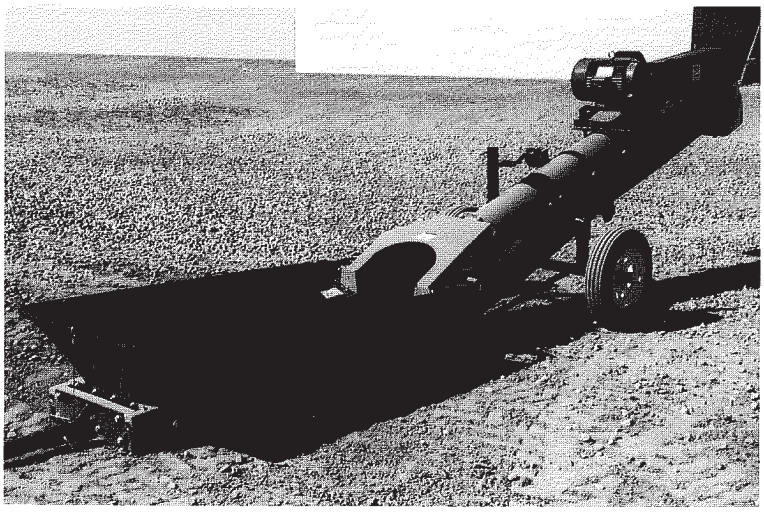
CONVEY-ALL®



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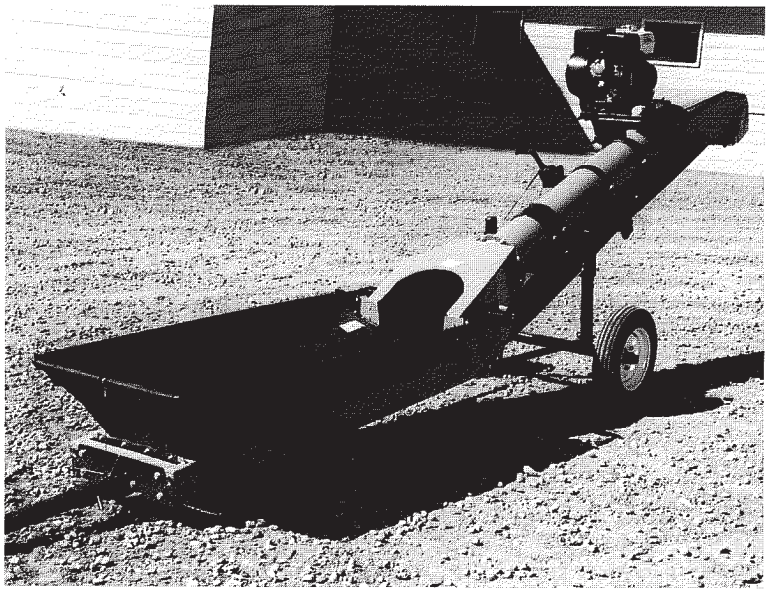


Gas

TRANSFER CONVEYOR
OPERATOR'S MANUAL

GAS AND ELECTRIC POWERED
MODELS UBSNH 1000 & UBSNH 1400

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 extents 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 _____

Address _____

City, State/Prov., Code _____

Phone Number (____) _____

Dealer Name _____

Address _____

City, State/Prov., Code _____

Conveyor Model _____

Serial Number _____

Delivery Date _____

Application

☐ Private
☐ Commercial

DEALER INSPECTION REPORT

_____ Licensed Electrician Provides Power
_____ All Fasteners Tight
_____ Drive System Rotates Freely
_____ 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.

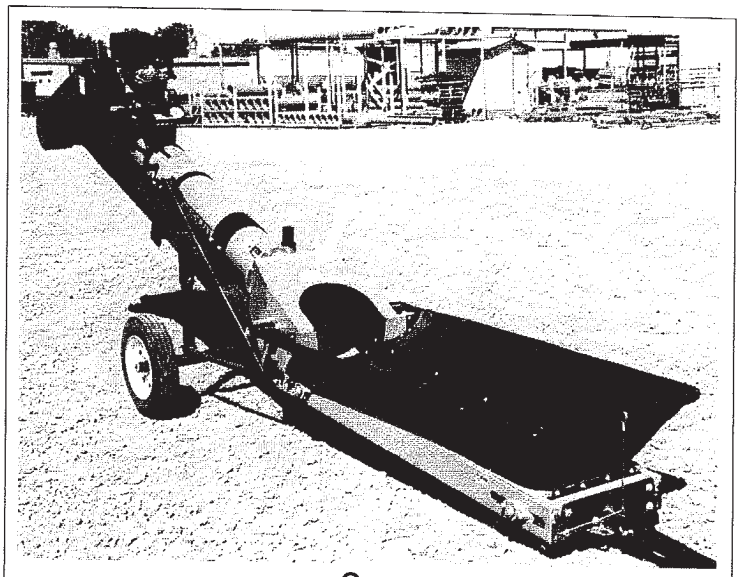
Date _____ Owner's Signature _____

WHITE	YELLOW	PINK
CONVEY-ALL	DEALER	CUSTOMER

SERIAL NUMBER LOCATION

Always give your dealer the serial number of your Convey-All Transfer 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.



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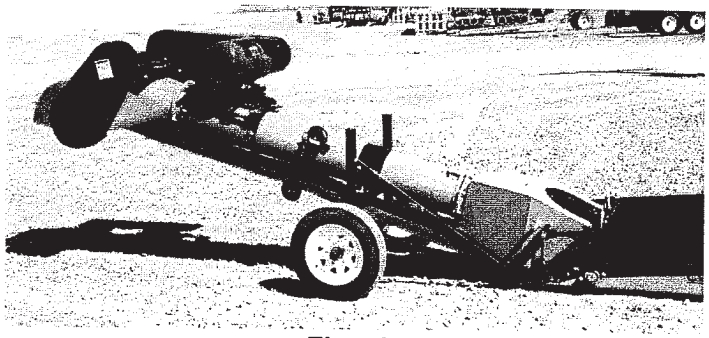

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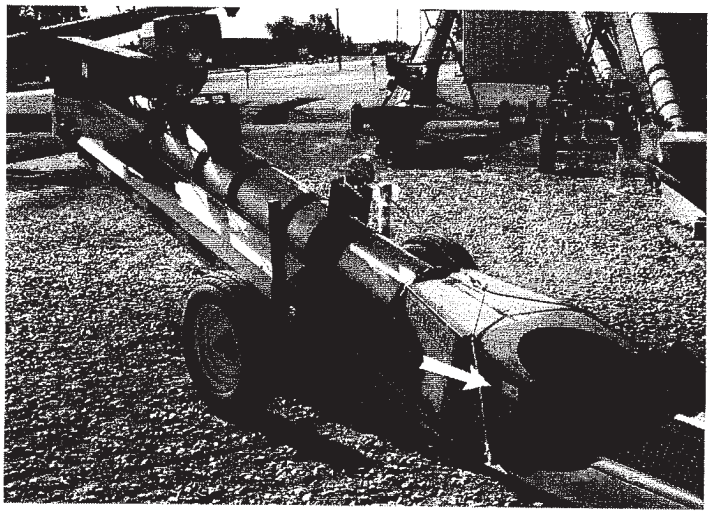


Stainless Steel

SERIAL NUMBER LOCATIONS (TYPICAL)

Model Number _____

Serial Number _____

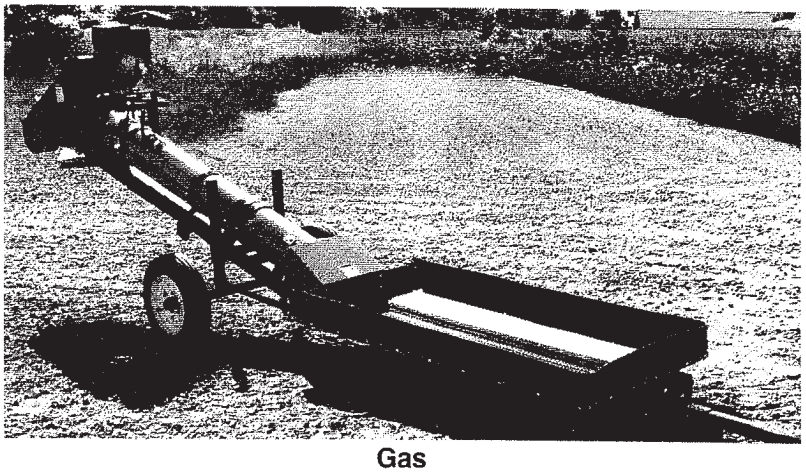
Production Year _____

TABLE OF CONTENTS

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.



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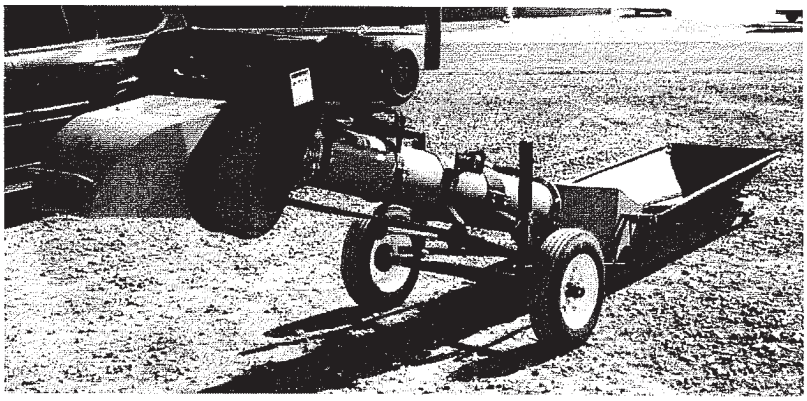

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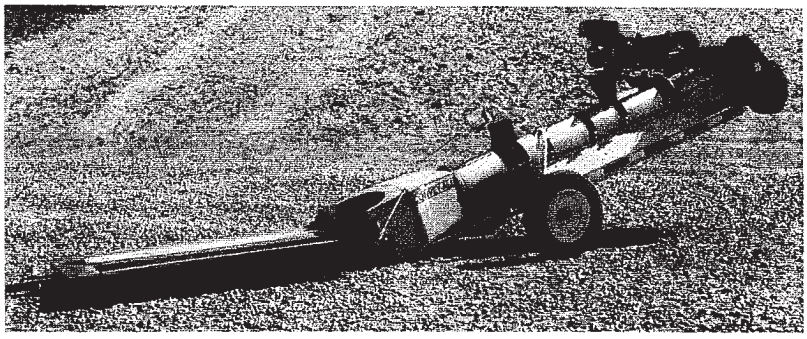


Stainless Steel

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.

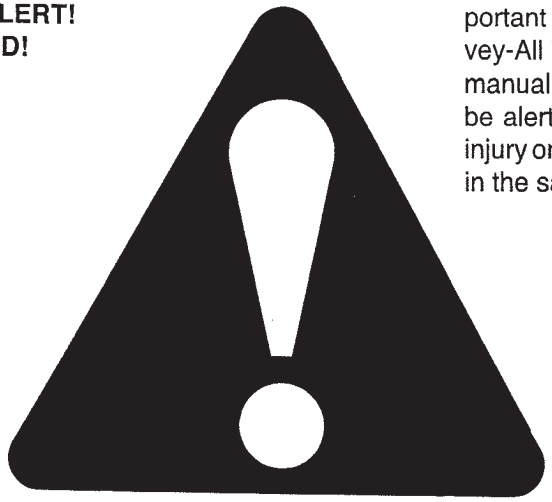
Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your Convey-All distributor or dealer if you need assistance, information or additional copies of the manual.

OPERATOR ORIENTATION - The directions left, right, front and rear, as mentioned throughout the manual, are as seen from the tractor discharge end and facing toward the intake end.

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.

If you have any questions not answered in this manual or require additional copies of the manual or the manual is damaged, please contact your dealer or Convey-All Industries Inc., Box 2008, 130 Canada St., Winkler Manitoba, R6W 4B7. 1-800-418-9461 • ph: 204-325-4195 • fax: 204-325-8116

SAFETY

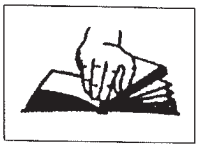
YOU are responsible for the **SAFE** operation and maintenance of your Convey-All Transfer Conveyor. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Transfer Conveyor be familiar with the operating and maintenance procedures and related **SAFETY** information 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.
- 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

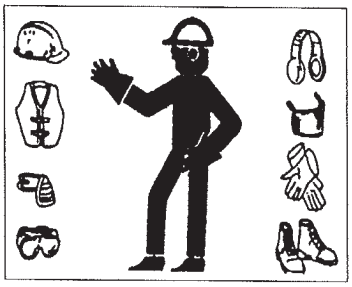
1. Read and understand the Operator's Manual and all safety signs before operating, maintaining, adjusting or unplugging the Conveyor.



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 riders.
6. Do not allow children, spectators or bystanders within hazard area of machine.
7. 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
8. 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.
9. Establish a formal Lock-Out, Tag-Out program for your operation.
10. Review safety related items annually with all personnel who will be operating or maintaining the Conveyor.

2.2 EQUIPMENT SAFETY GUIDELINES

1. Safety of the operator and bystanders is one of the main concerns in designing and developing equipment. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury or death, study the following precautions and insist those working with you, or for you to follow them.

2. In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be used in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.

3. Replace any safety sign or instruction sign that is not readable or is missing. Location of such safety signs is indicated in this manual.

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

5. **Under no circumstances should young children be allowed to work with this equipment. Do not allow persons to use or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.** 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 machinery and trained in this equipment's operations. If the elderly are assisting with 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 may result in serious injury or death and may impair the function and life of the equipment.

9. In addition to the design and configuration of this implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the power or tow vehicle and machine manuals. Pay close attention to the Safety Signs affixed to the tow vehicle, engine and the machine.

2.3 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. In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of this equipment.

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 Using instructions in the manual and to follow these. Accidents can be avoided.

4. **Working with unfamiliar equipment can lead to careless injuries. Read this manual before assembly or using, 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 using:**

   a. **Reads and understands the operator's manuals.**

   b. **Is instructed in safe and proper use.**

5. Know your controls and how to stop power or tow vehicle and machine quickly in an emergency. Read this manual and the one provided with tractor.

6. Train all new personnel and review instructions frequently with existing workers. Be certain only a properly trained and physically able person will use the machinery. A person who has not read and understood all using and safety instructions is not qualified to use the machine. An untrained operator exposes himself and bystanders to possible serious injury or death. If the elderly are assisting with the work, their physical limitations need to be recognized and accommodated.

2.4 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 displayed in Section 3 each have a part number in the lower right hand corner. Use this part number when ordering replacement parts.

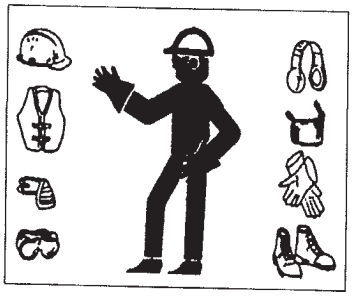
5. Safety signs are available from your authorized Distributor or Dealer Parts Department or the factory.

How to Install Safety Signs:

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Determine 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.

2.5 PREPARATION

1. Never use the machine until you have read and completely understand this manual, the power or tow vehicle Operator's Manual and each of the Safety Messages found on the safety signs on the engine or motor and machine.

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

3. 
PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS!
Power equipment with or without equipment attached 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 (from tractors, chain saws, radios, and other such sources close to the ear) is cumulative over a lifetime without hope of natural recovery.

4. Clear working area of stones, branches or hidden obstacles that might be hooked or snagged, causing injury or damage.

5. Use only in daylight or good artificial light.

6. Be sure machine is properly mounted, adjusted and in good operating condition.

7. Ensure that all safety shielding and safety signs are properly installed and in good condition.

2.6 MAINTENANCE SAFETY

1. Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

2. 
Follow good shop practices.
   - Keep service area clean and dry.
   - Be sure electrical outlets and tools are properly grounded.
   - Use adequate light for the job at hand.

3. Make sure there is plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.

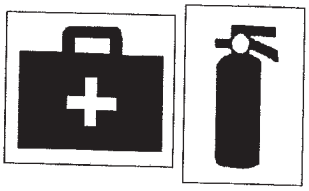
4. Before working on this machine, shut off the engine, remove the ignition key and wait for all moving parts to stop.

5. Before applying pressure to a hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.

6. Relieve pressure from hydraulic circuit before servicing or disconnecting from power unit.

7. Always use personal protection devices such as eye, hand and hearing protectors, when performing any service or maintenance work. Use heavy or leather gloves when handling components.

8. Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for injuries or damages caused by use of unapproved parts and/or accessories.

9. 
A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment.

10. Periodically tighten all bolts, nuts and screws and check that all electrical and fuel connections are properly secured to ensure unit is in a safe condition.

11. When completing a maintenance or service function, make sure all safety shields and devices are installed before placing unit in service.

2.7 OPERATING SAFETY

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

2. Please remember it is important that you read and heed the safety signs on the Transfer Conveyor. Clean or replace all safety signs if they cannot be clearly read and understood. They are there for your safety, as well as the safety of others. The safe use of this machine is strictly up to you, the operator.

3. All things with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this Transfer Conveyor to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.

4. If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.

5. When the use of hand tools is required to perform any part of assembly, installation, adjustment, maintaining, repairing, removal, or moving, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.

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

7. 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.

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

9. Establish a formal Lock-Out Tag-Out program for your operation.

10. Do not stand or climb on machine when operating. Keep others off.

11. 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.

12. Before you operate the machine, check over all pins, bolts, and connections to be sure all are securely in place. Replace any damaged or worn parts immediately.

13. Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.

14. Do not smoke when refueling.

15. Never allow children to operate or be around this machine.

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

17. Clear the work area of objects which might be picked up and snagged or entangled in the machine.

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

19. Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.

2.8 LOCK-OUT TAG 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 conveyor.

3. Provide tags at the worksite and a sign-up sheet to record tag-out details.

4. Do not service or maintain the conveyor unless motors are OFF and the power locked out at the master panel. Keep others away.

2.9 HYDRAULIC SAFETY

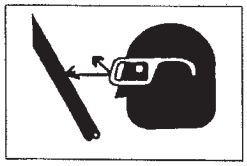
1. Always place all tractor hydraulic controls in neutral before disconnecting from tractor or working on hydraulic system.

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.

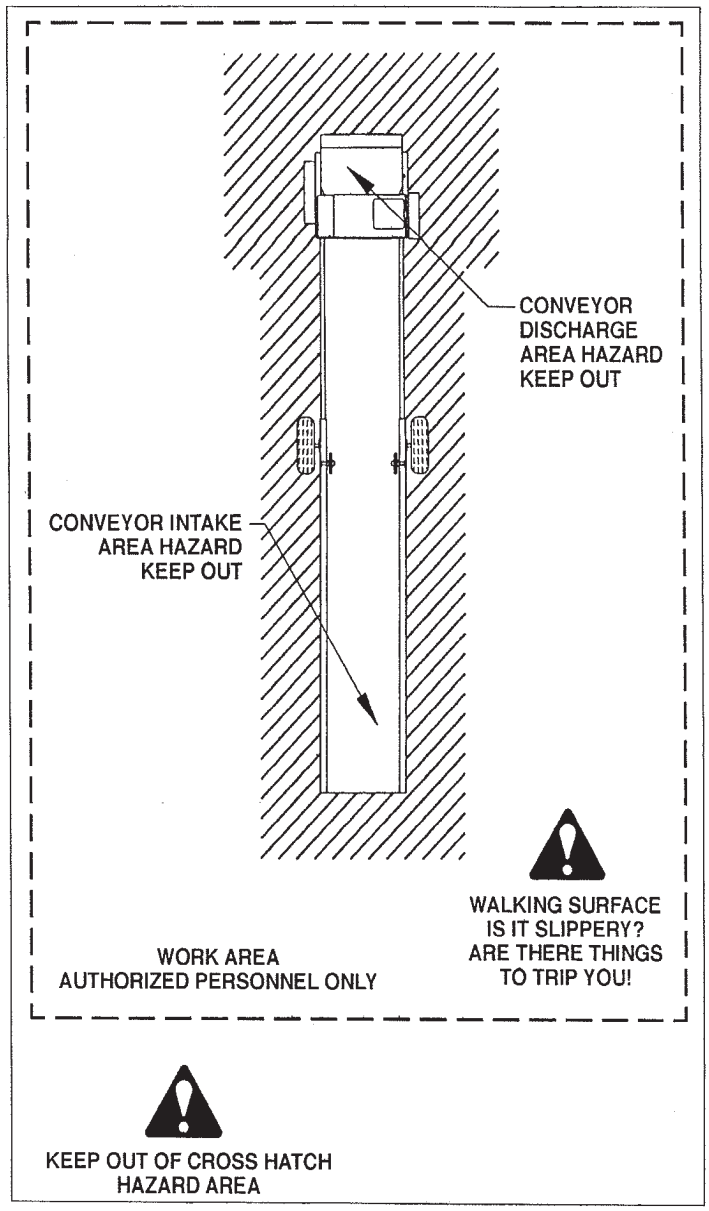
5. Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.



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.

7. Relieve pressure in hydraulic system before maintaining or working on machine.

2.10 WORKPLACE HAZARD AREA



WORKPLACE HAZARD AREA

2.11 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 odourless 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 chipper 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 gasoline has evaporated.
8. DO NOT smoke while 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 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.

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 a 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 land.

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 wit 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.

2.12 REFUELING SAFETY

1. Handle fuel with care. It is highly flammable.
2. Allow engine to cool for 5 minutes before refueling. 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.

2.13 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 an spilled electrolyte immediately.
3. Wear safety glasses when working near batteries.
4. Do not tip batteries more than 45°, to avoid electrolyte loss.
5. To avoid injury from spark or short circuit, disconnect battery ground cable before servicing any part of the electrical system.

2.14 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.

2.15 TRANSPORT SAFETY

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when moving or transporting the Conveyor.
2. Check with local authorities regarding Conveyor transport on public roads. Obey all applicable laws and regulations.
3. Always travel at a safe speed. Use caution when making corners or meeting traffic.
4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
5. Do not allow riders on the Conveyor or the tractor when transporting.
6. Attach Conveyor to towing vehicle with a pin and retainer. Always attach the safety chain.
7. Lower Conveyor to its lowest position for transporting.
8. Keep to the right and yield the right-of-way to allow faster traffic to pass. Drive on the road shoulder, if permitted by law.
9. Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
10. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

2.16 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.
3. Store the unit in a dry, level area. Support the frame with planks if required.
4. Lock out power by turning off master control panel or junction box and padlocking the door shut to prevent electrocution or unauthorized start-up of the Transfer Conveyor.

2.17 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

DATE	EMPLOYEES SIGNATURE	EMPLOYERS SIGNATURE

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.

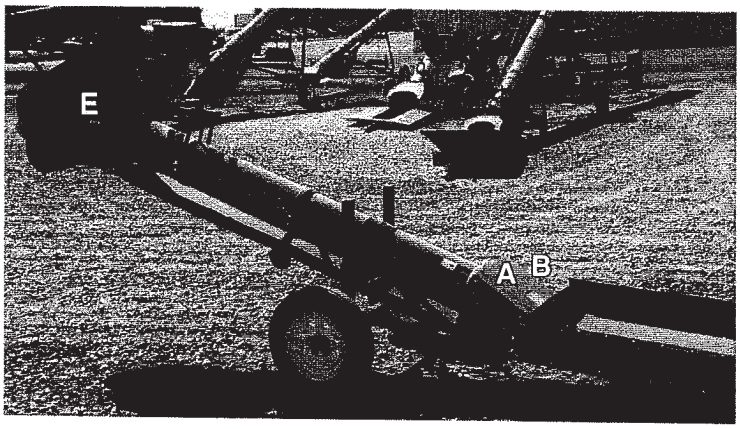
- Think SAFETY! Work SAFELY!

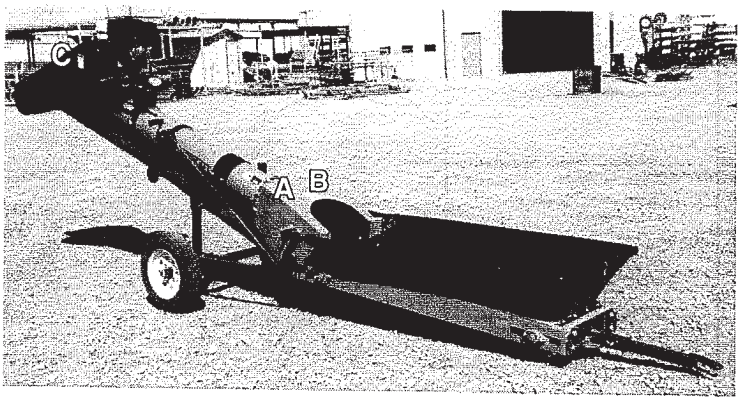
A

⚠ CAUTION

- **Read and understand Operator's Manual before using. Review safety instructions annually.**
- **Place all controls in neutral or turn off, stop engine, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or maintaining.**
- **Establish a formal Lock-Out Tag-Out program for your operation.**
- **Disconnect power before resetting motor overload.**
- **Be sure electric motors are grounded.**
- **Make certain everyone is clear before operating or moving the machine. Keep children, visitors and untrained people away.**
- **Keep hands, feet, hair and clothing away from all moving parts.**
- **Do not stand or climb on the machine when operating. Keep others off.**
- **Keep hydraulic components in good condition.**

13-1100-0004





B

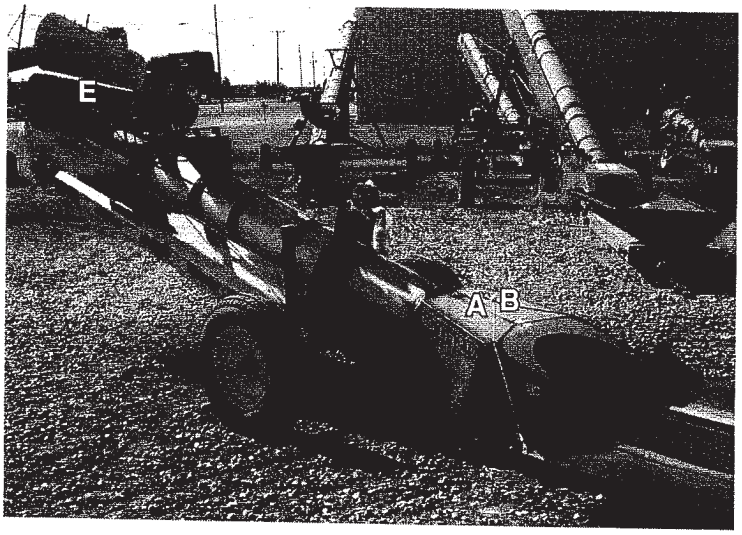
⚠ WARNING

MOVING PART HAZARD

To prevent serious injury or death from falling:

1. **Do not stand or climb on machine when operating. Keep others off.**
2. **Keep hands away from moving parts.**
3. **Wear tight clothing and safety gear.**

13-1100-0013



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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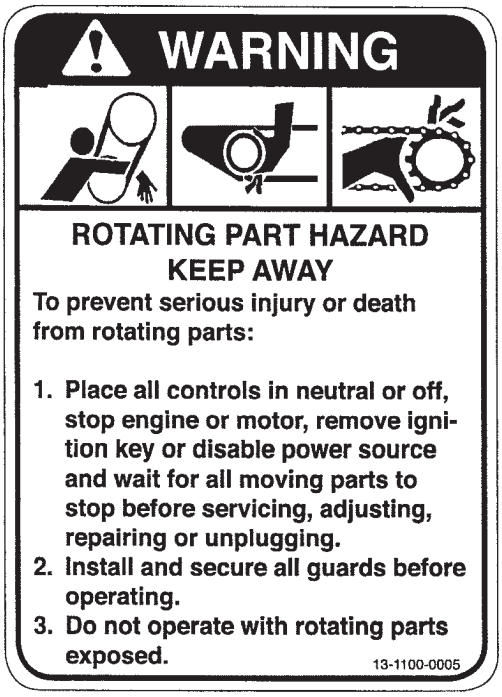
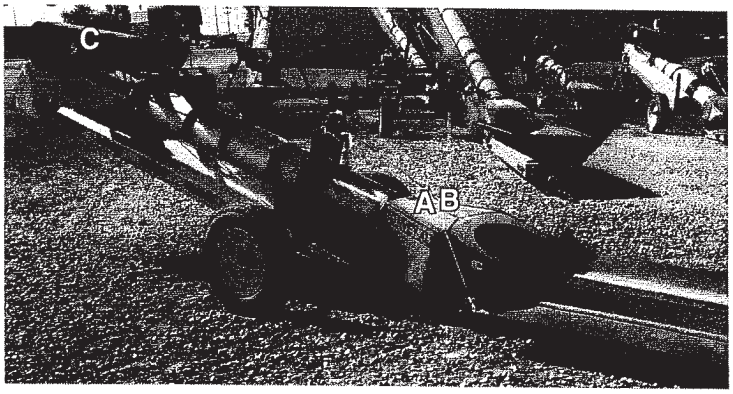
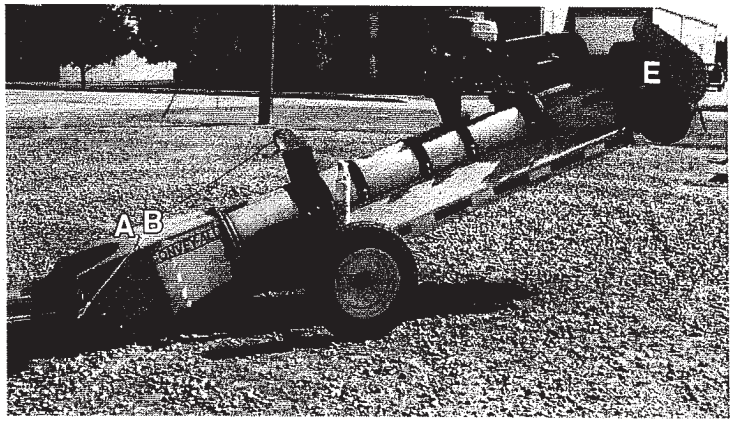
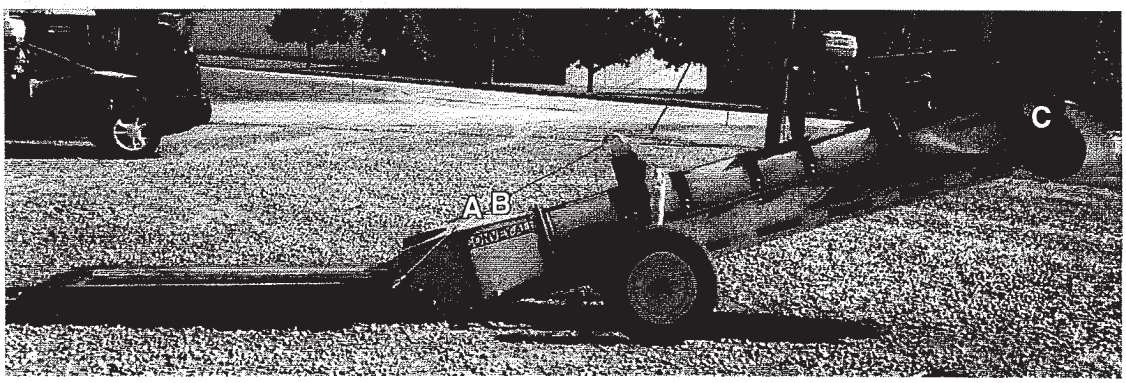
- Think SAFETY! Work SAFELY!

C









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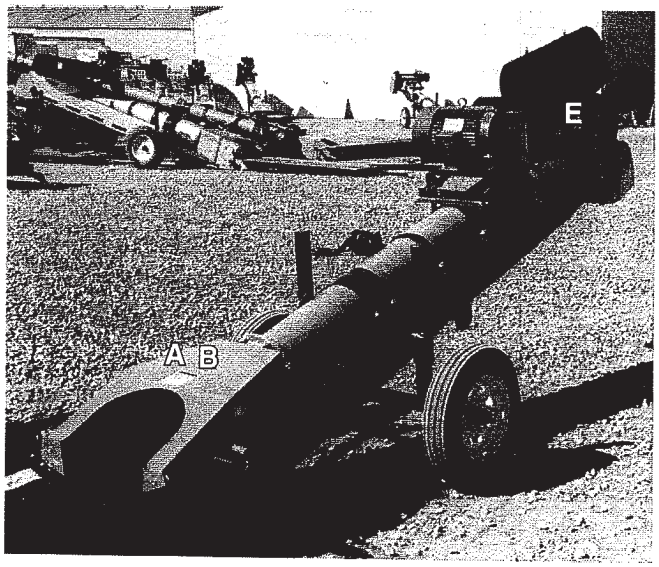
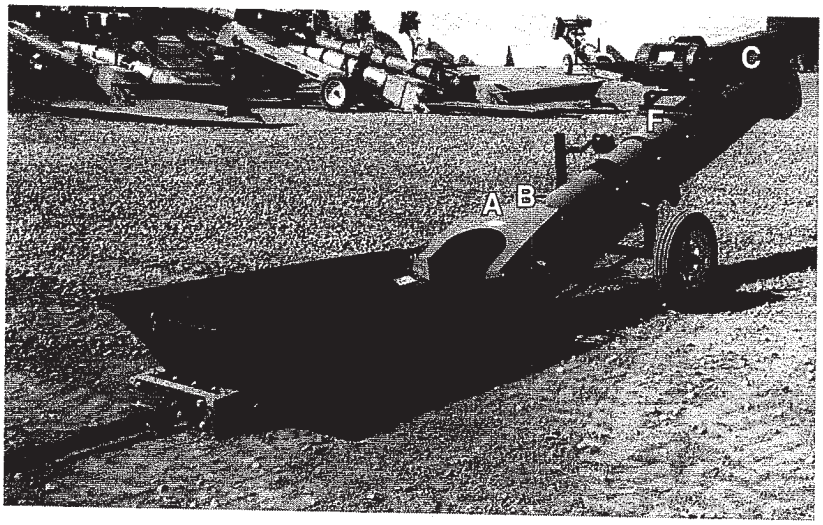
- Think SAFETY! Work SAFELY!

D

E





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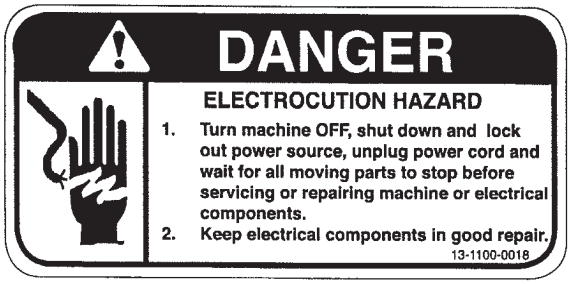
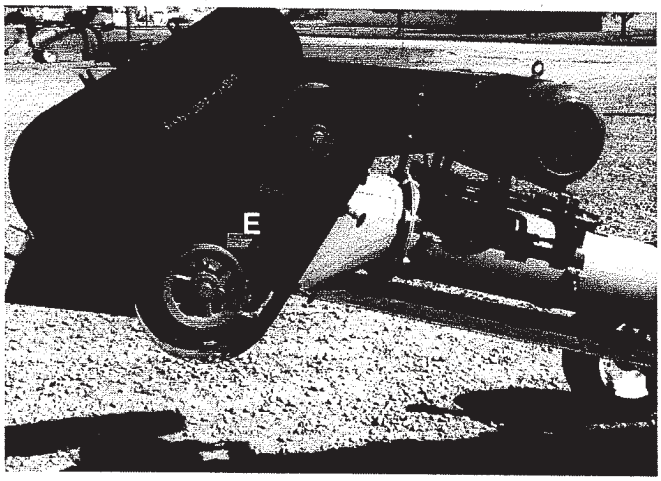
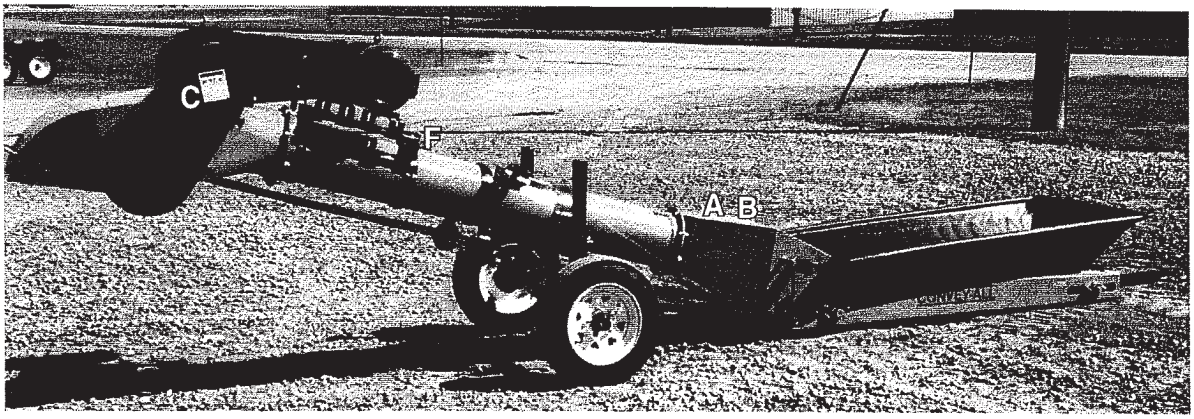
- Think SAFETY! Work SAFELY!

F







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4 OPERATION

OPERATING SAFETY

- Read and understand the Operator's Manual and all safety signs before using.
- The manufacturer has designed this Transfer Conveyor to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.
- If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
- 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.
- Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Establish a formal Lock-Out Tag-Out program for your operation.
- Do not stand or climb on machine when operating. Keep others off.
- Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
- Do not smoke while refueling.
- Never allow children to operate or be around this machine.
- Be familiar with machine hazard areas. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
- Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.
- Do not operate machine with guards 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 or gas 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. 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.

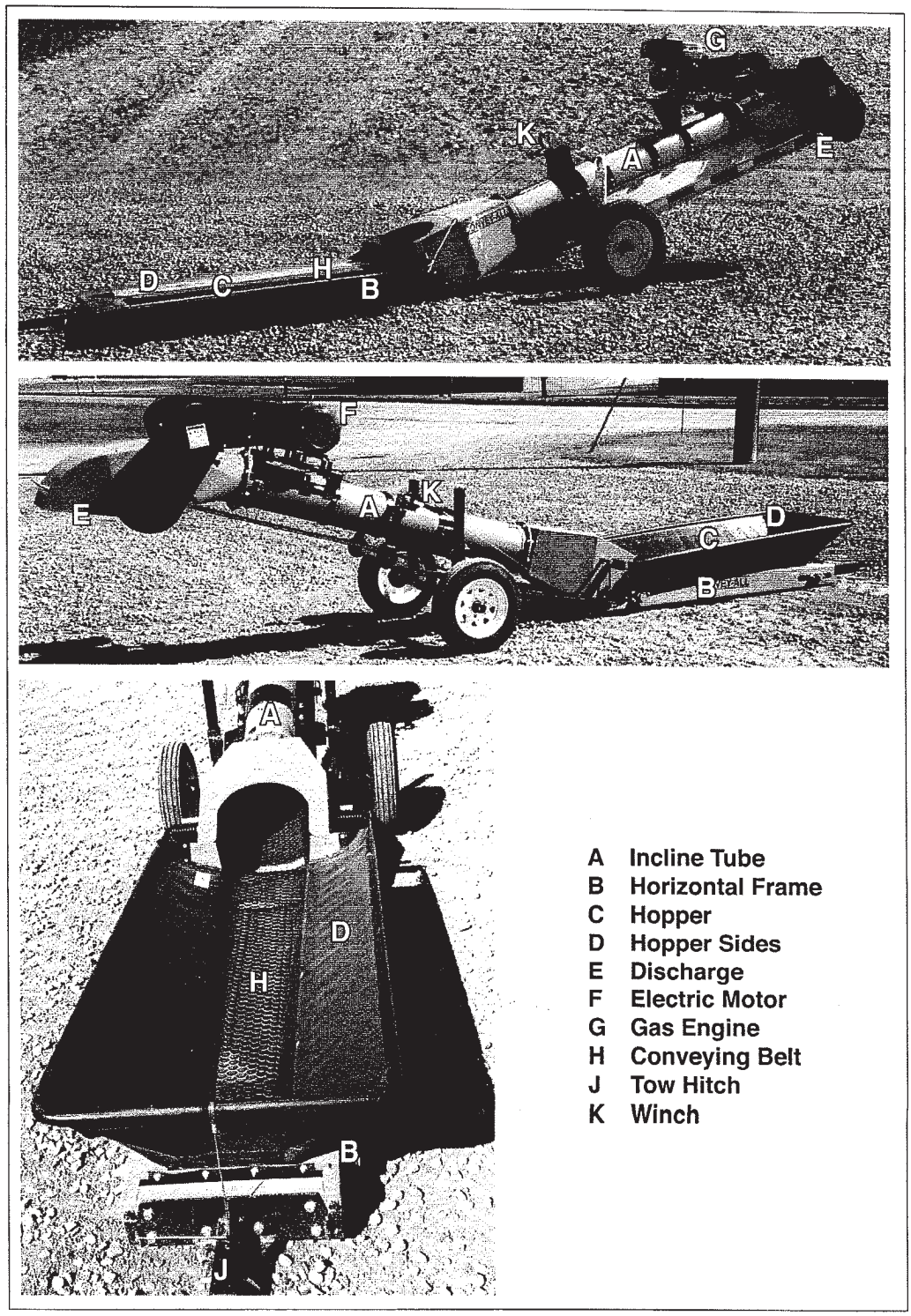
Many features incorporated into this machine are the result of suggestions made by customers like you. Read this manual carefully to learn how to operate the machine safely and how to set it to provide maximum efficiency. By following the operating instructions in conjunction with a good maintenance 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 folds low enough for trucks to transfer and unload. Normally the discharge is directed into another conveyor or conveying system.

An electric motor or gas engine 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 Tube
B Horizontal Frame
C Hopper
D Hopper Sides
E Discharge
F Electric Motor
G Gas Engine
H Conveying Belt
J Tow Hitch
K 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 power unit 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. Re-torque 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. 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 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 the 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.

1. **Gas Engine:**
   A Honda engine is used with the unit. Always read the engine Operator's manual supplied with the machine for detailed operating procedures.

   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.

   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. **Ignition Key Switch (Electric Start):**
   This key switch controls the elctrical power to the engine electrical system. Turn the switch clockwise to turn the electrical system ON and the engine will run. Turn further against the spring-loaded detent to engage the starter. Release the key once the engine starts and it will return to the run position. Turn counterclockwise to stop.

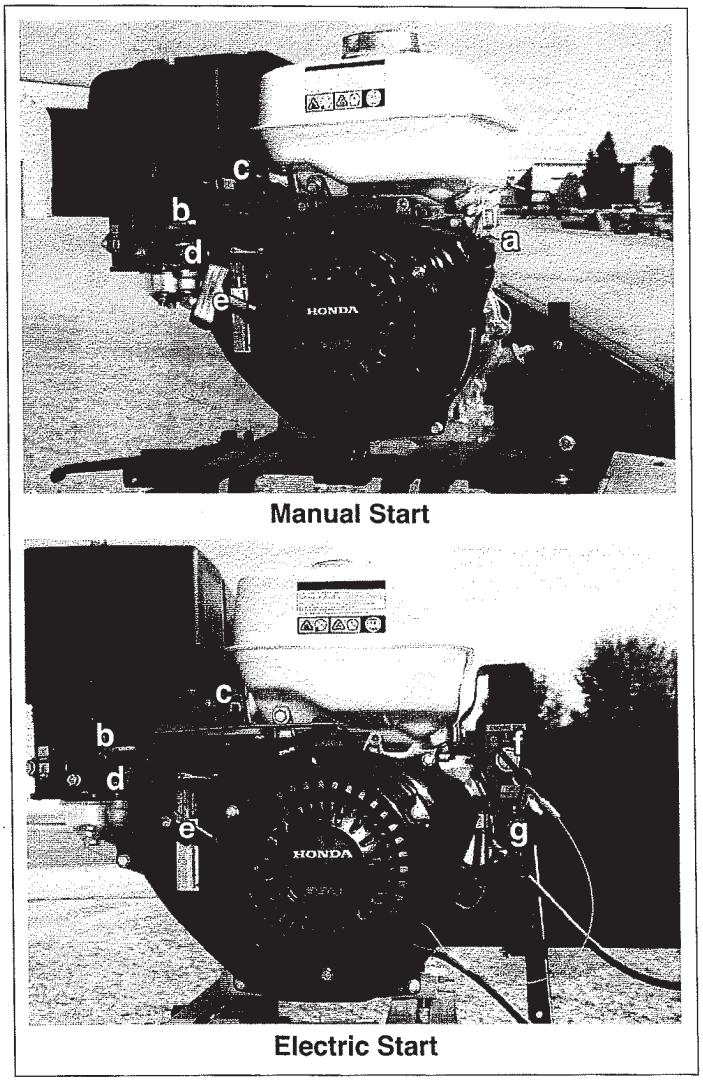
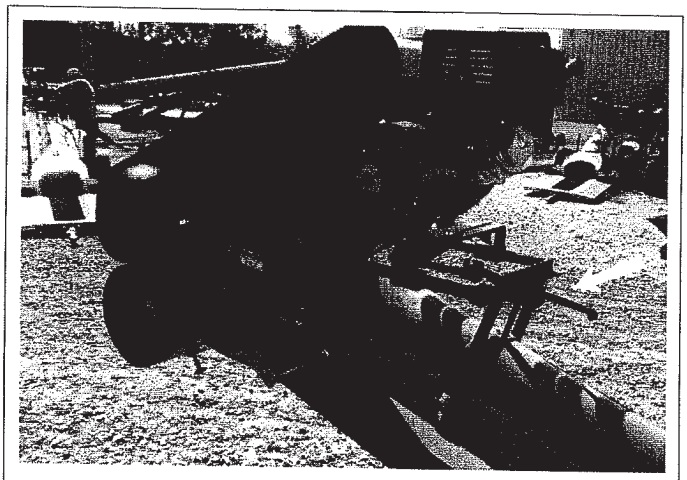


Fig. 2 ENGINE CONTROLS

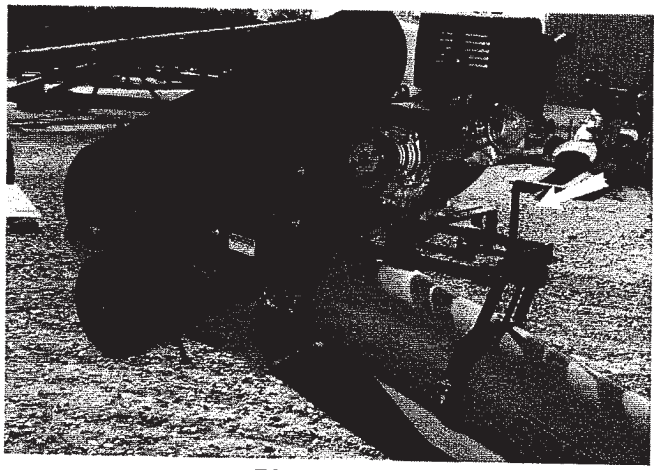
g. **Indicator Light and Circuit Breaker Reset:**

The LED indicator light and circuit monitors the engine electrical circuit. It will illuminate when the circuit exceeds its preset value and trip the breaker. Depress the indicator to reset the breaker and the light will go out.

h. **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.



Engaged



Disengaged

Fig. 3 GAS ENGINE DRIVE

⚠ WARNING

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

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.

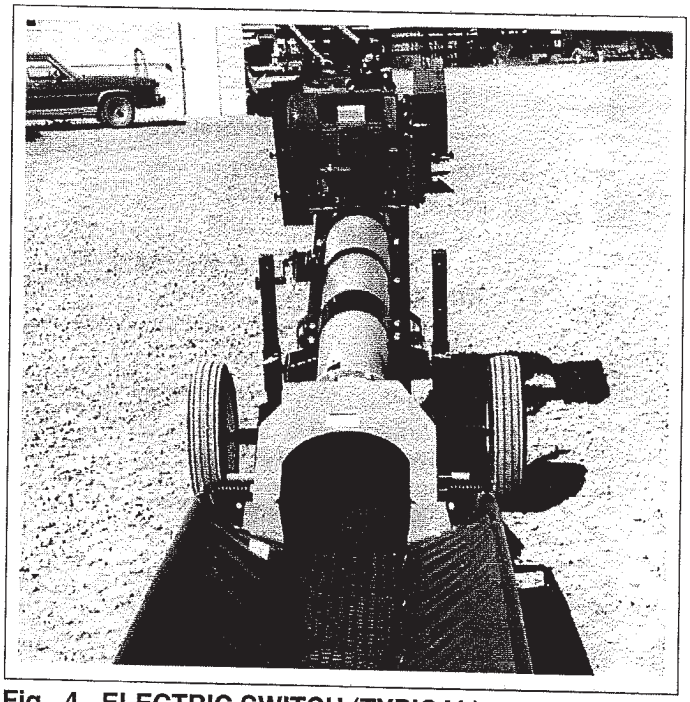


Fig. 4 ELECTRIC SWITCH (TYPICAL)

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. Be sure to engage the winch stop pawl to lock the winch in position.

Raised

Lowered

Fig. 5 WINCH

4.6 ATTACHING/UNHOOKING

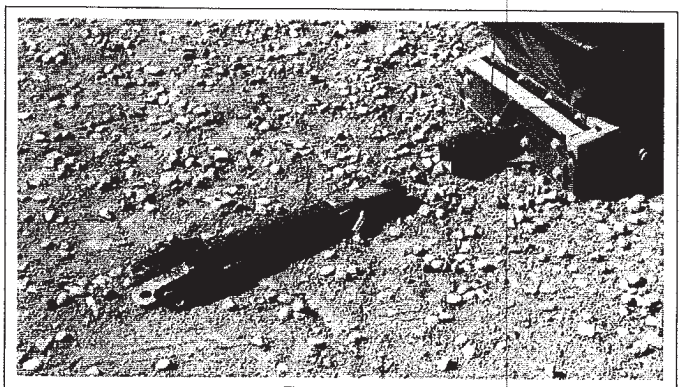
The Conveyor can be attached to a tractor or truck whenever it is moved. Follow this procedure when attaching or unhooking from the tow unit:

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.
5. The hitch is removable. Install hitch and secure with the anchor pin and retainer before using hitch.
6. Move the machine out of its working or storage position.
7. Lift the intake end to the drawbar height and install the pin with its retainer.
8. Secure the safety chain around the drawbar cage to prevent unexpected separation.
9. Raise the jack and place in the storage position or remove and store in a secure location.

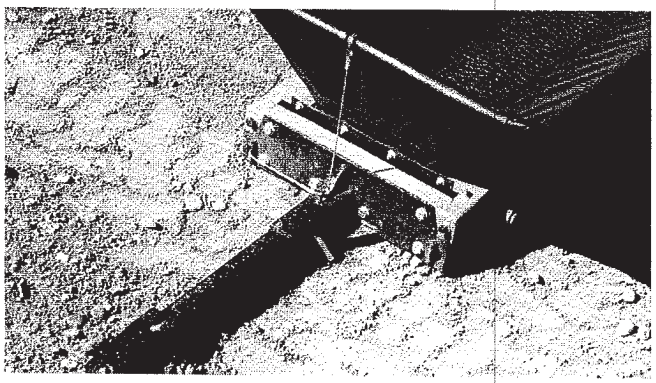
NOTE

Cross the safety chains under the hitch when attaching to a truck.

10. Reverse the above procedure when unhooking.



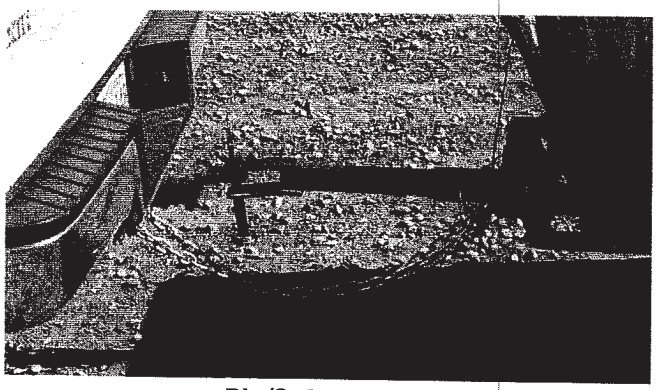
Removed



Attached

Fig. 6 HITCH ASSEMBLY

Hitch



Pin/Safety Chain

Fig. 7 ATTACHING

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 Gas Engine Model:**
   a. Position the conveyor next to the storage facility.

   b. Place chocks in the front and rear of each wheel of the power unit.

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

Fig. 8 STORAGE FACILITY

Fig. 9 EMPTYING

4.8 OPERATING

OPERATING SAFETY

- Read and understand the Operator's Manual and all safety signs before using.
- The manufacturer has designed this Transfer Conveyor to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all safety equipment attached.
- If a safety shield or guard is removed for any reason, it must be replaced before the machine is again operated.
- Gas engine 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.
- Electric motor drives: Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Establish a formal Lock-Out Tag-Out program for your operation.
- Do not stand or climb on machine when operating. Keep others off.
- Do not allow anyone who is not familiar with the safety rules and operation instructions to use this machine.
- Do not smoke while refueling.
- Never allow children to operate or be around this machine.
- Be familiar with machine hazard areas. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
- Clear the work area of objects which might be picked up and snagged or entangled in the machine.
- Keep hands, feet, hair, jewelry, and clothing away from all moving and/or rotating parts.
- Do not run engine in an enclosed area. Exhaust fumes contain carbon monoxide, an odorless and deadly poison.

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 licensed electrician is used to provide power and shut-down switches are conveniently positioned for the operator.

6. Check that all guards are in place and working as intended.

7. Check 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 lead conditions.

8. Back the truck into position for loading or unloading.

9. Start the system that removes material from the Transfer Conveyor.

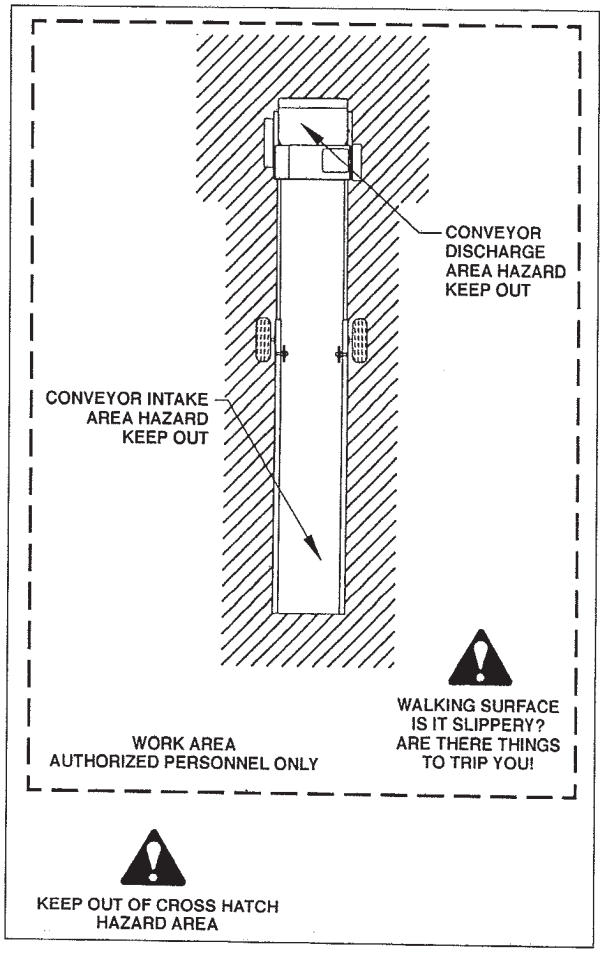


Fig. 10 WORKPLACE HAZARD AREA

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.

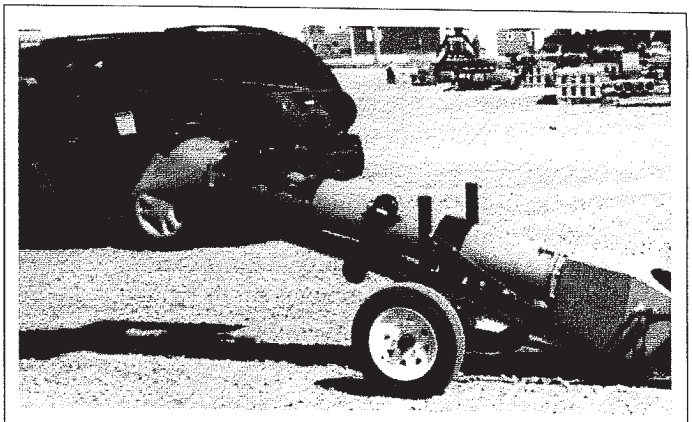
e. Pull sharply on the starting rope until the engine starts.

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.



Electric

Gas

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.

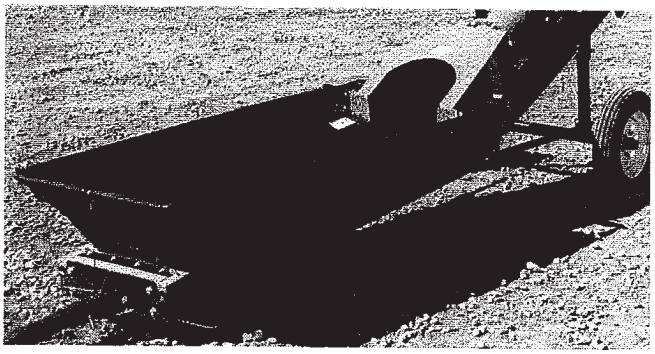
c. Move engine assembly to disengage drive belt.

d. Shut off engine.

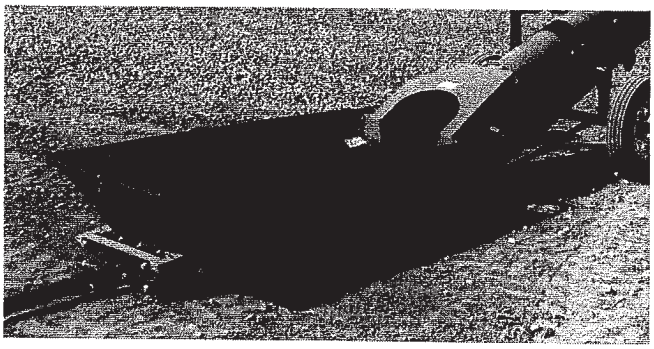
13. **Emergency Stopping:**
Although it is recommended that the conveying belt be emptied before stopping, in an emergency situation, stop or shut-down the power source immediately. Correct the emergency before resuming work.

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.



High



Low

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.

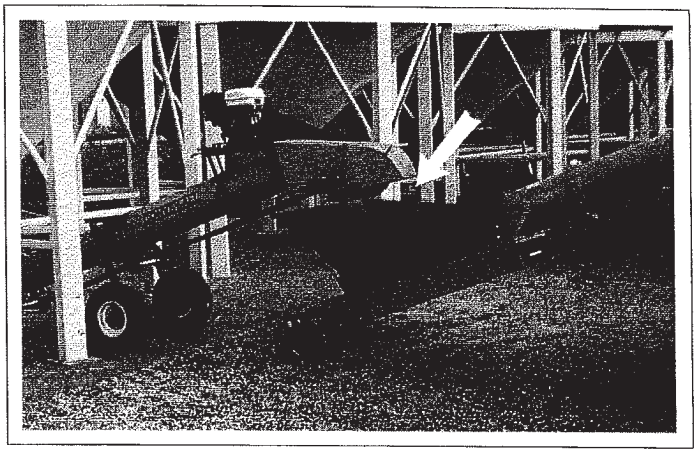
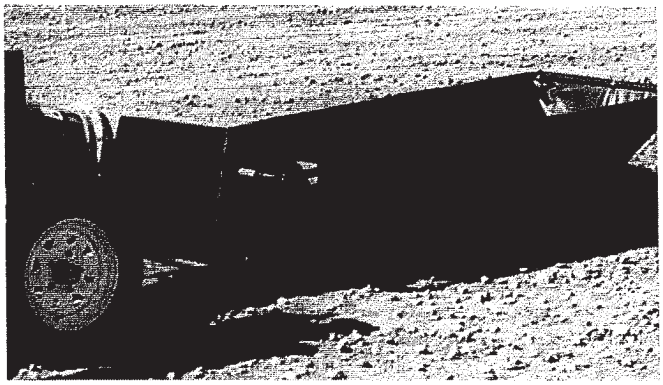
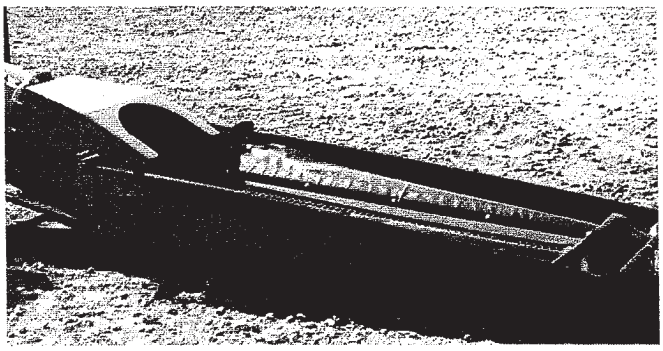


Fig. 14 DISCHARGE

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.



Up

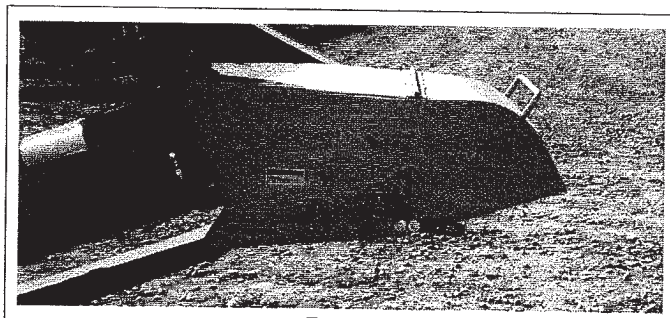


Down

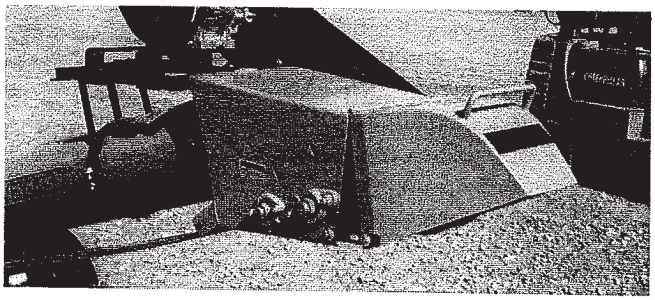
Fig. 15 INTAKE HOPPER

19. **Discharge Hood:**

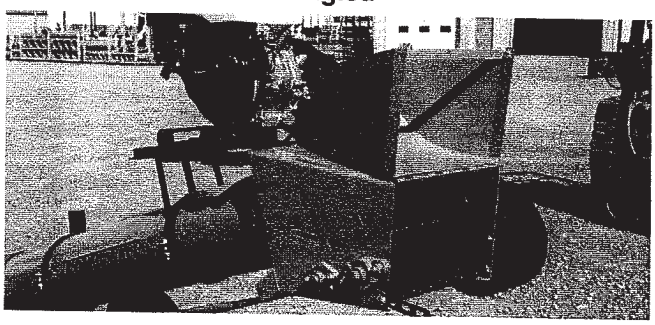
The conveyors are available with a hinged or bolt-on style discharge hood. Set the hinged type at the appropriate angle for your application or the bolt-on style can be removed.



Down

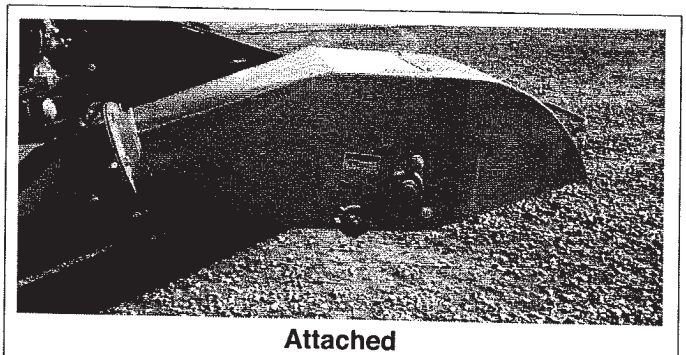


Angled

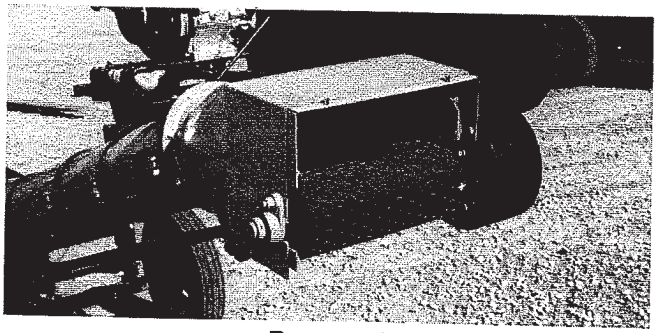


Up

Fig. 16 DISCHARGE HOOD - HINGED



Attached



Removed

Fig. 17 DISCHARGE HOOD - BOLTED

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 work-place hazard area. If anyone enters, stop immediately. Make them LEAVE before resuming work.

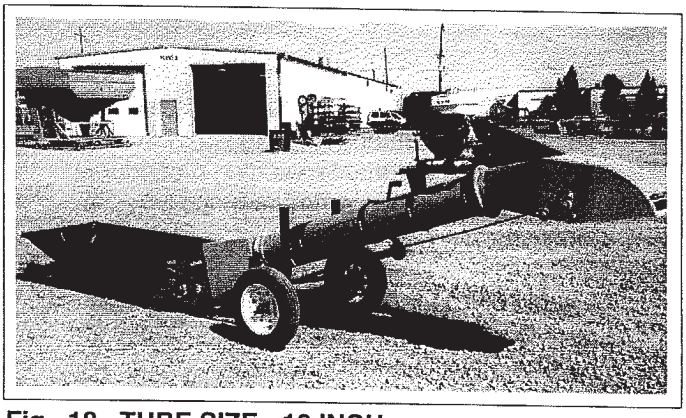


Fig. 18 TUBE SIZE - 10 INCH

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.

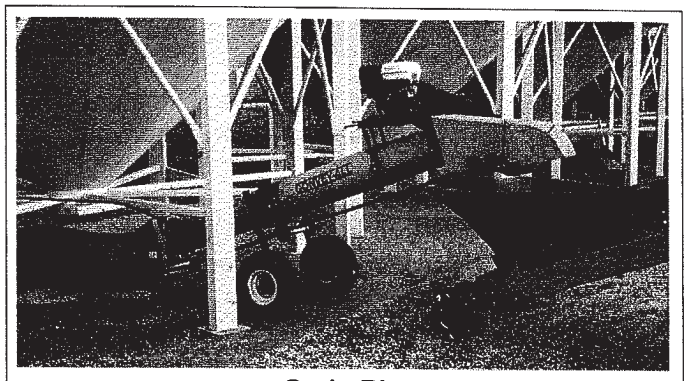
e. Keep intake end completely covered with material for maximum capacity.

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

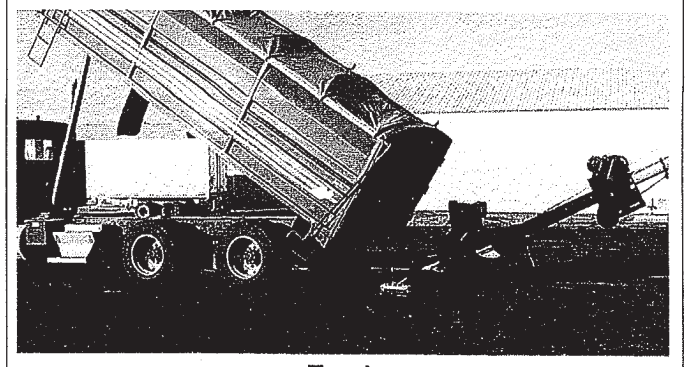
Fig. 19 HOOD BRACKET

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

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.



Grain Bin



Truck

Fig. 20 EMPTYING

4.9 TRANSPORTING

TRANSPORT 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.
- Do not allow riders on the Conveyor or the tractor when transporting.
- Attach Conveyor to towing vehicle with a pin and retainer. Always attach the safety chain.
- Lower Conveyor to its lowest position for transporting.
- 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 exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
- Always use hazard warning flashers on tractor when transporting unless prohibited by law.

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. For most moving requirements, it is recommended that the unit be placed on a transport vehicle and tied down securely.

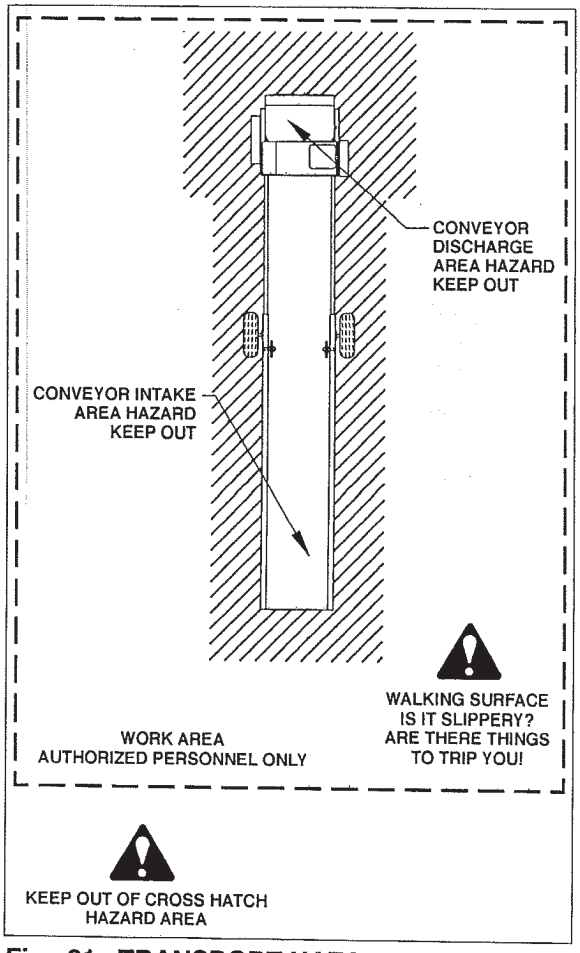


Fig. 21 TRANSPORT HAZARD AREA

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.

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. Do not allow riders on the machine or tractor.

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

14. Always use hazard flashers on the tractor when transporting unless prohibited by law.

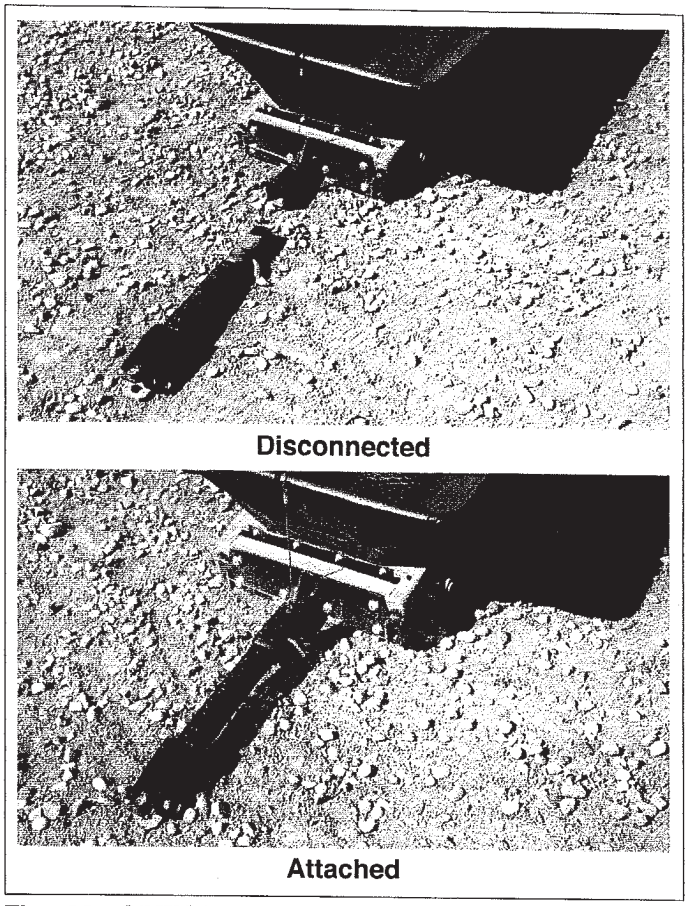


Fig. 22 OPTIONAL HITCH

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.
3. Store the unit in a dry, level area. Support the frame with planks if required.
4. Lock out power by turning off master control panel or junction box and padlocking the door shut to prevent electrocution or unauthorized start-up of the Transfer Conveyor.

4.10.1 PLACING IN STORAGE

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. Stop engine and turn fuel valves off on gas engine model.
3. Thoroughly wash the entire machine using a pressure washer to remove all dirt, mud, debris or residue.
4. Inspect all moving or rotating parts to see if anything has become entangled in them. Remove the entangled material.
5. 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.
6. Touch up all paint nicks and scratches to prevent rusting.
7. Move to storage area.
8. Select an area that is dry, level and free of debris.

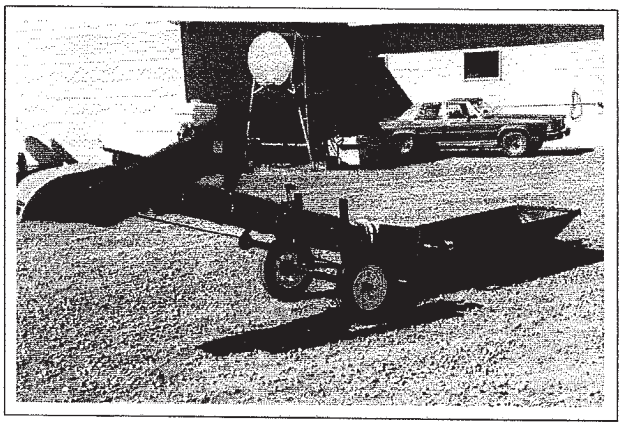


Fig. 23 STORED

9. If the machine cannot be placed inside, cover the gas engine or electric motor with a water proof tarpaulin and tie securely in place.
10. Store machine in an area away from human activity.
11. Do not allow children to play on or around the stored machine.

4.10.2 REMOVING FROM STORAGE

When removing this machine from storage, follow this procedure:

1. Remove the tarpaulin if covered.
2. Review and follow the pre-operation checklist.

IMPORTANT

If the machine has been stored for more than 6 months, warm the engine by running it for 2 to 3 minutes and drain the oil. Change the oil while the oil is warm to remove any condensation. Refer to the maintenance section.

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:
   5.0 hp: 0.9 L (1.0 US qt)

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

A. Electric Drive Models:

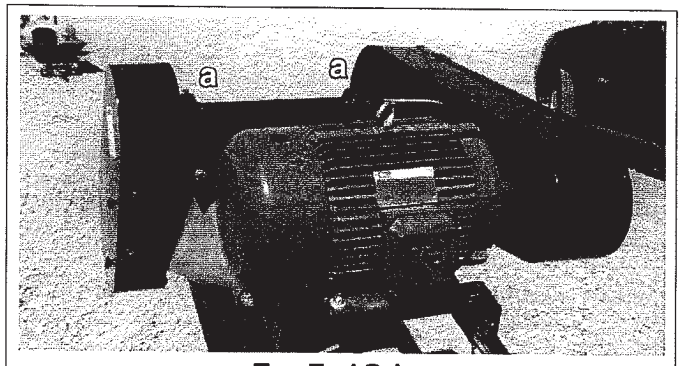
1. Grease cross shaft bearings.

   a. Cross shaft (2 locations).

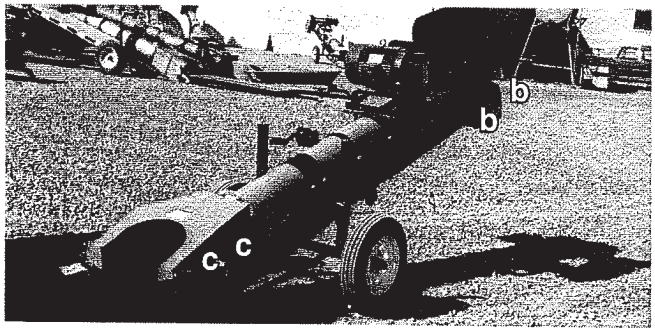
   b. Top input (2 locations each side).

   b. Dogleg rollers (2 locations each side).

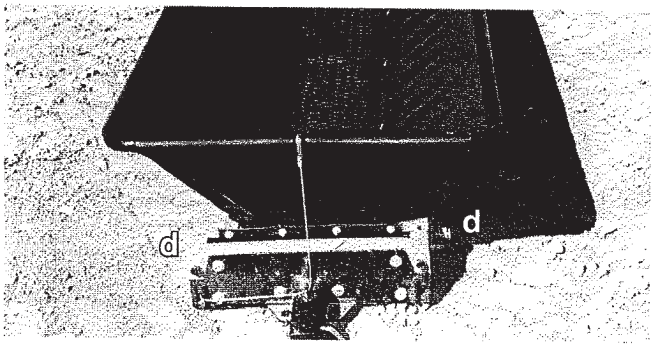
   c. Input idler (1 location each side).



Top End Drive



Left Side



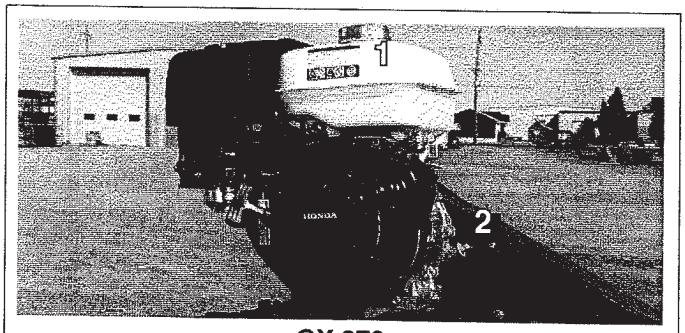
Input End

Fig. 24 SHAFT BEARINGS

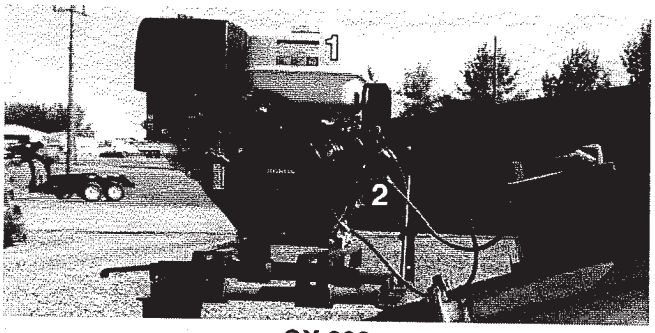
B. Gas Engine Drive Models:

1. Check fuel level. Add as required.

2. Check crankcase oil level. Add as required.



GX 270



GX 390

Fig. 25 GAS ENGINE

Conveyor - Gas Engine:

1. Grease roller shaft bearings.

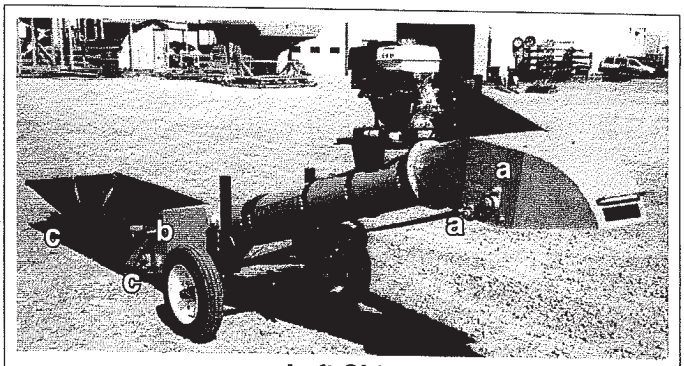
   a. Upper drive (2 locations each side).

   b. Center dogleg (2 locations each side).

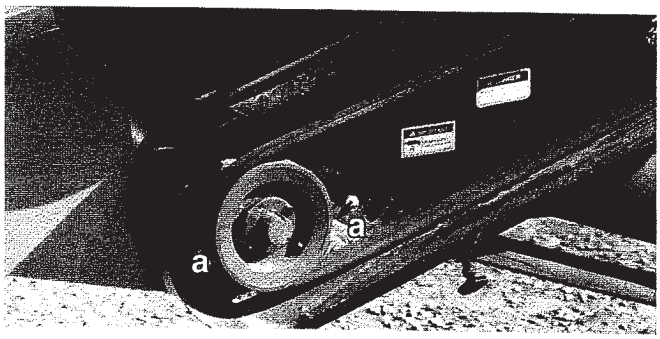
   c. Intake idler bearing (1 location each side).

⚠ WARNING

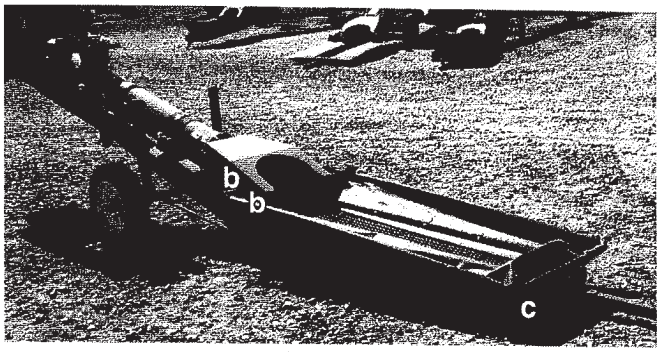
Guards are opened or removed for illustrative purposes only. Do not operate machine with guards opened or removed.



Left Side



Drive Pulley



Right Side

Fig. 26 ROLLER SHAFT BEARINGS

Conveyor - Gas Engine - Stainless Steel:

2. Grease the roller shaft bearings.

   a. Cross shaft.

   b. Upper drive (2 locations each side).

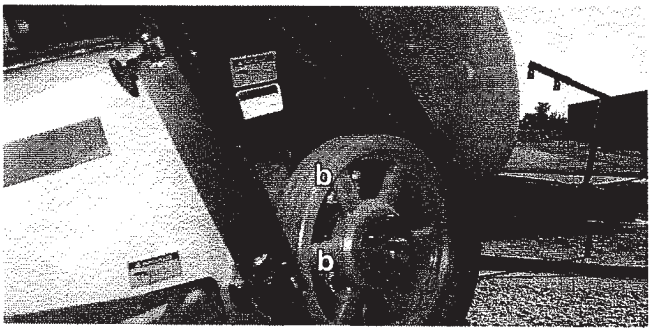
   c. Center dogleg (2 locations each side).

   d. Intake idler roller (1 location each side).

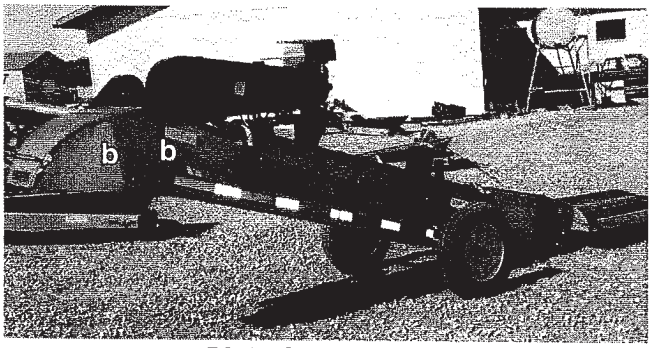
⚠ WARNING

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

Cross Shaft



Input



Right Side (Typical)

Fig. 27 BEARINGS

40 Hours or Weekly

Conveyor Belting

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.

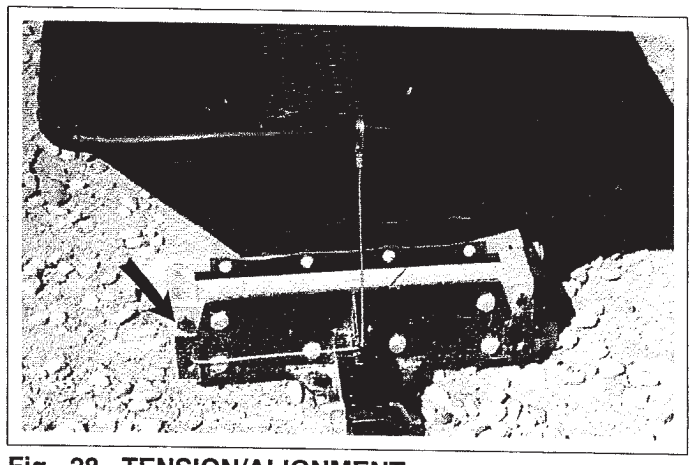


Fig. 28 TENSION/ALIGNMENT

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

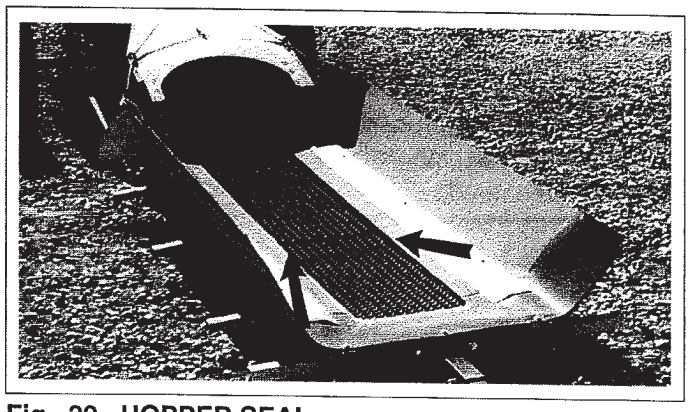
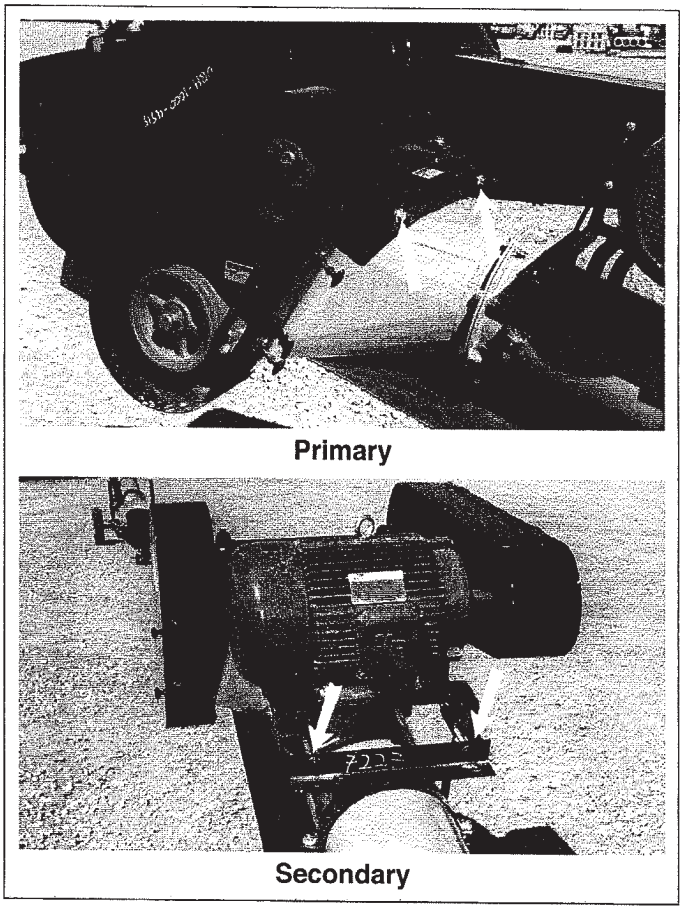


Fig. 29 HOPPER SEAL

Electric Drive Models

1. Check drive belt tension.



Primary

Secondary

Fig. 30 ADJUSTERS

WARNING

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

2. Check drive belt alignment.

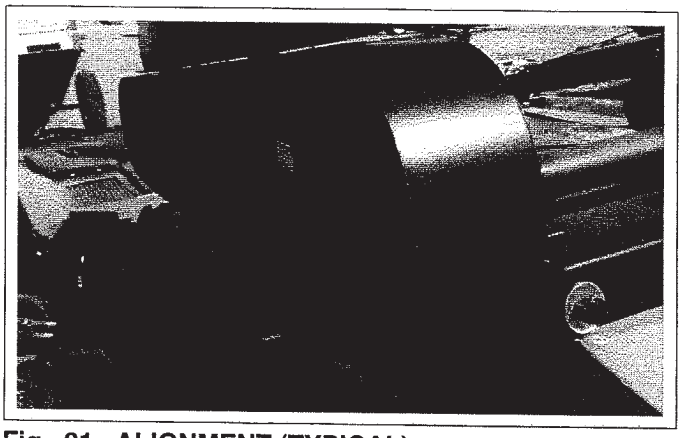


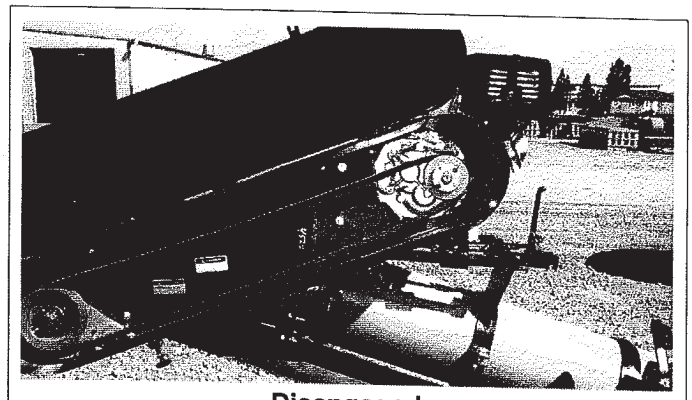
Fig. 31 ALIGNMENT (TYPICAL)

Gas Engine Drive Models

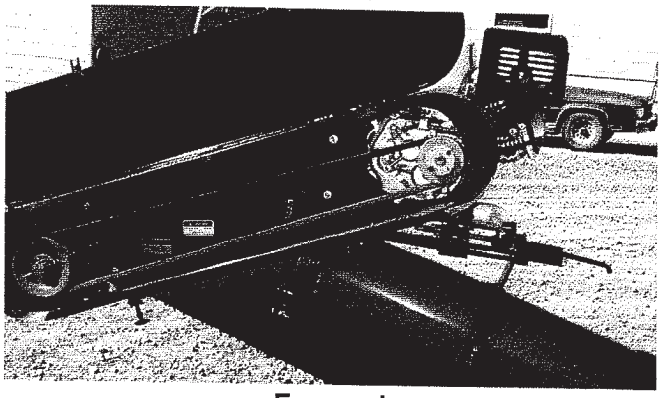
1. Check drive belt tension and alignment.

WARNING

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



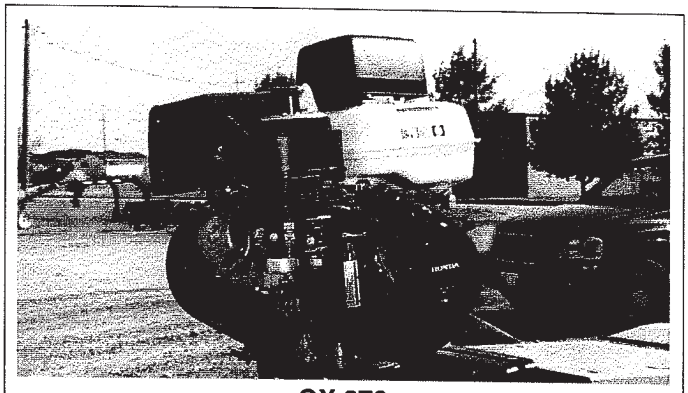
Disengaged



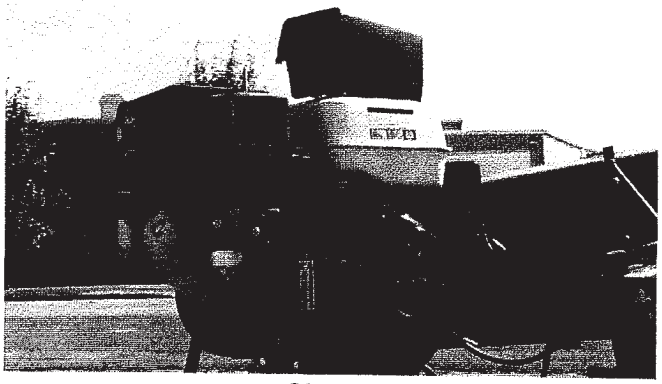
Engaged

Fig. 32 DRIVE BELTS

2. Clean air cleaner foam.



GX 270



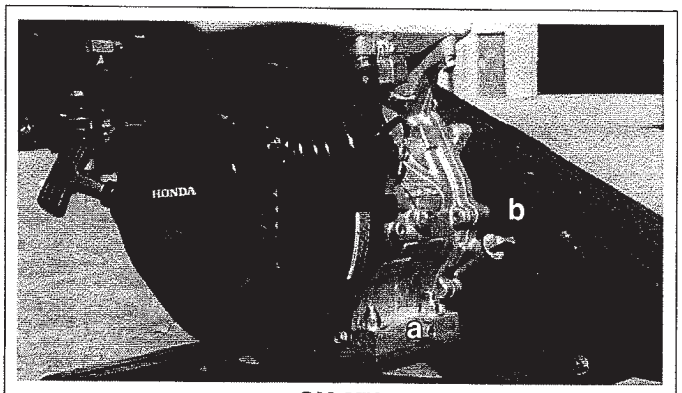
GX 390

Fig. 33 AIR CLEANER

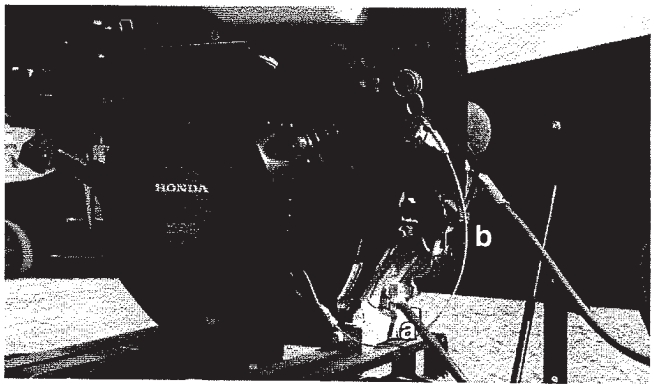
200 Hours or Annually

Gas Engine Drive Models

1. Change engine oil.
   a. Drain plug.
   b. Fill plug.



GX 270



GX 390

Fig. 34 ENGINE

Conveyor

1. Re-pack wheel bearings.
2. Clean machine.

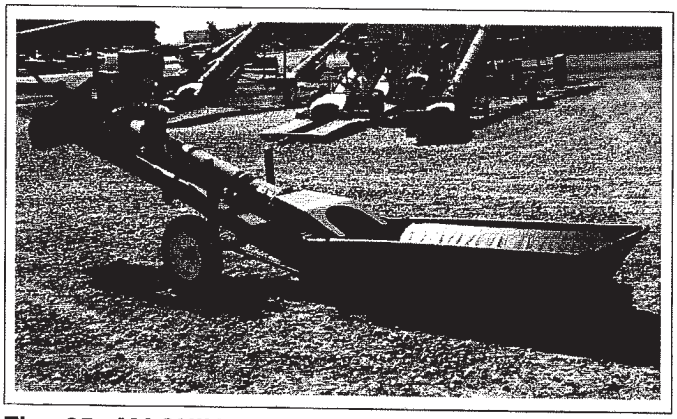


Fig. 35 MACHINE (Typical)

5.1.4 SERVICE RECORD

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

ACTION CODE:

CK	CHECK	CL	CLEAN	G	GREASE
RP	RE-PACK	GA	GAS	EL	ELECTRIC
B	BOTH				

HOURS / SERVICED BY / MAINTENANCE																								
10 Hours or Daily																								
G Cross Shaft Bearings	B																							
G Roller Bearings	B																							
CK Fuel Level	GA																							
CK Crankcase Oil Level	GA																							
40 Hours or Weekly																								
CK Conveyor Belting Tension	B																							
CK Hopper Seals	B																							
CK Drive Belt Tension	B																							
CK Drive Belt Alignment	B																							
CL Air Cleaner	GA																							
200 Hours or Annually																								
CH Engine Oil	GA																							
RP Wheel Bearings	B																							
CL Machine	B																							

5.2 MAINTENANCE

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

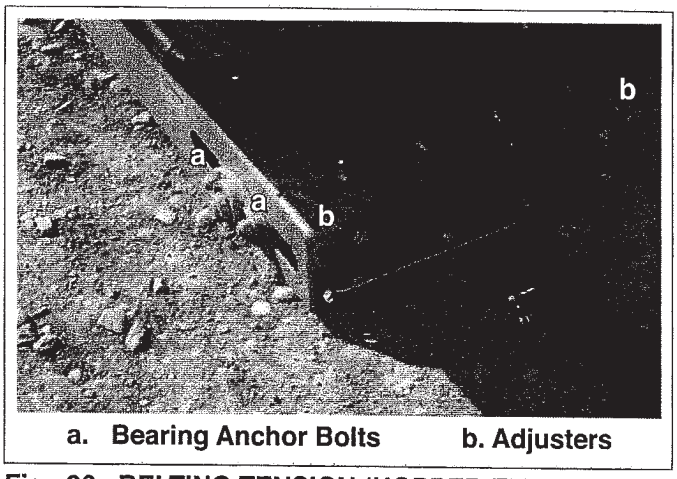
5.2.1 CONVEYING BELT TENSION AND ALIGNMENT

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.



a. Bearing Anchor Bolts b. Adjusters

Fig. 36 BELTING TENSION (HOPPER END - TYPICAL)

3. **Alignment:**
   The belting is properly aligned when the belt runs in the center of the rollers on the bottom and top end.

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

   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 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.

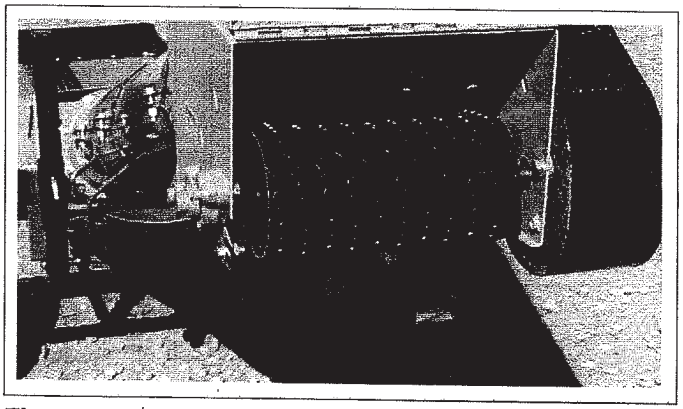


Fig. 37 TOP END ALIGNMENT

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.

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.

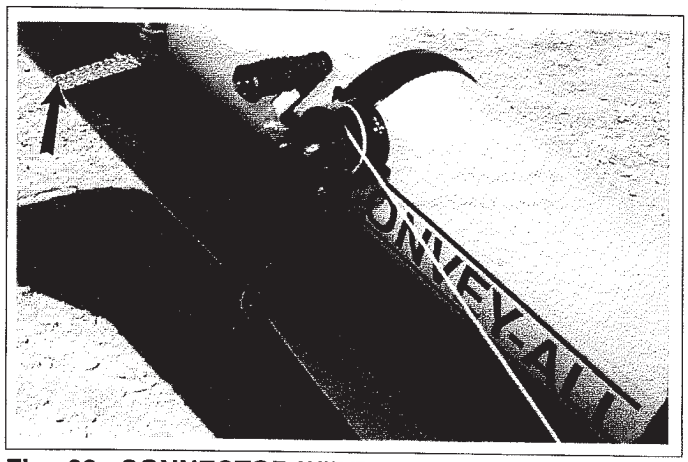


Fig. 38 CONNECTOR WIRE

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.

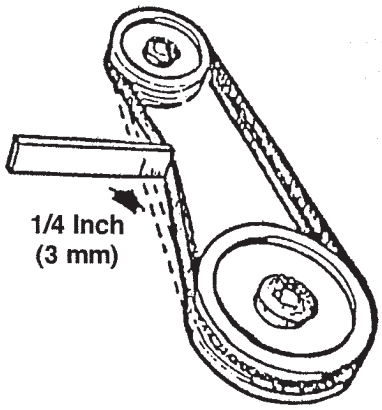
   d. Move the cross shaft base to set the secondary drive belt tension.

   e. Then move the motor base to set the primary drive belt tension.

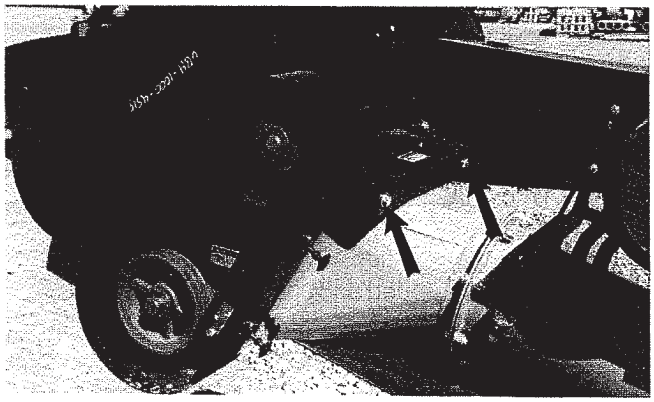
   f. Install and secure guards.

⚠ WARNING

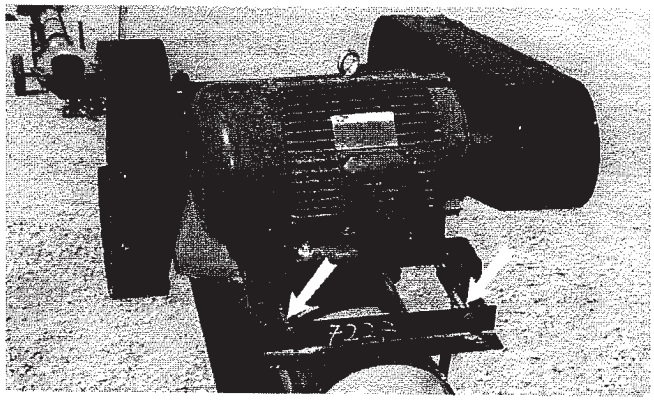
Guards are opened or removed for illustrative purposes only. Do not operate machine with guards opened or removed.



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.

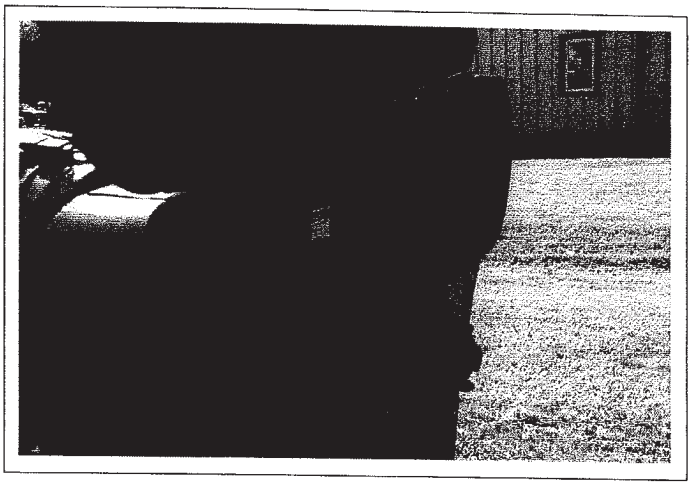


Fig. 40 ALIGNMENT (TYPICAL)

4. **Belt replacement:**

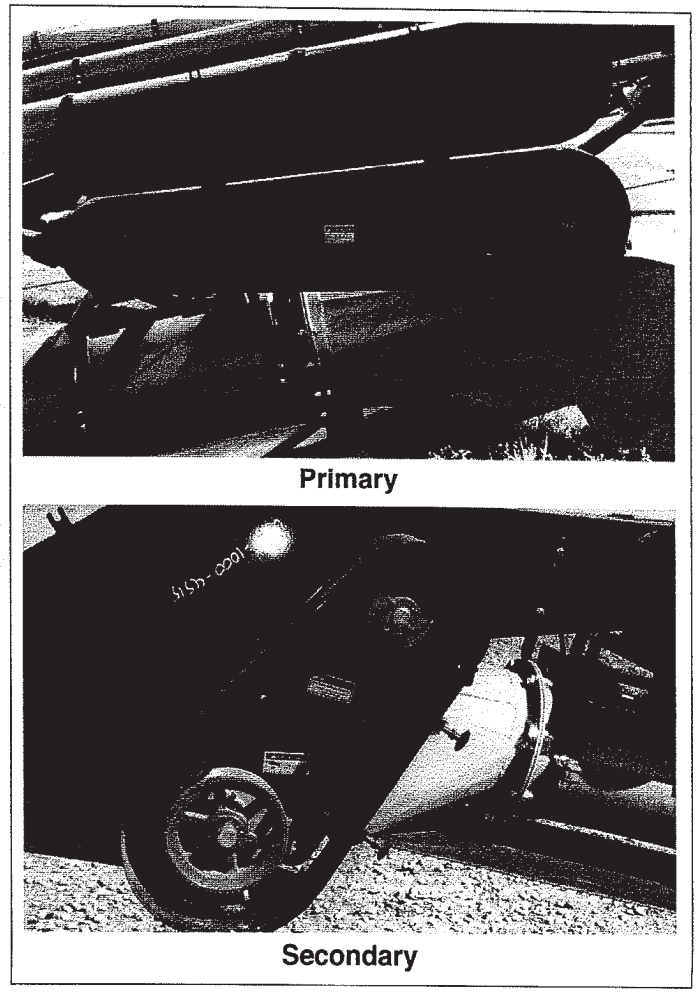
   a. Move motor or cross shaft base to its loosest position.

   b. Remove old belts and replace with new one.

   c. Move motor or cross shaft base to set the belt tension.

   d. Check pulley alignment. Adjust if required.

   e. Install and secure guards.



Primary

Secondary

Fig. 41 BELT REPLACEMENT (TYPICAL)

⚠ WARNING

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

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 pulleys aligned 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. **Adjust tension:**

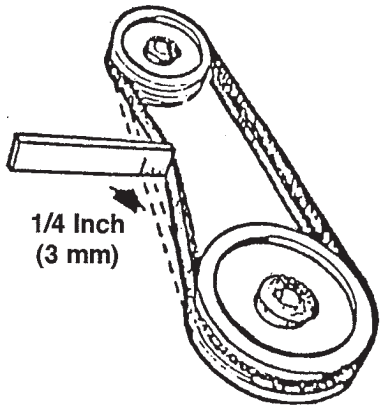
      - Move the cross shaft base plate to set secondary belt tension.

      - Use the eye bolt position of the engine base position lever to set the tension of the motor drive belt system when engaged.

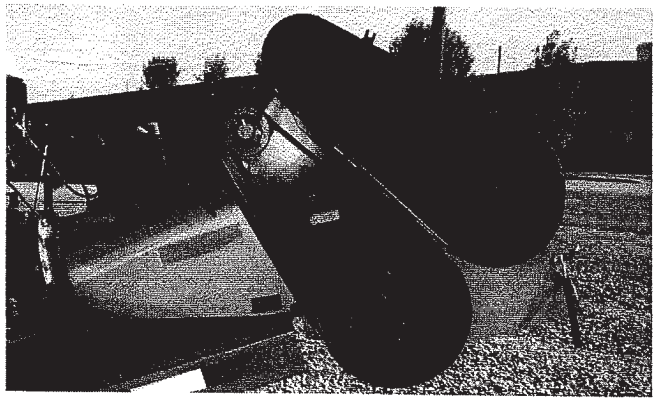
   d. Close and secure guards.

⚠ WARNING

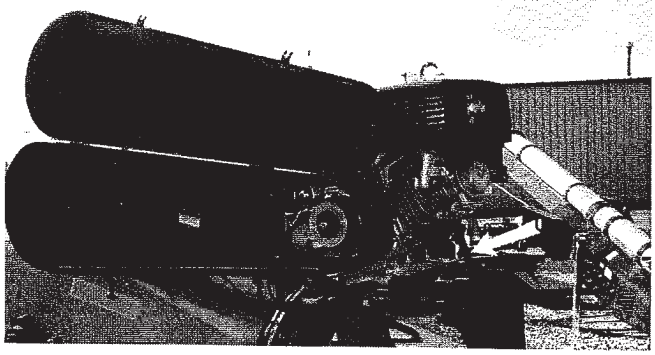
Guards are opened or removed for illustrative purposes only. Do not operate machine with guards opened or removed.



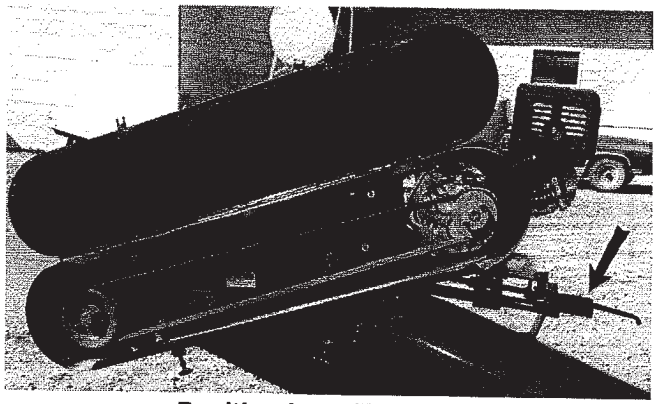
Schematic



Cross Shaft



Engine Base (Disengaged)



Position Lver (Engaged)

Fig. 42 BELT TENSION

3. **Alignment:**

   a. Sight along the pulleys of the engine drive end secondary systems 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. Close and secure guards.

Fig. 43 ALIGNMENT (Typical)

4. **Belt Replacement:**

   a. Move eye bolt position of the engine base or cross brace to set belt tension in its loosest position.

   b. Remove old belts and replace with new ones.

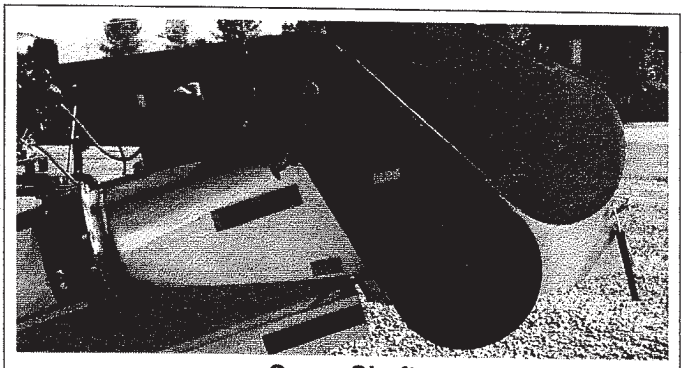
   c. Move eye bolt position of the engine base or cross brace to set belt tension.

   d. Check alignment. Adjust as required.

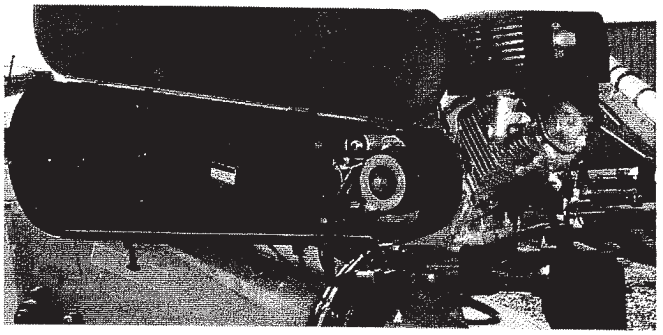
   e. Install and secure guards.

⚠ WARNING

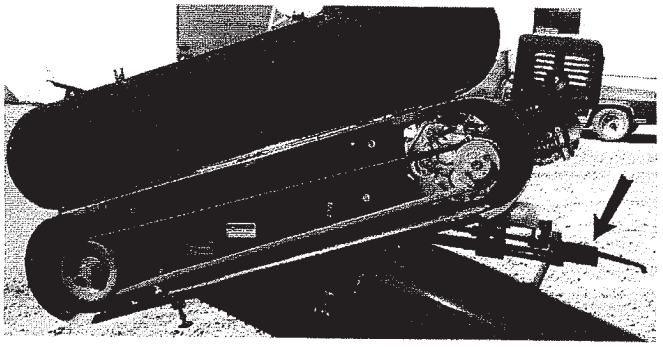
Guards are opened or removed for illustrative purposes only. Do not operate machine with guards opened or removed.



Cross Shaft



Engine Base (Disengaged)

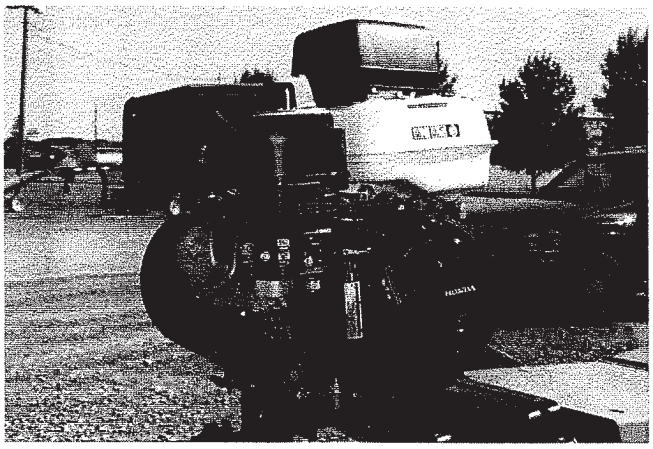


Position Lever (Engaged)

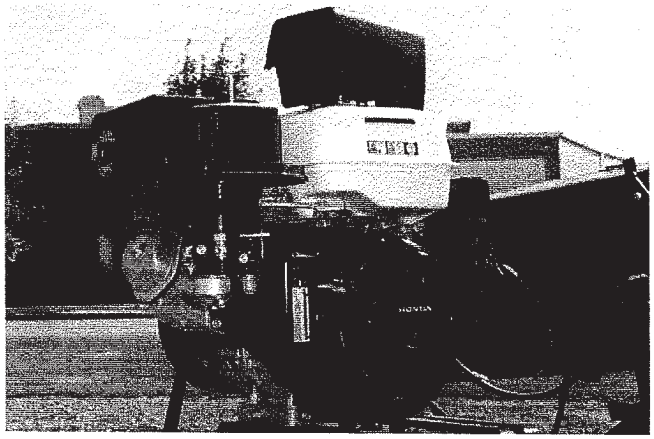
Fig. 44 BELT

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.



GX 270



GX 390

Fig. 45 AIR CLEANER

5.2.5 CHANGING ENGINE OIL

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.

   a. Drain plug.

   b. Fill plug.

5. Remove the drain and allow the oil to drain for 10 minutes.

6. Install and tighten the drain plug.

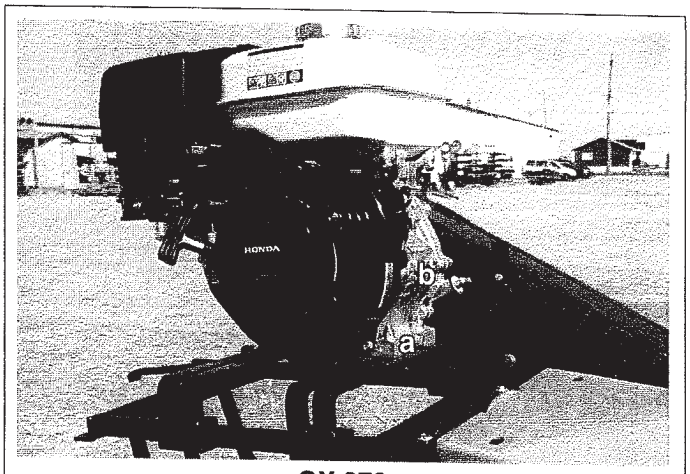
7. Dispose of the used oil in an approved container.

8. Fill the crankcase with specified oil.

9. Run the engine for 1-2 minutes and check for oil leaks.

10. If leaks are found around the drain plug, tighten slightly. Repeat step 9.

11. Check engine oil level. Top up as required.



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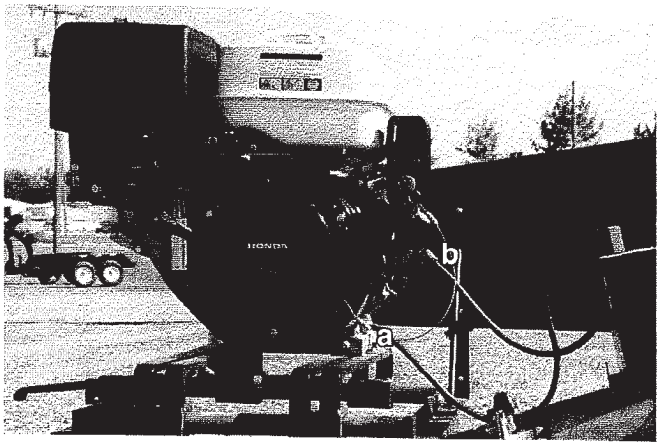


GX 390

Fig. 46 ENGINE

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 belts.
	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.
Belt edge fraying.	Belting not aligned.	Align and tension belting.
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.

7 SPECIFICATIONS

7.1 MECHANICAL

Model	UBSNH-1000	UBSNH-1400	
Length	18' 9"	20' 2"	
Discharge Height	36-48"	36-48"	
Hopper Width	31"	33"	
Power Options	Gas	Electric	
Gas/hp:	5.5 HP	9 HP	
Electric/hp:	5 HP	7.5 HP	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

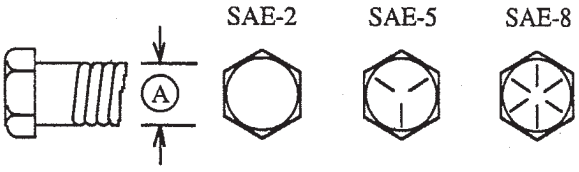
7.2 BOLT TORQUE

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.

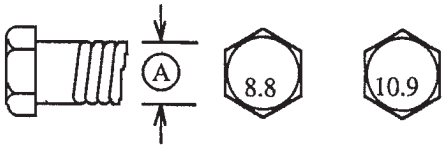
ENGLISH TORQUE SPECIFICATIONS

Bolt Diameter "A"	Bolt Torque*					
	SAE 2		SAE 5		SAE 8	
	(N.m)	(lb-ft)	(N.m)	(lb-ft)	(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		10.9	
	(N.m)	(lb-ft)	(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 toque shown.

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

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value* (N.m)	Torque Value* (lb-ft)	Recommended Turns To Tighten (After Finger Tightening) (Flats)	Recommended Turns To Tighten (After Finger Tightening) (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

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.

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

Tube Size OD (in.)	Nut Size Across Flats (in.)	Torque Value* (N.m)	Torque Value* (lb-ft)	Recommended Turns To Tighten (After Finger Tightening) (Flats)	Recommended Turns To Tighten (After Finger Tightening) (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

8 INDEX

CONVEY-ALL INDUSTRIES

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