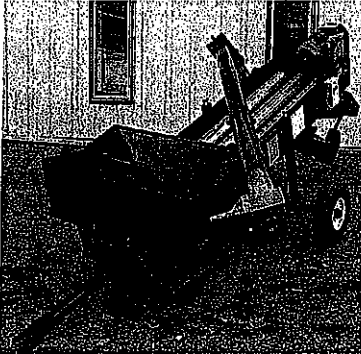
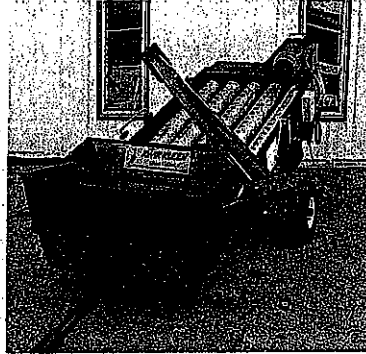


# ***KWIK KLEEN***

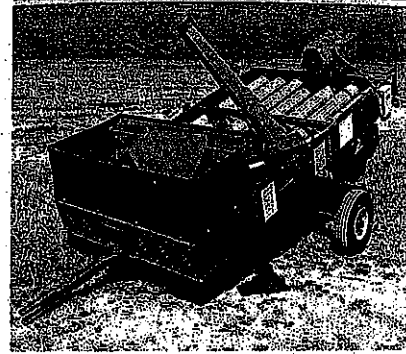
**GRAIN CLEANER**



***MODEL 372***



***MODEL 572***



***MODEL 772***

## **KWIK KLEEN GRAIN CLEANER**

### **OPERATOR'S MANUAL AND PARTS BOOK**

**BY**



**NORWOOD**  
Sales Inc.

**\*\*\*\*IMPORTANT NOTE\*\*\*\***  
**\*\*\*\*REPLACING SCREENS\*\*\*\***

**WHEN FACING THE MACHINE AT THE HOPPER END, IT IS  
IMPORTANT TO PUT THE SCREENS IN SO THAT THE OUTSIDE  
SEAM IS FACING THE RIGHT SIDE OF THE MACHINE.  
OTHERWISE THE SEAM WILL CATCH ON THE AUGER AND  
THE GRAIN.**

**Kwik Kleen  
Grain Cleaners**

**Note:**

After 2 hours of operation, check all setscrews in sprockets and pulleys.  
Tighten if loose. Check again after 10 hours of use.

**Note:**

When installing screens, have the outside seam facing to the right side as  
you are looking from the hopper end.

# **KWIK KLEEN GRAIN CLEANER**

## **WARRANTY**

Triangle Industries (the seller) warrants the articles and units sold to be free from defects in material and workmanship and to conform to applicable specifications. These express warranties are the sole warranties of seller and any other warranties, express, implied in law or implied in fact, are hereby specifically excluded.

Seller's sole obligations under its warranties shall be, at its option, to repair or replace any article or part thereof which is proved to be other than warranted.

For Farm Use Only, all warranties shall expire 12 months from the date the article or unit is placed in service or 12 months from the date the article or unit is delivered by seller, whichever period first expires;

For Commercial use all warranties shall expire 90 days from the date the article or unit is placed into service, or 90 days from the date the article or unit is delivered by seller, whichever period first expires; notice of claimed breach of warranty must be given within the application period.

**NO ALLOWANCES SHALL BE MADE TO BUYER FOR ANY TRANSPORTATION, LABOR CHARGES OR PARTS, ADJUSTMENTS OR REPAIRS, OR ANY OTHER WORK, UNLESS SUCH CHARGES ARE AUTHORIZED IN ADVANCE BY THE SELLER.**

Seller shall in no event be liable for special or consequential damages. If an article is claimed to be defective in material or workmanship or not to conform to specifications. The warranties shall not extend to any articles or units or parts thereof which have been installed, used or serviced, otherwise than in conformity with sellers applicable specifications, manuals, bulletins, or instructions or, if none, which shall have been subjected to improper installation, misuse or neglect.

[illegible]

# GRAIN CLEANER

## WARRANTY REGISTRATION FORM & INSPECTION REPORT

### WARRANTY REGISTRATION

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

Customer's Name \_\_\_\_\_

Dealer Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

City, State, Code \_\_\_\_\_

City, State, Code \_\_\_\_\_

Phone Number ( \_\_\_\_ ) \_\_\_\_\_

Model \_\_\_\_\_

Check One:

Serial Number \_\_\_\_\_

Commercial Use ☐

Delivery Date \_\_\_\_\_

Farm Use ☐

### DEALER INSPECTION REPORT

- \_\_\_\_ Wheel Bolts Tight
- \_\_\_\_ Tire Pressure
- \_\_\_\_ Screens Installed
- \_\_\_\_ Fasteners Tight
- \_\_\_\_ Hydraulic Hoses Free
- \_\_\_\_ Hydraulic Fittings Tight
- \_\_\_\_ Lubricate Machine

### SAFETY

- \_\_\_\_ All Decals Installed
- \_\_\_\_ Reflectors, SMV clean
- \_\_\_\_ Guards and Shields Installed
- \_\_\_\_ 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
TRIANGLE INDUSTRIES	DEALER	CUSTOMER

PO BOX 665 417  
COOPERSTOWN, NY 12425

[illegible]

# TABLE OF CONTENTS

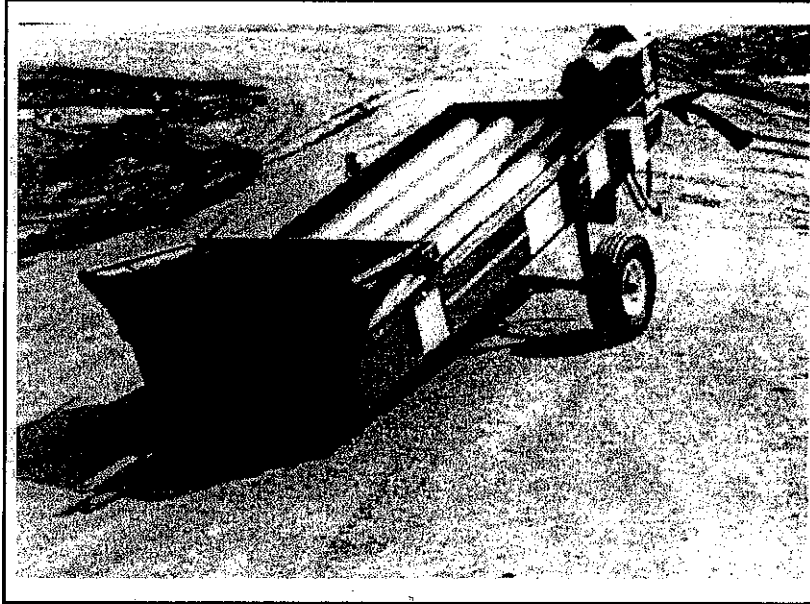
SECTION	DESCRIPTION	PAGE
<b>1</b>	<b>Introduction .....</b>	<b>1</b>
<b>2</b>	<b>Safety .....</b>	<b>2</b>
2.1	General Safety .....	3
2.2	Operating Safety .....	4
2.3	Maintenance Safety .....	4
2.4	Hydraulic Safety .....	5
2.5	Transport Safety .....	5
2.6	Storage Safety .....	6
2.7	Tire Safety .....	6
2.8	Safety Decals .....	6
2.9	Sign-Off Form .....	7
<b>3</b>	<b>Safety Decal Locations .....</b>	<b>8</b>
<b>4</b>	<b>Operation .....</b>	<b>10</b>
4.1	To the New Operator or Owner .....	10
4.2	Machine Components .....	11
4.3	Break-In .....	12
4.4	Pre-Operation Checklist .....	12
4.5	Controls .....	13
4.6	Attaching/Unhooking To Towing Vehicle .....	15
4.7	Operating .....	16
4.8	Transporting .....	22
4.9	Storage .....	23
<b>5</b>	<b>Service and Maintenance .....</b>	<b>24</b>
5.1	Service .....	24
5.1.1	Fluids and Lubricants .....	24
5.1.2	Greasing .....	24
5.1.3	Servicing Intervals .....	25
5.1.4	Service Record .....	27
5.2	Maintenance .....	28
5.2.1	Belt Drive Tension .....	28
5.2.2	Changing Speed (Electric Drive) .....	29
5.2.3	Screen Replacement .....	30
5.2.4	Auger Replacement .....	32
<b>6</b>	<b>Trouble Shooting .....</b>	<b>35</b>
<b>7</b>	<b>Assembly .....</b>	<b>36</b>
<b>8</b>	<b>Specifications .....</b>	<b>37</b>
8.1	Mechanical .....	37
8.2	Bolt Torque .....	38
8.3	Hydraulic Fitting Torque .....	39
8.4	Hydraulic Schematic .....	40
<b>9</b>	<b>Parts List .....</b>	<b>41</b>
<b>10</b>	<b>Index .....</b>	<b>50</b>

[illegible]

## SERIAL NUMBER LOCATION

Always give your dealer the serial number of your KWIK KLEEN Grain Cleaner when ordering parts or requesting service or other information.

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



**SERIAL NUMBER LOCATION**

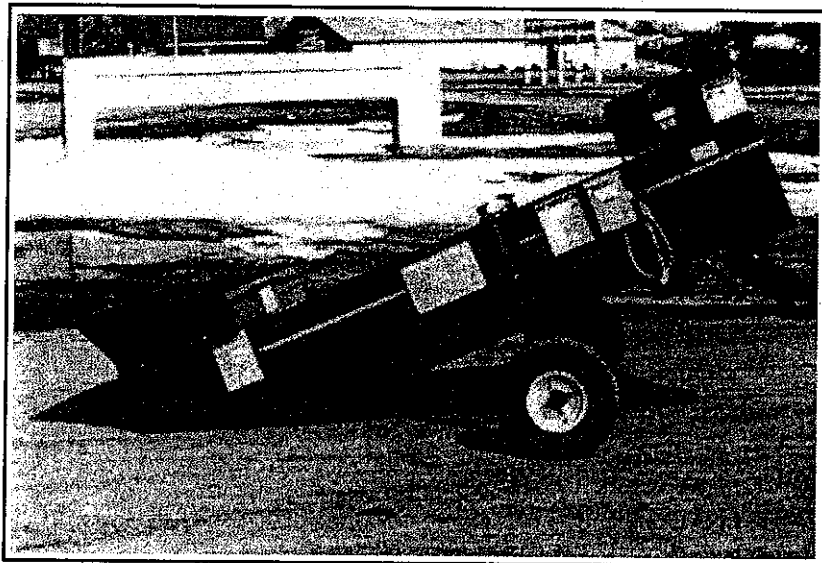
**Model Number** \_\_\_\_\_

**Serial Number** \_\_\_\_\_

# 1 INTRODUCTION

Congratulations on your choice of a KWIK KLEEN Grain Cleaner. This equipment has been designed and manufactured to meet the needs of the discerning operator for the cleaning of grain.

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



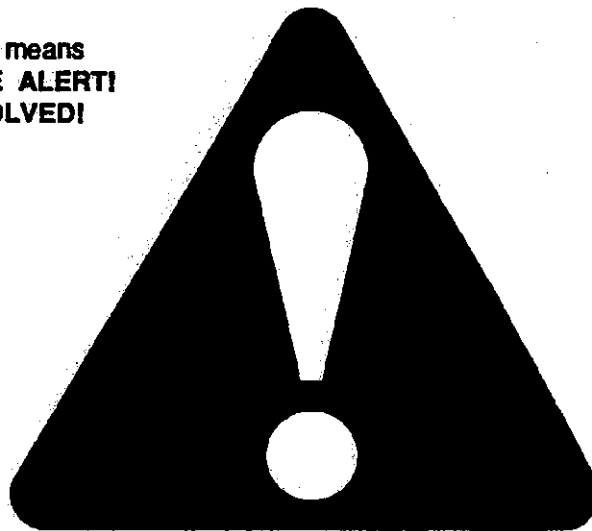
Keep this manual handy for frequent reference and to pass on to new operators or owners. Call your dealer or distributor if you need assistance or information.

This manual covers Models 372 and 572. Differences are covered and explained where appropriate.

**OPERATOR ORIENTATION:** The directions left, right, front and rear, as mentioned throughout this manual, are as seen when standing at the rear (opposite the hitch) and facing the machine.

## 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 Grain Cleaner 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 -** An immediate and specific hazard which **WILL** result in severe personal injury or death if the proper precautions are not taken.

**WARNING -** A specific hazard or unsafe practice which **COULD** result in severe personal injury or death if proper precautions are not taken.

**CAUTION -** Unsafe practices which **COULD** result in personal injury if proper practices are not taken, or as a reminder of good safety practices.

# SAFETY

**YOU** are responsible for the SAFE operation and maintenance of your Grain Cleaner. **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the Grain Cleaner 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 Cleaner.

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.

- Grain Cleaner owners must give operating instructions to operators or employees before allowing them to operate the Cleaner, and at least annually thereafter per OSHA regulation 1928.57.
- The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. All 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 or adjusting the Cleaner.



2. Only trained competent persons shall operate the Cleaner. 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. Have a fire extinguisher available for use should the need arise and know how to use it.



5. Do not allow riders.

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

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



7. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.

8. Install and secure all guards and shields before operating.

9. Wear appropriate hearing protection for prolonged exposure to excessive noise.



10. Secure hitch pole, install drawbar pin with a retainer and connect safety chain before transporting.

11. Do not exceed 25 miles (40 km) per hour when transporting.

12. Review safety related items with all personnel annually.

## **2.2 OPERATING SAFETY**

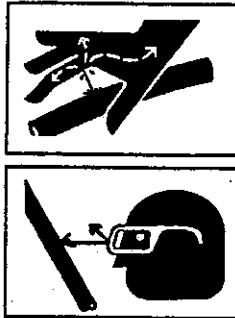
1. Read and understand the Operator's Manual and all safety signs before using.
2. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Install and secure all guards and shields before operating.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of people, animals or pets and especially children before starting.
6. Do not allow riders on the Grain Cleaner or towing vehicle during operation or transporting.
7. Secure hitch pole, install drawbar pin with a retainer and connect safety chain before transporting.
8. Stay away from overhead power lines when tailings auger is installed.
9. Do not exceed 25 miles (40 km) per hour when transporting.
10. Use hazard flashers on tractor when transporting.
11. Before applying pressure to the hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
12. Keep working area and power cord as dry as possible to prevent electric shocks. Shocks can result in a possible electrocution.
13. Review safety instructions annually.

## **2.3 MAINTENANCE SAFETY**

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Cleaner.
2. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Before applying pressure to a hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
4. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
5. Keep hands, feet, clothing and hair away from all moving and/or rotating parts.
6. Before resuming work, reinstall all guards and shields removed for servicing.
7. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
8. Place safety stands or blocks under the frame before working beneath the machine.

## 2.4 HYDRAULIC SAFETY

1. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
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 and steel lines.
4. Do not attempt any makeshift repairs to the hydraulic lines, 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. Before applying pressure to the system, make sure all components are tight and that lines, hoses and couplings are in good condition.



## 2.5 TRANSPORT SAFETY

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY when operating or transporting the Cleaner.
2. Check with local authorities regarding 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 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. Ensure that the machine is hitched positively to the towing vehicle. Always use the safety chain between the machine and the towing vehicle.
6. 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.
7. Do not exceed 25 mph (40 km/h) when loaded. Reduce speed on rough roads and surfaces.
8. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

## **2.6 STORAGE SAFETY**

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

## **2.7 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.

## **2.8 SAFETY DECALS**

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

### **How to Install Safety Decals:**

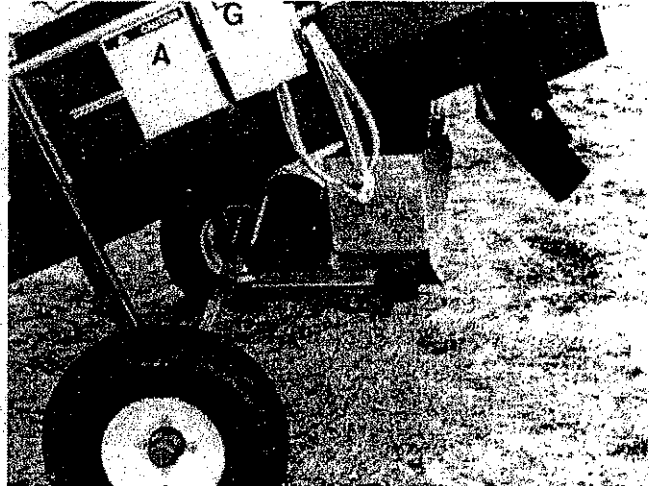
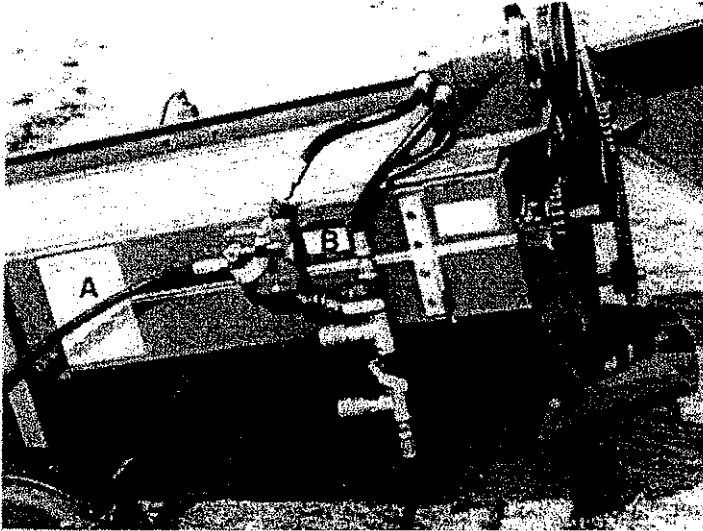
- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.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




### 3 SAFETY DECAL LOCATIONS

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

- Think SAFETY! Work SAFELY!



A

**CAUTION**

1. Read Operator's Manual before starting.
2. Shut off electrical motor and disconnect power cord before servicing, maintaining, adjusting or unplugging.
3. Keep all guards and shields in place.
4. Keep hands, feet, clothing and hair away from moving parts.
5. Keep working area dry and free of debris.
6. Keep electrical components in good repair.
7. Do not transport faster than 45 mph.
8. Do not allow riders.
9. Keep rotating flighting guarded at all times.
10. Review safety instructions annually.

TRP0065

B

**WARNING**



**HIGH-PRESSURE FLUID HAZARD**

To prevent serious injury or death:

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

TRP0073

C

**WARNING**



**ROTATING FLIGHTING HAZARD**

To prevent serious injury or death:

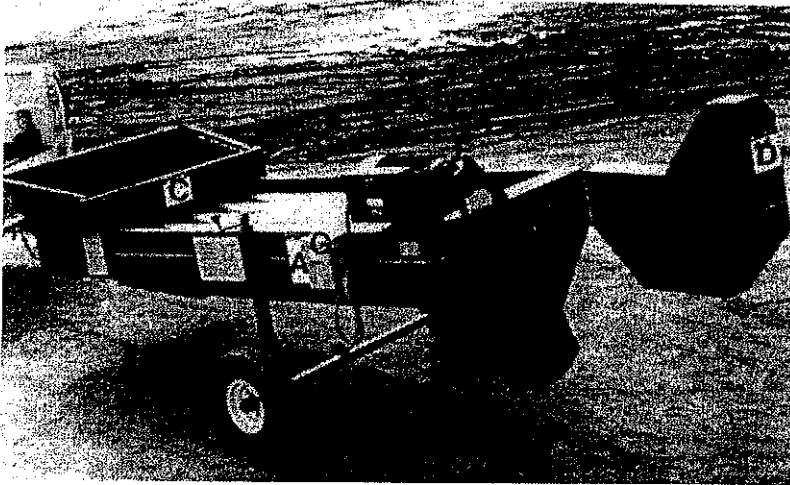
1. Keep hands, feet, clothing and hair away from moving parts.
2. Do not operate with guards removed.
3. Keep others away from moving parts.

TRP0068

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


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

- Think **SAFETY!** Work **SAFELY!**



**D**

**WARNING**



**ROTATING PART HAZARD**

To prevent serious injury or death:

- Keep all guards and shields in place.
- Keep hands, feet, hair and clothing away from moving parts.
- Keep others away.

TRP0066

**F**

**WARNING**

**MISSING SHIELD HAZARD**

To prevent serious injury or death:

1. Install and secure shields before operating.
2. Keep hands, feet, hair and clothing away from moving parts.

TRP0067

**E**

**DANGER**

**ELECTROCUTION HAZARD**

To prevent serious injury or death:

Stay away from overhead power lines. This machine is not grounded. Electrocution can occur without direct contact

TRP0070

**G**

**DANGER**

**ELECTROCUTION HAZARD**

To prevent serious injury or death:

1. Have qualified electrician provide power.
2. Keep electrical components in good repair.
3. Keep electrical components dry.

TRP0069

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

## 4 OPERATION



### OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Install and secure all guards and shields before operating.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of people, animals or pets and especially children before starting.
6. Do not allow riders on the Grain Cleaner or towing vehicle during operation or transporting.
7. Secure hitch pole, install drawbar pin with a retainer and connect safety chain before transporting.
8. Stay away from overhead power lines when tailings auger is installed.
9. Do not exceed 25 miles (40 km) per hour when transporting.
10. Use hazard flashers on tractor when transporting.
11. Before applying pressure to the hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
12. Keep working area and power cord as dry as possible to prevent electric shocks. Shocks can result in a possible electrocution.
13. Review safety instructions annually.

### 4.1 TO THE NEW OPERATOR OR OWNER

The Kwik Kleen grain cleaner is designed as a portable cleaner for removing objects from the grain that are smaller than the seed size. A rotating auger moves the material over a tubular screen that allows the smaller material to pass through the openings.

It is the responsibility of the owner or operator to read this manual before starting. 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 environment.

Many of the features incorporated into the machine are the result of suggestions made by customers like you. Read the manual carefully to learn to operate the machine safely and how to set it to provide maximum efficiency. The manual will take you step-by-step through your working day. By following the operating instructions in conjunction with a good maintenance program, your Grain Cleaner will provide many years of trouble-free service.

## 4.2 MACHINE COMPONENTS

The Kwik Kleen grain cleaner is a set of 3 (Model 372) or 5 (Model 572) rotating augers contained within tubular screens. As the augers move the material past the screens, centrifugal force propels the smaller objects through the openings in the screens. Brush or steel augers are available as required. Tailings are collected by the frame and moved to the rear discharge opening where they are expelled. An optional tailings auger can be mounted on the clearer. Clean grain is conveyed to the rear of the machine by the augers.

An electric or hydraulic motor provides power to the machine.

The optional tailings auger can be run with an electric or hydraulic motor as well.

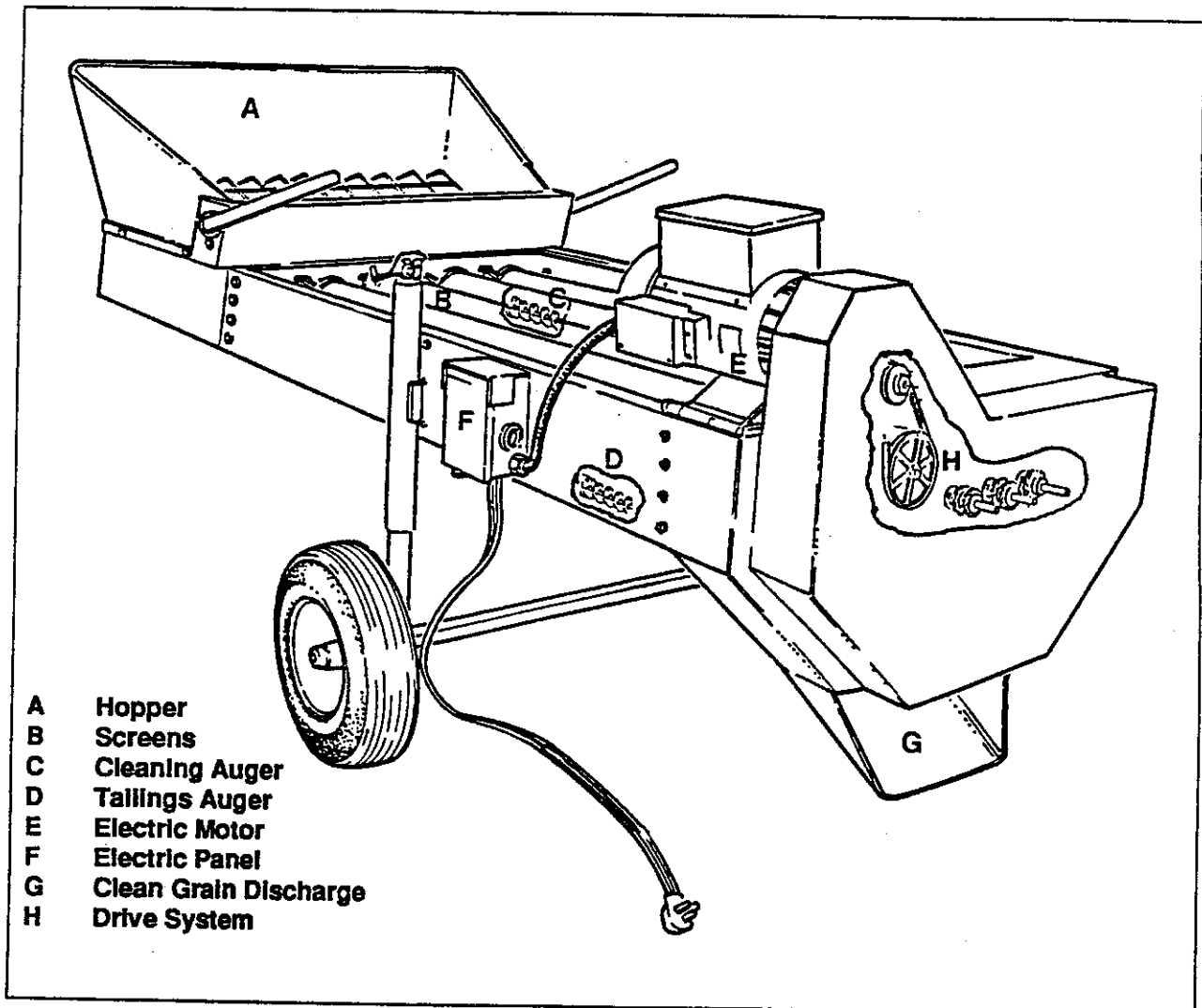


Fig. 1 MACHINE COMPONENTS

### 4.3 BREAK-IN

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

#### A. After operating for 1/2 hour:

1. Retorque the wheel bolts.
2. Retorque all other fasteners and hardware.
3. On the electrically powered version, check that all electrical connections are properly secured and all cords are routed out of harms way.
4. On the hydraulically powered version, check that all hydraulic components are tight, not leaking and in good condition. Be sure that none are being pinched or rubbing. Adjust as required.
5. Check belt tension.

#### B. After 5 hours and 10 hours of operation:

1. Retorque all wheel bolts, fasteners and hardware.
2. On the electrically powered version, check that all electrical connections are properly secured and all cords are routed out of harms way.
3. On the hydraulically powered version, check that all hydraulic components are tight, not leaking and in good condition. Be sure that none are being pinched or rubbing. Adjust as required.
4. Then go to the normal servicing schedule as defined in the Maintenance Section.
5. Check belt tension.
6. Reset setscrews in drive sprockets.
7. Check all locking collars on auger bearings.

### 4.4 PRE-OPERATION CHECKLIST

Efficient and safe operation of the Grain Cleaner 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 personal safety and maintaining the good mechanical condition of the machine that this checklist be followed.

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

1. Lubricate the machine per the schedule outlined in the "Maintenance Section".
2. Use only a towing vehicle of adequate power and weight to transport the Grain Cleaner.
3. Insure that the machine is properly attached to the towing vehicle. Be sure that the hitch pin has a machine retainer and the safety chain is attached.
4. On the hydraulic version, check the hydraulic system. Ensure that the hydraulic reservoir of powering unit is filled to the required specifications.
5. Inspect all hydraulic lines, hoses, fittings and couplers for tightness. Use a clean cloth to wipe any accumulated dirt from the couplers before starting.
6. On the electric version, check that all electrical connections are tight and that the power cord is routed out of the way.
7. Be sure that the working area is dry.
8. Be sure the tailings and clean grain removal systems are in place and functioning properly.
9. If equipped with the optional tailings auger, be sure the auger is well away from power lines.
10. Be sure the guard over the drive system is closed and secured.

## 4.6 ATTACHMENT

The machine is mounted on a truck. When following this procedure:

1. Clear the area of children before starting.
2. Make sure the tow vehicle is properly hitched.
3. Slowly back up the machine.
4. Since the hitch is located during machine installation, install it before starting.
5. Slide the hitch onto the front of the machine.
6. Raise the front pole frame to the upright position.

7. Insert the machine into the tow vehicle.
8. Connect pole frame to the tow vehicle.
9. Use only a mechanical retainer to secure the machine.
10. Install the safety chains on the tow vehicle. Be sure they are properly secured.
11. Reverse the tow vehicle to back up the machine.

## 4.5 CONTROLS

The machine is controlled by switches or valves located at the panel on the left rear of the machine. Each operator should review the position and function of each control before starting.

### 1. Electrically powered version:

#### a. ON/OFF Switch:

Move switch lever up to turn the machine on. Move the switch lever down to turn machine off.



Fig. 2 ON/OFF SWITCH

### 2. Hydraulically powered version:

#### a. ON/OFF Control:

The system is turned ON or OFF by the operator by moving the hydraulic control lever in the power unit.

#### b. System Valve:

Closed or open center hydraulic systems can be used with the machine. To match the power and machine systems, the system valve will have to be set. Turn the valve to the ON position (parallel to line) when using with an open center system. Turn to the OFF (90° to line) position for a closed-center system. Always set before starting. Refer to tractor manual to determine tractor hydraulic system type.



Fig. 3 SYSTEM VALVE

#### c. Machine Speed:

Machine speed or auger RPM is determined by the amount of oil flowing through the hydraulic motor. This flow rate is changed by adjusting the circuit flow control or changing the engine RPM. Do not exceed 650 RPM as excessive vibration may occur.

## 4.7 OPERATING



### OPERATING SAFETY

1. Read and understand the Operator's Manual and all safety signs before using.
2. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Install and secure all guards and shields before operating.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of people, animals or pets and especially children before starting.
6. Do not allow riders on the Grain Cleaner or towing vehicle during operation or transporting.
7. Secure hitch pole, install drawbar pin with a retainer and connect safety chain before transporting.
8. Stay away from overhead power lines when tailings auger is installed.
9. Do not exceed 25 miles (40 km) per hour when transporting.
10. Use hazard flashers on tractor when transporting.
11. Before applying pressure to the hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
12. Keep working area and power cord as dry as possible to prevent electric shocks. Shocks can result in a possible electrocution.
13. Review safety instructions annually.

Although the Kwik Kleen is simple and easy to use, it is recommended that the operator review the section before starting to familiarize themselves with operational details. When using the machine, follow this procedure:

1. Clear the area of bystanders, especially small children before starting.
2. Unhook the machine from the towing vehicle (Refer to Section 4.6).
3. Maneuver the machine into its working position.

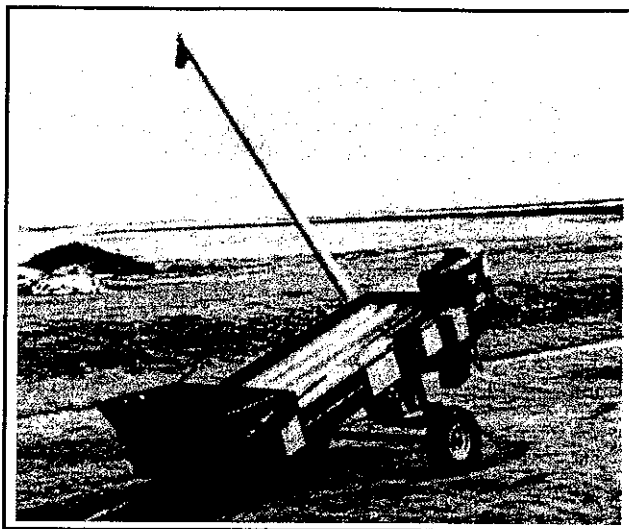


### DANGER

Stay away from overhead electrical lines when moving the machine if the tailings auger is installed. Stay at least 20 feet (6 meters) away from the lines. Electrocution can occur without direct contact.

Provide sufficient room for the transport truck to back up to the hopper.

4. Position the systems or equipment to remove the clean grain and tailings. It is the responsibility of the operator to insure that systems are installed to remove the clean grain and the tailings. An optional tailings auger is available if desired (Refer to Section 7).

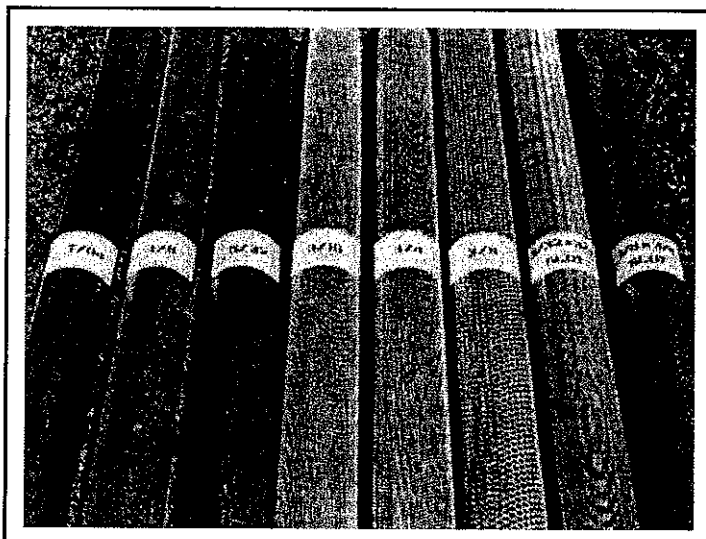


**Fig. 9 MACHINE**

5. Check the machine to be sure that the appropriate screens are installed (Refer to Section 5.2 for installation procedure).
6. Use Table 1 as a guide in selecting the appropriate screen.

**Table 1 Screen Opening vs Grain**

Screen Size	Grain
7/64	wheat, barley, oats, rice
1/8	wheat, barley, oats, soybeans
5/32	soybeans, sunflowers
3/16	soybeans, sunflowers, corn
1/4	corn, confectionary sunflowers
3/8	size confectionary sunflowers
3/32 x 3/4	size barley
7/64 x 3/4	size barley
1/8 x 3/4	corn, beans



**Fig. 10 SCREENS**

Grain and operating conditions vary widely in the field. The operator may have to change the screen, auger type or RPM to obtain desired results.

**7. Provide power:**

**a. Electrically powered model:**

- i. An electrically powered model requires 230 volts to run.
- ii. Have only a certified electrician provide wiring and power to the motor.
- iii. Always provide an ON/OFF switch and fuse box at the master panel.
- iv. Use only # 4 wire or larger in the extension cord.
- v. Keep the extension cord out of the way to prevent pinching or cutting it by equipment or stepping on it.
- vi. Keep the working area as dry as possible.
- vii. Push plug terminals together firmly when connecting.

**b. Hydraulically powered model**

- i. Use a clean cloth or paper towel to clean the dirt and build up from around the couplers and the male tips.
- ii. Insert the male ends into the couplers. Make sure they are locked in place.
- iii. Route the hoses out of harms way and secure with clips or ties.
- iv. Set the system valve for open or closed-center hydraulics.
- v. Use the tractor flow control or RPM to set the oil flow volume and machine RPM.
- vi. Use the bypass valve to set the speed of the optional tailings auger if it is plumbed in series with the machine circuit.

8. Remove the hitch pole by raising the front frame slightly and removing the mounting pin.
9. Remove pole and store in a safe place.

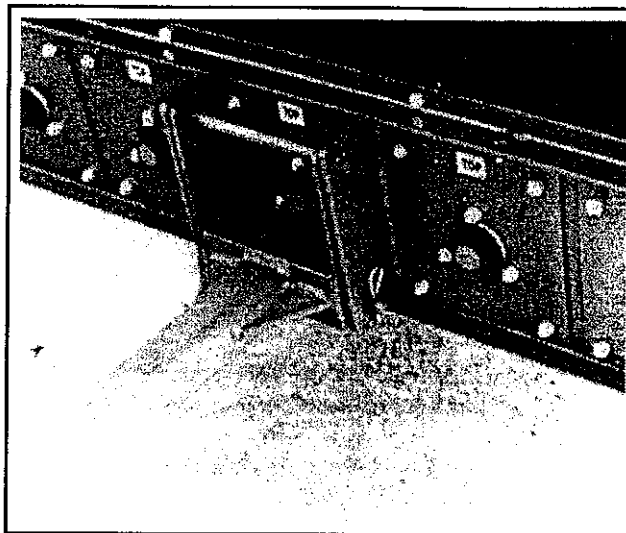


Fig. 11 HITCH POLE

10. Use the jacks on each wheel strut to raise the frame. Start with the jacks raised 9 inches (230 mm) above their lowest point.

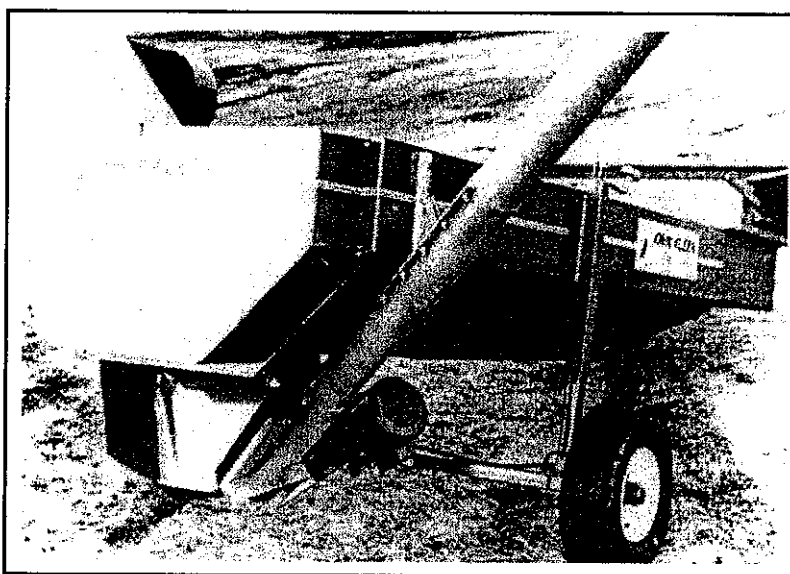
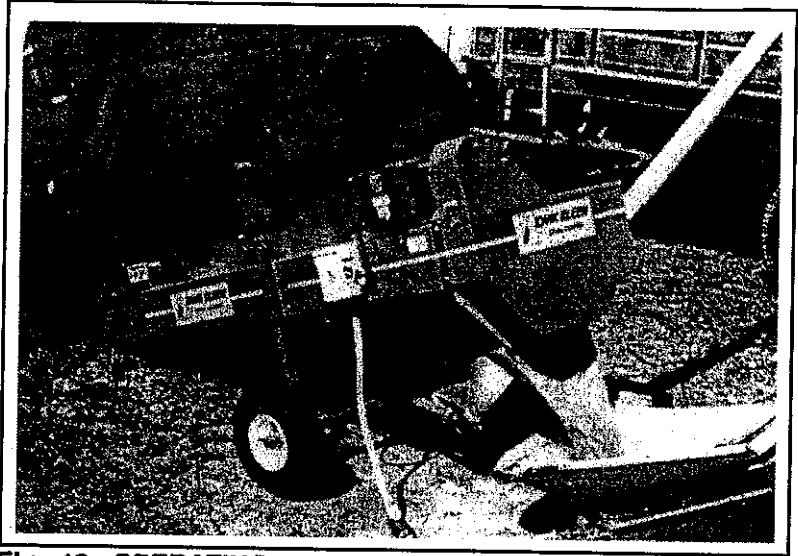


Fig. 12 ANGLED

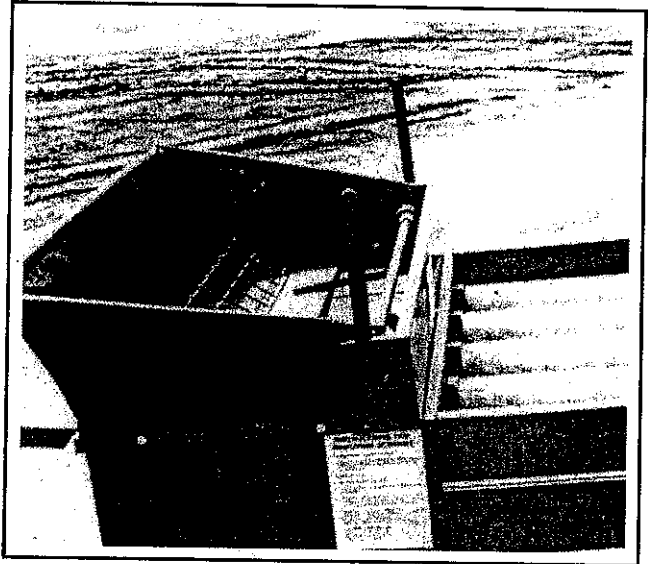
11. If located on uneven ground, the jacks can be used to level the machine.
12. Slowly back the truck up to the machine. Make sure everyone is out of the way.
13. Start the cleaner.
  - a. Plug in the extension cord and turn ON the switch at the master panel.
  - b. Start the engine to the remote hydraulic pump and engage the system.
  - c. Be sure the systems are matched and the speeds are set.
14. Start the equipment to remove the clean grain and the tailings.

15. Raise the hoist on the truck to unload and open the truck gate.



**Fig. 13 OPERATING**

16. Open the hopper feed gate approximately 1 inch (100 mm) to start. It can be opened further until desired feed rate and cleaning results are obtained.

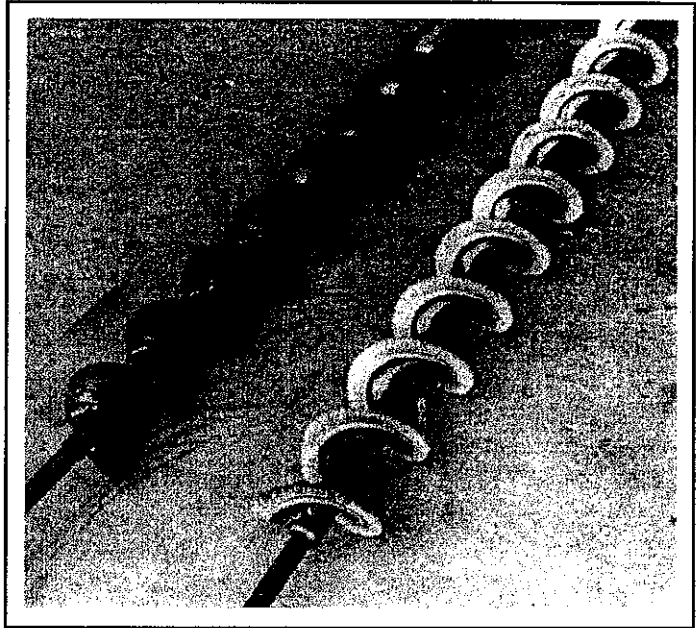


**Fig. 14 HOPPER FEED GATE**

**17. Operating hints**

- a. Maximum capacity is obtained when the machine is set at the lower angles.
  - i. Raise the unit higher or close feed gate if some foreign material is left in the grain.
  - ii. Lower machine or decrease RPM if the grain is clean and cracked.
- b. The best results are obtained when the augers are set to run at 500 to 600 RPM. Never exceed 650 RPM as excessive vibration may occur.
- c. Change speed on the hydraulic models by changing oil volume through the system.

- d. Change the speed on the electric model by changing the spacing on the motor pulley. (See Section 5.2.2).
- e. The cleaner can effectively be used to remove weed seed and insects from the grain and to size certain types of seeds.
- f. Slow the auger speed and lower the angle when cleaning grain that cracks or chips easily. Try various settings to insure complete cleaning.
- g. Use of the brush augers is recommended when cleaning peas, edible beans or other crops that crack or chip easily. Reduce the angle and slow the auger speed.



**Fig. 15 AUGERS**

- h. The spring loaded hopper prevents machine damage when unloading.

## 4.8 TRANSPORTING



### TRANSPORT SAFETY

1. Read and understand **ALL** the information in the Operator's Manual regarding procedures and **SAFETY** when operating or transporting the Cleaner.
2. Check with local authorities regarding 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 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. Ensure that the machine is hitched positively to the towing vehicle. Always use the safety chain between the machine and the towing vehicle.
6. 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.
7. Do not exceed 25 mph (40 km/h) when loaded. Reduce speed on rough roads and surfaces.
8. Always use hazard warning flashers on tractor when transporting unless prohibited by law.

The machine is designed to be easily and conveniently moved from location to location. When transporting, follow this procedure:

1. Clear the area of bystanders, especially small children before starting.
2. Install the hitch pole to the front and secure with the retainers.
3. Attach to the towing vehicle using a pin with provisions for a mechanical retainer.
4. Install and secure the safety chain.
5. Unhook the hydraulic hoses from the power unit and stow if hydraulically powered.
6. Disconnect the power cord and stow on machine if electrically powered.
7. Remove tailing auger from the machine (See options section) if so equipped.



### DANGER

Stay away from overhead electrical lines when moving the auger. Electrocutation can occur without direct contact.

8. Use the jacks to lower the machine before transporting.
9. Clean the lights and reflectors.
10. Do not allow riders on the machine.
11. Never exceed a safe travel speed.
12. Always use hazard flashers on the tractor

## 4.9 STORAGE



### STORAGE SAFETY

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

At the end of the season, 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 beginning of the next season. To prepare for storage, follow this procedure:

1. Wash the machine thoroughly using a water hose or pressure washer to remove all dirt, mud, debris and residue.
2. Remove any twine, wire or other material that has become entangled in moving parts.
3. Inspect all hydraulic hoses, lines, fittings and couplers if hydraulically powered. Tighten any loose fittings. Replace any hose that is badly cut, nicked, abraded or is separating from the crimped end of the fitting.
4. Inspect all electrical wires, connections and plugs if electrically powered. Replace any wire or cord that is badly cut, nicked or scuffed.
5. Remove the tailings auger.
6. Touch up all paint nicks and scratches to prevent rusting.
7. Store in an area that is dry, level and free from debris.
8. Unhook from towing vehicle.
9. Store the unit in an area away from human activity.
10. Do not permit children to play on or around the stored machine.

## 5 SERVICE AND MAINTENANCE



### MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with, maintaining or operating the Cleaner.
2. Shut off power to machine, disconnect power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Before applying pressure to a hydraulic system, make sure all components are tight and that steel lines, hoses and couplings are in good condition.
4. Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
5. Keep hands, feet, clothing and hair away from all moving and/or rotating parts.
6. Before resuming work, reinstall all guards and shields removed for servicing.
7. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
8. Place safety stands or blocks under the frame before working beneath the machine.

### 5.1 SERVICE

#### 5.1.1 FUELS, 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 base grease.
2. Use an SAE 15W non-foaming hydraulic oil for all operating conditions.
3. 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

Refer to Section 5.1.1 for recommended grease. Use the Maintenance Checklist provided to keep a record of all scheduled maintenance.

1. Use only a hand-held grease gun for all greasing. Air powered greasing systems can damage the seals on bearings and lead to early bearing failure.

### IMPORTANT

Over-greasing can damage bearing seals. A damaged seal will lead to early bearing failure. Replace all bearings with damaged seals immediately.

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 a fitting will not take grease, remove and clean thoroughly. Also clean lubricant passageway. Replace fitting if necessary.

### 5.1.3 SERVICING INTERVALS

#### Weekly or 40 Hours

1. Check the tension of the input drive belt.

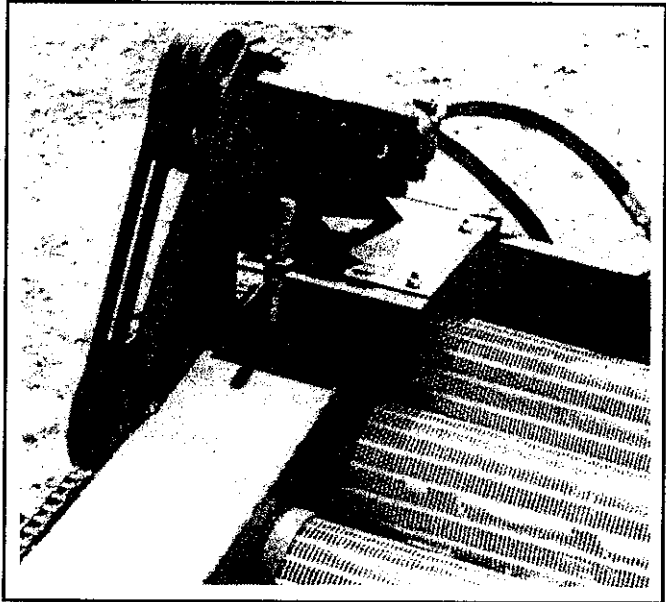


Fig. 16 DRIVE BELT

2. Check the condition of the roller chains.



#### CAUTION

Machine is shown with guard open for illustrative purposes only. Do not operate machine with guard open.

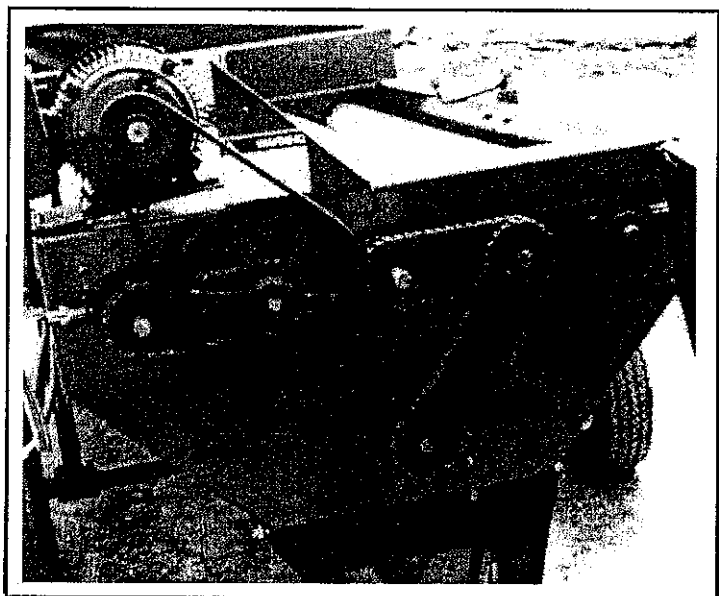
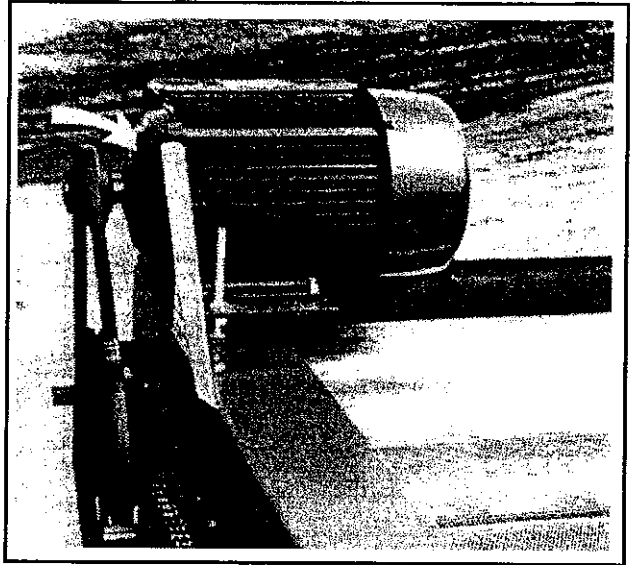


Fig. 17 ROLLER CHAINS

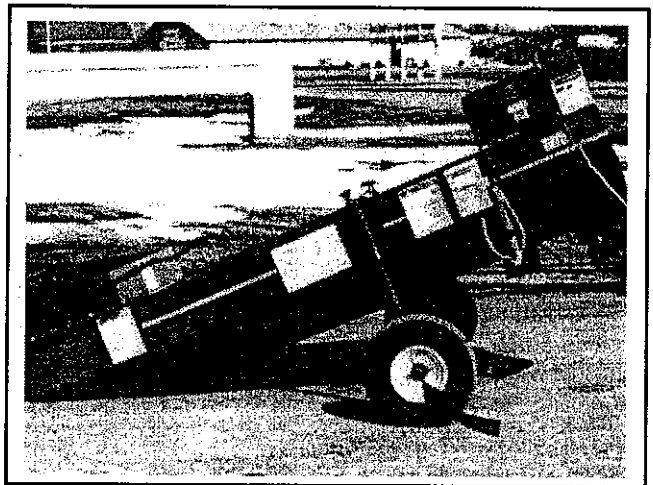
**Annually or 250 Hours**

1. Lubricate electric motor bearing with one shot of grease.



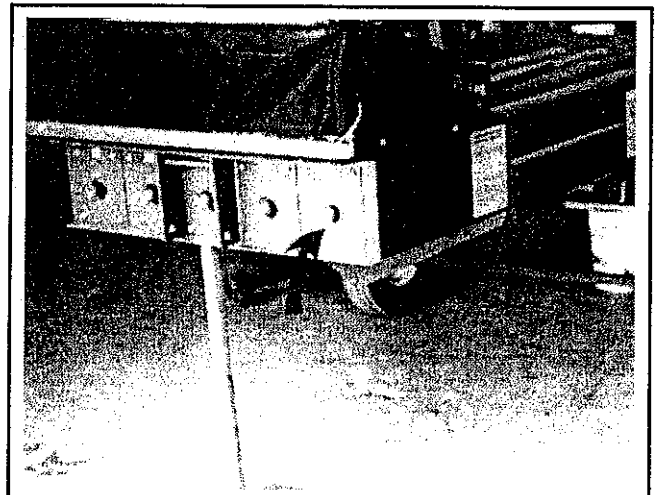
**Fig. 18 MOTOR BEARING**

2. Repack wheel bearings (each side).



**Fig. 19 WHEEL BEARINGS**

3. Check bearings on auger shafts.



**Fig. 20 AUGER SHAFT BEARINGS**

## 5.1.4 SERVICE RECORD

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

ACTION CODE:    ☒ CHECK                    C CHANGE                    CL CLEAN  
                          L LUBRICATE                    R REPLACE

MAINTENANCE	HOURS																
	SERVICED BY																
<b>Weekly or 40 Hours</b>																	
<input checked="" type="checkbox"/> Tension of Input Drive Belt																	
<input checked="" type="checkbox"/> Condition of the Roller Chains																	
<b>Annually or 250 Hours</b>																	
L Electric Motor Bearing																	
L Wheel Bearings																	
<input checked="" type="checkbox"/> Bearings on Auger Shafts																	

## 5.2 MAINTENANCE

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

### 5.2.1 DRIVE BELT TENSION

The input pulley can be driven by a hydraulic or electric motor. Belt tension is set by moving the motor mounting plate. To adjust the belt tension, follow this procedure:

1. Clear the area of bystanders, especially small children, before starting.
2. Disconnect the hydraulic hoses or unplug the extension cord depending on the power source.
3. Open the rear access door.



#### CAUTION

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

4. Loosen the jam nut on the motor mount adjusting bolt.
5. Use the nut on the adjusting bolt to move the plate.
6. Recommended tension will give 1/2 inch (12 mm) deflection at the center of the span from a 5 lb. (2.3 kg) force.
7. Tighten jam nut.
8. Close and secure access door.

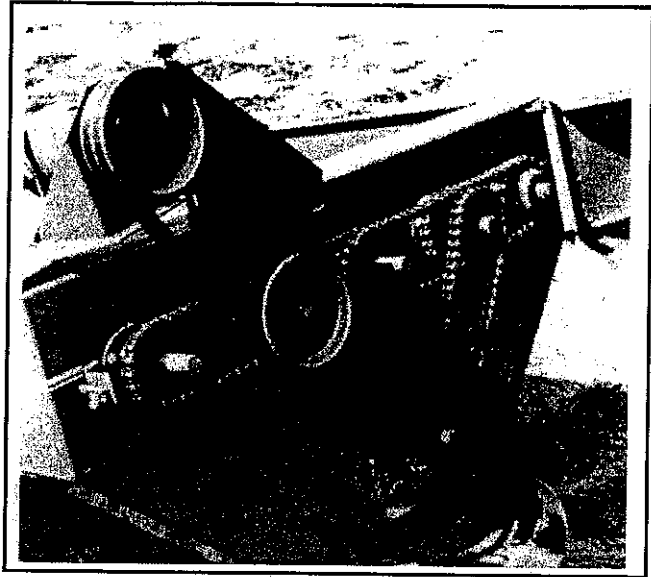


Fig. 21 ACCESS DOOR

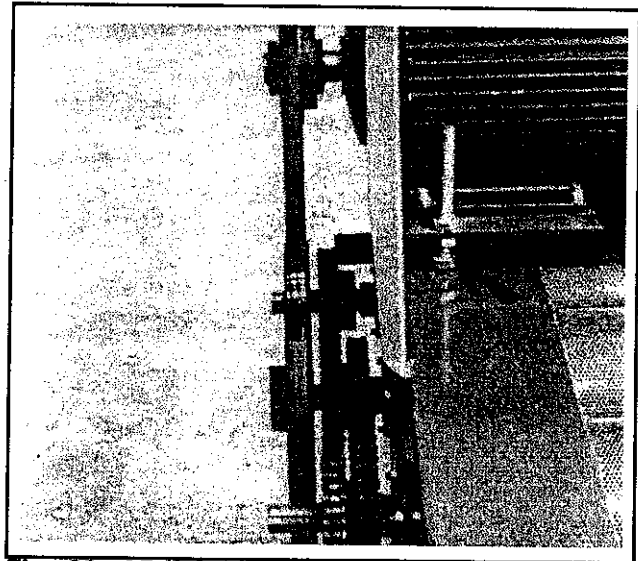


Fig. 22 ADJUSTING BOLT

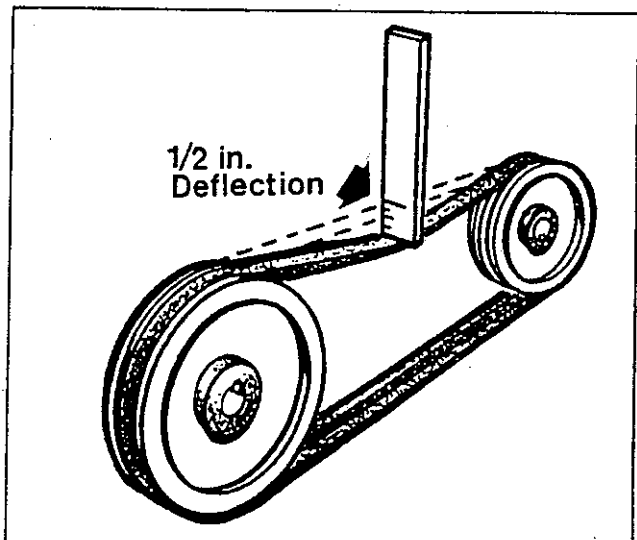


Fig. 23 BELT TENSION

## 5.2.2 CHANGING SPEED (ELECTRIC DRIVE)

The machine speed is adjusted by changing the spacing of the input pulley faces on the electric motor shaft. To adjust the speed, follow this procedure:

1. Clear the area of bystanders, especially small children, before starting.
2. Unplug the extension cord.
3. Open the rear access door.



### CAUTION

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

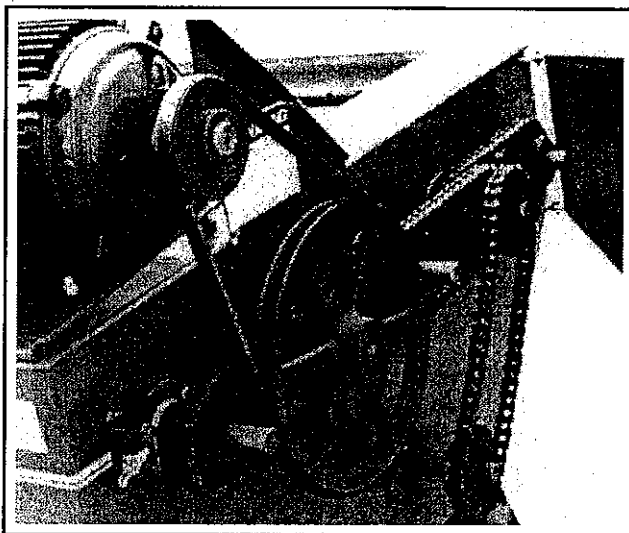


Fig. 24 ACCESS DOOR

4. Loosen the belt tension (See Section 5.2.1).
5. Loosen the two set screws securing the outside face of the pulley.
6. Turn the pulley face in to increase the speed. Turn out to decrease the speed.

### NOTE

Move the pulley face a small amount each time. A small movement will change the speed substantially.

7. Set the belt tension.
8. Close and secure access door.

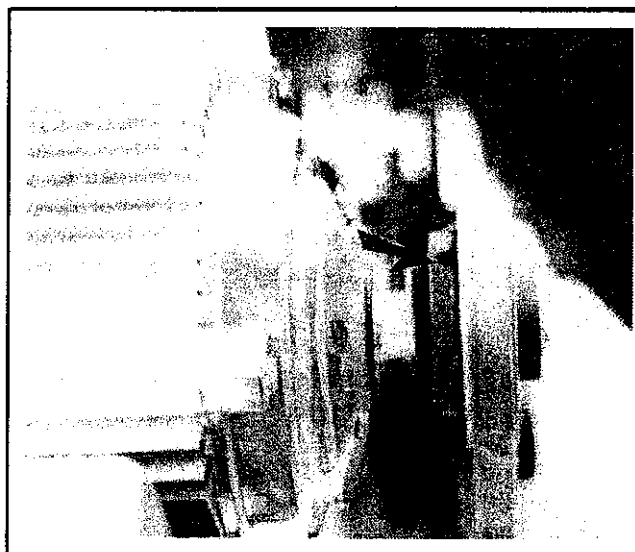


Fig. 25 SET SCREWS

### 5.2.3 SCREEN REPLACEMENT

The screens are easily removed and require changing when going to a new grain. To change screens, follow this procedure:

1. Clear the area of bystanders, especially small children, before starting.
2. Disconnect the hydraulic hoses or unplug the extension cord depending on the power source.
3. Move the machine to an area where it is accessible from all sides.
4. Place a safety stand under the front frame so the frame is at a convenient working height.

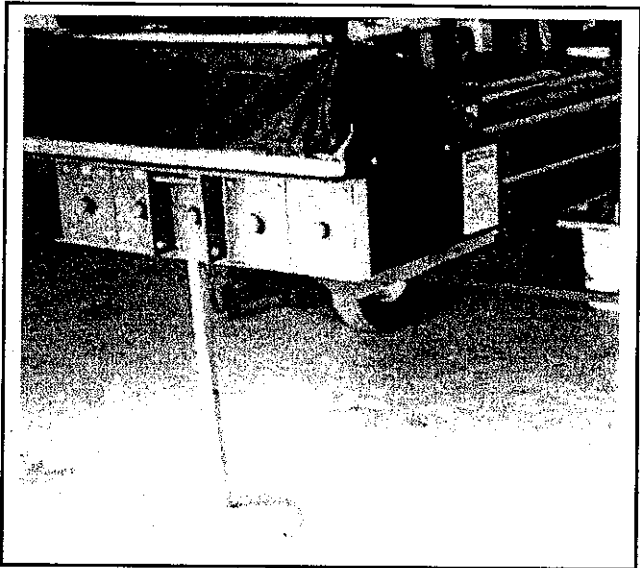


Fig. 26 SAFETY STAND

5. Remove the hitch pole.
6. Loosen and remove the 2 bolts holding the upper hopper in place.
7. Remove the upper hopper.

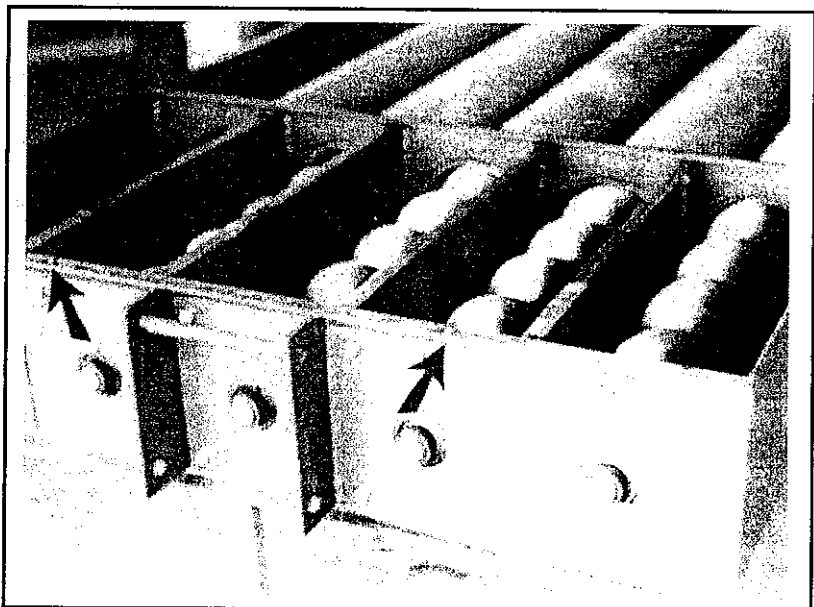
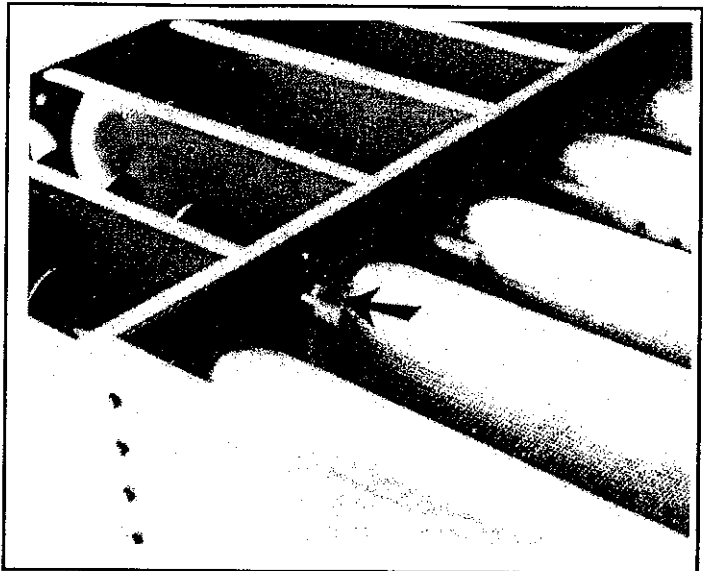


Fig. 27 HOPPER REMOVED

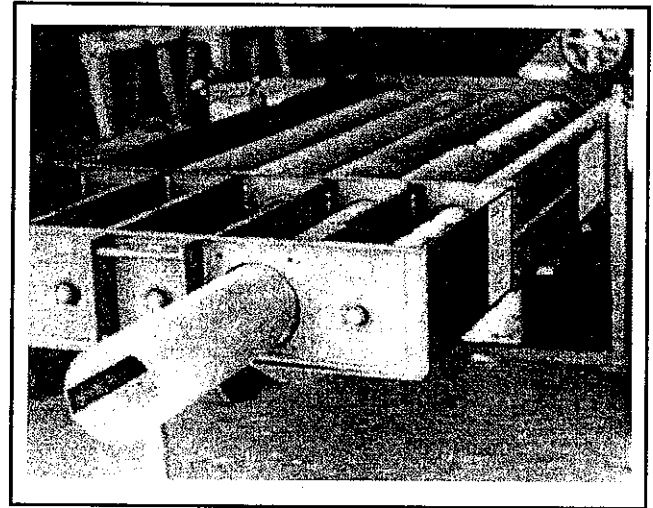
8. Loosen the screen clamps.



**Fig. 28 SCREEN CLAMPS**

9. Slide the screen to within a few inches of the bearing plate.

10. Remove the 4 bearing plate mounting bolts.



**Fig. 29 SCREEN REMOVAL**

11. Remove the 3 bearing flange bolts.

12. Leave the bearing on the shaft.

13. Slide the screen out the end of the frame. Support the screen as it is being removed. Rotating screens may result in easier removal.

14. Install the new screen.

15. Install bearing plate with bearing flange bolt pointing up. Lift up on bearing plate while tightening 4 bolts.

16. Slide the screen all the way in until the ends seat in its retainer bracket.

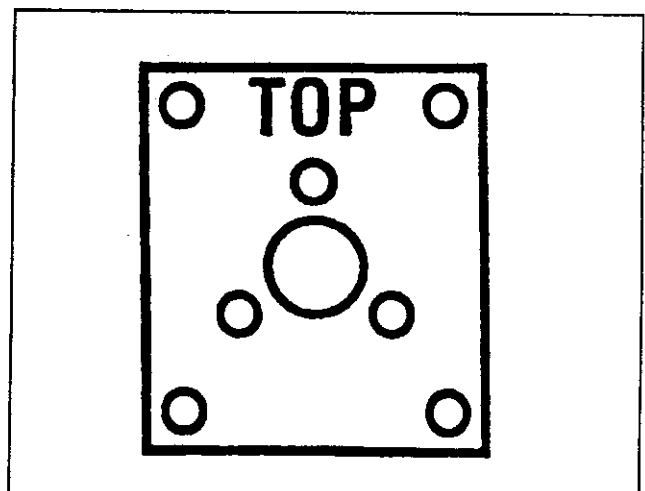
17. Tighten the screen clamp.

18. Repeat with the other screens.

19. Install and secure the hopper.

20. Install the hitch pole.

21. Remove the safety stand.



**Fig. 30 BEARING PLATE**

## 5.2.4 AUGER REPLACEMENT

Brush or steel flighting is available on the auger. The brush auger is normally used with grain that is susceptible to cracking. To change augers, follow this procedure:

1. Clear the area of bystanders, especially small children.
2. Disconnect the hydraulic hoses or unplug the extension cord depending on the power source.
3. Move the machine to an area where it is accessible from all sides.
4. Place a safety stand under the front frame so the frame is at a convenient working height.

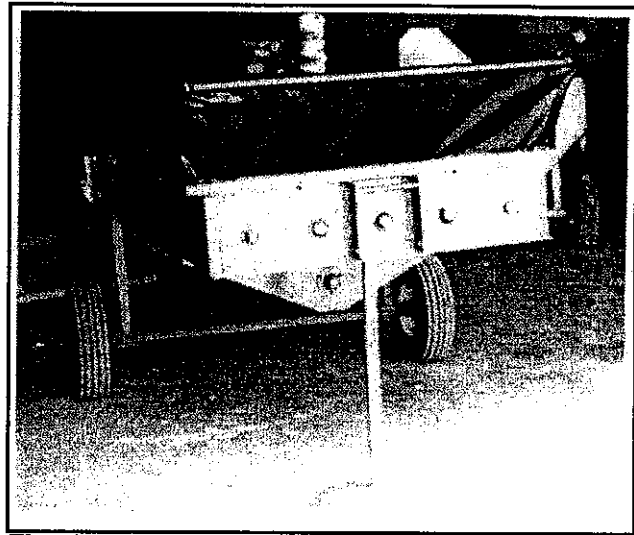


Fig. 31 SAFETY STAND

5. Remove the hitch pole.
6. Loosen and remove the 2 bolts holding the upper hopper in place.
7. Remove the hopper.

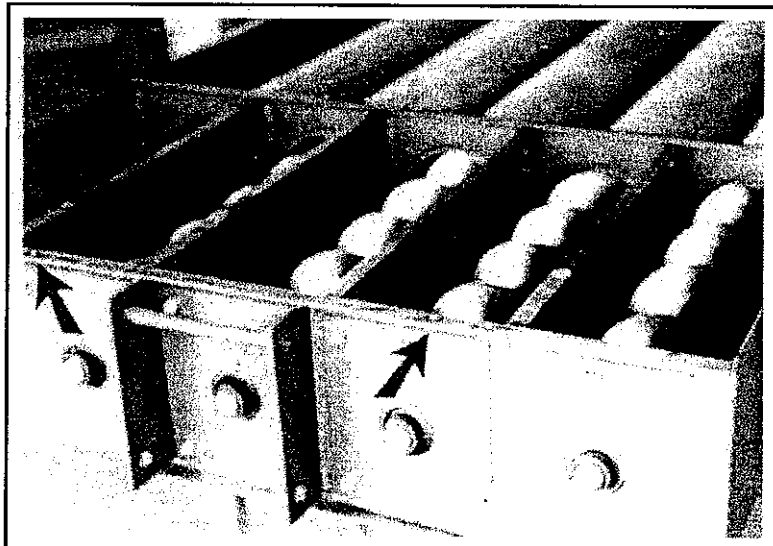
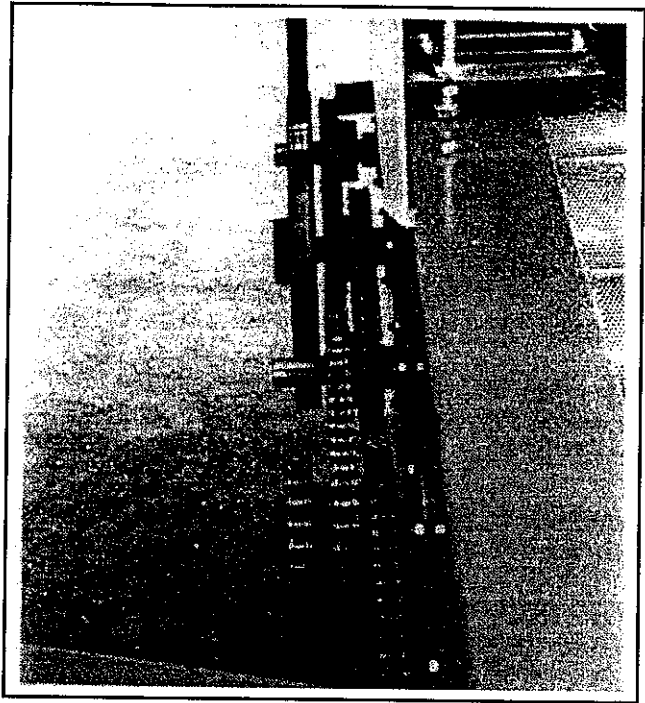


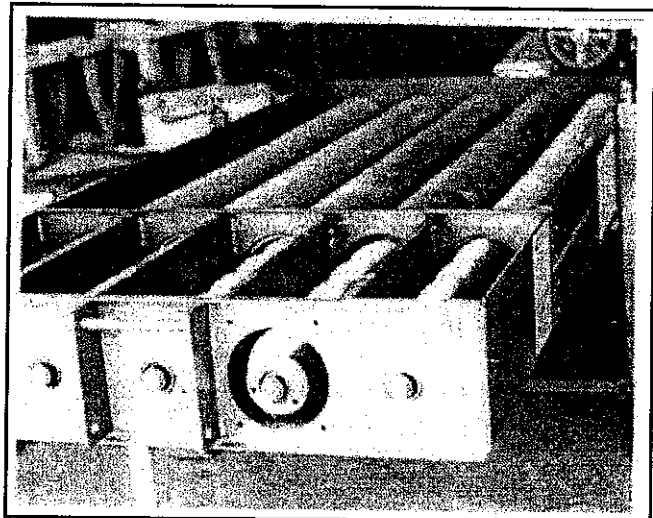
Fig. 32 HOPPER REMOVED

8. Remove drive chain and sprocket from auger shaft. Loosen locking collar on bearing on discharge end of auger.



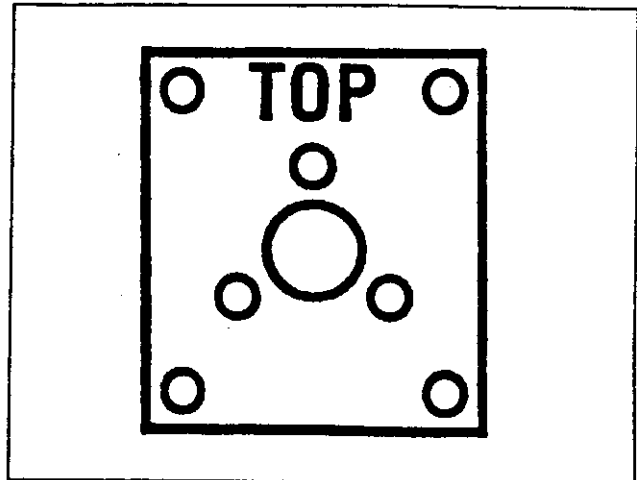
**Fig. 33 CHAIN AND SPROCKETS**

9. Remove the 4 bearing plate mounting bolts.
10. Remove the 3 bearing flange bolts.



**Fig. 34 AUGER END**

11. Pull the auger out of the machine.
12. Remove the bearing from the auger.
15. Install the bearing on the replacement auger.
16. Slide the auger into the machine and secure with mounting bolts.
17. Install bearing plate with a bearing flange bolt pointing up. Lift up on bearing plate while securing four bolts.



**Fig. 35 BEARING PLATE**

18. Repeat with the other augers.
19. Install and secure the hopper.
20. Install the hitch pole.
21. Remove the safety stand.

## 6 TROUBLE SHOOTING

The Triangle Industries Kwik Kleen grain cleaner uses a series of augers to move grain through tubular screens for cleaning. It is a simple system that requires minimal maintenance.

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

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

PROBLEM	CAUSE	SOLUTION
Machine doesn't run.	No power.	Connect and start power supply.
		Check reset button on electric motor.
<hr/>		
Cracked grain.	Running too fast.	Slow machine down.
	Screen too large.	Replace screen to one with smaller openings.
	Angle too steep.	Lower machine angle.
	Wrong auger.	Change to brush auger.
<hr/>		
Grain not clean.	Running too slow.	Increase machine speed.
	Angle too shallow.	Increase angle of machine.
	Wrong auger.	Change to metal flighting auger.
	Screen too small.	Replace screen to one with larger openings.

## 7 ASSEMBLY

An optional tailings auger is available to attach to the cleaner and is used to take away the material removed from the grain. To install on the machine, follow this procedure:

1. Clear the area of bystanders especially small children.
2. Assemble the drive motor per the instructions supplied with the auger.
3. Move the cleaner into an area free of overhead power lines or obstructions.
4. Mount the retaining brackets on the frame. Two brackets are supplied, so tailings auger can be mounted on either side depending on the work site layout.

5. Lift the auger into position on the retaining bracket.



### DANGER

Stay away from overhead electrical lines.  
Electrocution can occur without direct contact.

6. Align the auger intake with the machine discharge outlet.
7. Install the retainer to secure in position.
8. Move the machine into its working position.
9. Route the hydraulic hoses or extension cord to the control panel or source of power. Secure with clips or ties to prevent damage.

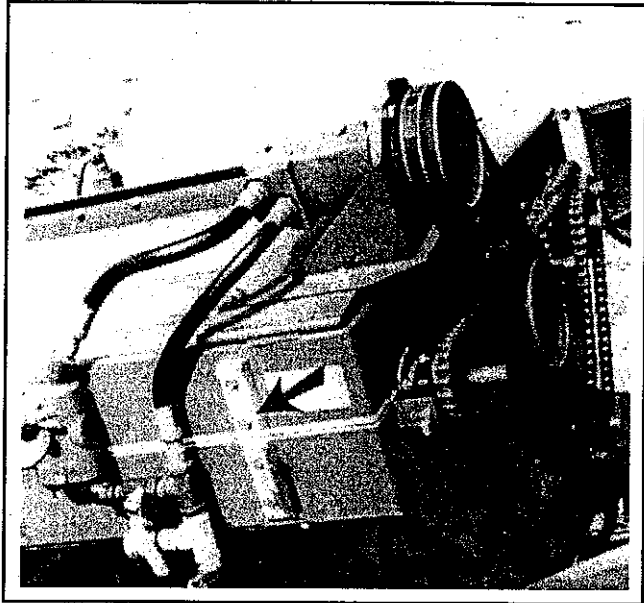


Fig. 36 RETAINING BRACKET

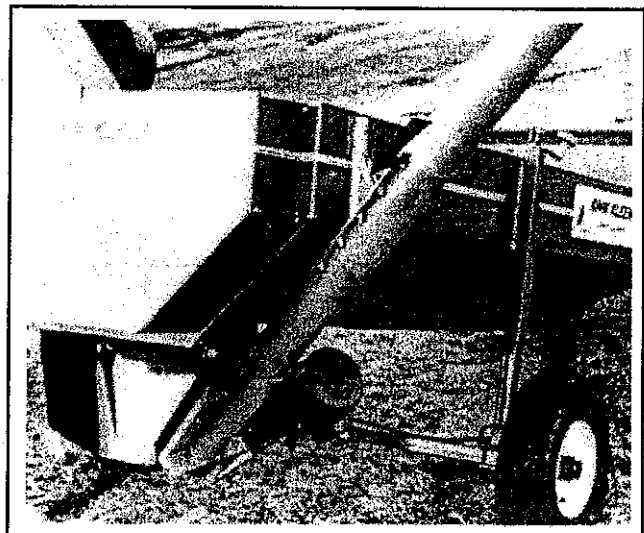


Fig. 37 RETAINER

## 8 SPECIFICATIONS

### 8.1 MECHANICAL

5 H.P. 230 volt motor.

Variable speed drive pulley on electric motor.

Adjustable feed gate.

Height and leveling adjustment.

Six standard screen sizes available - 7/64, 1/8, 5/32, 3/16, 1/4, 1/8 x 3/4 slot.

Special sizing screens available upon request.

Heavy gauge unitized construction.

Low profile.

Hydraulic drive. (Optional).

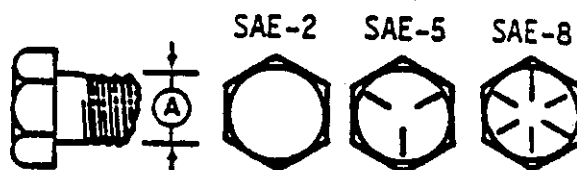
## 8.2 BOLT TORQUE

### 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"	SAE 2		Bolt Torque *		SAE 8	
	N.m	(lb-ft)	SAE 5 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	(70)	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)



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.

## 8.3 HYDRAULIC FITTING TORQUE

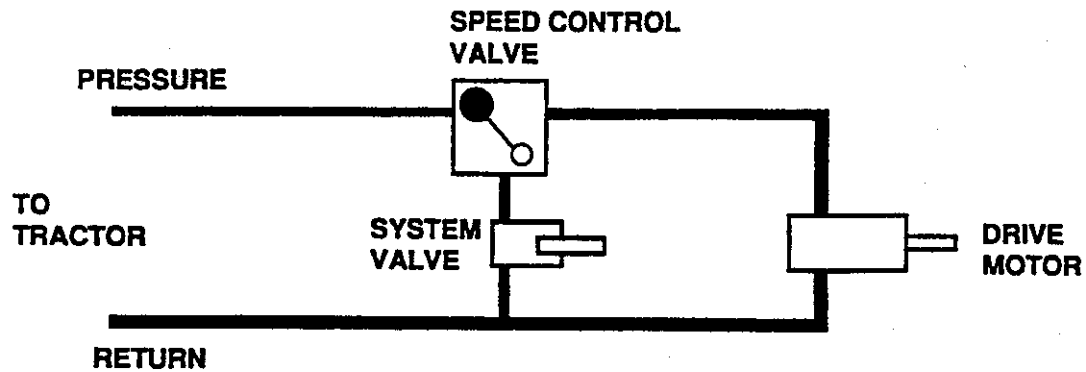
### TIGHTENING FLARE TYPE TUBE FITTINGS \*

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

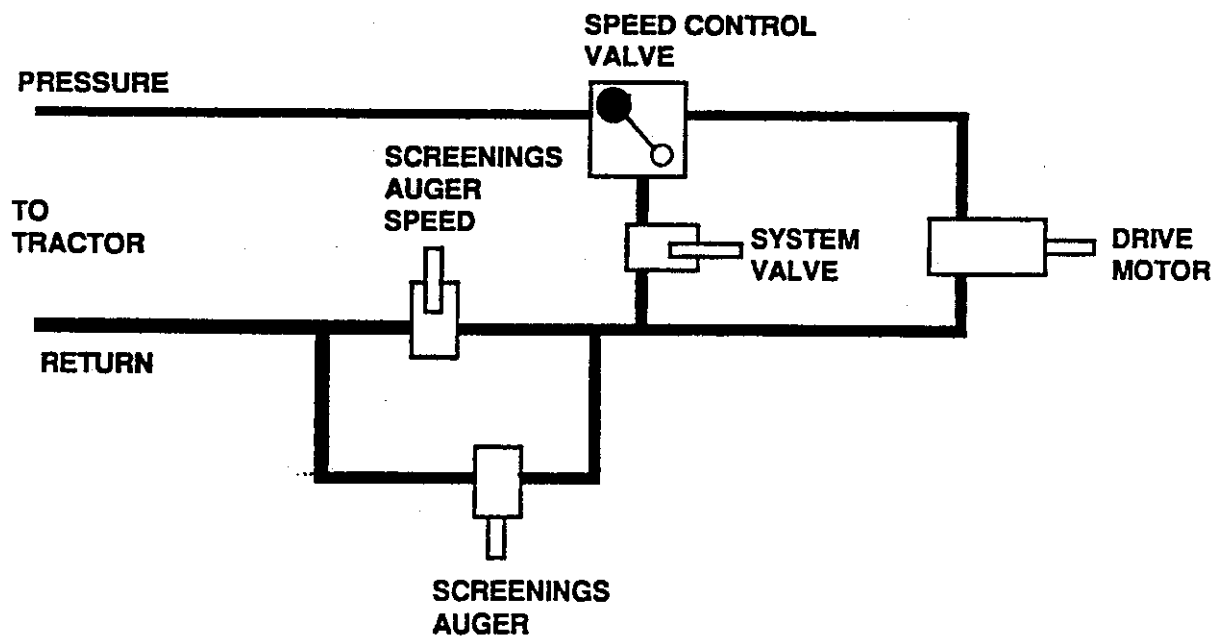
Tube Size OD	Nut Size Across Flats	Torque Value*		Recommended Turns to Tighten (After Finger Tightening)	
		(N.m)	(lb-ft)	(Flats)	(Turns)
3/16	7/16	8	6	1	1/6
1/4	9/16	12	9	1	1/6
5/16	5/8	16	12	1	1/6
3/8	11/16	24	18	1	1/6
1/2	7/8	46	34	1	1/6
5/8	1	62	46	1	1/6
3/4	1-1/4	102	75	3/4	1/8
7/8	1-3/8	122	90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

## 8.4 HYDRAULIC SCHEMATIC

### HYDRAULIC DRIVE



### HYDRAULIC DRIVE WITH TAILINGS AUGER



## **9 PARTS LIST**

This manual contains a parts list for your machine. It is divided into major sections which correspond to the groups shown in the Table of Contents and the accompanying illustration.

The first page of each major section lists the contents of that section, each of which consists of exploded views and related tabular listings.

### **WHEN ORDERING PARTS**

Always give your dealer the Model and Serial Number of your machine to assist him in ordering and obtaining the correct parts. Use the exploded view and tabular listing to exactly identify the required part.

### **USING THE MANUAL**

Parts data consists of exploded view illustrations and associated parts list tables which are read as follows:

#### **ITEM**

The item number is the identifier number from the illustration. For example, number 3 on an illustration points to a component which is item 3 on the accompanying table.

#### **PART NUMBER**

The part number is the seven digit number by which the component may be identified and ordered from Triangle Industries and its network of dealers.

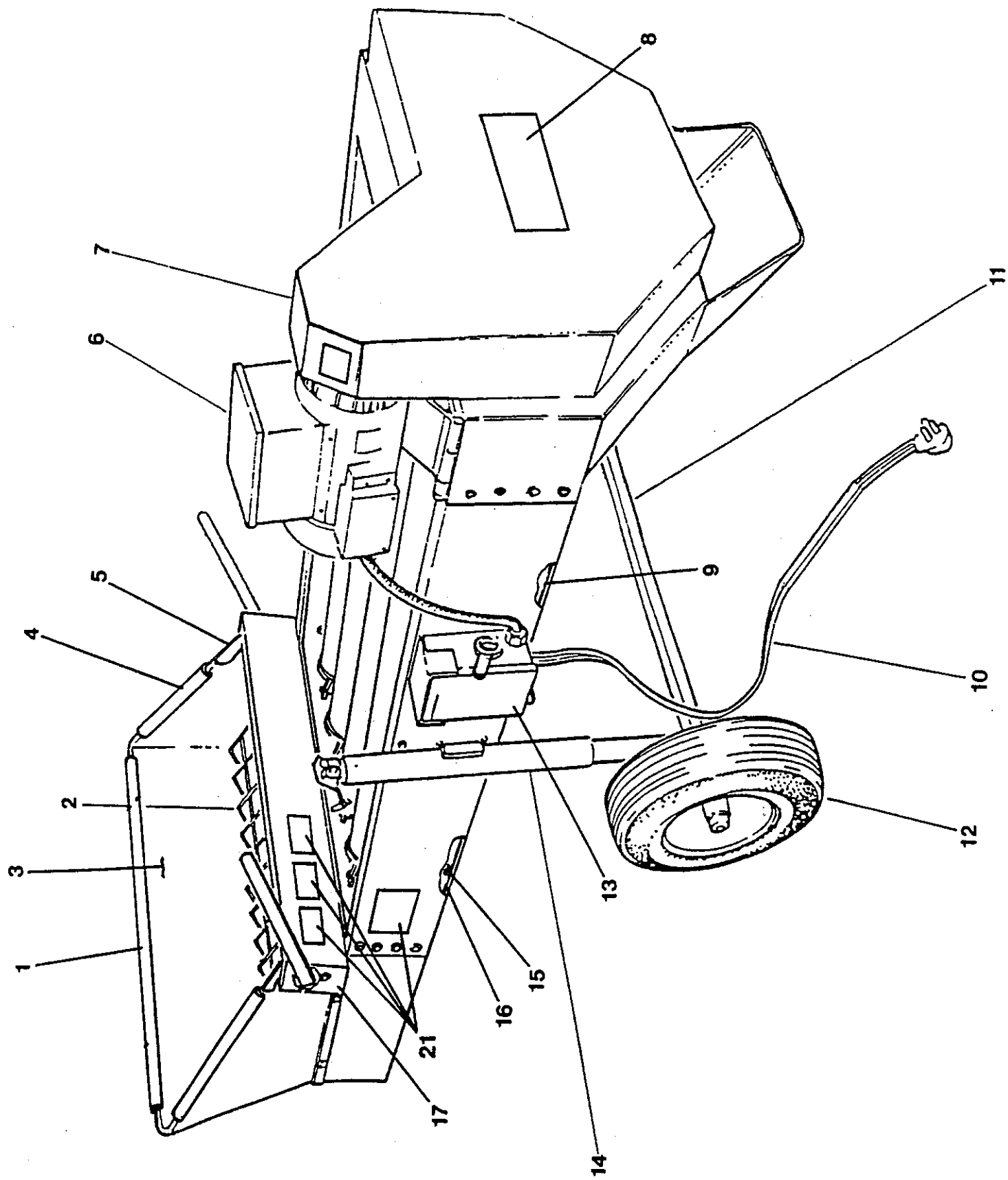
#### **DESCRIPTION**

This column contains the name and description of the part.

#### **QUANTITY**

This column shows the quantity of each part used on the machine.

MODEL 572 GRAIN CLEANER

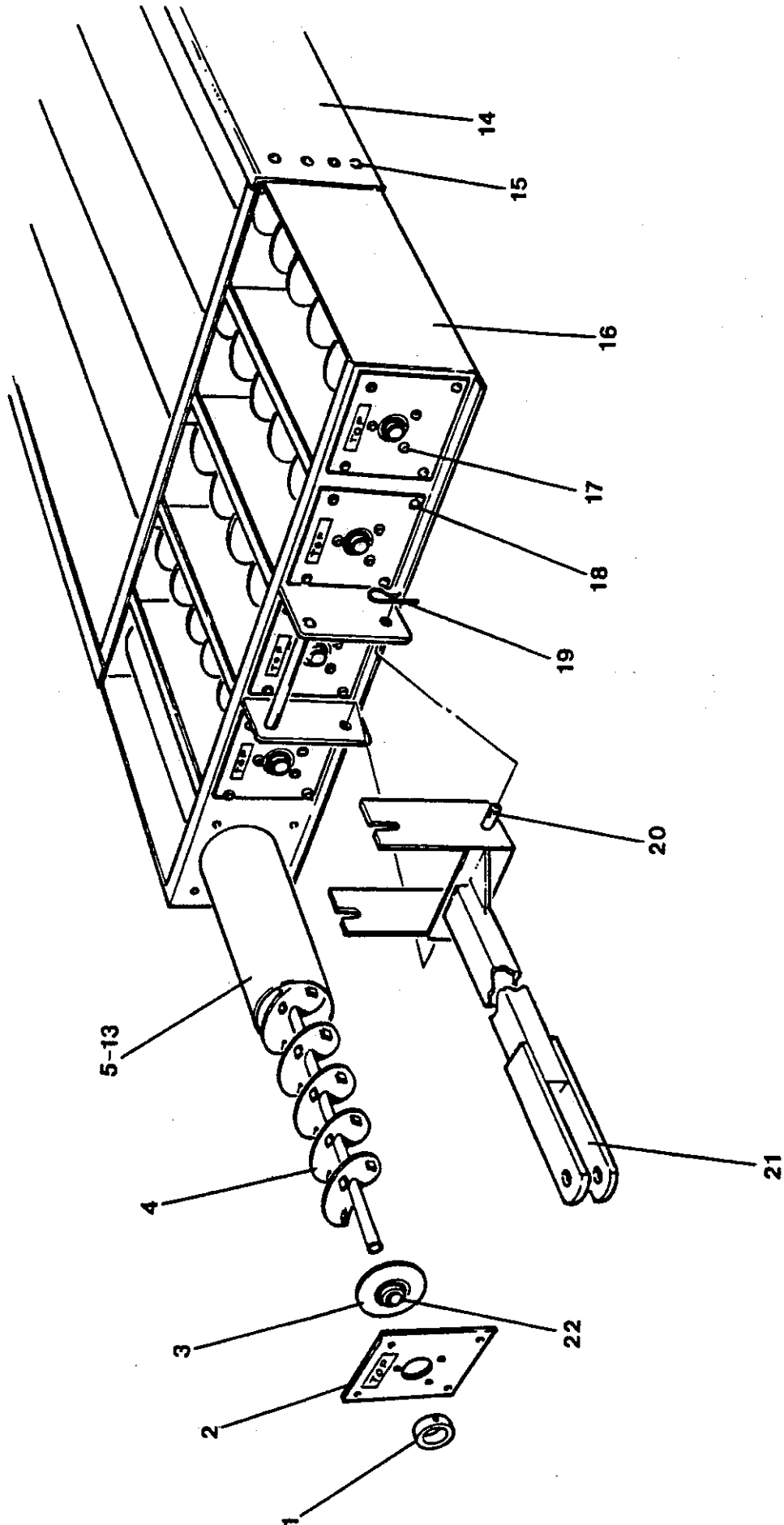


# MODEL 572 GRAIN CLEANER

ITEM NO.	PARTS NO.	DESCRIPTION	QTY.
1	TRS1084	PROTECTOR, EDGE - HOPPER	1
2	TRA1100	GUARD, SAFETY	1
3	TRP0041	CANVAS, HOPPER	1
4	TRS1085	PROTECTOR, SIDE - HOPPER	2
5	TRS1040	BAR, SUPPORT - CANVAS	1
6	TRP0024	MOTOR, ELECTRIC - 5 HP 1 PH 220V	1
7	TRA1118	SHIELD, COMPLETE	1
8	TRP0012	DECAL, NAME - KWI K KLEEN	1
9	TRA1009	HOPPER, TAILINGS - FRONT	1
10	TRP0046	PIG TAIL, 4'	1
11	TRA1081	AXLE	1
12	TRP0014	TIRE & WHEEL, 570 X 8-4 HOLE	2
13	FTRP0025	BOX, DISCONNECT - # CNFR 222	1
14	TRP1080	JACK	2
15	TRS1074	LINER, PLASTIC	2
16	TRS1011	HOPPER, TAILINGS - BACK	1
17	TRA1117	HOPPER EXTENSION, COMPLETE	1
18*	TRS1021	PLATE, AXLE MOUNT	2
19*	TRS1053	STRAP, SIDE - CANVAS	2
20*	TRS1054	STRAP, BACK - CANVAS	1
21	TRP0075	DECAL KIT, COMPLETE	1
	CONSISTS OF		
	TRP0065	CAUTION - GENERAL SAFETY	
	TRP0073	WARNING - HIGH PRESSURE FLUID	
	TRP0068	WARNING - ROTATING FLIGHTING	
	TRP0066	WARNING - ROTATING PART	
	TRP0070	DANGER - ELECTROCUTION (OVERHEAD)	
	TRP0067	WARNING - MISSING SHIELD	
	TRP0069	DANGER - ELECTROCUTION (WIRING)	

\* NOT SHOWN ON DIAGRAM

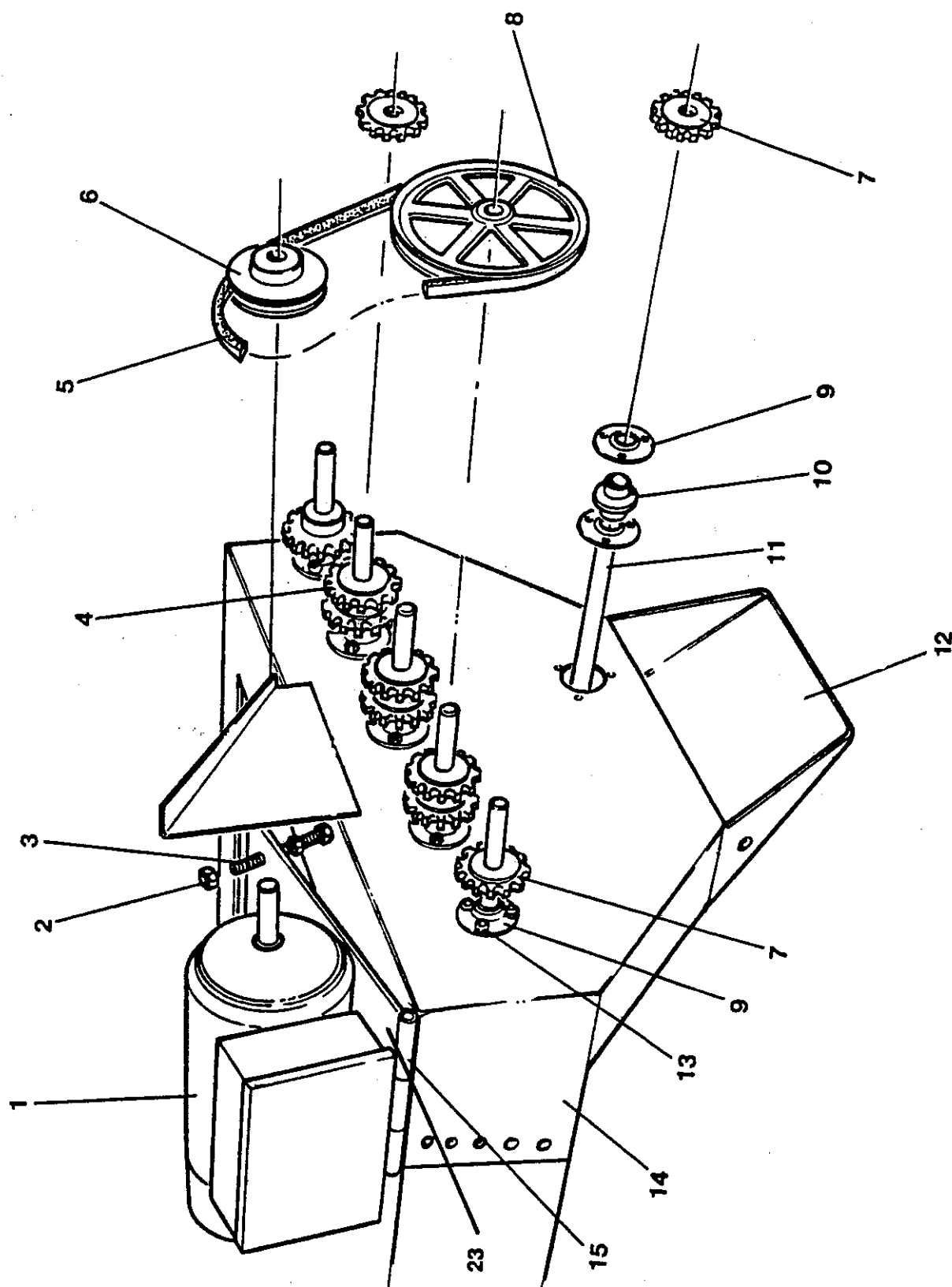
# HOPPER & CLEANING COMPONENTS



# **HOPPER & CLEANING COMPONENTS**

<u>ITEM NO.</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	TRP0076	COLLAR, LOCKING - 1"	-
2	TRS1082	PLATE, MOUNT-BEARING	3
3	TRP0019	FLANGE, MOUNT-BEARING	24
4	TRA1012	AUGER - 94	3
5	TRS1101	SCREEN, 7/64 DIA (Small Grain/Rice)	-
6	TRS1102	SCREEN, 1/8 DIA (Small Grain/Soybean)	5
7	TRS1103	SCREEN, 5/32 DIA (Soybean/Sunflower)	-
8	TRS1104	SCREEN, 3/16 DIA (Soybean/Corn/Sunflower)	-
9	TRS1105	SCREEN, 1/4 DIA (Corn/Confectionary Sunflowers)	-
10	TRS1106	SCREEN, 3/8 DIA (Size Confectionary Sunflowers)	-
11	TRS1107	SCREEN, 3/32 X 3/4 SLOT (Size Barley)	-
12	TRS1108	SCREEN, 7/64 X 3/4 SLOT (Size Barley)	-
13	TRS1109	SCREEN, 1/8 X 3/4 SLOT ( Corn/Beans)	-
14	TRS1001	FRAME, SIDE	2
15	TRF0033	CAPSCREW, HEX HD - 3/8-16 X 1	16
16	TRA1038	HOPPER, GRAIN	1
17	TRF0028	BOLT, CARRIAGE - 5/16-18 X 3/4	42
18	TRF0029	CAPSCREW, HEX HD - 5/16-18 X 3/4	36
19	TRP0023	CLIP, HAIRPIN - # 11	1
20	TRS1052	PIN, HITCH - REMOVABLE	1
21	TRA1046	HITCH	1
22	TRP0018	BEARING, BALL - 1"	12

# DRIVE COMPONENTS



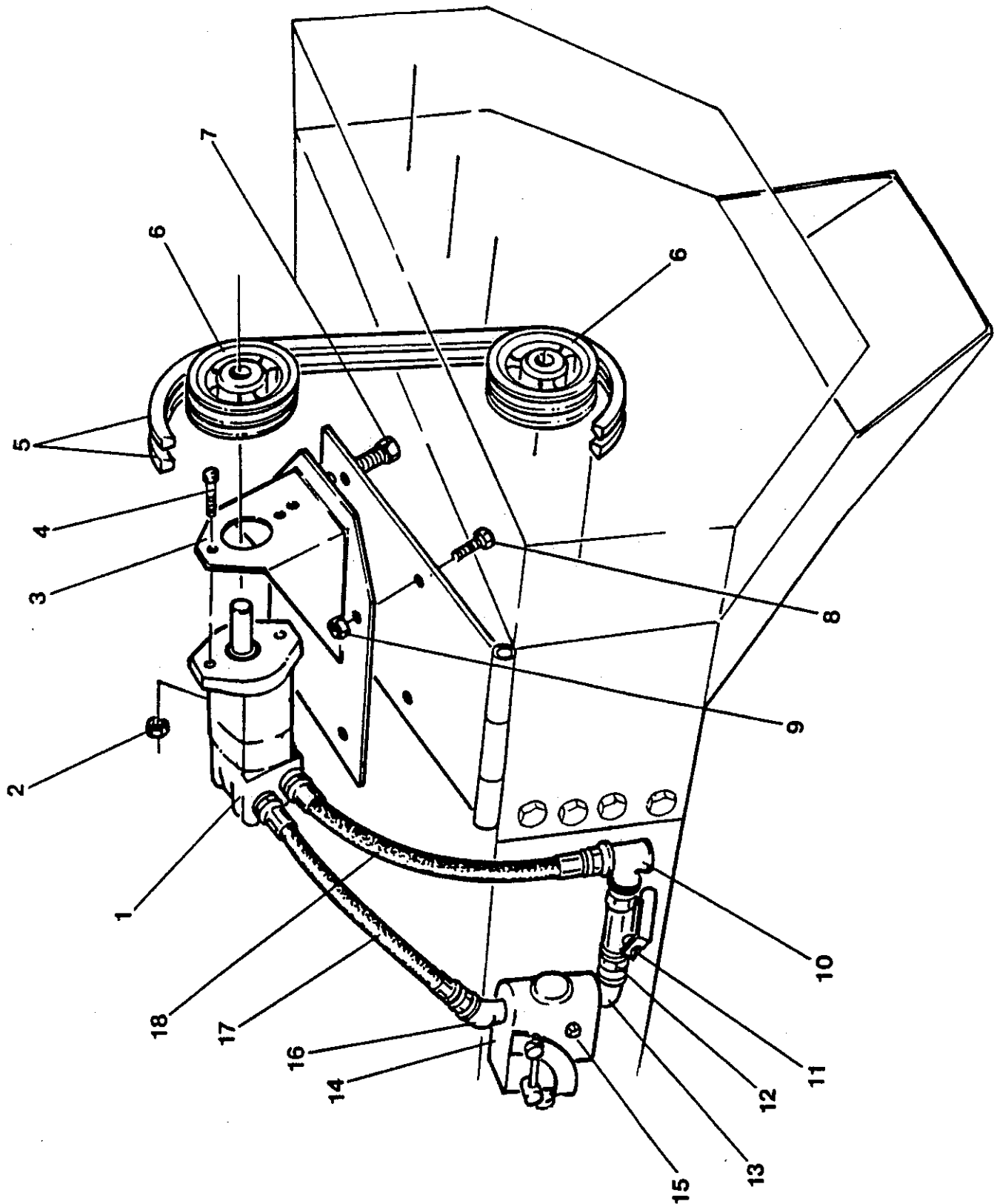
# DRIVE COMPONENTS

<u>ITEM NO.</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	TRP0024	MOTOR, ELECTRIC - 5 HP 1 PHASE	1
2	TRF0003	NUT, JAM - 5/8	3
3	TRA1033	BOLT, BELT ADJ	1
4	TRA1075	SPROCKET, DOUBLE	1
5	TRP0022	BELT, V-B48	1
6	TRP0021	FPULLEY VARIABLE	1
7	TRA1077	SPROCKET, SINGLE	4
8	TRP0020	PULLEY, 12 INCH	1
9	TRP0019	FFLANGE, MOUNT - BEARING	24
10	TRP0018	BEARING, BALL - 1"	12
11	TRA1016	AUGER, 61	1
12	TRS1061	SPOUT, GRAIN - CLEAN	1
13	TRF0028	BOLT, CARRIAGE - 5/16-18 X 3/4	42
14	TRA1079	HEAD, BEARING SUPPORT	1
15	TRS1032	PIN, HINGE	1
16*	TRF1034	WASHER, FLAT - 1"	1
17*	TRP0035	COLLAR, SET - 1"	1
18*	TRS1096	CHAIN, ROLLER - 27 1/2" LONG	4
19*	TRS1097	CHAIN, ROLLER - 37" LONG	1
20*	TRP0032	LINK - CONNECTOR - # 50	5
21*	TRF0036	SCREW, SET 3/8 X 5/16	7
22*	TRS1095	KEY, SQUARE	3
23	TRA1119	PLATE, MOTOR MOUNTING	1
24**	TRP0079	PULLEY, VARIABLE	
25**	TRP0080	PULLEY, DOUBLE - 12"	

\* NOT SHOWN ON DIAGRAM

\*\* OPTIONAL DOUBLE PULLEY DRIVE - REPLACES ITEMS 6 AND 8  
NOT SHOWN ON DIAGRAM

# HYDRAULIC DRIVE COMPONENTS



# HYDRAULIC DRIVE COMPONENTS

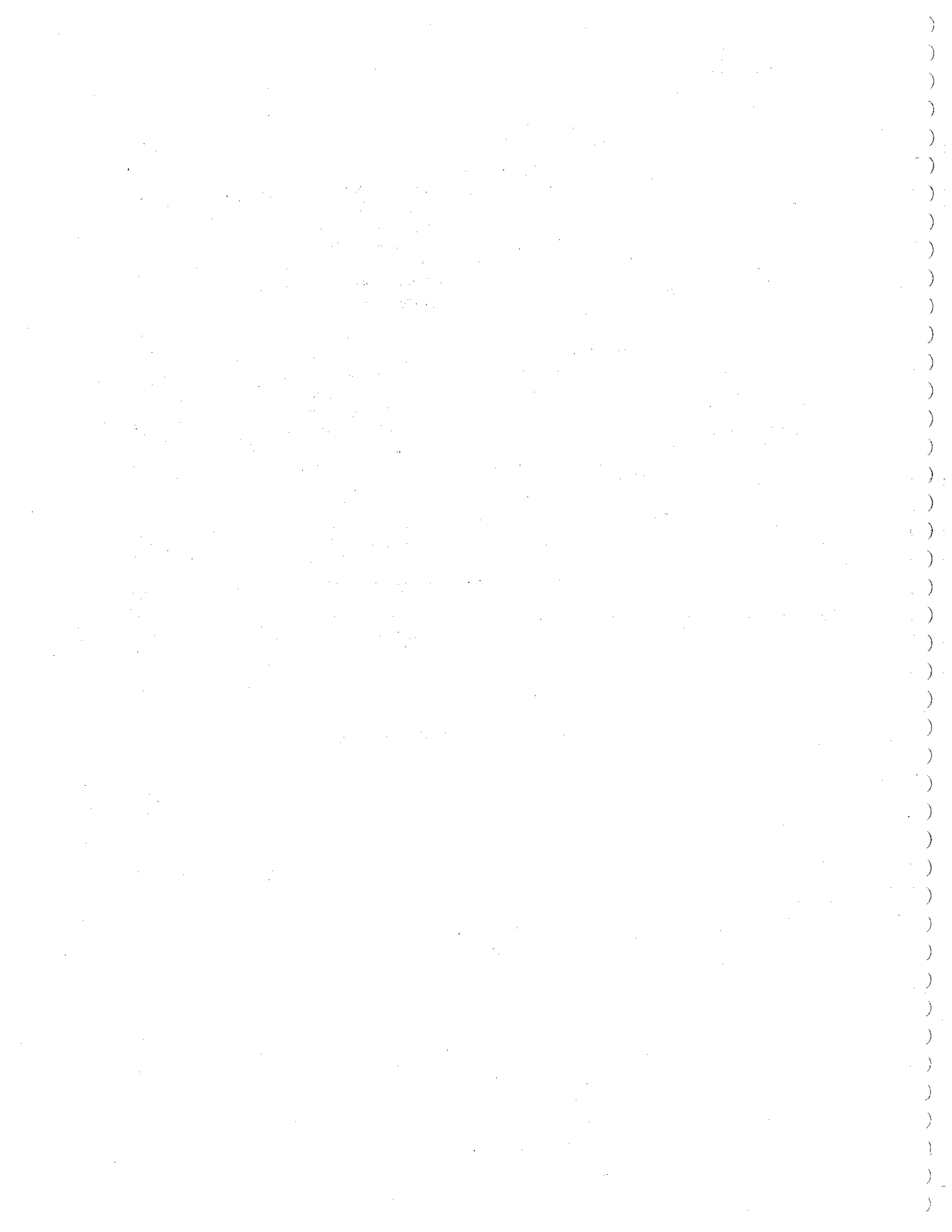
<u>ITEM NO.</u>	<u>PARTS NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
1	TRP0049	MOTOR, HYD	1
2	TRF0060	NUT, 1/2-13	2
3	TRA1064	MOUNT - HYD MOTOR	1
4	TRF0059	BOLT, 1/2-13 X 1 1/2	2
5	TRP0058	DBELT, V-B41	2
6	TRP0057	PULLEY, DOUBLE	2
7	TRA1033	BOLT, BELT ADJ	1
8	TRF0033	CAPSCREW, HEX HD - 3/8-16 X 1	16
9	TRF0030	NUT, 3/8-16	
10	TRP0052	TEE, PIPE	1
11	TRP0051	VALVE, SHUT OFF	1
12	TRP0056	NIPPLE, 1/2 X 1"	2
13	TRP0053	STREET ELBOW, 90 DEGREE	1
14	TRP0050	CONTROL, FLOW	1
15	TRF0061	BOLT, 1/4-20 X 2 1/2	2
16	TRP0077	STREET ELBOW, 45 DEGREE	1
17	TRP0055	HOSE, HYDRAULIC - 18"	1
18	TRP0054	HOSE, HYDRAULIC - 16"	1

# 10 INDEX

A	PAGE
Assembly .....	36
I	
Introduction .....	1
O	
Operation .....	10
Attaching/Unhooking To Towing Vehicle ..	15
Break-In .....	12
Controls .....	13
Machine Components .....	11
Operating .....	16
Pre-Operation Checklist .....	12
Storage .....	23
To The New Operator Or Owner .....	10
Transporting .....	22
P	
Parts List .....	41

S	PAGE
Safety .....	2
General Safety .....	3
Hydraulic Safety .....	5
Maintenance Safety .....	4
Operating Safety .....	4
Safety Decals .....	6
Sign-Off Form .....	7
Storage Safety .....	6
Tire Safety .....	6
Transport Safety .....	5
Safety Decal Locations .....	8
Service and Maintenance .....	24
Maintenance .....	28
Auger Replacement .....	32
Belt Drive Tension .....	28
Changing Speed (Electric Drive) .....	29
Screen Replacement .....	30
Service .....	24
Fluids and Lubricants .....	24
Greasing .....	24
Service Record .....	27
Servicing Intervals .....	25
Specifications .....	37
Bolt Torque .....	38
Hydraulic Fitting Torque .....	39
Hydraulic Schematic .....	40
Mechanical .....	37

T	
Trouble Shooting .....	35



**TRIANGLE INDUSTRIES  
805 SUNFLOWER AVENUE  
COOPERSTOWN, ND 58425**

