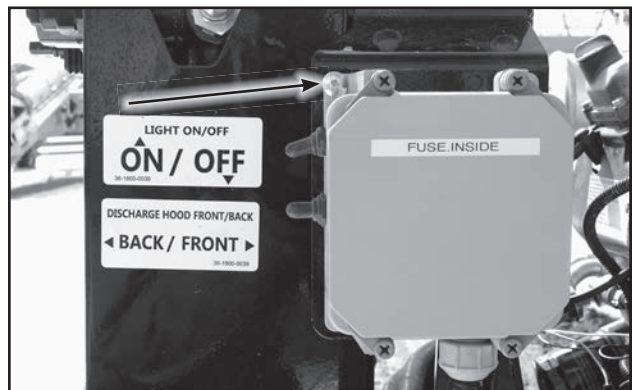


Fig 21 - Electric Switches

Drive Wheels:

The wheels below the engine use hydraulics to drive the conveyor unit. They have a lever to manually engage or disengage the drive mechanism. When disengaged, insert the retaining clip to secure.



CAUTION: Equipment Damage Likely
Always disengage drive wheels before transport. Hydraulic motors will be damaged if driven at highway speeds.

Hopper Steering Wheels:

The wheels at the hopper are steerable, and turn the unit when manoeuvring. Use the specified lever on the hydraulic valve bank to operate.

Hydraulic cylinders are used to raise and lower the wheels. Raising, drops the hopper to sit on the ground for unloading. Lowering the wheels, lifts the hopper, for moving the unit.

Hydraulic check valves lock the wheels, when they are raised.

IMPORTANT:

Do not extend the wheel cylinders fully.
Raising the hopper too high may cause it to upend.

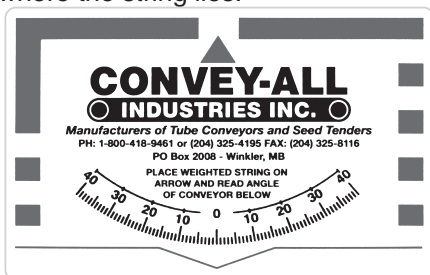
Hydraulic Motor on Drive Box:

The conveyor belt is driven by hydraulics.

Angle of Operation Indicator:

On the drive box, is a decal to assist in calculation of operating angle.

Hold a weighted string against the arrow (above the Convey-All logo). Reference the graph and read where the string lies.



36-1800-0004



Fig 22 - Disengaged Drive Wheels



Fig 23 - Steering Wheels

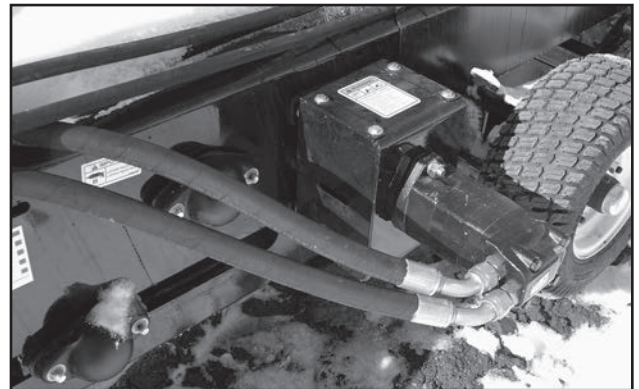


Fig 24 - Decal on Drive Box



Fig 25 - Decal on Drive Box

Oil Tank Heater (Optional):

This is an electric heater patch, which is glued to the bottom of the Hydraulic Reservoir.

Block Heater (Optional):

This is an electric heater patch, which is glued to the bottom of the engine block.

Oil Cooler (Optional):

This is a fan which is mounted in front of the hydraulic reservoir.

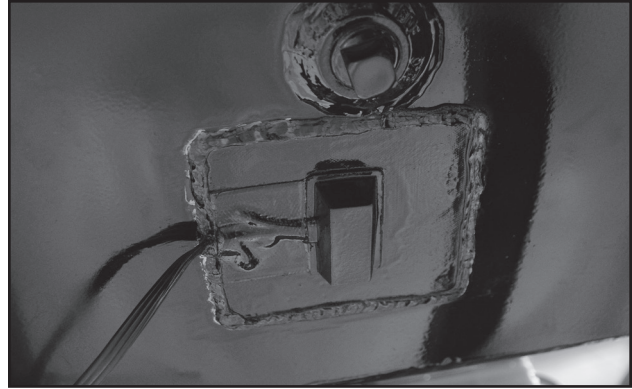


Fig 29 - Oil Tank Heater, bottom of Reservoir

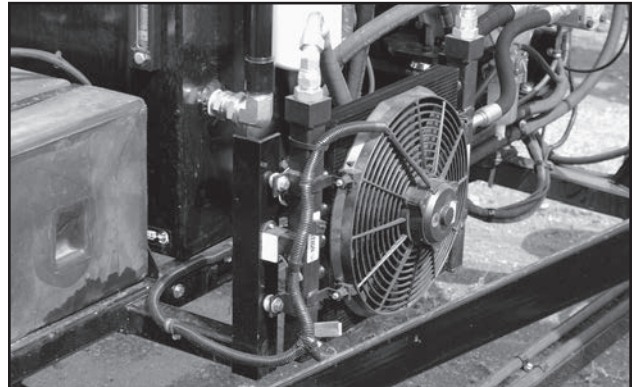


Fig 26 - Oil Cooler

2-5/16 Inch Ball Hitch (Optional):

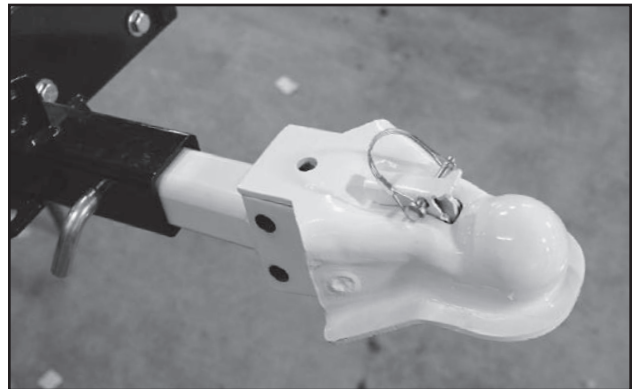


Fig 27 - 2-5/16 Ball Hitch

Hitch and Jack Storage Plate:

There is a plate mounted to the conveyor's undercarriage. This is where the hitch and jack can be placed for storage, when not in use.

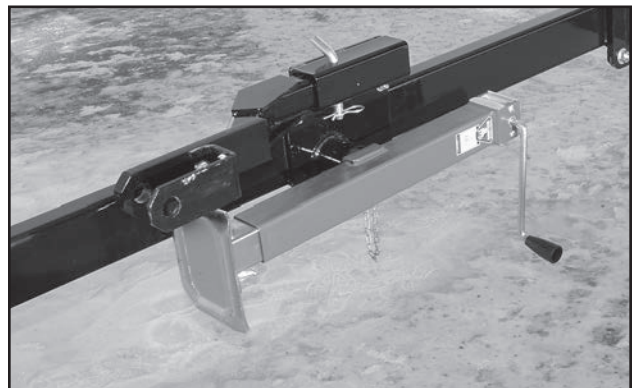


Fig 28 - Storage Plate

3.5 ATTACHING TO TOW VEHICLE

It is recommended that the conveyor be attached to a tractor whenever it is moved around a yard or into working position. It may be towed by a truck when transporting over long distances.

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



WARNING: Electrocution Hazard
Ensure enough clearance from overhead obstructions, power lines or other equipment.

1. Clear the working area of bystanders, especially small children.
2. If the conveyor is above a storage facility:
 - Raise the conveyor tube so the discharge spout clears the structure.
 - Use the mover kit, to drive the conveyor away.
 - Lower the tube to it's collapsed position.
3. Ensure that there is sufficient room and clearance to back up to the conveyor.



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

4. The hitch and jack are removable. Install the jack.
5. Raise the hopper end of conveyor high enough to install the hitch.

Secure hitch with the anchor pin. Place the retainer before using hitch.

6. Align the tow vehicle's drawbar with the hitch of the conveyor while backing up.
7. Set the park brake before dismounting.
8. Use the jack to raise the hopper and hitch to the drawbar height and install the pin with its retainer clip, to connect the tow vehicle.
9. Reverse the above procedure when unhooking.

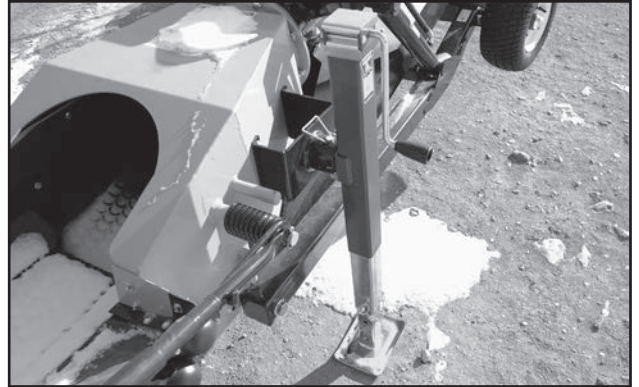


Fig 31 - Jack



Fig 32 - Hitch

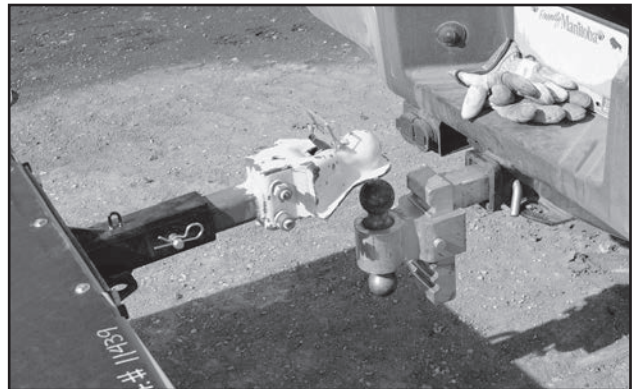


Fig 33 - Ball Hitch (Optional)



Fig 30 - Attached to Tow Vehicle

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.
2. Transport the conveyor to the working area.
Refer to Section 3.9
3. Attach the jack. Use it to raise and support the hopper.
4. Detach the conveyor from the tow vehicle.



CAUTION: Safety Hazard
Remove hitch from conveyor to prevent interference and clear a tripping hazard.

5. Use the jack to lower the hopper to the ground.



WARNING: Electrocution Hazard
Ensure enough clearance from overhead obstructions, power lines or other equipment.

6. Remove the retainer clip, engage the drive wheels on the conveyor's mover kit.
7. Start the conveyor's engine.
8. Lower the steering wheels.
9. Retract the jack, and store it.
10. Drive the conveyor up to the storage facility while it is in its lowered configuration.
11. Use the hydraulics to raise the conveyor tube to working height.

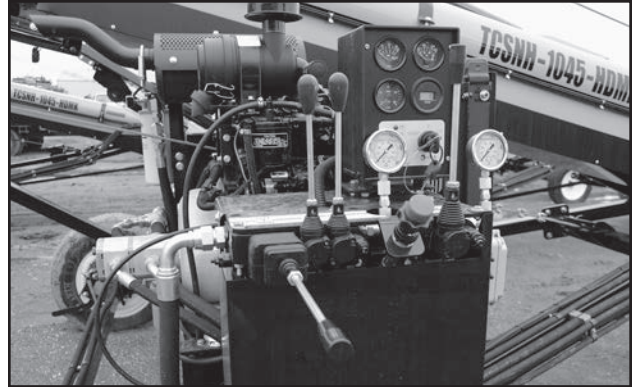


Fig 34 - Start Engine

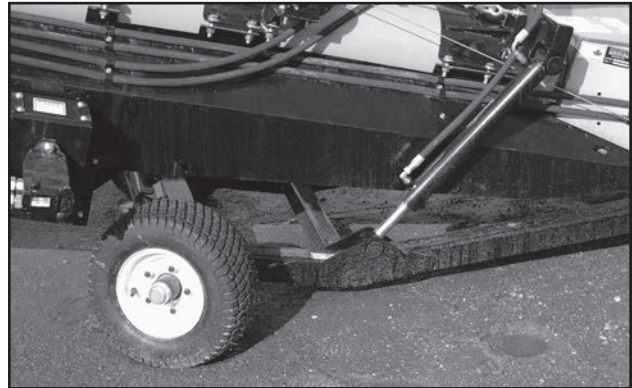


Fig 35 - Steering Wheels

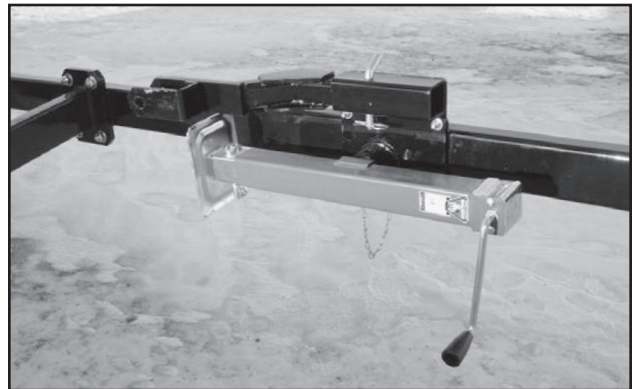


Fig 36 - Hitch and Jack Storage

12. Advance until the conveyor is in position:
 - the discharge spout is above the storage bin, or
 - the hopper is in position for unloading

Important:

To prevent damage
to the conveyor tube and belt,
be sure it does not rest on the any structure.

13. Raise the steering wheels, to lower the hopper to the ground.



CAUTION: Upending Hazard
Always check the weight of the hopper end
to prevent upending.

14. Stake or weigh down the hopper end to prevent upending when the machine is emptying.
15. Close valve (if equipped). to lock unit in position.
16. Chock the drive wheels.
17. Reverse the above procedure to remove from location.



Fig 37 - Discharge Spout



Fig 38 - Hydraulic Valve to Lift Cylinder



Fig 39 - Chocked Wheels

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 3.3
3. Review the Workplace Hazards schematic and use extra care when inside the hazard area. Keep all spectators and bystanders out of this area.

Should anyone enter this area, stop the machine immediately.

4. Check that all guards are in place and working as intended.
5. Back the truck/tender into position for loading or unloading.

3.7.1 Starting Conveyor:

6. Move throttle to its idle position.
7. Close the choke if the engine is cold or if the unit has not been run for a while.
8. Turn the ignition key clockwise to start the engine. Release the key when the engine starts.
9. Run for 2-3 minutes to allow the engine to warm.
10. Increase engine speed to full throttle.
11. Turn on the conveyor belt using the hydraulic valve lever.
12. Start the flow of material and unload into hopper.

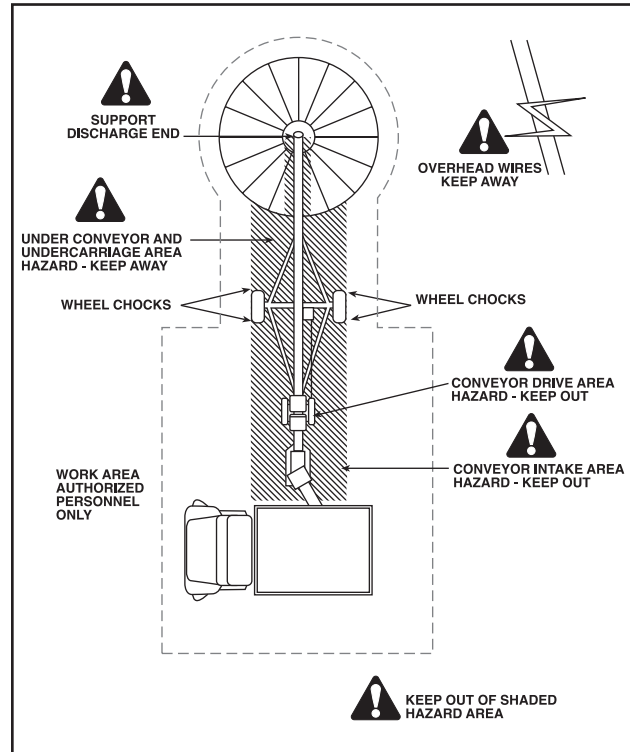


Fig 41 - Workplace Hazard Area



Fig 40 - Attach Tractor

3.7.2 Stopping Conveyor:

1. Stop unloading. Wait for conveyor belt to empty.
2. Stop the conveyor belt.
3. Move the throttle to idle position.
4. Turn off engine and remove ignition key.

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.

See to the emergency. Correct before resuming work.

3.7.4 Restarting after Emergency Stop:

When the machine is shut down inadvertently or in an emergency, the conveyor belt will still be covered with material.

Since start-up torque loads are much higher than normal when belt is full, restart at a low engine speed.

Remove as much product from the hopper as possible.

3.7.5 Unplugging:

In unusual moisture, crop or material conditions, the machine can plug. When unplugging, follow this procedure:

1. Stop the conveyor belt.
2. Stop the engine.
3. Lock-out, tag-out the controls.
4. Remove material from discharge and hopper area.
5. Reposition unit if discharge area plugs due to lack of clearance.



Fig 42 - Working Conveyor

3.8 OPERATING HINTS:

- Keep the hopper full for maximum capacity. Most efficient results will be obtained when flow of incoming material is directed to the front (closer to the tube) of the hopper.
- Always listen for any unusual sounds or noises. If any are heard, stop the machine and determine the source. Correct the problem before resuming work.
- Do not run the machine for long periods of time with no material on the belting. This increases the wear. Try to run only when moving material.
- Do not support discharge end directly on the storage facility.
- Stake the hopper or weigh it down to prevent up ending.
- For better performance, use a transfer conveyor or drive over conveyor, to move product from the storage facility/truck to conveyor hopper.
- The hopper is designed with flashing to seal the junction of the belt with the sides of the hopper. It must be kept in good condition to prevent the material from "leaking" out of the hopper. Replace flashing if "leakage" occurs.
- Belt Speed:
The best results are obtained when the drive is set to provide a belt speed of 600 ft./min.

Count the number of belt revolutions per unit time to determine belt speed. Use the connector splice 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 hydraulic lift can set the tube angle at any position between 12° and 35° when operating. Because the belt does not have roll-back barriers, the product will roll-back if the angle is too steep. Do not position at more than 35°.

Note:

The lower the angle,
the greater the capacity.



Fig 43 - Full Hopper

3.9 TRANSPORTATION



Transporting Safety

- Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the conveyor.
- Check with local authorities regarding conveyor transport on public roads. Obey all applicable laws and regulations.
- Always travel at a safe speed. Use caution when making corners or meeting traffic.
- Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
- 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.
- Do not allow riders on the conveyor when transporting.
- Close valve in hydraulic line (if equipped).
- Lower conveyor to its collapsed position for transporting.
- Attach conveyor to towing vehicle with a pin and retainer. Always attach the safety chain.
- Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
- Stay away from overhead obstructions and power lines when transporting. Electrocutation can occur without direct contact.
- Always use hazard warning flashers on tractor when transporting unless prohibited by law.

Convey-All Transloader Conveyors are designed to be easily and conveniently moved from place to place. When transporting the unit, follow this procedure:

1. Refer to Section 3.5 to attach conveyor to tow vehicle.



CAUTION: Equipment Damage Likely
Always disengage drive wheels before transport. Hydraulic motors will be damage if driven at highway speeds.

2. Ensure the conveyor unit is ready for transport:
 - It is in its fully collapsed position.
 - Drive wheels are disengaged.
 - Hydraulic lines are closed.
 - Hitch is attached using anchor pin, retainer and safety chain.
3. Be sure all bystanders are clear of the machine.
4. Raise the jack and rotate it on its anchor bracket, or remove it and store.

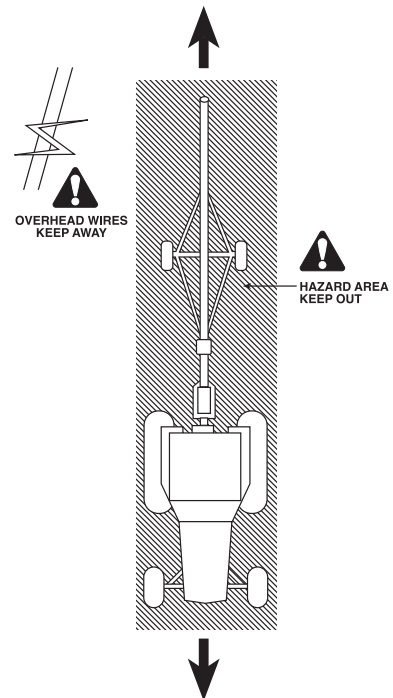


Fig 44 - Transporting Hazard Area

5. If equipped with transport lights, connect the wiring harness across the hitch. Secure with clips, zip ties or tape. Provide slack for turning.
6. Remove chocks from around conveyor wheels.
7. Ensure the SMV (Slow Moving Vehicle) emblem, all lights and reflectors required by local highway and transport authorities are in place. They must be clean and clearly visible by all overtaking and oncoming traffic.
8. Do not allow riders on the conveyor.
9. Slowly pull away from the working area. Be sure everything is connected and nothing is hanging.
10. 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.
11. Never travel across slopes of more than 20°. It is better to go straight up and down.
12. It is not recommended that the machine be transported faster than 32km/h (20mph).

Road Speed	Weight of fully equipped or loaded implement(s) relative to weight of towing machine
up to 32km/h (20mph)	1 to 1, or less
up to 16km/h (10mph)	2 to 1, or less
Do not tow	More than 2 to 1

Table 1 - Road Speed

13. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.
14. Always use hazard flashers on the tow vehicle when transporting unless prohibited by law.

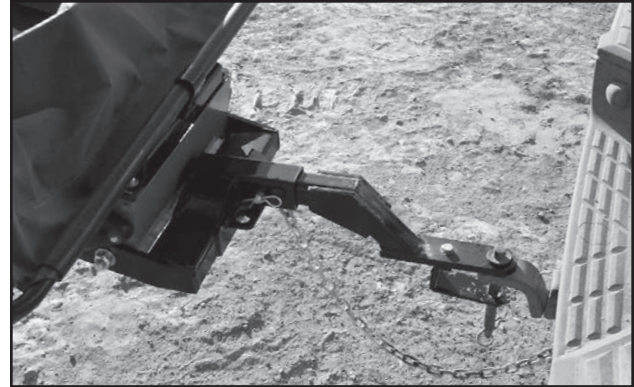


Fig 45 - Hitch Attached to Tow Vehicle

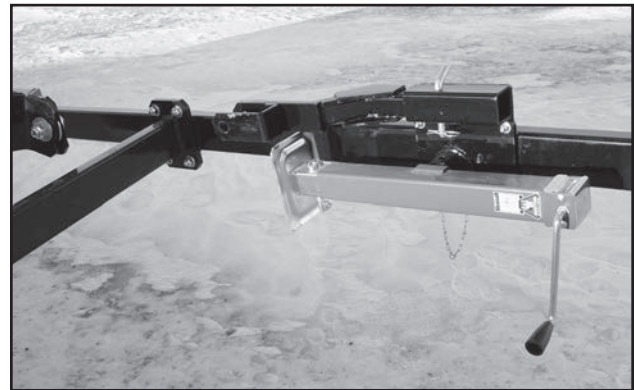


Fig 46 - Hitch and Jack Storage Plate



Fig 47 - Remove Chocks

3.10 STORAGE



Storage Safety

- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Lower conveyor to its lowest position for storage unless supported by a storage facility.
- If required, make sure the unit is solidly blocked up.
- Make certain all mechanical locks are safely and positively connected before storing.

After the season's use, the conveyor should be thoroughly inspected and prepared for storage.

Repair or replace any worn or damaged components to prevent any unnecessary down time at the start of next season. To have a long, trouble free life, this procedure should be followed when preparing the unit for storage:

1. Remove all residual material from the hopper and the tube.
2. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove the entangled material.
3. Wash the entire machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris or residue.
4. Inspect all hydraulic hoses, fittings, lines, couplers and valves. Tighten any loose fittings. Replace any hose that is badly cut, nicked or abraded or is separating from the crimped end of the fitting.
5. Remove the battery. Be sure it is fully charged. Store it inside. Do not sit the battery on a cold concrete floor.
- 6.
7. Touch up all paint nicks and scratches to prevent rusting.
8. Select an area that is dry, level and free of debris.



Fig 48 - Collapsed Position

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Section 4: SERVICE AND MAINTENANCE



Servicing Safety

- Review the Operator's Manual and all safety items before working with, maintaining or operating the machine.
- Place all controls in neutral. Stop engine. Wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- 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.
- Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
- Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
- Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
- Make sure there is plenty of ventilation. Never operate the engine in a closed building. The exhaust fumes may cause asphyxiation.
- Place stands or blocks under frame before working beneath the unit.
- Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
- Before resuming work, install and secure all guards when maintenance work is completed.
- Keep safety decals clean. Replace any decal that is damaged or not clearly visible.

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

4.1 FLUIDS AND LUBRICANTS

Fuel and Engine Oil:

Refer to the operator's manual for the engine which is used on the conveyor, to find specific information.

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:

Use the Service Record provided on page 4-13, to keep a record of all scheduled maintenance.

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 sealed and greasable. They require minimal grease.

Recommended greasing is 1 small stroke every 2 weeks. Be careful not to over grease as this may push the seal out.

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

4.2 SERVICING INTERVALS

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 periods recommended below 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 engine model contained in the present unit.

4.2.1 After 10 Hours or Daily:

1. Check fuel level. Add as required.
2. Check engine oil level. Add as required.
3. Check oil level in hydraulic reservoir. Add as required.
4. Clean air filter.



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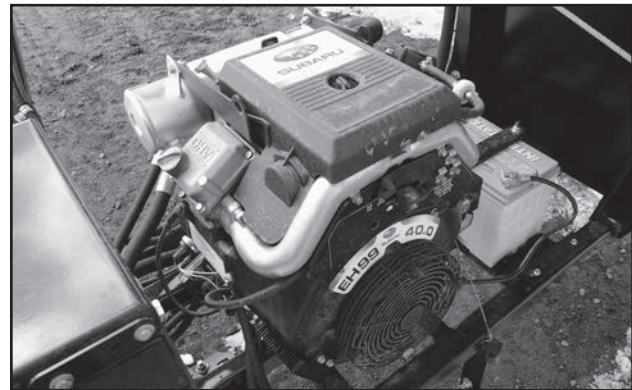


Fig 49 - Subaru Gas Engine

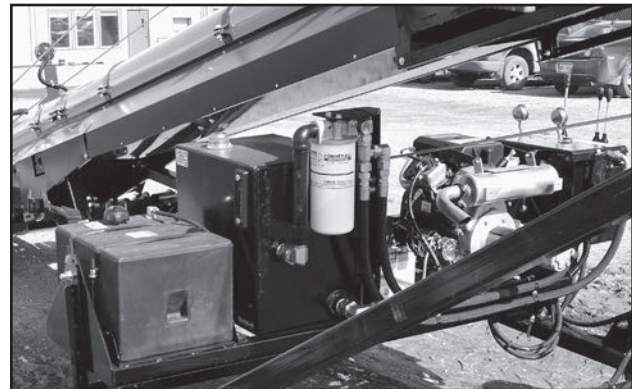


Fig 50 - Fuel Tank and Hydraulic Oil Reservoir

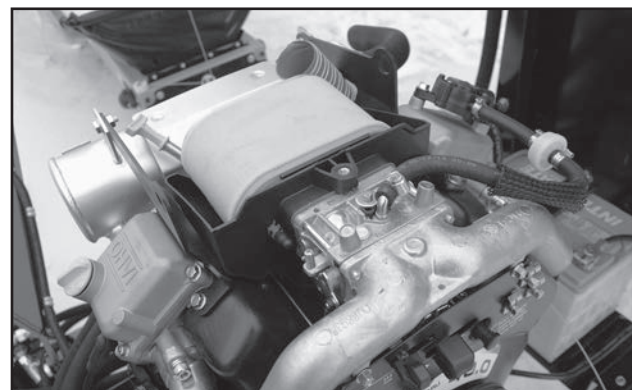


Fig 51 - Air Filter with Cover Removed

5. Grease hopper roller bearings.



Fig 52 - Hopper Bearings

6. Grease transition roller bearings

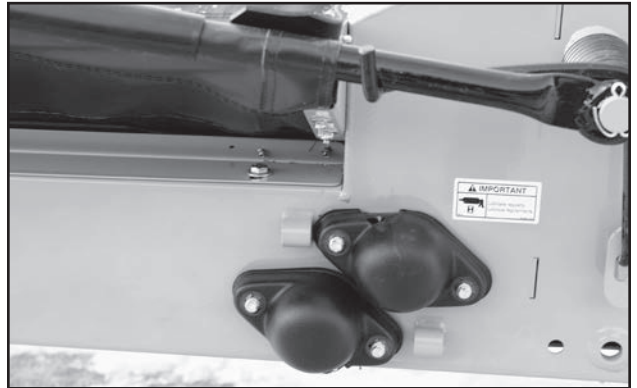


Fig 53 - Transition Roller Bearings

7. Grease discharge roller bearings.

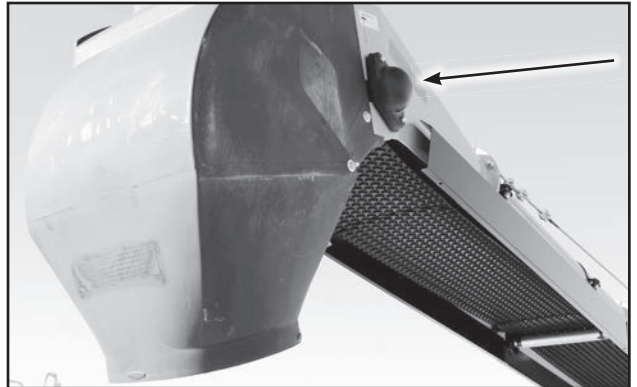


Fig 54 - Discharge Roller Bearings

8. Grease drive box assembly bearings.



Fig 55 - Drive Box

4.2.2 After 50 Hours or Weekly:

9. Check the conveyor belt tension.
Refer to Section 4.3.1

Note:

A properly tensioned belt will not slip when in operation.

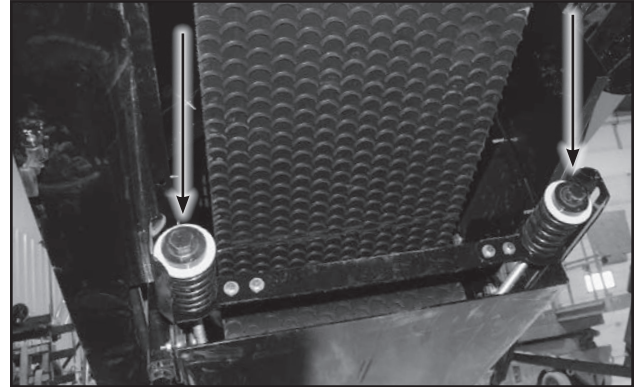


Fig 56 - Tension Bolts, Below Drive Box

10. Check conveyor belt alignment.
Refer to Section 4.3.2

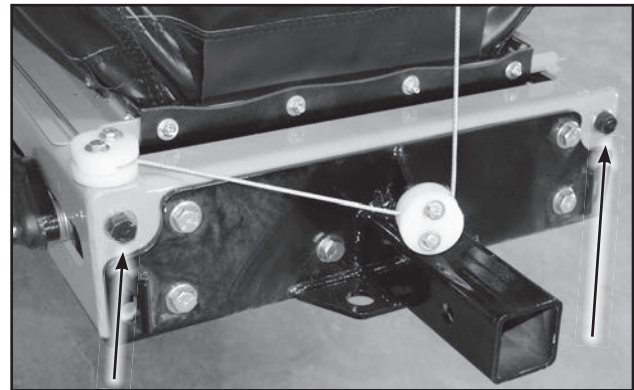


Fig 57 - Adjustment Bolts on Hopper

11. Check the condition of the rubber hopper flashing.
Be sure it still seals the hopper to prevent leaking.

If any product comes out of the hopper around the flashing, loosen flashing mounting screws and adjust. Retighten anchor screws and try running the conveyor again. Repeat until no grain is lost.

If the flashing is stuck to the belt, manually peel the flashing up and off the hopper. Replace it if necessary.

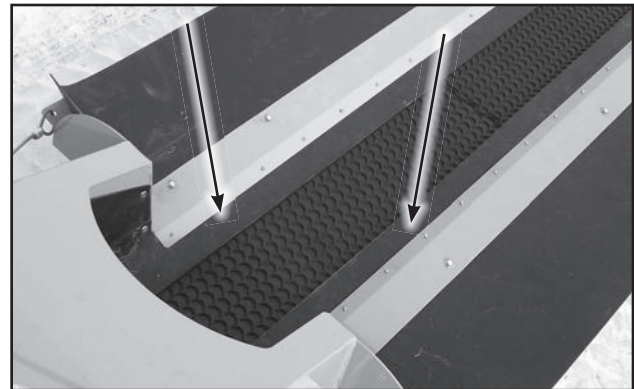


Fig 58 - Hopper Flashing

12. Check for wearing teeth on the sprockets of the drive wheels.

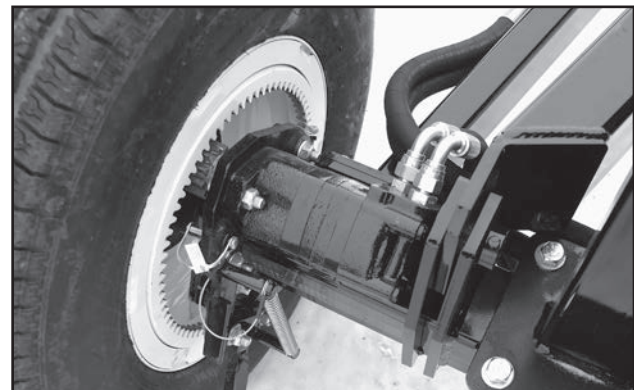


Fig 59 - Drive Wheels

13. Oil hydraulic drive coupler

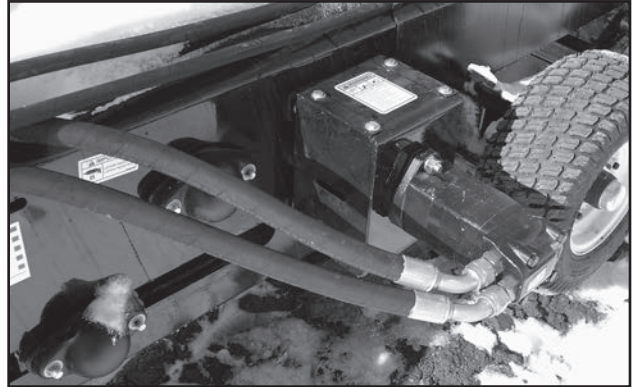


Fig 60 - Hydraulic Drive

4.2.3 After 200 hours or Annually:

14. Change engine oil and filter.

- a. Dipstick
- b. Fill Plug
- c. Oil Filter

15. Check radiator fluid level (if equipped with diesel engine).

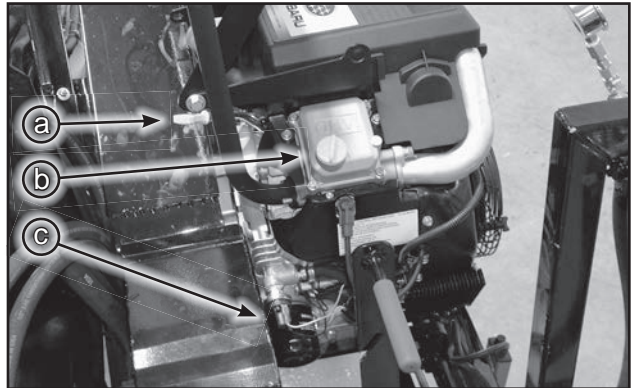


Fig 61 - Subaru Engine

16. Change in-line fuel filter.

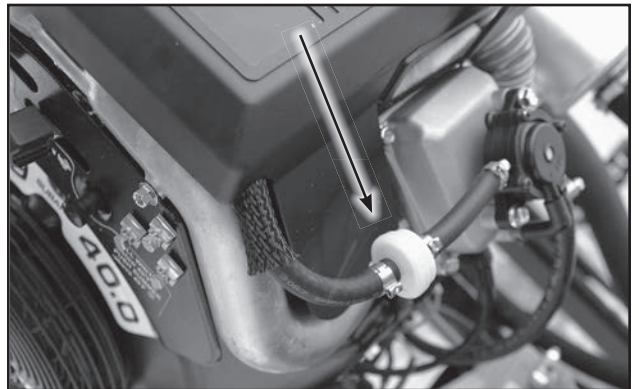


Fig 62 - In-line Fuel Filter, Gas Engine

17. Change engine air filter.

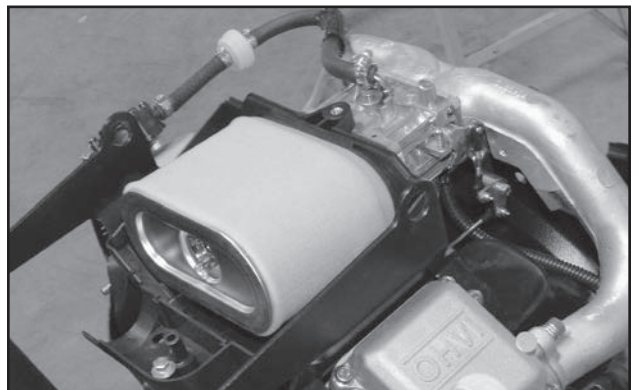


Fig 63 - Subaru Air Filter with Cover Removed

18. Change hydraulic system oil and filter.



Fig 64 - Countershaft To Drive Roller Belt

19. Grease steering wheel axle bushings and cylinder.



Fig 65 - Steering Wheel Axle Bushing

20. Grease steering wheel lift cylinders.



Fig 66 - Steering Wheel Lift Cylinder

21. Grease conveyor lift cylinder.

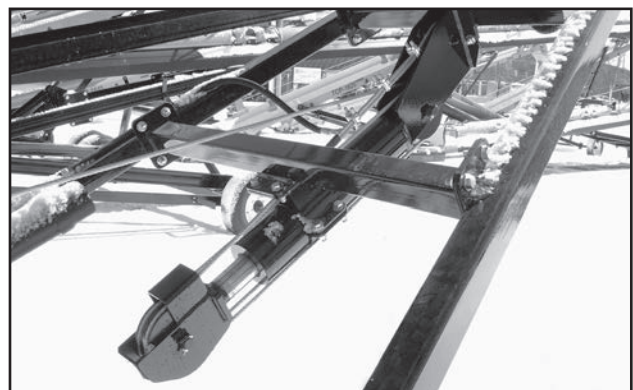


Fig 67 - Tube Lift Cylinder

22. Grease upper lift bearings.



Fig 68 - Upper Lift Bearings

23. Check for tube straightness.
Adjust eyebolt if required.



Fig 69 - Straight Conveyor Tube

24. Repack wheel bearings.



Fig 70 - Drive Wheels

25. Wash the machine



Fig 71 - Tube Conveyor

4.3 MAINTENANCE

By following a careful service and maintenance program for your machine, you will enjoy many years of trouble-free service.



WARNING: Rotating Part Hazard
Turn off engine. Lock out power and wait for belts to stop moving.

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. To maintain the belt, follow this procedure:

Use the drive box tension bolts to adjust the belt.

The tension bolts have yellow washers sandwiched between the bolt and spring.

Reference the tension indicator on the outside of each spring. Line up the yellow washer with the points inside the indicator window. Using these points, the springs will measure 3-3/4" (95 mm).

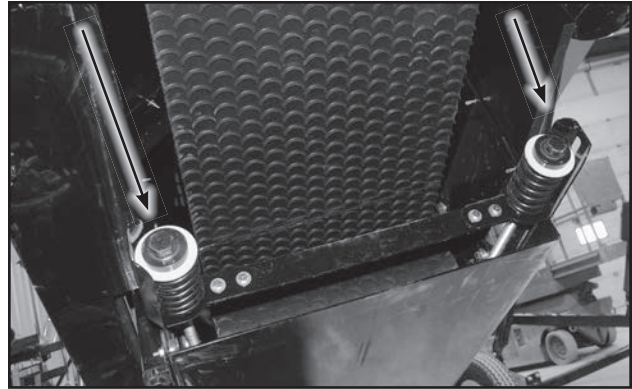


Fig 72 - Spring Tension Bolt

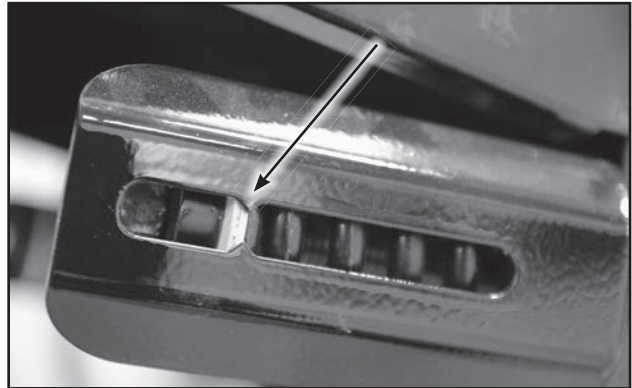


Fig 73 - Tension Indicator

4.3.2 Conveyor Belt Alignment:

The belt is properly aligned when it rotates in the centre of the rollers on both ends and in the drive box housing. As with tensioning, the alignment should be checked weekly, or as required.

1. Rotate the conveyor belt a half revolution when the belt is new and check the position of the belt on the drive, discharge and hopper rollers.

Note:

If belt is out of alignment,
it will move to the loose side.
Tighten loose side or loosen tight side.

2. Loosen the roller bearing housings bolts.
3. Tighten or loosen the tension spring bolts by a 1/4 turn to 2 turns.
4. Tighten the roller bearing housings bolts.
5. Run a couple of revolutions and check again.
6. Repeat steps 2 to 5, until the belt is centred.

Check frequently during the first few minutes of operation and then several times during the first 10 hours.

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

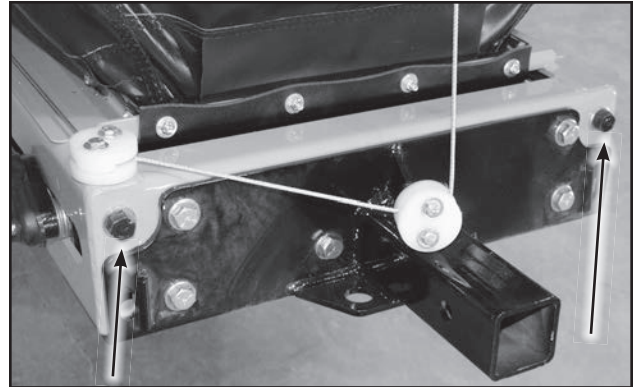


Fig 74 - Adjustment Bolts on Hopper with S-Neck Transition

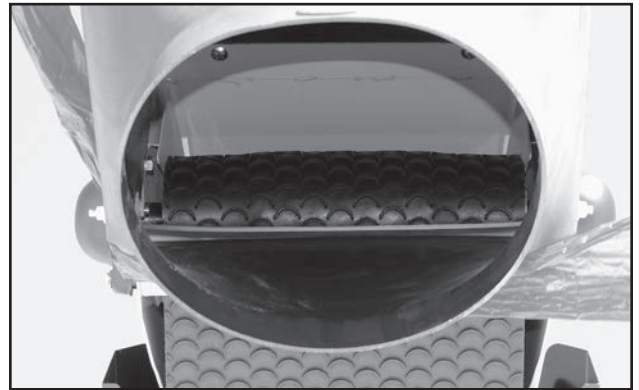
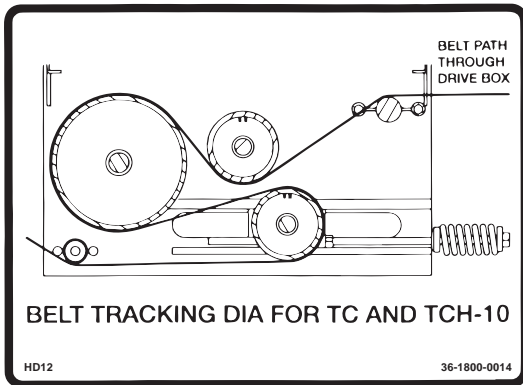


Fig 75 - Inside Discharge Spout

4.3.3 Conveyor Belt Replacement:

1. Rotate the conveyor belt until the Alligator Lacing is positioned under the tube, inside the wind guard, and is accessible.
2. Rotate the tension bolt in the drive box to its loosest position.
3. Pull all the slack to the lacing area.
4. Remove the lacing pin and open the belt.
5. Attach one end of the replacement belt to the end of the belt (to be removed) which is hanging closest to the hopper.
6. 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.



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7. Disconnect the old belt.
8. Connect the ends of the new belt. Place the pin in the Alligator Lacing. Crimp the ends of the pin.
9. Set the belt tension. Refer to Section 4.3.1
10. Set the belt alignment. Refer to Section 4.3.2.

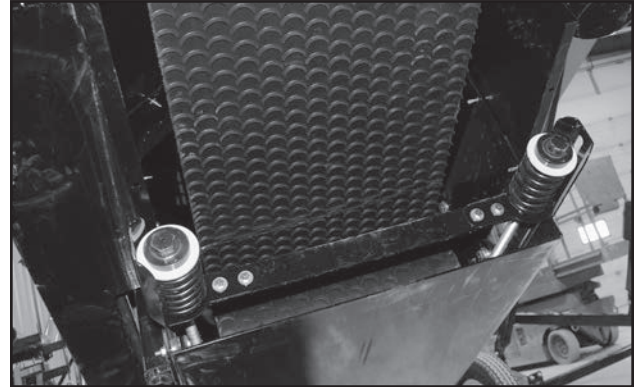


Fig 76 - Spring Tension Bolts

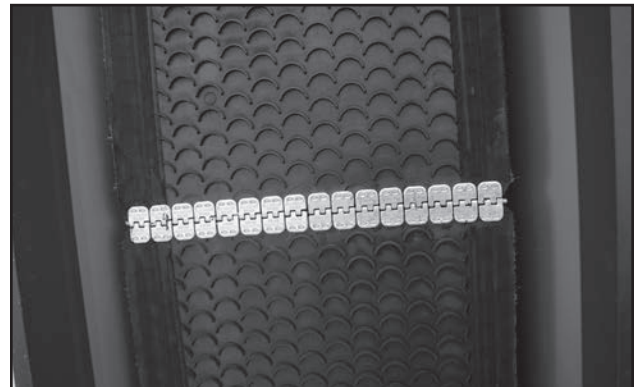


Fig 77 - Conveyor Belt Seam, as Seen in Hopper

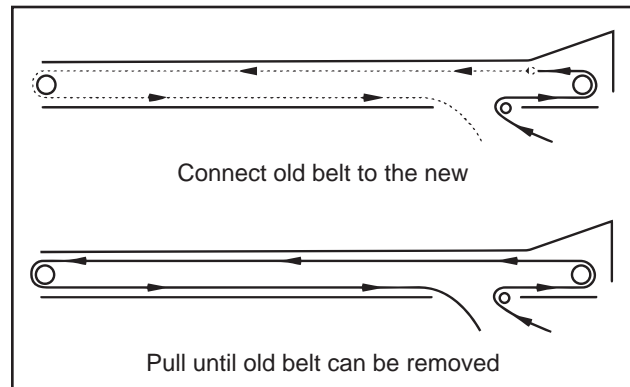


Fig 78 - Threading the Belt

4.3.4 Change Engine Oil and Filter

1. Review the Operator's Manual for the engine.



WARNING: Rotating Part Hazard
Turn off engine. Lock out power and wait for belts to stop moving.



DANGER: Hot Components
Allow the engine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin.

Note:

It is best to change oil while engine is warm to keep contaminants in suspension.

2. Place a pan under the drain plug.
3. Remove the drain and allow the oil to drain for 10 minutes.
4. Install and tighten the drain plug.
5. Remove engine oil filter.
6. Dispose of the used oil in approved container.
7. Apply light coat of oil to the O-ring of new filter and install. Snug up by hand, then tighten another half turn.
8. Fill crankcase with specified oil.
9. Run the engine for 1-2 minutes and check for oil leaks.
10. If leaks are found, tighten drain plug slightly.
11. Check engine oil level. Top up as required.

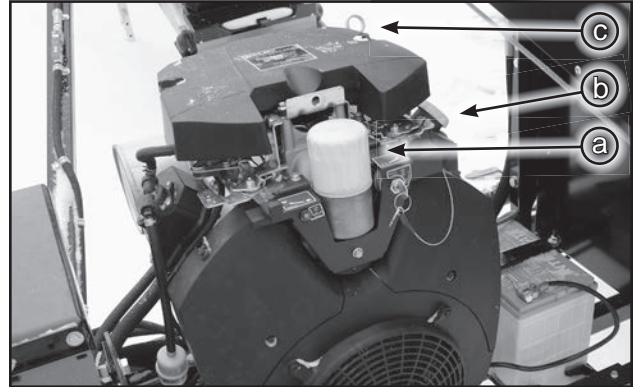


Fig 79 - Kohler: Oil Filter (a), Oil Fill Plug (b), Dip Stick (c)

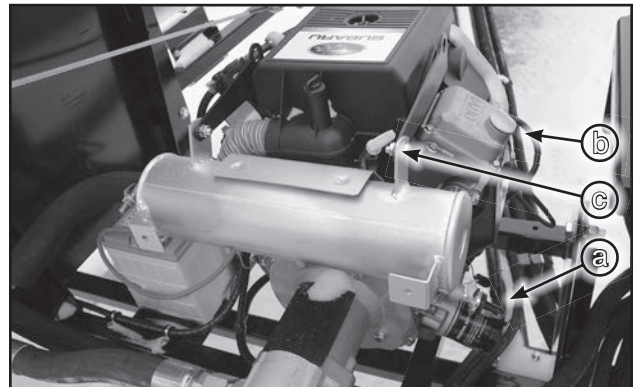


Fig 80 - Subaru: Oil Filter (a), Oil Fill Plug (b), Dip Stick (c)

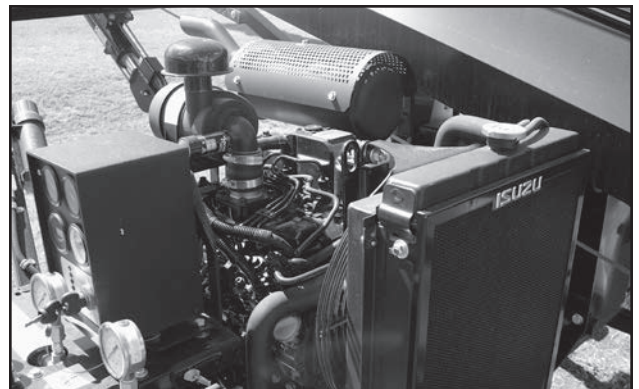


Fig 81 - Isuzu Diesel Engine

4.3.5 Change In-Line Fuel Filter:

1. Review the operator's manual for the engine. Specific instructions may vary between engine models.



WARNING: Rotating Part Hazard
Turn off engine/motor. Disconnect power source and wait for belts to stop moving.



DANGER: Hot Components
Allow the engine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin.

2. Place a pan under the filter to catch any spilled fuel.
3. Clamp off the line on each side of the filter to prevent the loss of any fuel.
4. Loosen the hose clamps on either side of the fuel filter.
5. Remove old fuel filter.
6. Install new filter and tighten hose clamps to their specified torque.
7. Remove catch pan and dispose of any spilled fuel in an environmentally safe manner.
8. Start engine and run for 1 to 2 minutes to check for leaks at the fuel filter. Re-tighten hose clamps if any leakage occurs.

4.3.6 Clean/Change Air Filter

1. Remove cover over the air filter.
2. Remove the foam from the engine.
3. Use an air hose to blow the dust and debris out of the foam.
4. Reinstall/Replace foam and secure the cover.

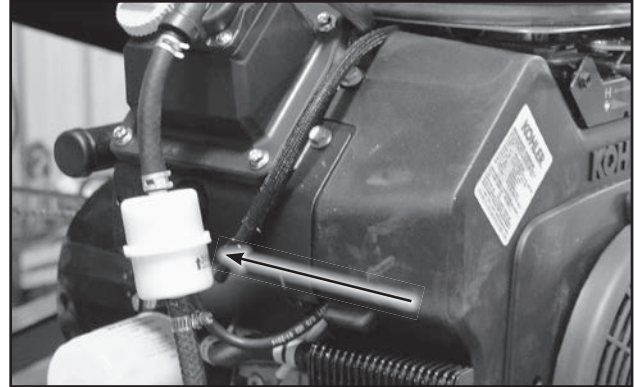


Fig 82 - In-Line Fuel Filter

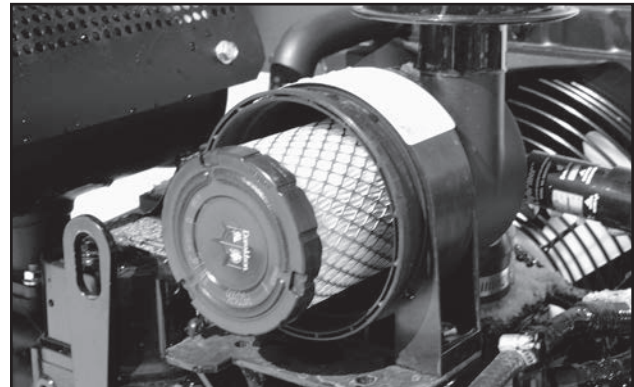


Fig 83 - Air Filter, Isuzu Diesel Engine

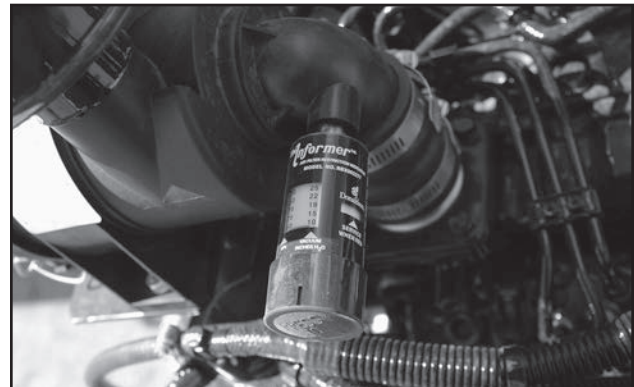


Fig 84 - Air Filter Restriction Indicator, Diesel Engine

4.4 SERVICE RECORD

See Section 4.3 for details of service. The Servicing Intervals 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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<div style="display: flex; justify-content: space-between;"> <div style="transform: rotate(-45deg); transform-origin: center;">Maintenance</div> <div>Hours</div> </div>													
		Serviced By											
10 Hours or Daily													
Check Fuel Level													
Check Engine Oil Level													
Clean Air Filter													
Grease Hopper Belt Roller Bearings													
Grease Transition Roller Bearings													
Grease Discharge Roller Bearings													
Grease Drive Box Roller Bearings													
50 Hours or Weekly													
Check Conveyor Belt Tension													
Check Conveyor Belt Alignment													
Check Hopper Flashing													
Check For Wearing Teeth on Drive Wheels													
Oil Hydraulic Drive Coupler													
200 Hours or Annually													
Change Engine Oil and Filter													
Check Radiator Fluid Level													
Change In-Line Fuel Filter													
Change Air Filter													
Change Hydraulic System Oil and Filter													
Grease Steering Wheel Axel Bushings													
Grease Steering Wheel Lift Cylinder													
Grease Conveyor Tube Lift Cylinder													
Grease Upper Lift Bearings													
Check Tube Straightness													
Repack Wheel Bearings													
Wash Machine													

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: TROUBLE SHOOTING

In this section, is a list of common problems, causes and solutions which may be encounter.

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

Problem

Possible Cause	Possible Solution
Engine won't start	
Low battery	Recharge or replace
No fuel	Refuel
Cold engine	Open choke
Air filter dirty	Clean or replace the air filter
The engine blogs down or is labouring	
not enough power	Open the gate to unload more product. This allows the governor to torque and engage.
Hopper flashing too tight	Adjust to loosen the flashing
Conveyor belt doesn't turn or is slipping	
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
Conveyor belt loose	Tighten and align
Conveyor belt loose because it has stretched	Shorten belt
Conveyor 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
No power	Start engine, 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
Set screw (relief valve) on Dtent on control valve on belt drive valve isn't set correctly	Sweet spot is to turn the set screw all the way in, then turn back 1-1/2 turns. Turning back/out increases volume of flow, turning in increases pressure.

Problem - cont'd

Possible Cause	Possible Solution
Conveyor belt doesn't turn or is slipping, cont'd	
Hydraulic motor on drive roller may be damaged	Hydraulic motor may need to be replaced
Conveyor belt won't align	
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	
Conveyor belt not tight enough	Tighten conveyor belt
Conveyor belt not pinched enough	Inside drive box there is a drive roller and pinch roller. Be sure the belt is snug between both rollers.
Conveyor angle exceeds 30 degrees	Reposition with a lower tube slope
Belt is slowing down	
Problem with 2 stage pump	Check flow of the pumps. Replacement of entire pump may be needed
No hydraulic flow	
Hydraulic valve closed or plugged	Open hydraulic valve
	Clean or replace hydraulic valve
Hydraulic pump may be damaged	Check hydraulic pump. Replace if necessary
Hydraulic pressure may be low, check gauge. It should be in 2000lbs range	Check hydraulic pump. Replace if necessary
Drive wheels don't work	
Wheels may not be engaged	Remove retainer clip and engage drive mechanism
Steering axle keeps sinking to the ground	
Leak in check valve or cylinder	Replace cartridge in check valve, or replace seals in cylinder

Section 6: SIGN-OFF FORM

Convey-All 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 unit must read and clearly understand all Safety, Operating and Maintenance information presented in this manual.

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

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

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

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Section 7: REFERENCE

For information not included here, or for a digital copy of this manual, please call your dealer or Convey-All Industries Inc. directly for assistance (1-800-418-9461).

7.1 SPECIFICATIONS

Model	Type of Under-Carriage	Tube Diameter	Belt Width	Axle Width	Transport Height	Transport Length	Gas Power	Diesel Power
TCSNH-1045-HDMK	A-Frame	10"	16"	8' 4"	11' 5"	53' 7"	38hp	40hp
TCSNH-1052.5-HDMK	A-Frame	10"	16"	8' 4"	12' 10"	60' 8"	38hp	40hp

Table 2 - Specifications

Specifications subject to change without notice.

7.2 WORKING MEASUREMENTS

Model	15°		20°		25°		30°	
	Height	Length	Height	Length	Height	Length	Height	Length
TCSNH-1045-HDMK	n/a	n/a	14' 5"	46'	18' 8"	44' 8"	22' 10"	43'
TCSNH-1052.5-HDMK	n/a	n/a	17'	53'	21' 10"	51' 6"	26' 7"	49' 6"

Table 3 - Working Measurements

Measurements subject to change without notice.

7.3 BOLT TORQUE

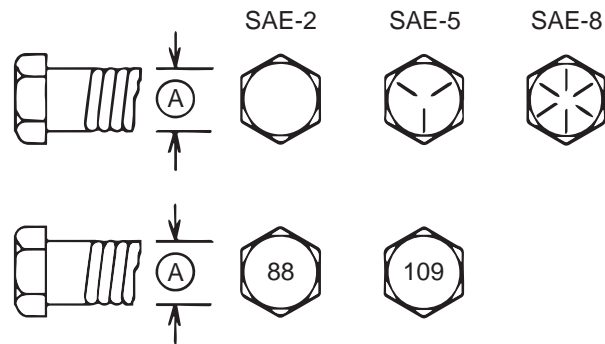
The tables shown below give correct torque values for various bolts and capscrews. Tighten all bolts to the torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt torque chart as a guide. Replace hardware with the same strength bolt.

ENGLISH TORQUE SPECIFICATIONS						
Bolt Diameter "A"	Bolt Torque*					
	SAE 2 (N.m) (lb-ft)		SAE 5 (N.m) (lb-ft)		SAE 8 (N.m) (lb-ft)	
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 4 - English Torque

METRIC TORQUE SPECIFICATIONS				
Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
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

Table 5 - Metric Torque



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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CANADA

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