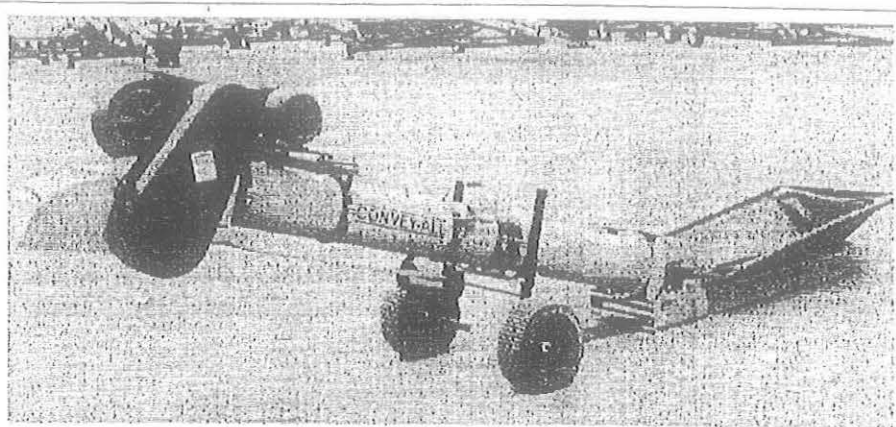
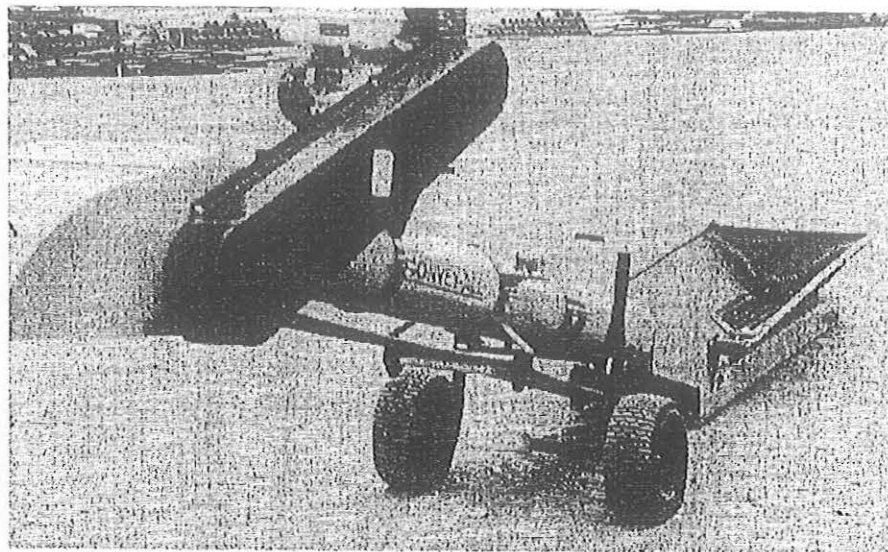


CONVEY-ALL



Electric



Gas

TRANSFER CONVEYOR OPERATOR'S MANUAL

GAS, ELECTRIC AND
HYDRAULIC MODELS

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 St., Winkler, Manitoba, R6W 4B7.

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
TRANSFER CONVEYOR**

WARRANTY REGISTRATION FORM & INSPECTION REPORT

WARRANTY REGISTRATION

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

Customer's Name _____ Dealer Name _____
Address _____ Address _____
City, State/Prov., Code _____ City, State/Prov., Code _____
Phone Number () _____

Conveyor Model _____ Application _____
Serial Number _____ Private ☐
Delivery Date _____ Commercial ☐

DEALER INSPECTION REPORT

___ All Fasteners Tight
___ Drive System Rotates Freely
___ Hydraulic Hoses Free and Fittings Tight
___ Drives Aligned and Tensioned
___ Belting Moves Freely
___ Check Belting Tension and Alignment
___ Lubricate Machine
___ Check Tire Pressure

SAFETY

___ All Guards and Shields Installed and Secured
___ All Safety Signs Installed and Legible
___ Reflectors and SMV Clean
___ Review 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 _____ Owner's Signature _____

WHITE	YELLOW	PINK
CONVEY-ALL	DEALER	CUSTOMER

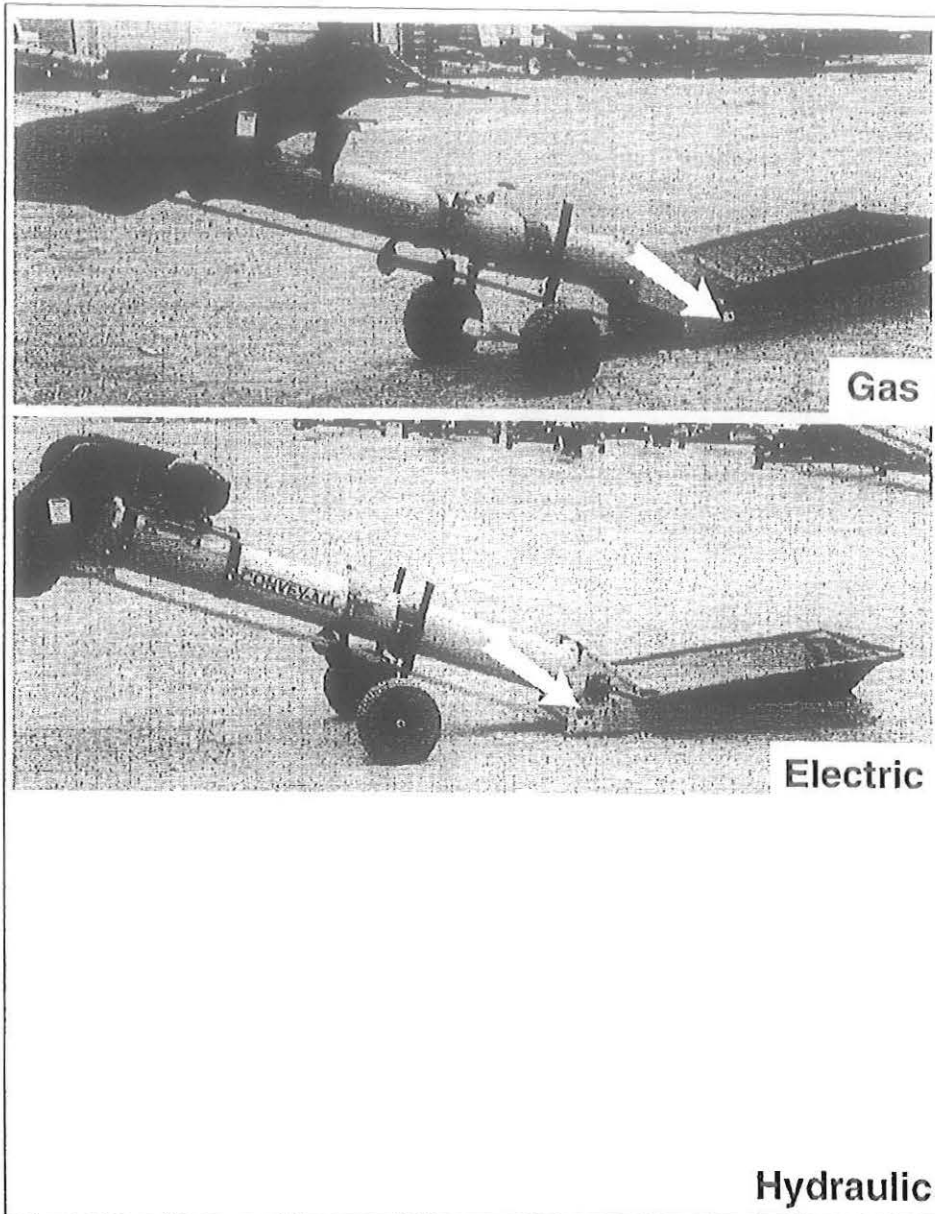
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SERIAL NUMBER LOCATION

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

The serial number plate is located where indicated. Please mark the number in the space provided for easy reference.



SERIAL NUMBER LOCATIONS (TYPICAL)

Model Number

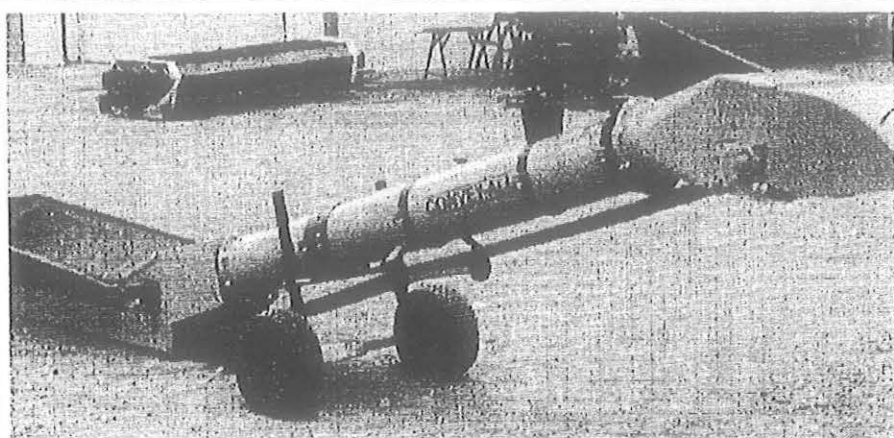
Serial Number

Production Year

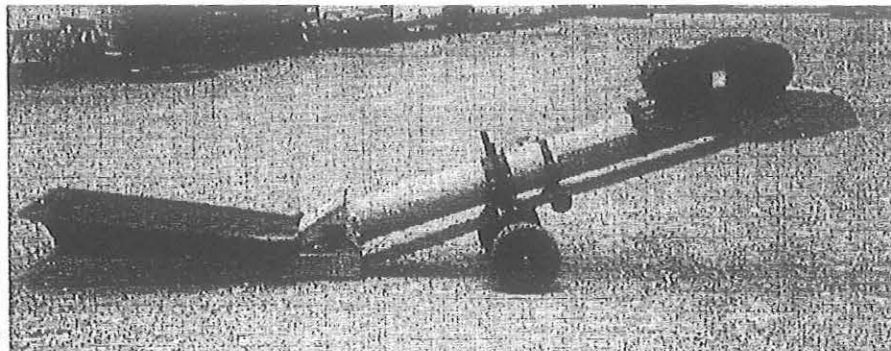
1 INTRODUCTION

Congratulations on your choice of a Convey-All Transfer Conveyor to complement your agricultural operation. This equipment has been designed and manufactured to meet the needs of the discriminating buyer for the efficient moving of grain, pulse crops, fertilizer or any other granular material.

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



Gas



Electric

This manual covers all the Transfer Conveyors made by Convey-All. Use the Index or Table of Contents as a guide when searching for specific information.

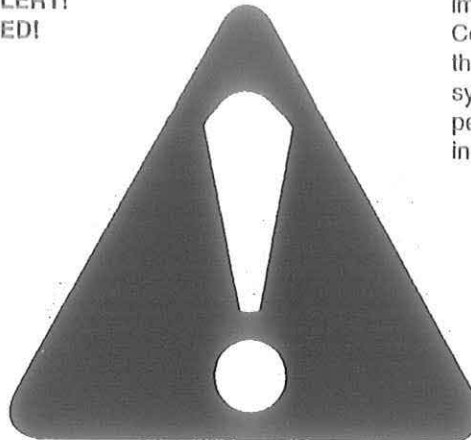
Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Convey-All distributor or dealer if you need assistance, information or additional copies of the manual.

OPERATOR ORIENTATION - The directions left, right, front and rear, as mentioned throughout the manual, are as seen from the tractor driver's seat and facing in the direction of travel when the unit is being towed.

2 SAFETY

SAFETY ALERT SYMBOL

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



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

Why is SAFETY important to you?

3 Big Reasons

Accidents Disable and Kill
Accidents Cost
Accidents Can Be Avoided

SIGNAL WORDS:

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

SAFETY

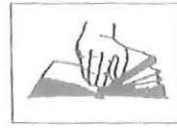
YOU are responsible for the **SAFE** operation and maintenance of your Convey-All Transfer Conveyor. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Transfer Conveyor be familiar with the operating and maintenance procedures and related **SAFETY** information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

Remember, **YOU** are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and 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, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow them. Most accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think **SAFETY!** Work **SAFELY!**

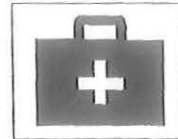
2.1 GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs 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.



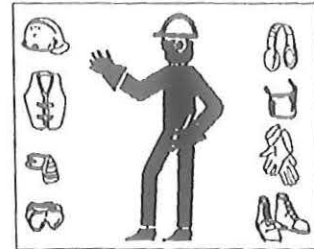
4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.



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

6. Wear appropriate protective gear. This list includes but is not limited to:

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



7. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the Conveyor.

2.2 OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Gas engine drives: Stop engine, place all controls in neutral, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
5. Clear the area of bystanders, especially children, before starting.
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 or tractor when transporting.
9. Be familiar with the machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
10. Do not operate machine when any guards are removed.

2.3 MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Conveyor.
2. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

3. 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.



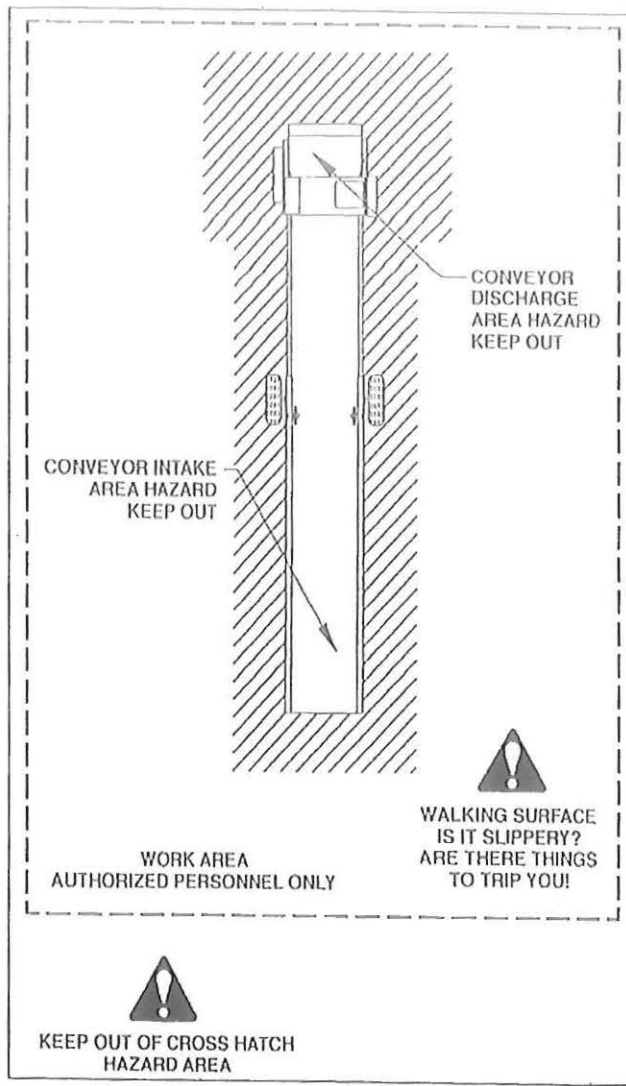
4. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
5. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
6. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
7. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
8. Before resuming work, install and secure all guards when maintenance work is completed.
9. Keep safety signs clean. Replace any sign that is damaged or not clearly visible.

2.4 HYDRAULIC SAFETY

1. Always place all tractor hydraulic controls in neutral before disconnecting from tractor or working on hydraulic system.
2. Make sure that all components in the hydraulic system are kept in good condition and are clean.
3. Replace any worn, cut, abraded, flattened or crimped hoses.
4. Do not attempt any makeshift repairs to the hydraulic fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high-pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
5. Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.


6. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid piercing the skin surface.

2.5 WORKPLACE HAZARD AREA



WORKPLACE HAZARD AREA

2.6 REFUELLING SAFETY

1. Handle fuel with care. It is highly flammable.
2. Allow engine to cool for 5 minutes before refuelling. Clean up spilled fuel before restarting engine.
3. Do not refuel the machine while smoking or when near open flame or sparks.
4. Fill fuel tank outdoors.
5. Prevent fires by keeping machine clean of accumulated trash, grease and debris.



2.8 TIRE SAFETY

1. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which 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.

2.7 STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.

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.

2.10 GAS MOTOR SAFETY

BEFORE STARTING ENGINE, READ AND UNDERSTAND THE OPERATING AND MAINTENANCE INSTRUCTIONS THAT CAME WITH YOUR ENGINE.

WARNING: DO NOT

1. DO NOT run engine in an enclosed area. Exhaust gases contain carbon monoxide, an odorless and deadly poison.
2. DO NOT place hands or feet near moving or rotating parts.
3. DO NOT store, spill, or use gasoline near an open flame, or devices such as a stove, furnace, or water heater which use a pilot light or devices which can create a spark.
4. DO NOT refuel indoors where area is not well ventilated. Outdoor refuelling is preferred.
5. DO NOT fill fuel tank while engine is running. Allow engine to cool for 5 minutes before refuelling. Store fuel in approved safety containers.
6. DO NOT remove fuel tank cap while engine is running.
7. DO NOT operate engine if gasoline is spilled. Move machine away from the spill and avoid creating any ignition until the gasoline has evaporated.
8. DO NOT smoke when filling fuel tank.
9. DO NOT choke carburetor to stop engine. Whenever possible, gradually reduce engine speed before stopping.
10. DO NOT run engine above rated speeds. This may result in injury.
11. DO NOT tamper with governor springs, governor links or other parts which may increase the governed engine speed.
12. DO NOT tamper with the engine speed selected by the original equipment manufacturer.
13. DO NOT check for spark with spark plug or spark plug wire removed. Use an approved tester.
14. DO NOT crank engine with spark plug removed. If engine is flooded, place throttle in "FAST" position and crank until engine starts.
15. DO NOT strike flywheel with a hard object or metal tool as this may cause flywheel to shatter in operation. Use proper tools to service engine.
16. DO NOT operate engine without a muffler. Inspect periodically and replace, if necessary. If engine is equipped with muffler deflector, inspect periodically and replace, if necessary with correct deflector.
17. DO NOT operate engine with an accumulation of grass, leaves, dirt or other combustible materials in the muffler area.
18. 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.
19. DO NOT touch hot muffler, cylinder or fins because contact may cause burns.
20. DO NOT run engine with air cleaner or air cleaner cover removed.

WARNING: DO

1. ALWAYS DO remove the wire from the spark plug when servicing the engine or equipment TO PREVENT ACCIDENTAL STARTING. Disconnect the negative wire from the battery terminal if equipped with a 12 volt starting system.
2. DO keep cylinder fins and governor parts free of grass and other debris which can affect engine speed.
3. DO examine muffler periodically to be sure it is functioning effectively. A worn or leaking muffler should be repaired or replaced as necessary.
4. DO use fresh gasoline. Stale fuel can gum carburetor and cause leakage.
5. DO check fuel lines and fittings frequently for cracks or leaks. Replace if necessary.

2.11 SAFETY SIGNS

1. Keep safety signs clean and legible at all times.
2. Replace safety signs that are missing or have become illegible.
3. Replaced parts that displayed a safety sign should also display the current sign.
4. Safety signs are available from your Distributor or the factory.

How to Install Safety Signs:

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

2.12 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 Transfer 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.

A sign-off sheet 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.

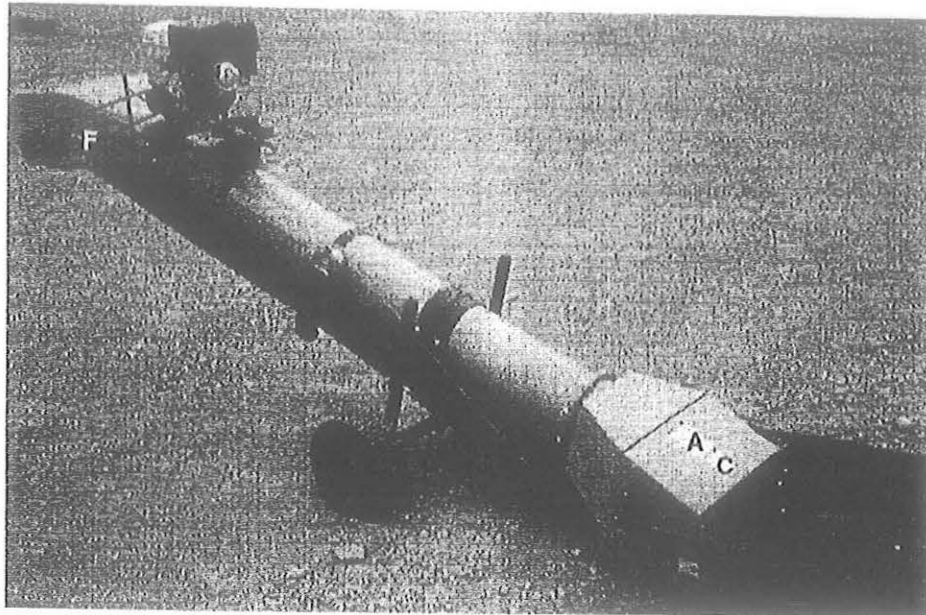
SIGN-OFF FORM

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3 SAFETY SIGN LOCATIONS

The types of safety signs and locations on the equipment are shown in the illustration below. Good safety requires that you familiarize yourself with the various Safety Signs, the type of warning and the area, or particular function related to that area, that requires your SAFETY AWARENESS.

- Think SAFETY! Work SAFELY!



A

**CAUTION**

1. Read and understand the Operator's Manual before operating.
2. Keep all safety shields and devices in place and in good working order.
3. Make certain everyone is clear before operating or moving the machine. Keep children, visitors and untrained people away.
4. Keep hands, feet, hair and clothing away from moving parts.
5. Shut off and disable power source before adjusting, servicing, repairing or cleaning.
6. Disconnect power before resetting motor overload.
7. Be sure electric motors are grounded.
8. Keep away from intake. Keep others away.
9. Train operators annually.

13-1200-0003

B

**DANGER****FIRE HAZARD
NO SMOKING**

To prevent serious injury or death from fire:

1. Do not smoke when refueling.
2. Keep sparks, flames and hot material away from flammable substances.

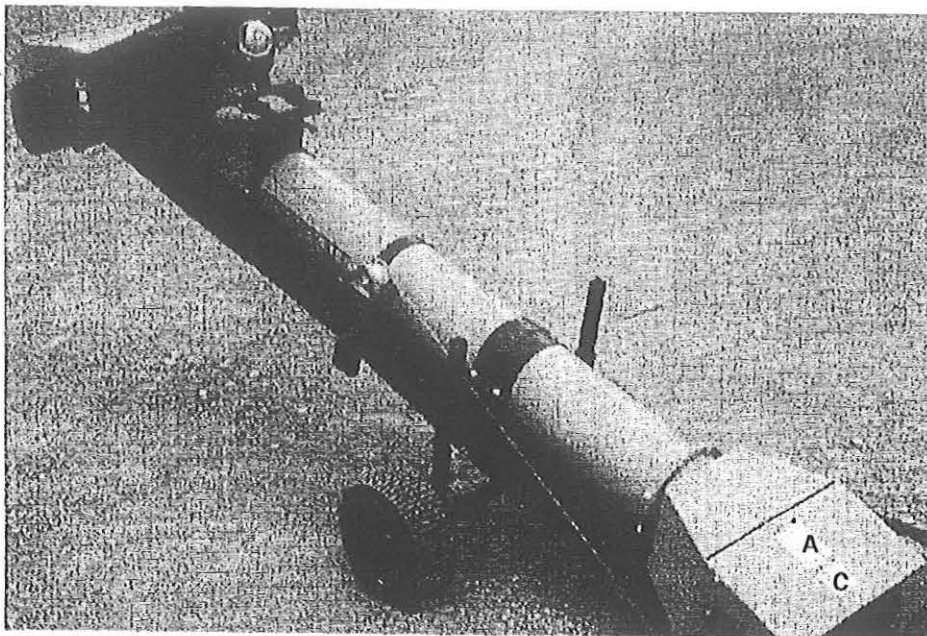
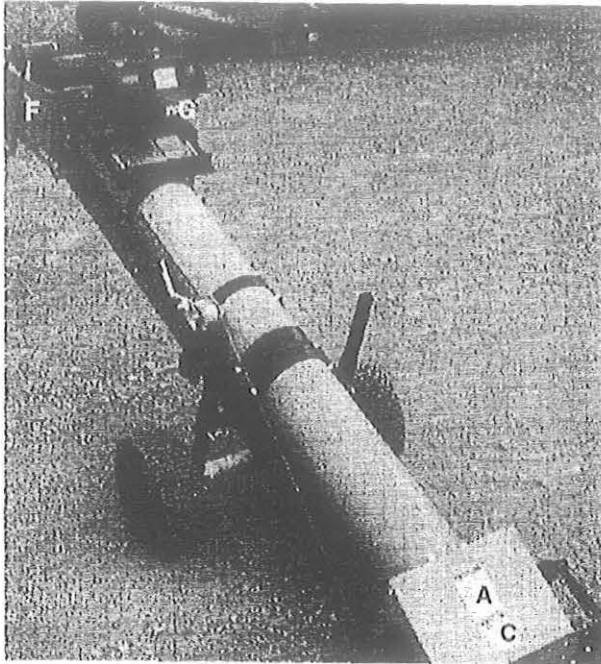
13-1100-0019

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

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- Think SAFETY! Work SAFELY!

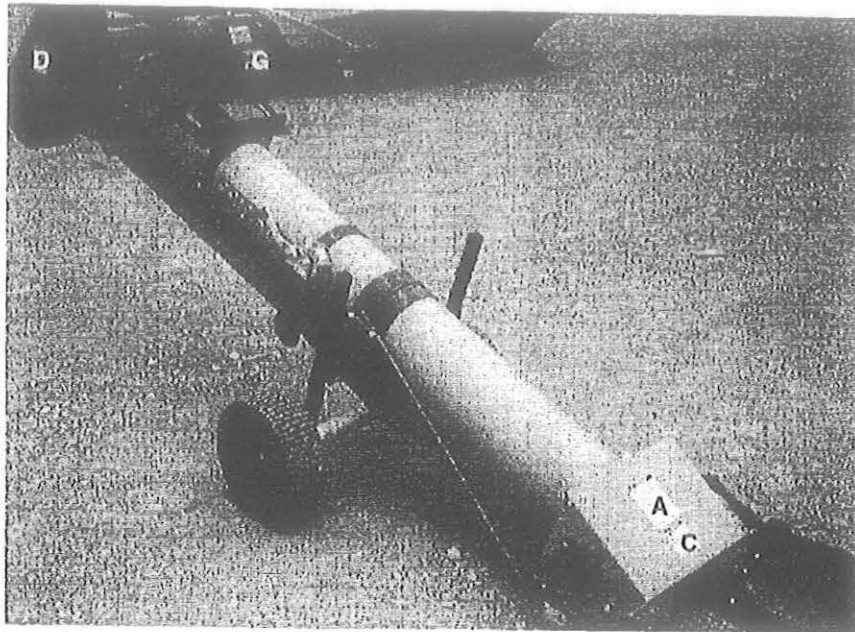


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- Think SAFETY! Work SAFELY!



D



ROTATING PART HAZARD
KEEP AWAY

To prevent serious injury or death from rotating parts:

1. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
2. Install and secure all guards before operating.
3. Do not operate with rotating parts exposed.

13-1100-0005

E



HIGH-PRESSURE FLUID HAZARD

To prevent serious injury or death:

1. Relieve pressure on system before repairing or adjusting.
2. Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.
3. Keep all components in good repair.

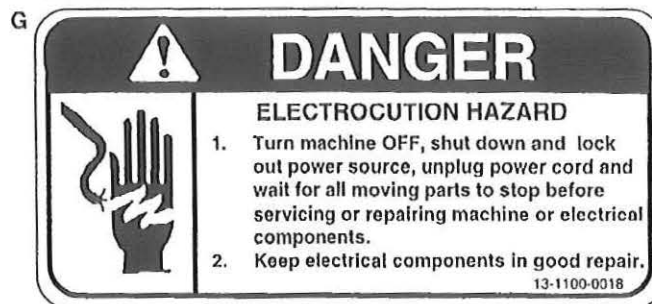
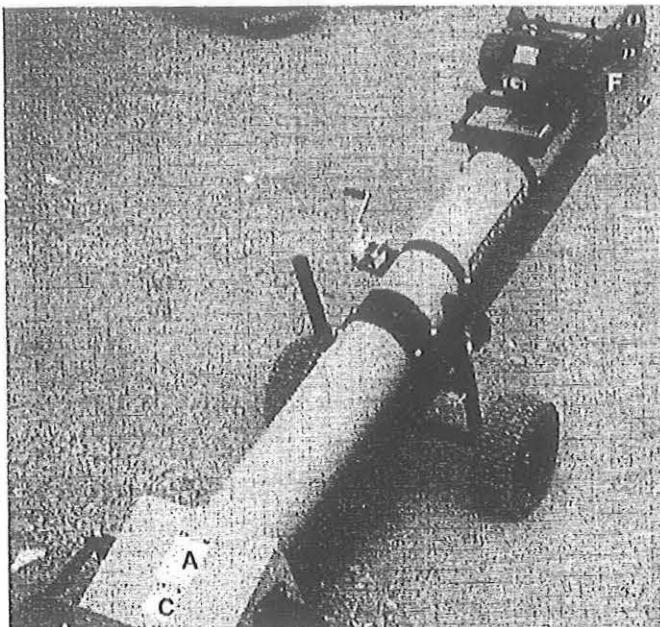
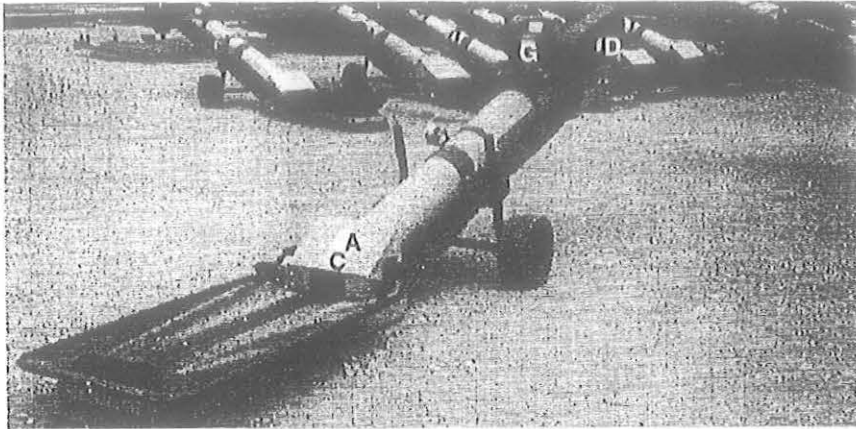
13-1100-0010

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

3 SAFETY SIGN LOCATIONS

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- Think SAFETY! Work SAFELY!



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

4 OPERATION



OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Gas engine drives: Stop engine, place all controls in neutral, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
5. Clear the area of bystanders, especially children, before starting.
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 or tractor when transporting.
9. Be familiar with the machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
10. Do not operate machine when any guards are removed.

4.1 TO THE NEW OPERATOR OR OWNER

The Convey-All Transfer Conveyor is designed to efficiently move grain, pulse crops, or granular material between a truck, a storage facility and another conveyor. Power is provided by an electric motor, gas engine or hydraulic motor. 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. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, and prudence of personnel involved in the operation, transport, maintenance and storage of equipment or in the use and maintenance of facilities.

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

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 and how to set it to provide maximum efficiency. By following the operating instructions in conjunction with a good maintenance program, your Conveyor will provide many years of trouble-free service.

4.2 MACHINE COMPONENTS

The Transfer Conveyor is an endless belt that travels through a tube for moving grain or any granular product. The machine is portable and low enough to fit under trucks or low storage facilities. Normally the discharge is directed into another conveyor or conveying system.

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

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

- A Incline Frame
- B Horizontal Frame
- C Hopper
- D Hopper Sides
- E Discharge
- F Electric Motor
- G Gas Engine
- H Conveying Belt
- J Tow Hitch
- K Angle Adjuster
- L Winch

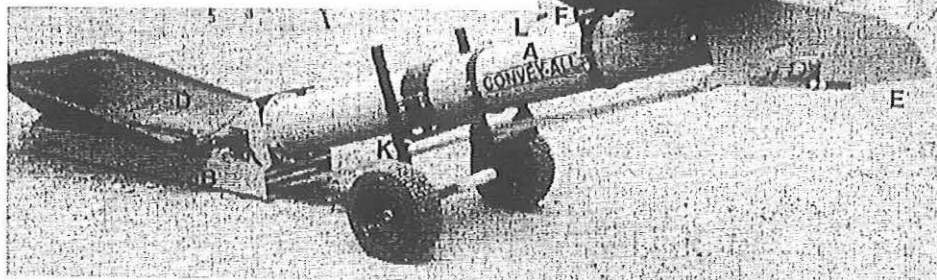
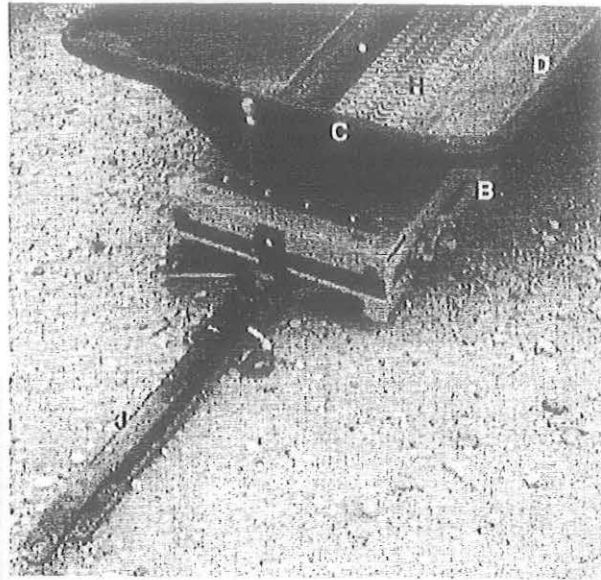
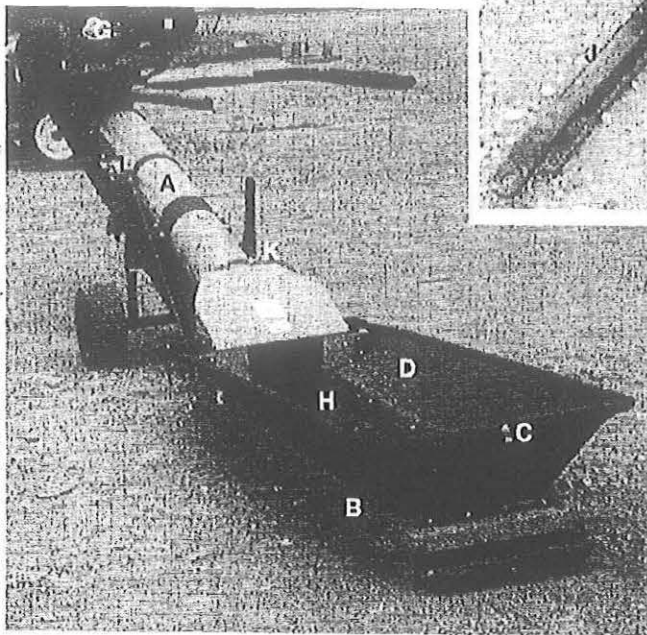


Fig. 1 MACHINE COMPONENTS

4.3 MACHINE BREAK-IN

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

- A. Before starting work:
 - 1. Read the Conveyor and engine (if so equipped) Operator's Manuals.
 - 2. Run the unit for an hour to seat the belting 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.
- B. After operating or transporting for 1/2 hour:
 - 1. Retorque all the wheel bolts fasteners and hardware.
 - 2. Check the drive 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 grain comes out of the hopper around the flashing, stop, loosen flashing mounting screws and adjust. Retighten anchor screws and try again. Repeat until no grain is lost.
 - 5. Check that all guards are installed and working as intended.
- C. After operating for 5 hours and 10 hours:
 - 1. Repeat items 1 through 5 above.
 - 2. Change the gas engine crankcase oil (if so equipped).
 - 3. Then go to the normal servicing and maintenance schedule as defined in the Maintenance Section.

4.4 PRE-OPERATION CHECKLIST

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

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

- 1. Service the machine per the schedule outlined in Section 5 Service and Maintenance.
- 2. Use only a gas engine or electric motor of adequate power to operate the machine.
- 3. Check that all guards are installed, secured and functioning as intended. Do not operate with missing or damaged shields.
- 4. Check worksite. Clean up working area to prevent slipping or tripping.
- 5. Check that drive and conveying belts are not frayed or damaged and that they are properly adjusted and aligned.
- 6. Be sure Conveyor wheels are chocked.
- 7. Check that discharge and intake areas are free of obstructions.

4.5 CONTROLS

Before starting to work, all operators should familiarize themselves with the location and function of the controls. Read engine manufacturers operator manual to ensure controls are similar to control functions listed below.

1. Gas Engine

a. Ignition switch:

This switch controls the electrical power to the engine electrical system. Turn the switch counterclockwise to turn OFF. Turn clockwise to the first position for ON.

b. Choke:

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

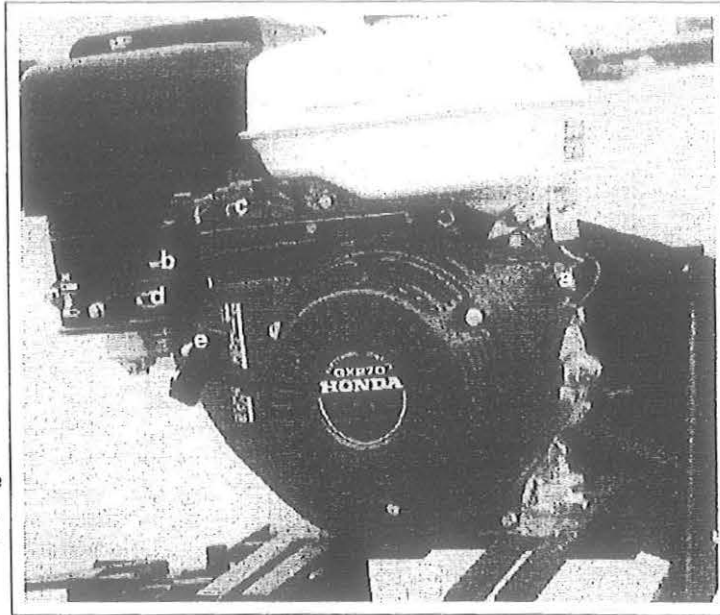


Fig. 2 GAS ENGINE CONTROLS

c. Throttle:

This lever controls the engine RPM. Move the lever to the left to increase the engine speed and right to decrease. Always run at maximum engine RPM when operating.

d. Fuel shut-off switch:

This switch controls the flow of fuel to the engine. Turn the switch to its vertical position to close the valve and stop the flow of fuel. Turn the switch to its horizontal position to open the valve and the engine will run.

e. Starting Rope:

This retracting rope and T bar is used to turn the engine over for starting. Grasp the T bar firmly and pull the rope sharply to start the engine. Close the choke if the engine is cold.

- f. **Engine position:**
This lever sets the position of the engine base. Move the lever up to slide the engine base away from the drive pulley and disengage the belt. Move downward to engage drive belt. Always disengage belt when starting or stopping engine. Set the belt tension so the belt does not slip during operation.

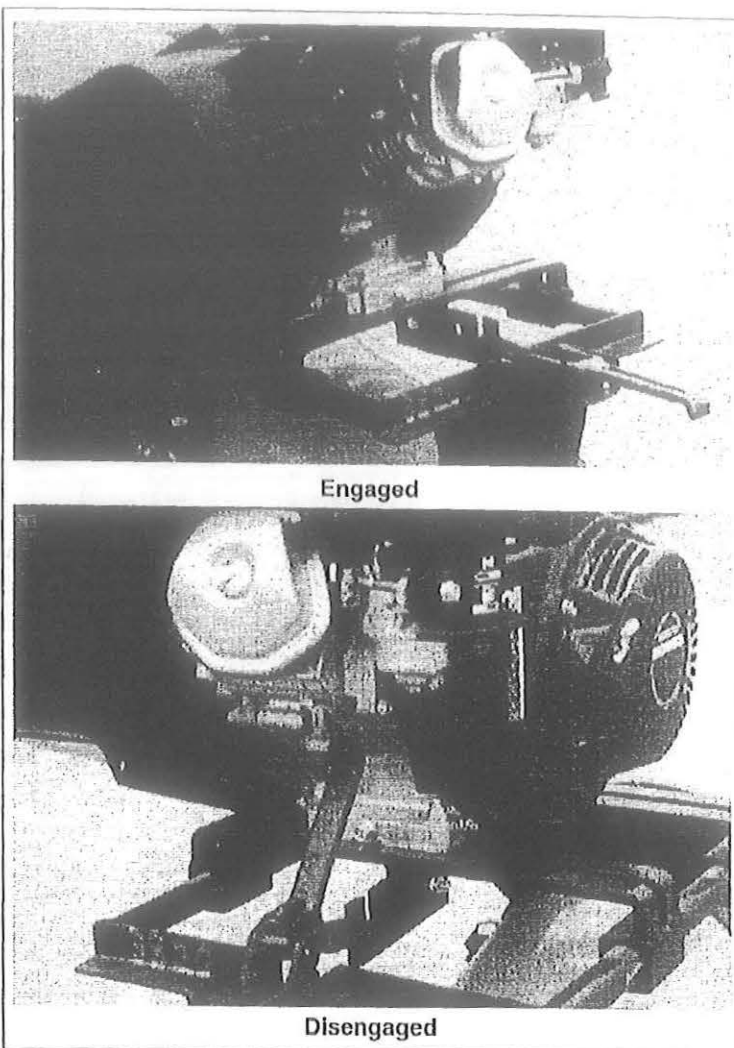


Fig. 3 GAS ENGINE DRIVE

2. **Electric Drive:**
Use a licensed electrician to provide power to the machine per the National Electrical Code ANSI/NFPA 70 and local codes. Install an ON/OFF switch next to the motor for the convenience of the operator.

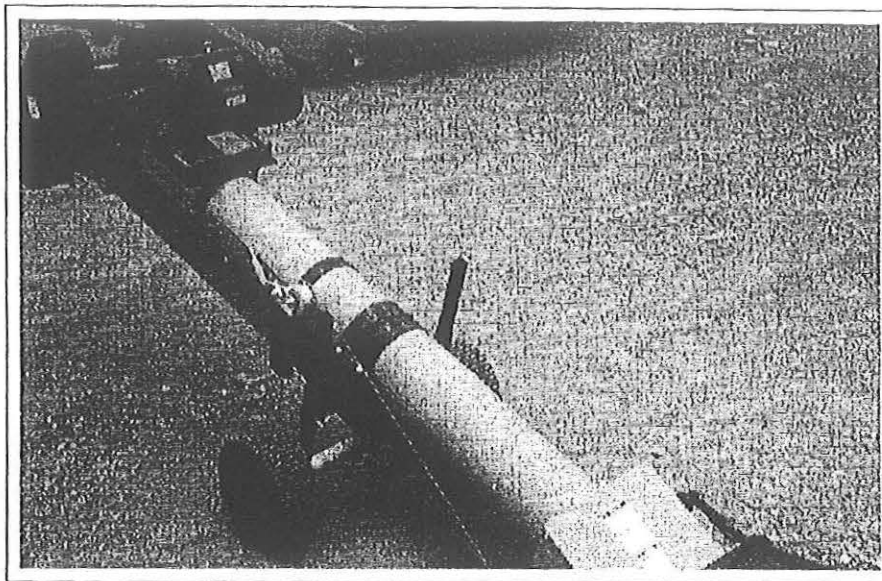


Fig. 4 ELECTRIC SWITCH (TYPICAL)

3. **Winch:**

A winch is located on the top of tube and is used to raise and lower the hopper sides. Turn the handle clockwise to raise and counterclockwise to lower.

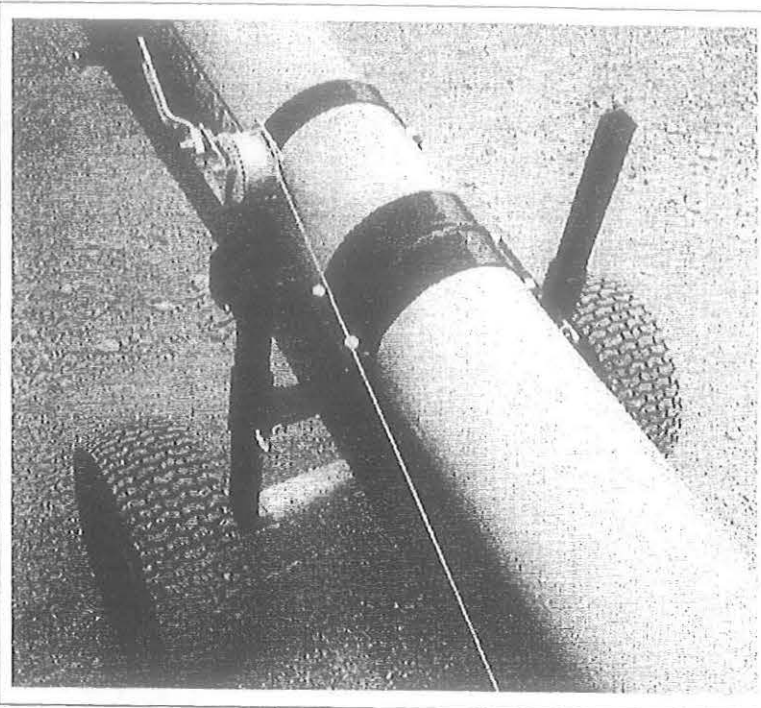


Fig. 5 WINCH

4.6 ATTACHING/UNHOOKING

It is recommended that the Conveyor be attached to a tractor whenever it is moved. Follow this procedure when attaching to or unhooking from a tow unit:

1. Make sure that bystanders, especially small children, are clear of the working area.
2. Be sure that there is sufficient room and clearance to back up to the machine.
3. Align the drawbar with the hitch of the Conveyor while backing up.
4. Set the park brake before dismounting.

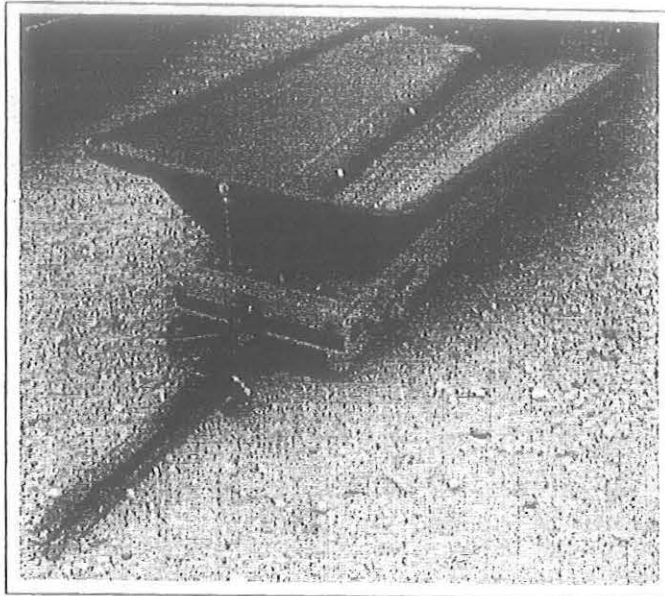


Fig. 6 HITCH ASSEMBLY

5. The hitch is removeable. Install hitch and secure with the anchor pin and retainer before using hitch.
6. Remove chocks from the wheels.
7. Move the machine out of its working or storage position.
8. Lift the intake end to the drawbar height and install the pin with its retainer.
9. Secure the safety chain around the drawbar cage to prevent unexpected separation.
10. Reverse the above procedure when unhooking.

4.7 MACHINE PLACEMENT

Follow this procedure when placing the Transfer Conveyor into its working position:

1. Clear the area of bystanders, especially small children, before starting.
2. Be sure there is enough clearance from other equipment to move the machine into its working position.
3. Move the machine under the grain truck or to the secondary conveyor and storage facility.

NOTE

The machine is almost evenly balanced. Pushing down slightly on the discharge end will raise the intake end off the ground and allow easy maneuvering.

4. Place chocks in the front and rear of each wheel.
5. Position the next conveyor or conveying system under the discharge and secure.
6. **For the Electric Motor Model:**
 - a. Have a certified electrician provide power to the machine.
 - b. Provide convenient shut-down switches and comply with local electrical codes.
 - c. Use a totally enclosed electric motor. Be sure electric motor is properly grounded.
7. **For the Hydraulic Drive Model:**
 - a. Position the power unit next to the conveyor.

- b. Place chocks in the front and rear of each wheel of the power unit.
- c. Connect hydraulic hoses to the couplers.

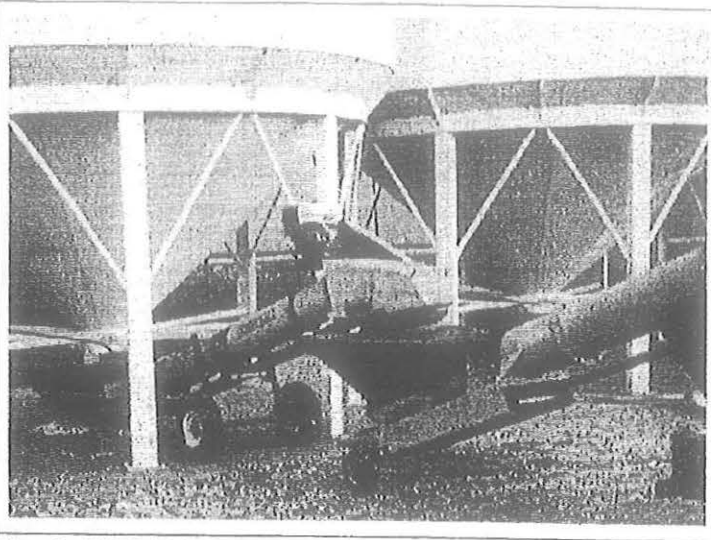


Fig. 8 STORAGE FACILITY

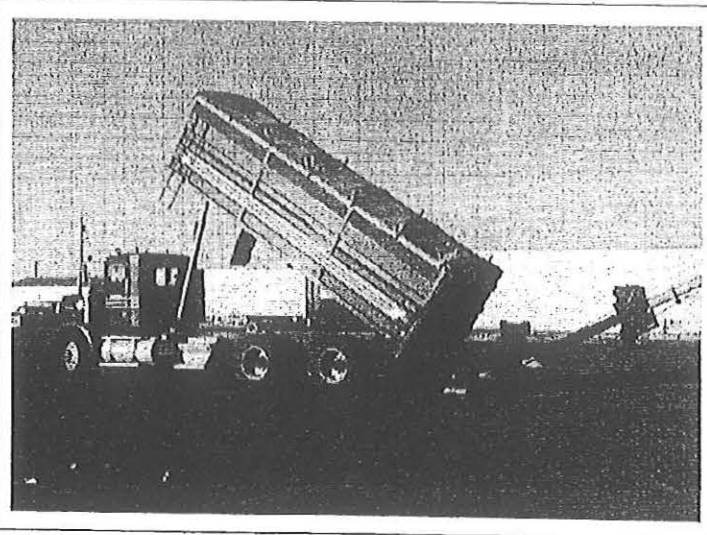


Fig. 9 EMPTYING

8. Reverse the above procedure when removing the machine from its working position.

4.8 OPERATING



OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Gas engine drives: Stop engine, place all controls in neutral, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
5. Clear the area of bystanders, especially children, before starting.
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 or tractor when transporting.
9. Be familiar with the machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
10. Do not operate machine when any guards are removed.

When using the Transfer Conveyor, follow this procedure:

1. Clear the area of bystanders, especially small children, before starting.
2. Review the Pre-Operation Checklist (Section 4.4) before starting.
3. Review the Workplace Hazards schematics and use care when inside the hazard area. Keep all spectators and bystanders out of the working and machine area. Should anyone enter this area, stop the machine immediately.

4. Check that the machine is placed per Section 4.7.
5. On the electric drive models, be sure a certified electrician is used to provide power and shut-down switches are conveniently positioned for the operator.
6. On the hydraulic drive models, be sure the tractor tires are chocked and the hoses are routed out of the way.
7. Check that all guards are in place and working as intended.
8. Check drive band conveying belt tension and alignment. There may be rapid decrease in belt tension during the first few hours of operation until the belts have run in. The correct operating tension is the lowest tension at which the belts will not slip under peak load conditions.
9. Drive back the truck into position for loading or unloading.
10. Start the system that removes material from the Transfer Conveyor.

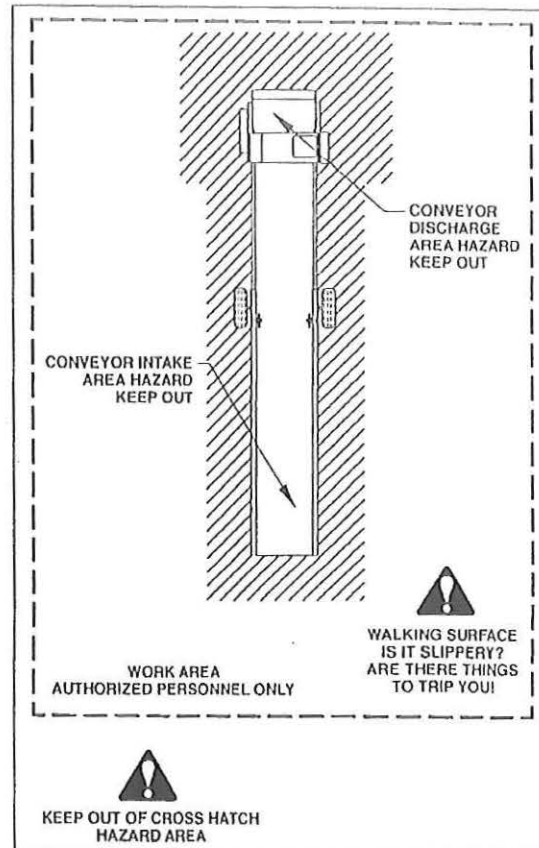


Fig. 10 WORKPLACE HAZARD AREA

11. Starting:

A. Electric Motor Models:

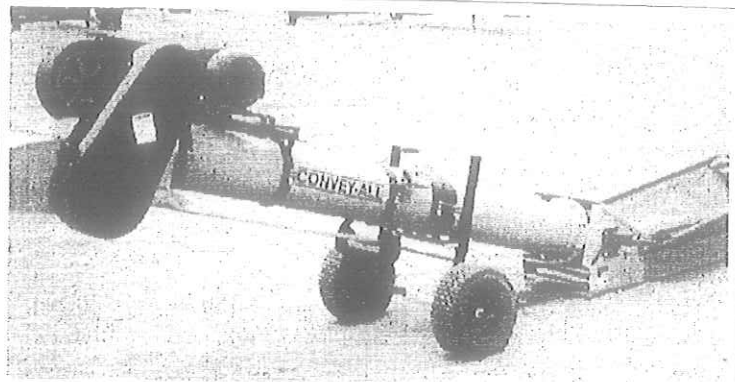
- a. Turn the electric motor ON.
- b. Start the flow of material and unload.

B. Gas Engine Models:

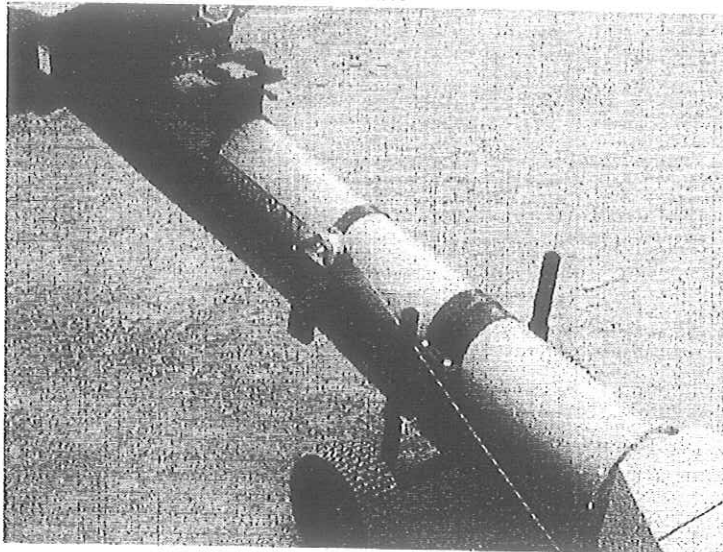
- a. Move engine assembly to its loosest drive belt tension.
- b. Turn ignition switch on.
- c. Move throttle to its 1/4 position for starting.
- d. Close choke if engine is cold.
- e. Pull sharply on the starting rope until the engine starts.
- f. Run until the engine warms and the choke is opened.
- g. Move engine assembly to engage drive belt.
- h. Increase engine speed to full throttle.
- i. Start flow of material.

C. Hydraulic Drive Models:

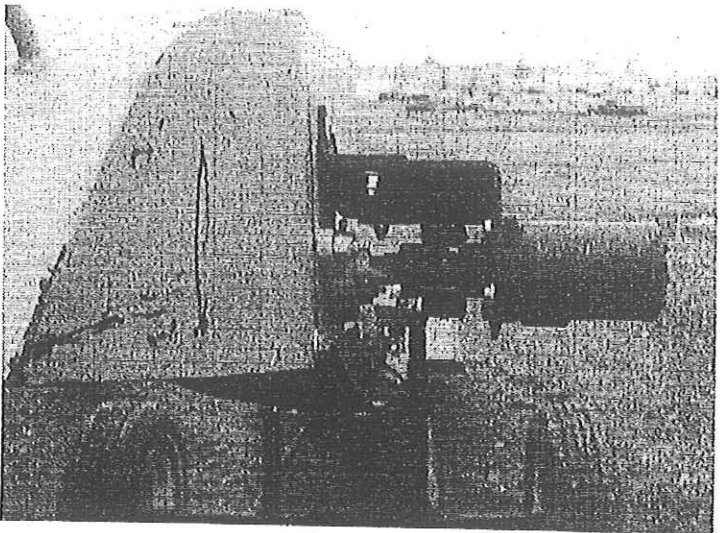
- a. Place all controls in neutral.
- b. Start tractor engine and run at low idle.
- c. Place hydraulic lever in detent.
- d. Increase engine speed to rated RPM.



Electric



Gas



Hydraulic

Fig. 11 STARTING/STOPPING

12. Stopping:

A. Electric Motor Models:

- a. Run until the conveying belt is empty.
- b. Turn off motor and lock out power source.

B. Gas Engine Models:

- a. Run until the conveying belt is empty.
- b. Reduce engine speed to low idle.
- c. Move engine assembly to disengage drive belt.
- d. Shut off engine.

C. Hydraulic Drive Models:

- a. Run until conveying belt is empty.
- b. Reduce engine speed to low idle.
- c. Place hydraulic lever in neutral.
- d. Shut off engine.

13. Emergency Stopping:

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

14. Restarting:

When the machine is shut down inadvertently or for an emergency, the conveying belt will still be covered with material. Since the start-up torque loads are much higher than normal when the belt is covered, restart at a low speed. It may be necessary to tighten the drive belt slightly to handle the heavier than normal loads.

15. Frame Height/Angle:

The machine is designed with an adjustable wheel frame that can be used to set the frame angle or discharge height. Set at the height appropriate for your application. Keep the angle as low as possible to insure that the conveying capacity is at the maximum.

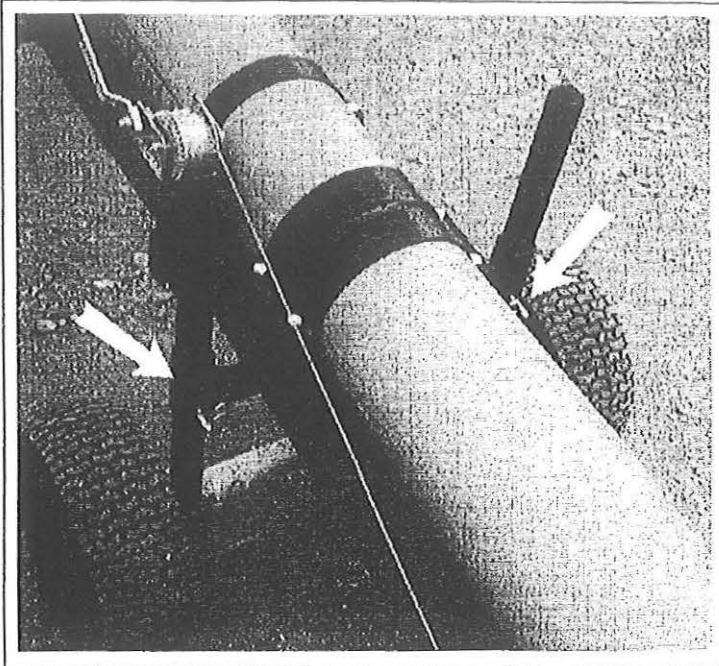


Fig. 12 FRAME HEIGHT/ANGLE

16. **Belt Speed:**

The best results are obtained when the input drives are set to provide a belt speed of 400 to 500 ft./min. Count the number of belt revolutions per unit time to determine belt speed. Belt length is double the length of your machine. 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.

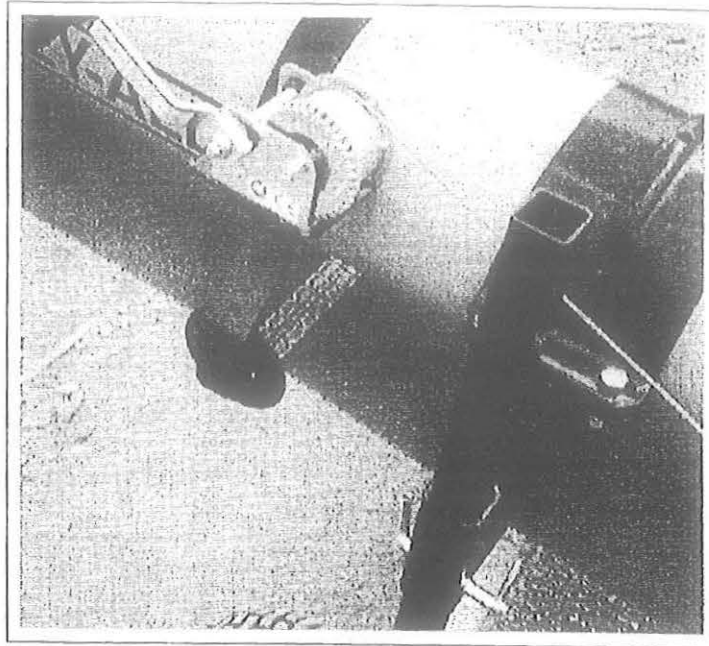


Fig. 13 CONNECTOR LINK

17. **Unplugging:**

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

- a. Place all controls in neutral or off, stop engine or motors and disable power source.
- b. Remove the material from the discharge and the intake area.
- c. Reposition unit if discharge area plugs due to lack of clearance.
- d. Restart unit.

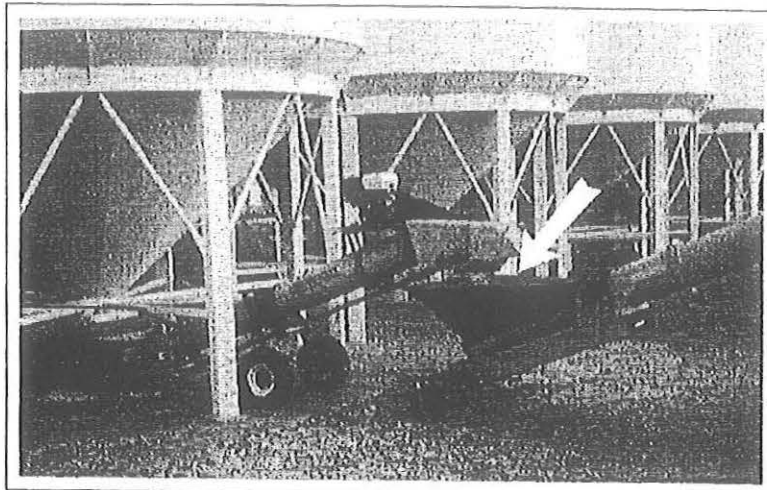


Fig. 14 DISCHARGE

18. **Hopper Sides:**

The machine is designed with a collapsible intake hopper that can be raised or lowered with the winch appropriate for your application. When the hopper sides are raised, the maximum conveying capacity is obtained.

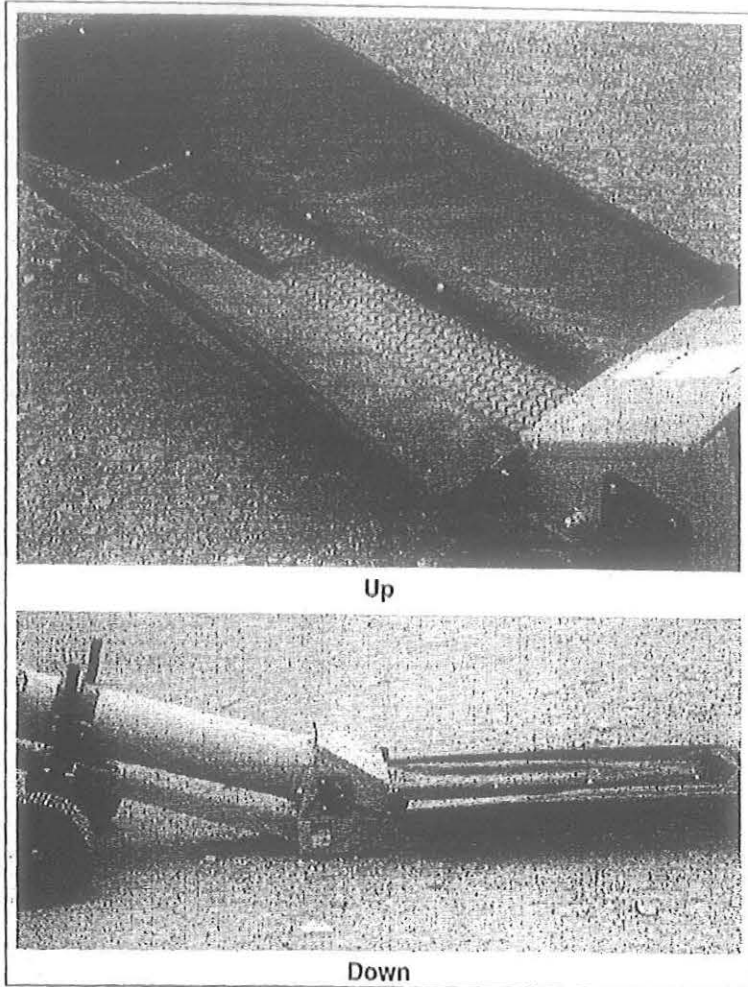
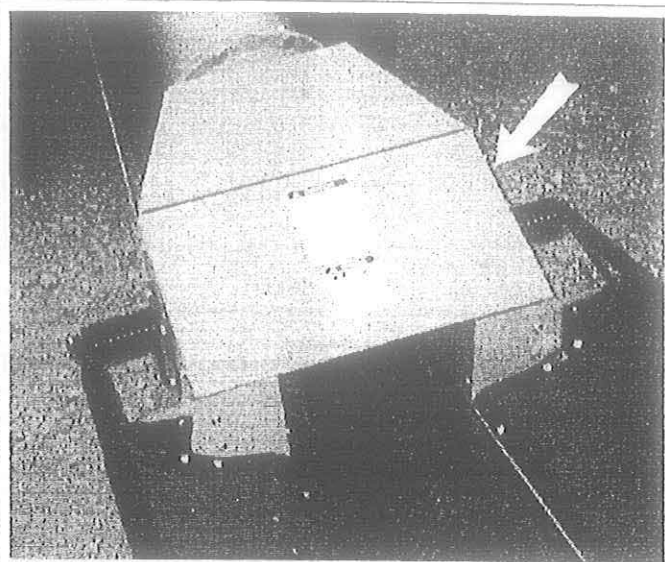


Fig. 15 INTAKE HOPPER

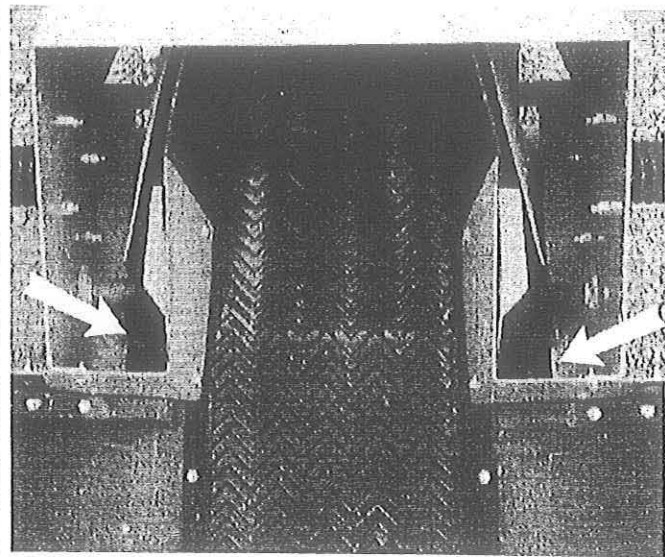
19. **Guide Wheels:**

In situations where the conveying belt jams or is overtightened, the belt can come out from under the guide rollers at the transition point. To correct situation:

- a. Run until machine is empty or remove all material from machine.
- b. Turn engine or motors off and disable the power source.
- c. Place belting in its loosest position.
- d. Remove faceplate.
- e. Push belting under guide wheels.
- f. Set tension and alignment of belting.
- g. Install and secure faceplate.



Faceplate

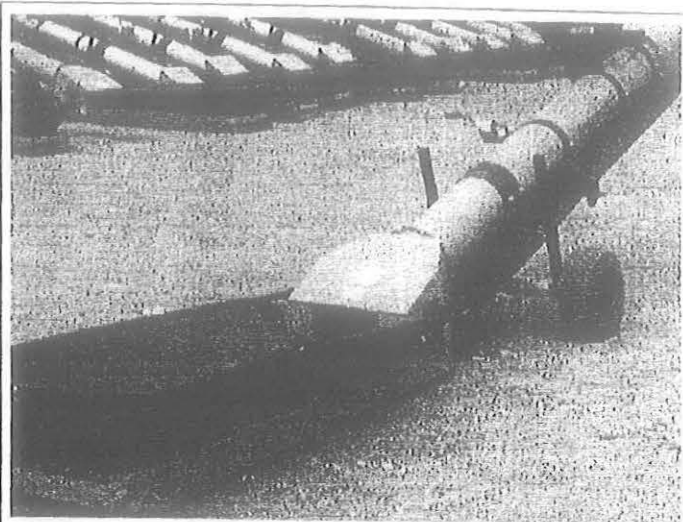


Guide Wheels

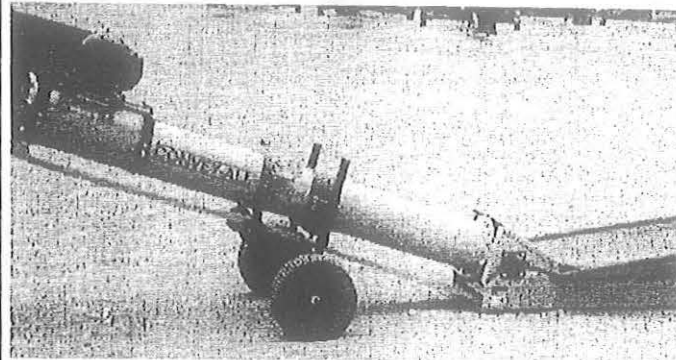
Fig. 16 GUIDE WHEELS

20. Operating Hints:

- a. 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.
- b. The machine is available in 10" and 14" diameter tubes or 12", 16" and 22" belt. The larger the tube and wider the belt, the higher the capacity.
- c. Never allow anyone into the workplace hazard area. If anyone enters, stop immediately. Make them LEAVE before resuming work.



10"



16"

Fig. 17 TUBE SIZE

- d. The discharge hood is designed with brackets that allow the hood to extend and project the material a distance from the end of the machine. Set the hood appropriate for your application.
- e. Keep intake end completely covered with material for maximum capacity.

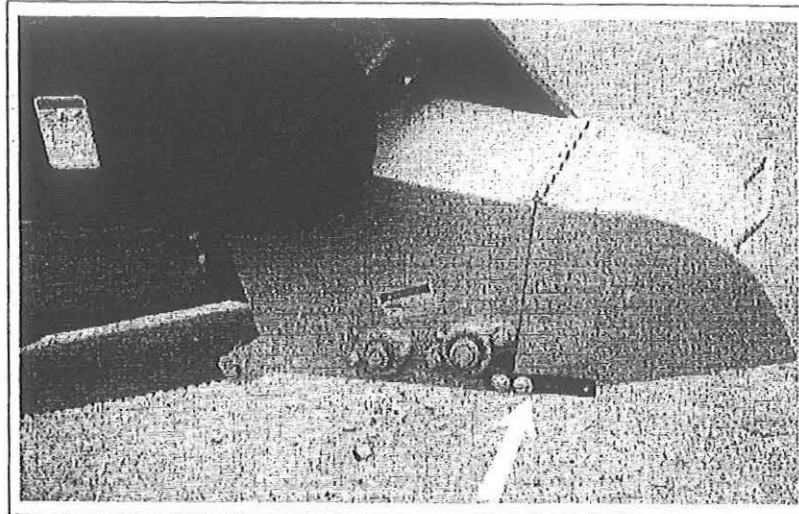
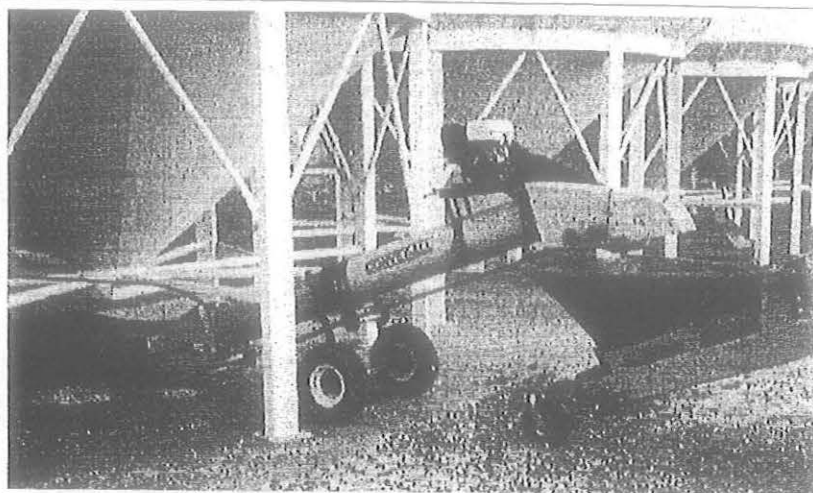


Fig. 18 HOOD BRACKET

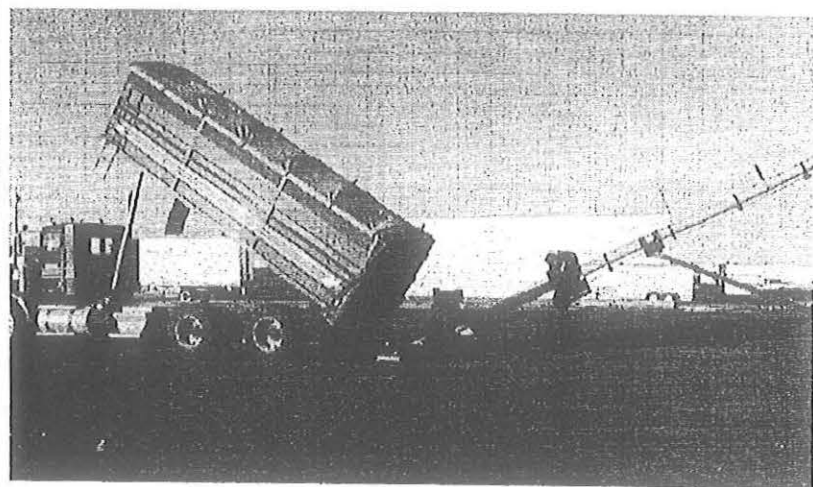
- f. The best capacity is obtained when the material is loaded into the hopper as close to the tube as possible.

- g. Use a transfer conveyor to move grain from the bin or truck discharge into the grain conveyor when emptying units.



Grain Bin

- h. To change the balance on the machine for moving around the yard, loosen the clamp around the tube that connects the undercarriage to the tube. Slide or tap the undercarriage to move it to a new position. Tighten the clamp again.



Truck

Fig. 19 EMPTYING

4.9 TRANSPORTING



TRANSPORT SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Hydraulic drives: Stop the engine, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Gas engine drives: Stop engine, place all controls in neutral, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
4. Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
5. Clear the area of bystanders, especially children, before starting.
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 or tractor when transporting.
9. Be familiar with the machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
10. Do not operate machine when any guards are removed.

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

1. Review the Transport Safety Schematic before starting.
2. Be sure all bystanders are clear of the machine.
3. On electric motor drive units, unplug the power cord, wrap around frame and secure to prevent dragging.
4. On hydraulic powered units, disconnect hydraulic hoses, remove power source, wrap hose around frame and secure to prevent dragging.
5. For most moving requirements, it is recommended that the unit be placed on a transport vehicle and tied down securely.

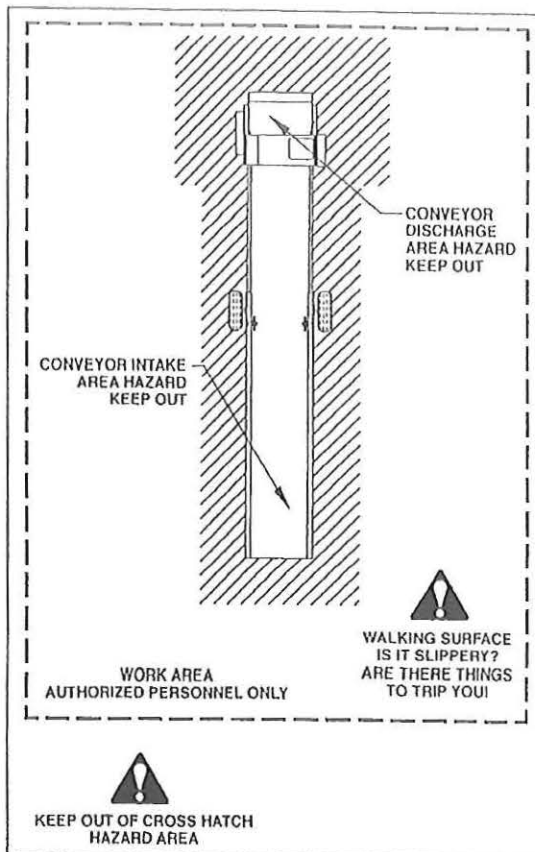


Fig. 20 TRANSPORT HAZARD AREA

6. If equipped with the optional hitch, attach to a tractor or truck using a hitch pin with a retainer and a safety chain.
7. If equipped with an optional lighting package, connect wiring harness to the towing vehicle and secure across the hitch. Do not allow the harness to hang or drag on the ground.
8. Remove chocks from the wheels.
9. Slowly pull away from the working area.
10. 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.

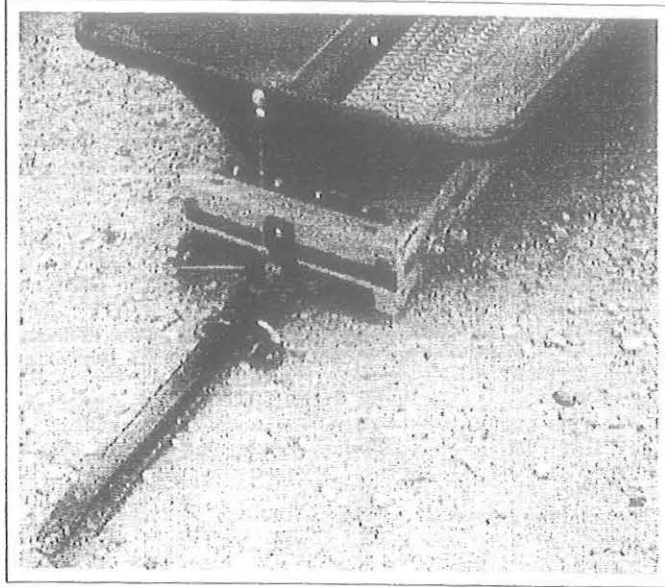


Fig. 21 OPTIONAL HITCH

11. 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.
12. It is not recommended that the machine be transported faster than 20 mph (32 km/h).
13. Do not allow riders on the machine or tractor.
14. During periods of limited visibility, use pilot vehicles or add extra lights to the machine.
15. Always use hazard flashers on the tractor when transporting unless prohibited by law.

4.10 STORAGE



STORAGE SAFETY

1. Store the unit in an area away from human activity.
2. Do not permit children to play on or around the stored machine.

After the season's use, the machine 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 insure a long, trouble free life, this procedure should be followed when preparing the unit for storage:

1. Clear the area of bystanders, especially small children.
2. Thoroughly wash the entire machine using a pressure washer to remove all dirt, mud, debris or residue.
3. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove the entangled material.
4. Inspect all hydraulic hoses, fittings, lines, couplers and fittings. 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. Apply a light coat of oil to the roller chain coupler to prevent rusting.
6. Lubricate all grease fittings. Make sure that all grease cavities have been filled with grease to remove any water residue from the washing. This also protects the bearing seals.
7. Touch up all paint nicks and scratches to prevent rusting.
8. Move to storage area.
9. Select an area that is dry, level and free of debris.
10. If the machine cannot be placed inside, cover the gas engine or electric motor with a water proof tarpaulin and tie securely in place.
11. Store machine in an area away from human activity.
12. Do not allow children to play on or around the stored machine.

5 SERVICE AND MAINTENANCE



MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Conveyor.
2. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. 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.
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. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
8. Place stands or blocks under the frame before working beneath the machine.
9. Before resuming work, install and secure all guards when maintenance work is completed.
10. Keep safety signs clean. Replace any sign that is damaged or not clearly visible.

5.1 SERVICE

5.1.1 FLUIDS AND LUBRICANTS

1. Grease:
Use an SAE multi-purpose high temperature grease with extreme pressure (EP) performance. Also acceptable is an SAE multi-purpose lithium based grease.
2. Engine Crankcase oil:
Honda Engine
Use an SAE 10W30 multi-viscosity oil meeting the American Petroleum Institute (API) classification of SF or SG for normal operating temperatures. Consult the engine manual for unusual operating conditions. Do not mix oil types or viscosities.

Crankcase Capacity:

9.0 hp: 1.1 l (1.16 US qt, 1.94 Imp pt)

3. Engine Gasoline:
Use a standard automotive unleaded gasoline for all operating conditions.

Fuel Tank Capacity: 1 U.S. quart (0.85 liter)

4. 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.

5.1.2 GREASING

Use the Maintenance Checklist provided 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. Replace and repair broken fittings immediately.
4. If fittings will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

5.1.3 SERVICING INTERVALS

Initial Start Up Servicing: As the 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.

10 Hours or Daily

Electric Drive Models

1. Grease cross shaft bearings.

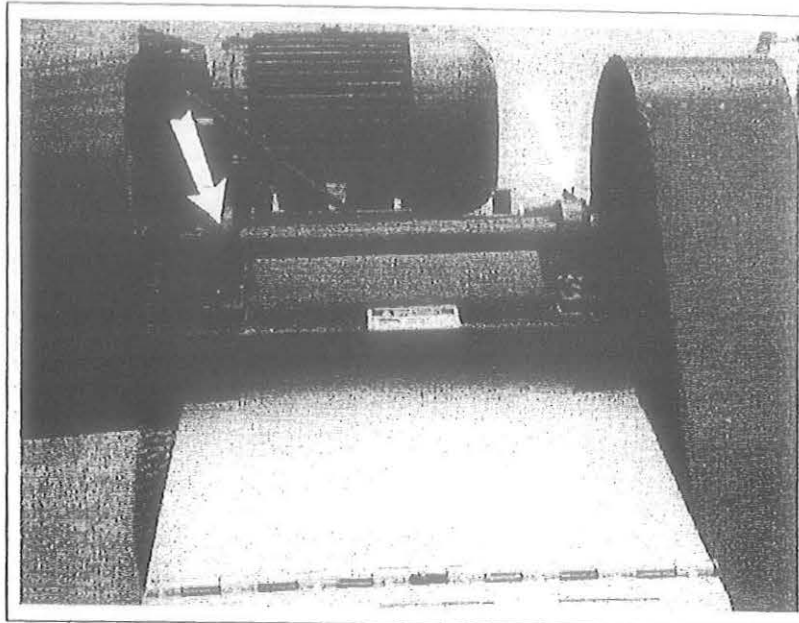


Fig. 22 CROSS SHAFT

Gas Engine Drive Models

1. Check fuel level. Add as required.

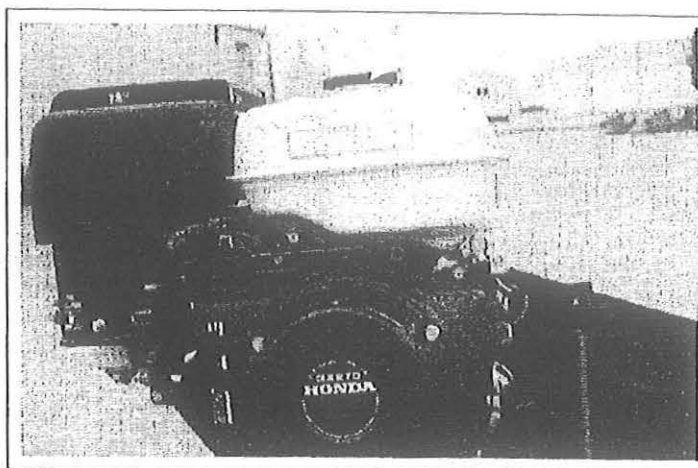


Fig. 23 FUEL

2. Check crankcase oil level. Add as required.

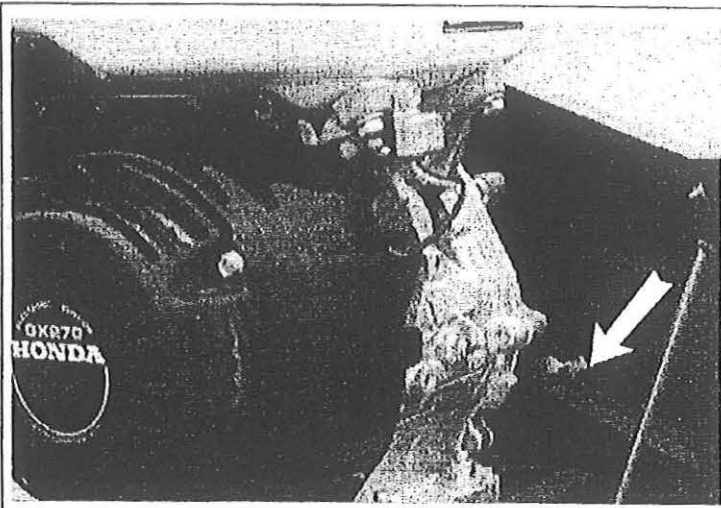


Fig. 24 OIL LEVEL

Conveyor

1. Grease lower roller bearings on both sides (2 locations).

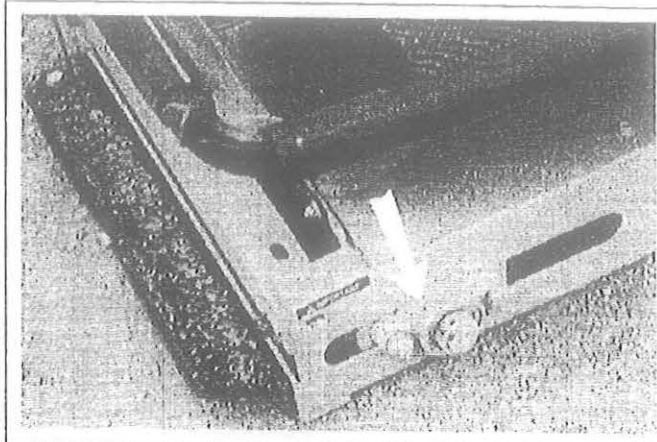


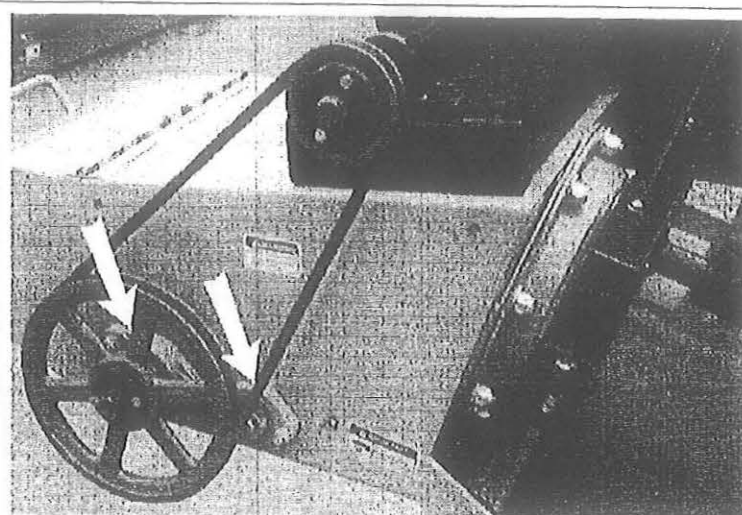
Fig. 25 LOWER ROLLER BEARINGS

2. Grease discharge end belt roller bearings on both sides (4 locations).

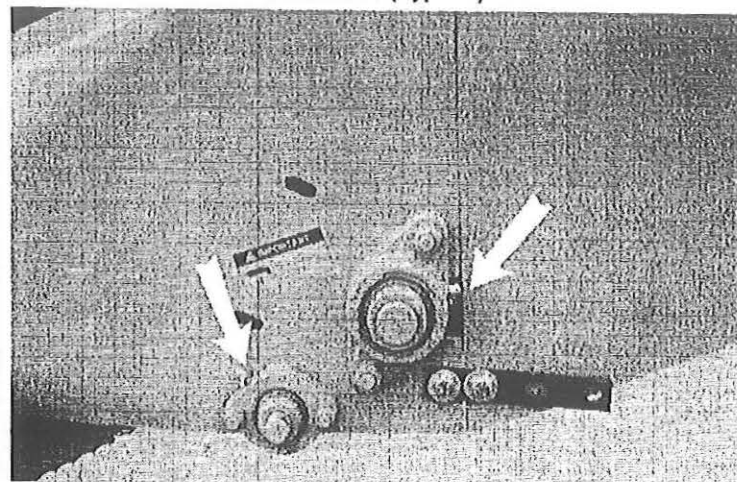


WARNING

Machine is shown with guards removed for illustrative purposes only. Do not operate machine with guards removed.



Drive Side (Typical)



Idler Side

Fig. 26 DISCHARGE END BEARINGS

40 Hours or Weekly

Conveyor Belling

1. Check the conveying belt tension. The conveying belt should not slip on its drive roller during operation.

Use the bottom end to check and set the alignment and set the tension.

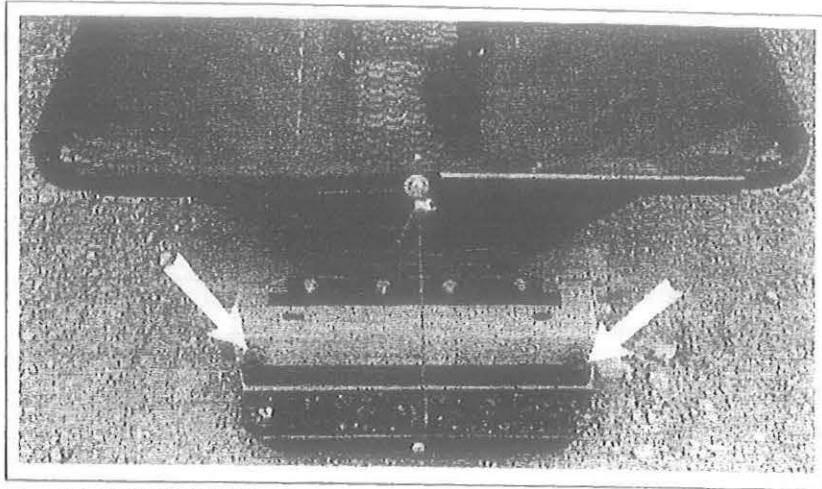


Fig. 27 TENSION/ALIGNMENT

2. Check condition of hopper seals. Be sure it seals the hopper and prevents leaking.

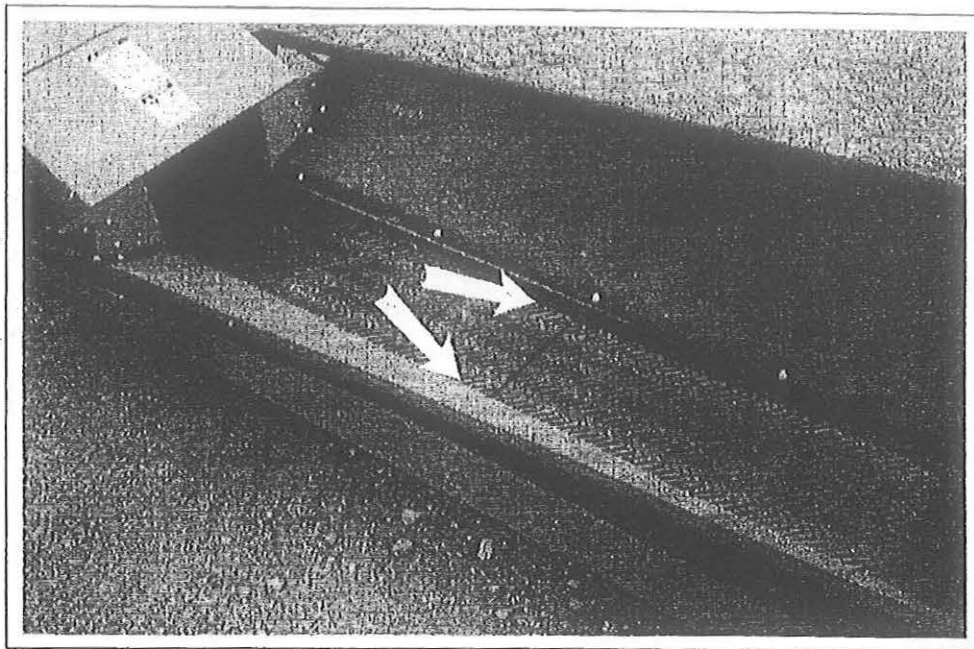


Fig. 28 HOPPER SEAL

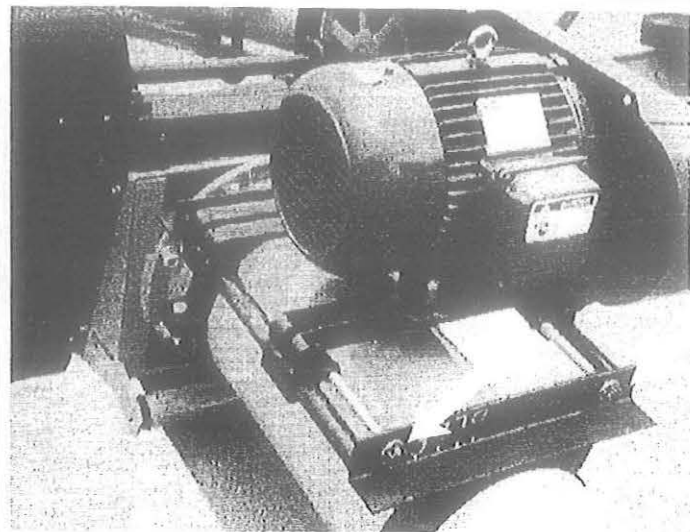
Electric Drive Models

1. Check drive belt tension.

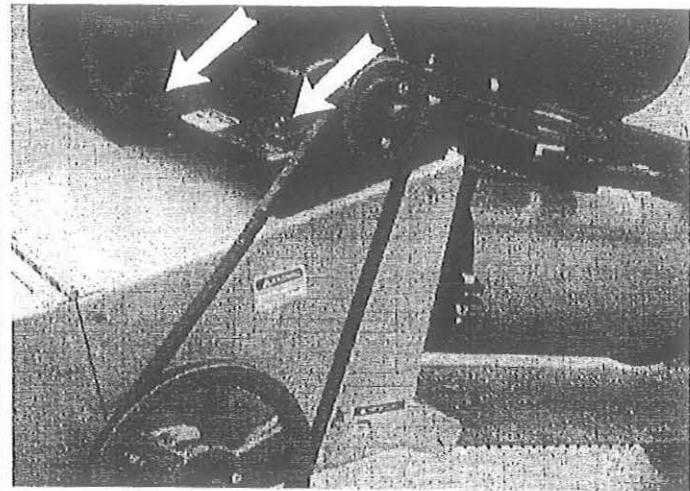


WARNING

Machine is shown with guards removed for illustrative purposes only. Do not operate machine with guards removed.



Primary



Secondary

Fig. 29 ADJUSTERS

2. Check drive belt alignment.

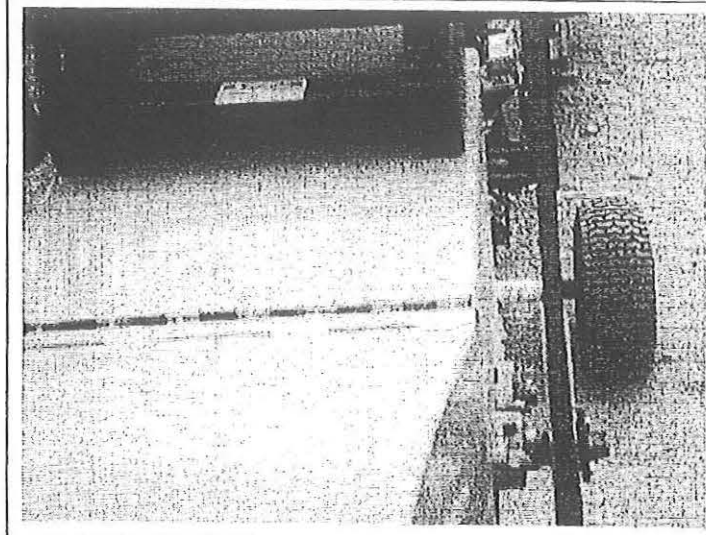
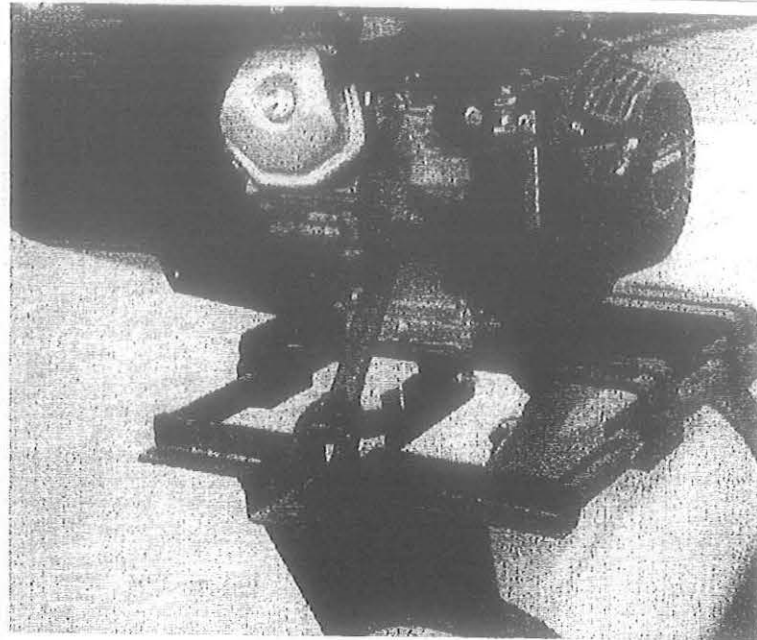


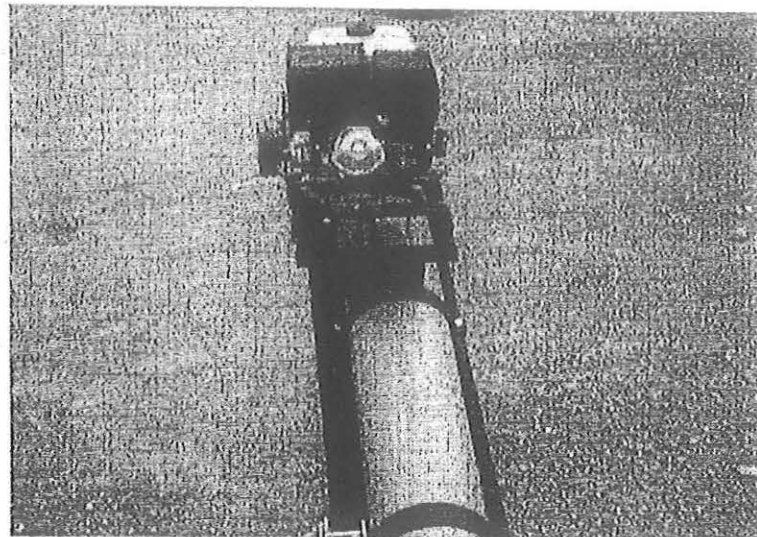
Fig. 30 ALIGNMENT (TYPICAL)

Gas Engine Drive Models

1. Check drive belt tension and alignment.



Tension



Alignment

Fig. 31 DRIVE BELTS

2. Clean air cleaner foam.

NOTE

Clean more frequently in very dirty or dusty conditions.

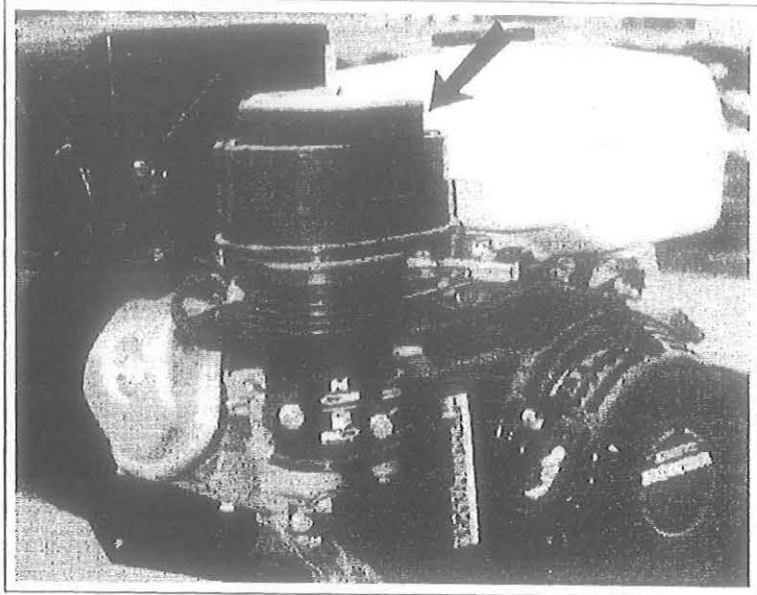


Fig. 32 AIR CLEANER

Hydraulic Drive Models

1. Oil input drive coupler.

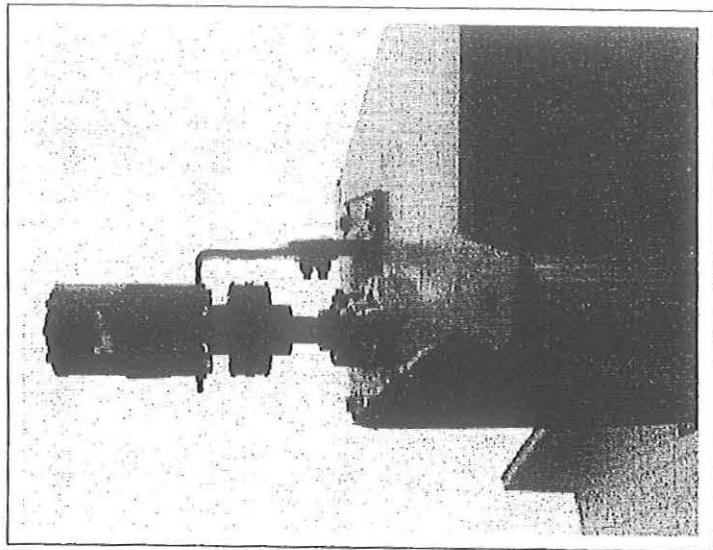


Fig. 33 INPUT DRIVE COUPLER

200 Hours or Annually

Gas Engine Drive Models

1. Change engine oil.

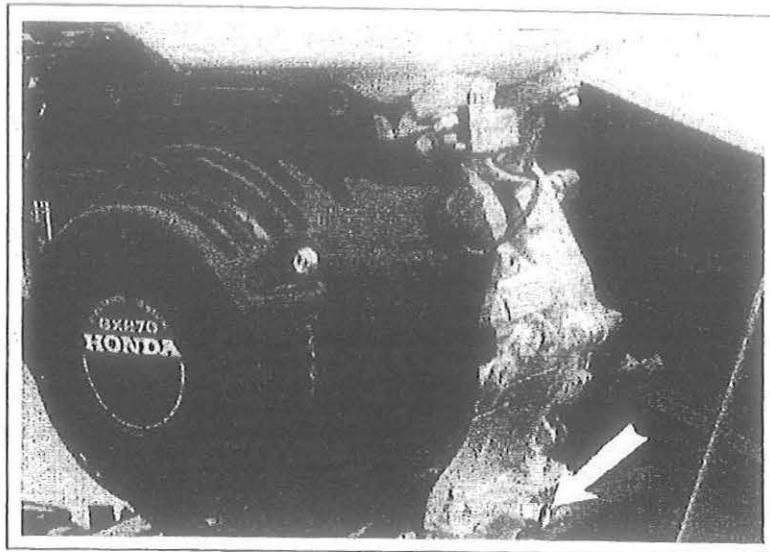


Fig. 34 DRAIN PLUG

Conveyor

1. Repack wheel bearings.
2. Wash machine.

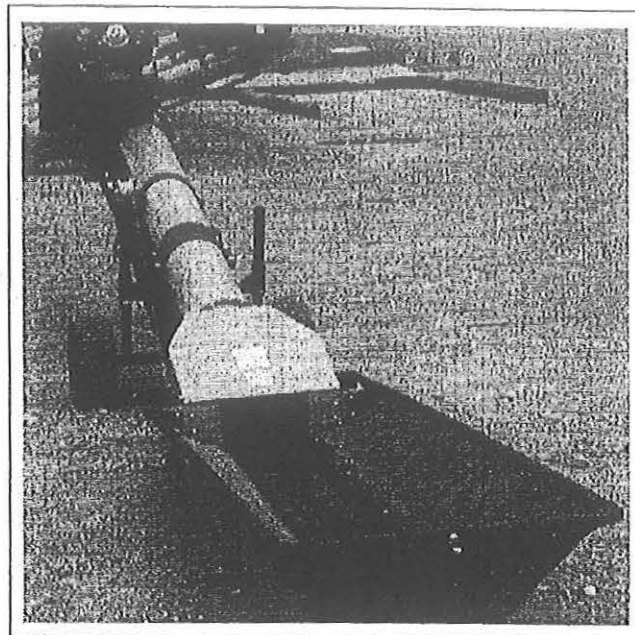


Fig. 35 MACHINE (TYPICAL)

See Lubrication and Maintenance sections for details of service. Copy this page to continue record.

ACTION CODE:	✓	CHECK	CL CLEAN	R REPACK
	L	LUBRICATE	C CHANGE	

41

5.2 MAINTENANCE

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

5.2.1 CONVEYING BELT TENSION AND ALIGNMENT

A flat belt is used to convey material through the tube. The tension and alignment of the belt should be checked weekly, or more often if required, to be sure that it does not slip or run to one side. To maintain the belt, follow this procedure:

1. Place all controls in neutral or off, stop engines or motors and disable power source before working on belt.
2. **Tension:**
 - a. Use the bottom end roller position bolts to set the tension of the belting.
 - b. A properly tensioned belt will not slip when it is operating.
3. **Alignment:**

The belting is properly aligned when the belt runs in the center of the rollers on the bottom end.

 - a. **Checking alignment:**

Use the bottom end roller to set the tension and alignment. The belt should be centered.

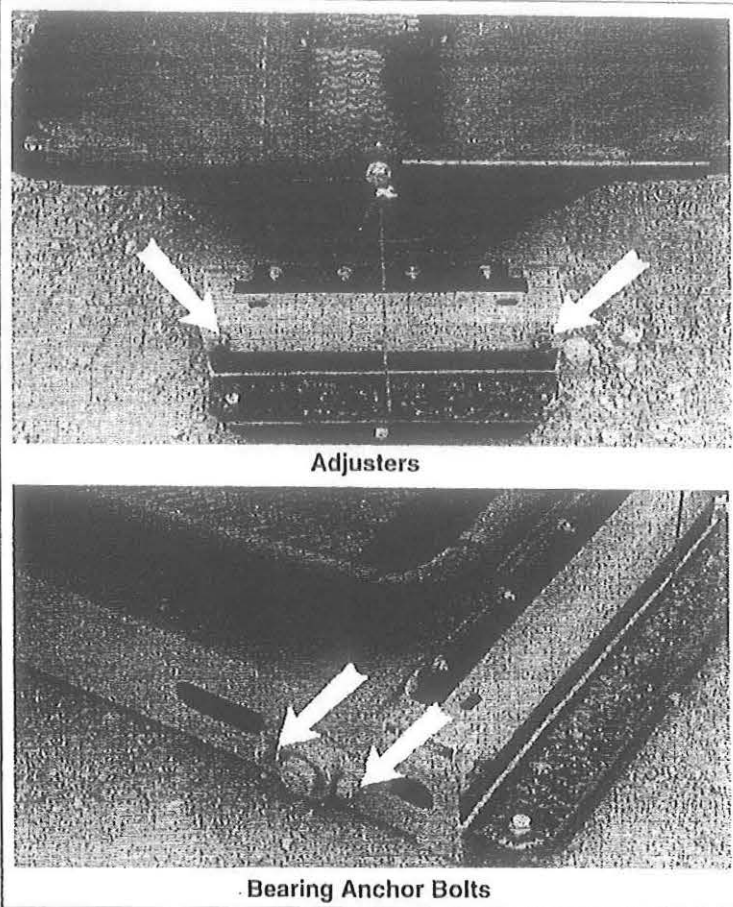


Fig. 36 BELTING TENSION (HOPPER END - TYPICAL)

Turn the belt 1/2 revolution when the belt is new and check the bottom end roller. If out of alignment, the belt will move to the loose side. The belt can be adjusted at the hopper or discharge end depending on the model. Loosen the roller bearing assembly mounting bolts and use the bearing position bolts to set the position. Tighten mounting bolts. Run a couple of revolutions and check again. 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.

b. **Adjusting tracking:**

A misaligned belt will track toward the loose side. Set the tracking by loosening the bearing mounts on the tight side and using the bearing position bolt to move the end of the roller into the required position. Tighten the bearing mount.

Move the belting another revolution and check the tracking again. Loosen the tight side slightly again if required. Repeat the adjusting and checking procedure until the belting centers on the bottom end roller and stays centered when running.

Always repeat this aligning procedure when installing a new belt. Check frequently during the first 10 hours of operation. After 10 hours, the belt is normally seated and checking the alignment can be done less frequently.

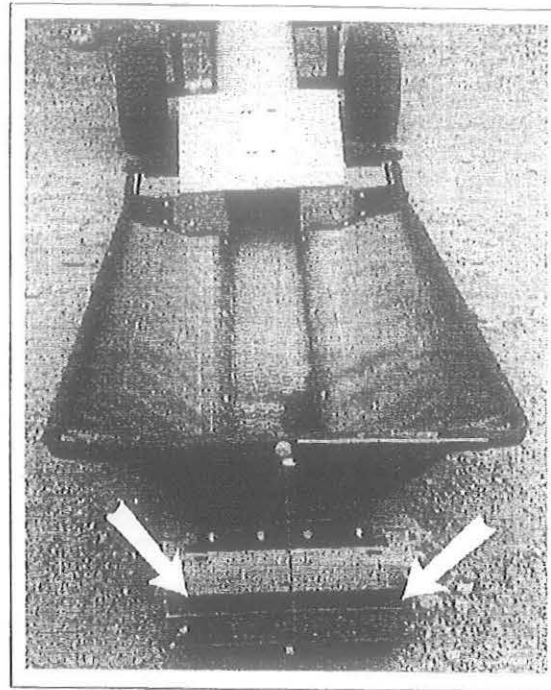


Fig. 37 TRACKING

4. **Belt Replacement:**

- a. Rotate the belting until the seam is between the drive housing and the transition.
- b. Move the bottom end roller to its loosest position.
- c. Pull all the slack to the seam area.
- d. Remove the wire connector and open the belt.
- e. Attach one end of the replacement belt to the belt end being removed.
- f. Pull the old belt out and the new belt will be threaded into place.
- g. Disconnect the old.
- h. Connect the ends of the new belt together and secure.
- i. Set the belting tension.
- j. Check and set the belting alignment.

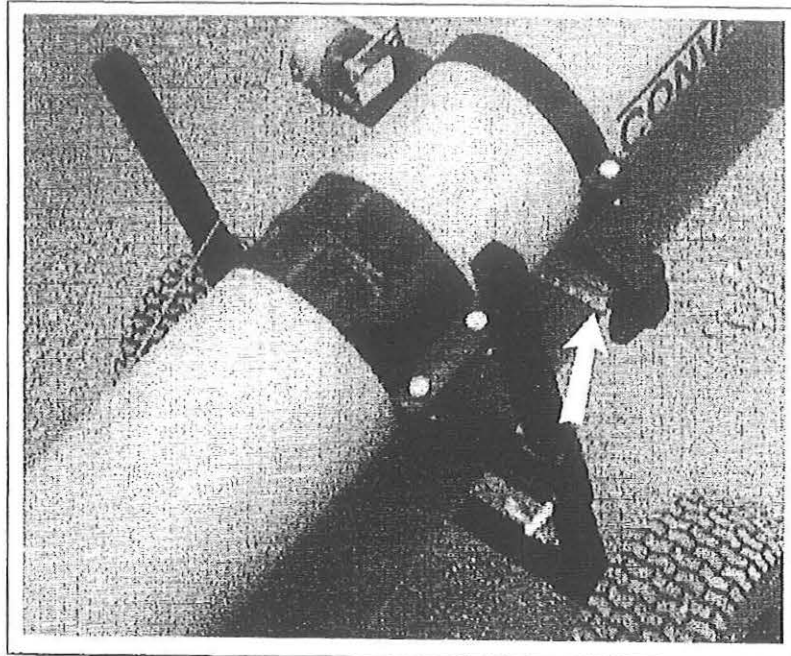


Fig. 38 CONNECTOR WIRE

5.2.2 DRIVE BELT TENSION AND ALIGNMENT (ELECTRIC DRIVE)

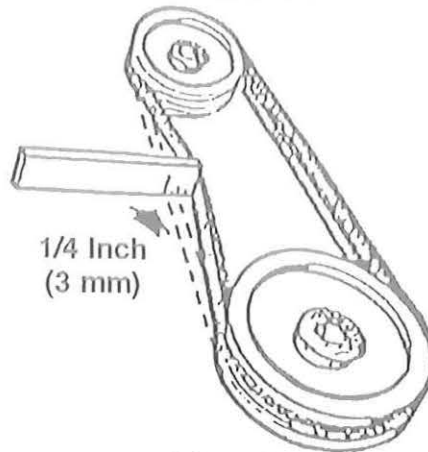
Power to the Conveying Belt is transmitted through a set of V belts. The drive system must be maintained at the proper belt tension and pulley alignment to obtain the desired performance and life. When maintaining the belt drive system for the electric drive model, follow this procedure:

1. Turn motor off and unplug power cord or turn off power at the master panel before starting on drive belt systems.
2. Belt tension:
 - a. Push on the center of the belt span with a force of approximately 5 lbs.
 - b. The belts will deflect approximately 1/4 to 1/2 inch when properly tensioned.
 - c. The secondary and primary drive belts must be adjusted as a set.
 - d. Move the cross shaft base to set the secondary drive belt tension.
 - e. Then move the motor base to set the primary drive belt tension.
 - f. Install and secure guards.

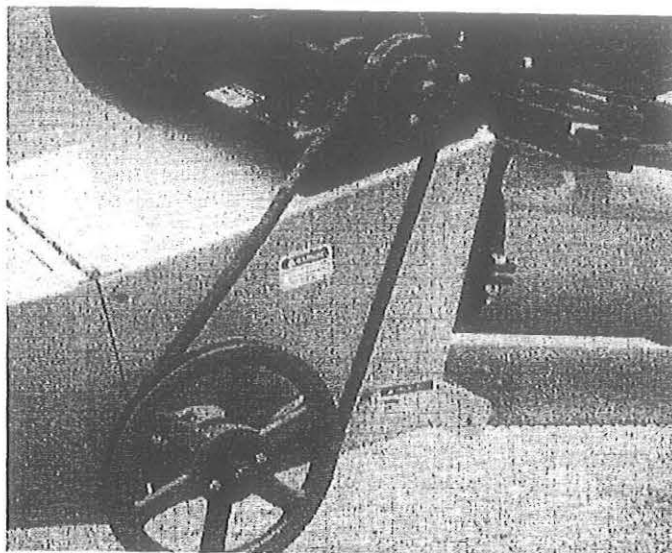


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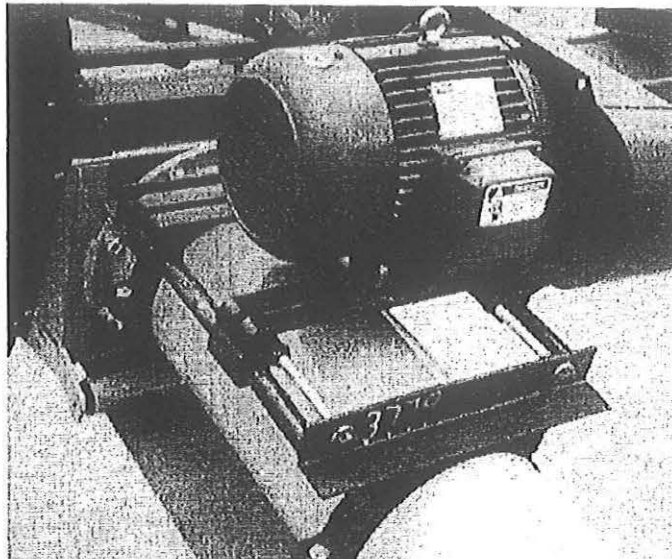
Guards are removed for illustrative purposes only. Do not operate machine with guards removed.



Schematic



Cross Shaft Base Adjustment



Motor Base Adjustment

Fig. 39 BELT TENSION

3. Alignment:

- a. Lay a straight-edge across the pulley faces to check the alignment.
- b. Use the pulley hub to move the pulley to the required position for alignment.
- c. Tighten hub bolts to secure pulley on shaft.
- d. Check belt tension.
- e. Install and secure guards.

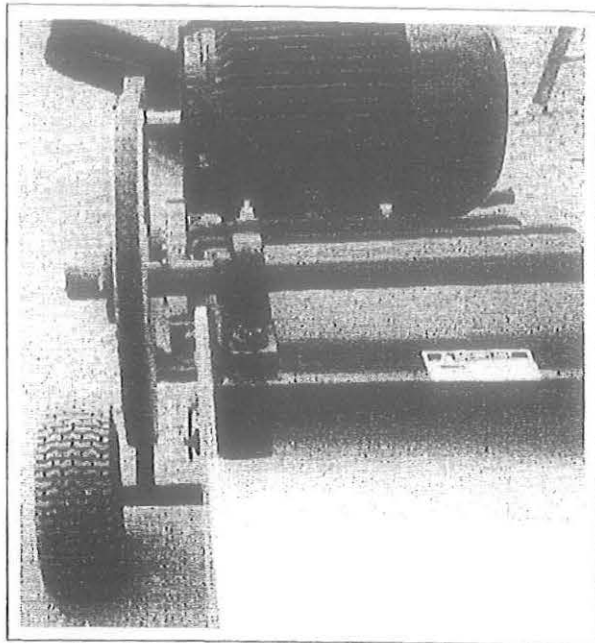


Fig. 40 ALIGNMENT (TYPICAL)

4. Belt replacement:

- a. Move motor base to its loosest position.
- b. Remove old belts and replace with new one.
- c. Move motor base to set the belt tension.
- d. Check pulley alignment. Adjust if required.
- e. Install and secure guards.



WARNING

Guards are removed for illustrative purposes only. Do not operate machine with guards removed.

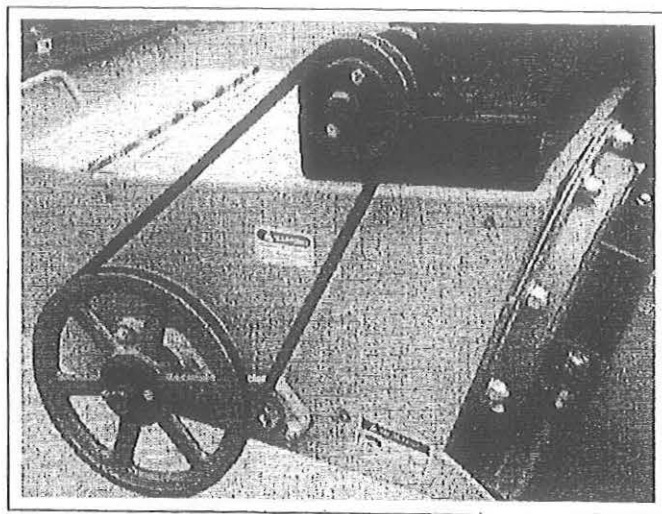


Fig. 41 BELT REPLACEMENT (TYPICAL)

5.2.3 DRIVE BELT TENSION AND ALIGNMENT (GAS DRIVE)

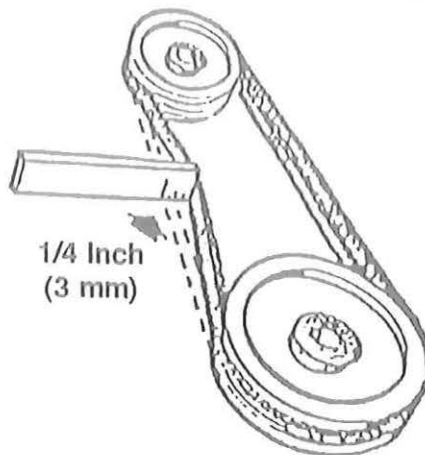
Power to the conveying belt is transmitted through a V belt. The drive system must be maintained at the proper belt tension and pulley alignment to obtain the desired performance and life. When maintaining the belt drive systems for the gas engine drive model, follow this procedure:

1. Turn engine off and remove ignition key before starting work on drive belt systems.
2. **Belt tension:**
 - a. Push on the center of the belt span (input system) with a 5 lb. force. The center should deflect approximately 1/4 to 1/2 inch when properly tensioned.
 - b. Push on the center of the belt span (engine system) with a 5 lb. force. The center should deflect approximately 1/4 to 1/2 inch when properly tensioned.
 - c. Use the eye bolt position of the engine base position lever to set the tension of the motor drive belt system when engaged.
 - d. Install and secure guards.

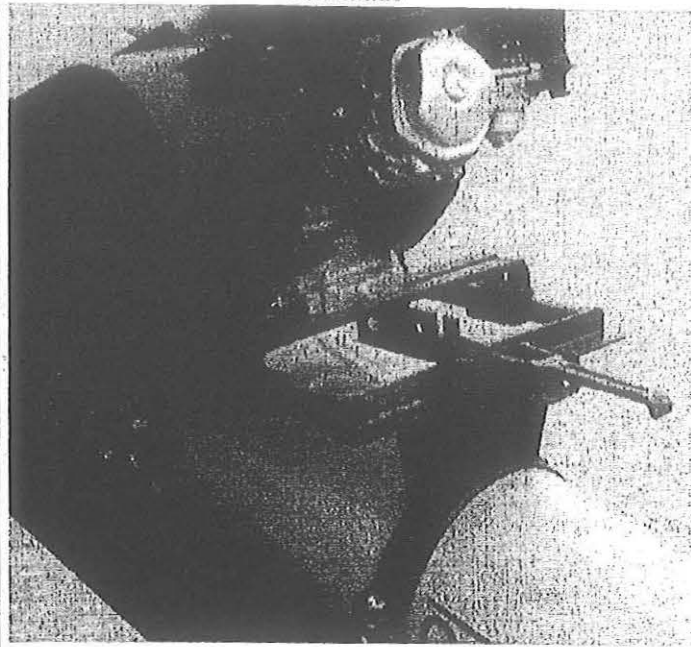


WARNING

Guards are removed for illustrative purposes only. Do not operate machine with guards removed.



Schematic



Eye Bolt

Fig. 42 BELT TENSION

3. Alignment:

- a. Sight along the pulleys of the engine drive system to align the system. Use the pulley hubs or move the engine itself to align the system. Tighten hubs and the engine base when the system is aligned. Set the belt tension.
- b. Install and secure guards.



WARNING

Guards are removed for illustrative purposes only. Do not operate machine with guards removed.

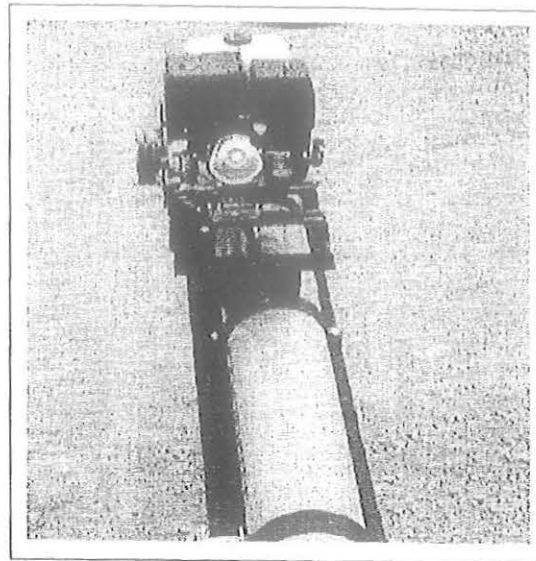


Fig. 43 ALIGNMENT

4. Belt Replacement:

- a. Move engine base to set belt tension in its loosest position.
- b. Remove old belts and replace with new ones.
- c. Move engine base to set belt tension.
- d. Check alignment. Adjust as required.
- e. Install and secure guards.

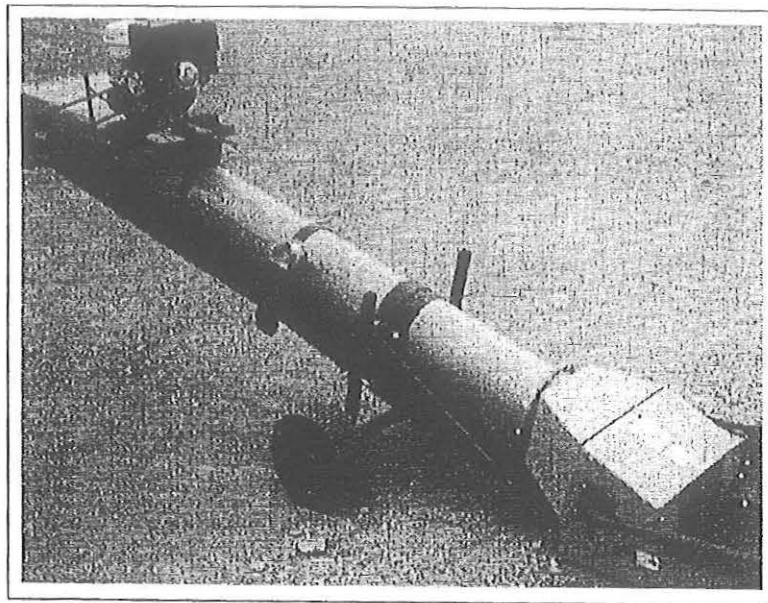


Fig. 44 BELT

5.2.4 CLEANING AIR CLEANER

1. Review the Operator's Manual for the engine.
2. Place all controls in neutral, stop engine and remove ignition key before maintaining.
3. Remove the cover over the air cleaner.
4. Remove the foam from the engine.
5. Use an air hose to blow the dust and debris out of the foam.
6. Install foam.
7. Install and secure the cover.

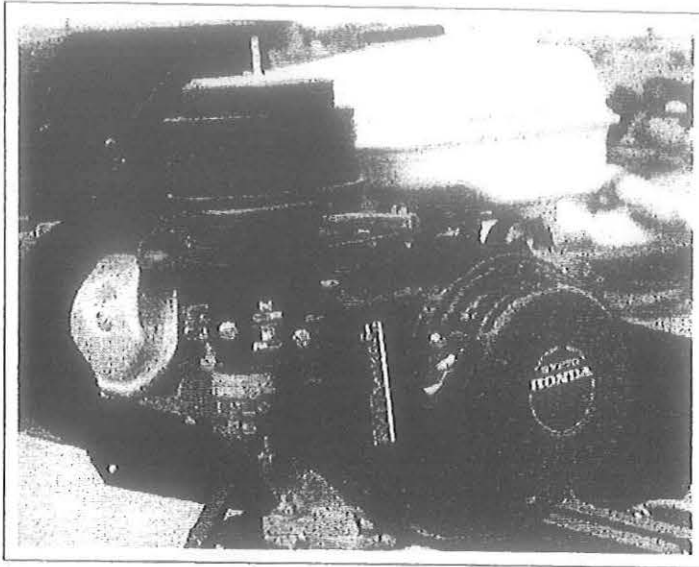


Fig. 45 AIR CLEANER

5.2.5 CHANGING ENGINE OIL AND FILTER

1. Review the Operator's Manual for the engine.
2. Place all controls in neutral, stop engine, and remove ignition key before maintaining.
3. Allow the engine to cool before changing the oil. Hot oil can cause burns if it contacts exposed skin. It is best to change oil while the engine is warm to keep the contaminants in suspension.
4. Place a pan under the drain plug.
5. Remove the drain and allow the oil to drain for 10 minutes.
6. Install and tighten the drain plug.
7. Dispose of the used oil in an approved container.
8. Fill the crankcase with specified oil.
9. Run the engine for 1-2 minutes and check for oil leaks.

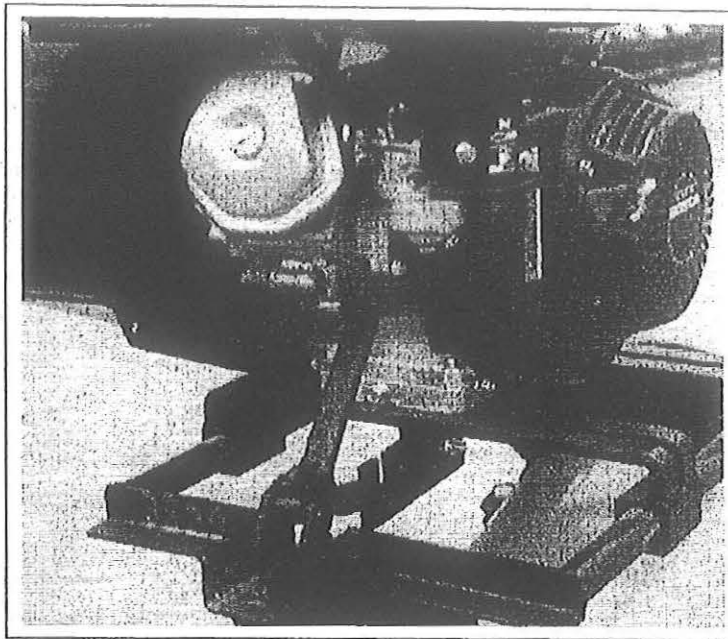


Fig. 46 DRAIN PLUG

10. If leaks are found around the drain plug, tighten slightly. Repeat step 9.
11. Check engine oil level. Top up as required.

6 TROUBLE SHOOTING

The Convey-All Transfer Conveyor uses an endless flat belt moving through a tube to convey material from one location to another. It is a simple and reliable system that requires minimal maintenance.

In the following section, we have listed many of the problems, causes and solutions to the problems that you may encounter.

If you encounter a problem that is difficult to solve, even after having read through this trouble shooting section, please call your local Convey-All dealer or distributor. Before you call, please have this Operator's Manual and the serial number from your machine ready.

PROBLEM	CAUSE	SOLUTION
Conveyor will not run.	Belting loose.	Tighten and align.
	Drive belts loose.	Tighten and align belting.
	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.
<hr/>		
Belt edge fraying.	Belting not aligned.	Align and tension belting.
<hr/>		
Low conveying capacity.	Incorrect belt speed.	Adjust belt speed to correct range.
	Conveyor belting slipping.	Tighten and align.
	Drive belt slipping.	Replace if worn or glazed.
		Set correct tension and alignment.
	Conveyor angle too steep.	Check angle and adjust.
<hr/>		
Belt not aligned in Goose Neck.	Hold down wheels not turning freely.	Free up wheel so that it turns freely.
	Return roller under Goose Neck needs adjustment	On Models that have a bolted return roller bracket, loosen bolts and adjust. On units that have a welded bracket, bend the bracket as needed.

7 SPECIFICATIONS

7.1 MECHANICAL

MODEL	SWING OR END DUMP	TYPE OF UNDERCARRIAGE	TUBE DIAMETER	BELT WIDTH	CAPACITY PER HOUR	OVERALL LENGTH	WHEEL TRACK	BIN HEIGHT 30 Degree	25 Degree	TRANSPORT HEIGHT
TC1035 T.E.D.	END DUMP	"A" FRAME	10"	12"	2000	37'	96"	17'6"	15'5"	11"
TC1035	END DUMP	"A" FRAME	10"	12"	3000	37'	96"	17'6"	15'5"	11"
TC1045	END DUMP	"A" FRAME	10"	12"	3000	47'	109"	22'6"	19'7"	11"
TC1055	END DUMP	"A" FRAME	10"	12"	3000	57'	114"	27'6"	23'4"	11"
TC1065	BOTH	SCISSORS	10"	12"	3000	67'	132"	32'6"	28'1"	11"
TC1070	BOTH	SCISSORS	10"	12"	3000	72'	132"	35'	30'2"	11"
TC1075	BOTH	SCISSORS	10"	12"	3000	77'	132"	37'3"	32'3"	11"
TC1080	BOTH	SCISSORS	10"	12"	3000	82'	150"	40'	34'4"	11"
TC1085	BOTH	SCISSORS	10"	12"	3000	87'	150"	42"	36'6"	11"
TCH1035	END DUMP	"A" FRAME	10"	16"	6000	39'6"	96"	17'6"	15'5"	11"
TC1035	END DUMP	"A" FRAME	10"	16"	6000	49'6"	109"	22'6"	19'7"	11"
TCH1065	BOTH	SCISSORS	10"	16"	6000	69'6"	132"	32'6"	28'1"	11"
TCH1070	BOTH	SCISSORS	10"	16"	6000	74'6"	132"	35'	30'2"	11"
TCH1075	BOTH	SCISSORS	10"	16"	6000	79'7"	132"	37'6"	32'3"	11"
TCH1085	BOTH	SCISSORS	10"	16"	6000	89'6"	150"	42'6"	36'6"	11"
TCH1435	END DUMP	"A" FRAME	14"	22"	10,000	37'6"	99"	18'3"	15'5"	11"
TCH1445	END DUMP	"A" FRAME	14"	22"	10,000	47'6"	109"	23'3"	19'7"	11"
TCH1465	BOTH	SCISSORS	14"	22"	10,000	67'6"	154"	33'3"	28'1"	11"
TCH1470	BOTH	SCISSORS	14"	22"	10,000	72'6"	154"	35'9"	30'2"	11"
TCH1475	BOTH	SCISSORS	14"	22"	10,000	77'6"	154"	38'3"	32'3"	11"
TCH1485	BOTH	SCISSORS	14"	22"	10,000	87'6"	154"	43'3"	36'6"	11"
TCH1490	BOTH	SCISSORS	14"	22"	10,000	92'6"	154"	45'9"	38'8"	11"

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

OPERATING POWER REQUIREMENTS

MODEL	GASOLINE HORSEPOWER	ELECTRIC MOTOR	P.T.O. Tractor H.P.		
TC1035 T.E.D.	N/A	5	N/A		
TC1035	13	7.5	15		
TC1045	13	7.5	15		
TC1055	18	10	15		
TC1065	20	15	20		
TC1070	20	15	20		
TC1075	24	20	25		
TC1080	24	20	25		
TC1085	24	20	25		
TCH1035	20	10	15		
TCH1045	20	15	15		
TCH1065	24	20	25		
TCH1070	24	25	35		
TCH1075	N/A	25	40		
TCH1085	N/A	25	45		
TCH1435	24	15	15		
TCH1445	N/A	15	20		
TCH1465	N/A	25	55		
TCH1470	N/A	25	60		
TCH1475	N/A	30	65		
TCH1485	N/A	40	80		
TCH1490	N/A	40	80		

Model	UBGN1014	UBGNH1016	UBGNH1418
Length	14'	16'	19' 6"
Discharge Height	33"	40"	44"
Hopper Width	31"	33"	39"
Power Options			
Gas/hp:	5.5 HP	9 HP	11 HP
Electric/hp:	5 HP	7.5 HP	7.5 HP
Hydraulic/hp:	5.9 CU.IN	5.9 CU.IN	5.9 CU.IN
Rims:			

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

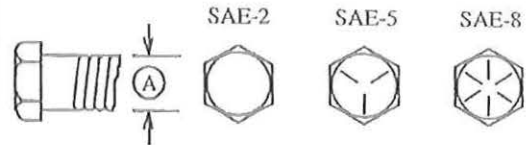
7.2 BOLT TORQUE

CHECKING 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.

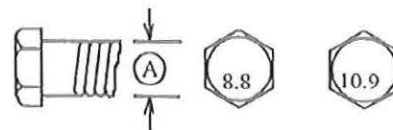
ENGLISH TORQUE SPECIFICATIONS

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



METRIC TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*			
	8.8 (N.m) (lb-ft)		10.9 (N.m) (lb-ft)	
M3	.5	.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.

7.3 HYDRAULIC FITTING TORQUE

TIGHTENING FLARE TYPE TUBE FITTINGS *

1. Check flare and flare seat for defects that might cause leakage.
2. Align tube with fitting before tightening.
3. Lubricate connection and hand tighten swivel nut until snug.
4. To prevent twisting the tube(s), use two wrenches. Place one wrench on the connector body and with the second tighten the swivel nut to the torque shown.

Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
(in.)	(in.)	(N.m)	(lb-ft)	(Flats)	(Turn)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90	3/4	1/8

* The torque values shown are based on lubricated connections as in reassembly.

TIGHTENING O-RING FITTINGS *

1. Inspect O-ring and seat for dirt or obvious defects.
2. On angle fittings, back the lock nut off until washer bottoms out at top of groove.
3. Hand tighten fitting until back-up washer or washer face (if straight fitting) bottoms on face and O-ring is seated.
4. Position angle fittings by unscrewing no more than one turn.
5. Tighten straight fittings to torque shown.
6. Tighten while holding body of fitting with a wrench.

Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns To Tighten (After Finger Tightening)	
(in.)	(in.)	(N.m)	(lb-ft)	(Flats)	(Turn)
3/8	1/2	8	6	2	1/3
7/16	9/16	12	9	2	1/3
1/2	5/8	16	12	2	1/3
9/16	11/16	24	18	2	1/3
3/4	7/8	46	34	2	1/3
7/8	1	62	46	1-1/2	1/4
1-1/16	1-1/4	102	75	1	1/6
1-3/16	1-3/8	122	90	1	1/6
1-5/16	1-1/2	142	105	3/4	1/8
1-5/8	1-7/8	190	140	3/4	1/8
1-7/8	2-1/8	217	160	1/2	1/12

* The torque values shown are based on lubricated connections as in reassembly.

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CONVEY-ALL INDUSTRIES

BOX 2008, 130 CANADA STREET

WINKLER, MANITOBA

R6W 4B7

PHONE (204) 325-4195

FAX (204) 325-8116

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