

# **BH100 Bean Harvester**

(For Serial No. PPI-419388 through PPI-\_\_\_\_\_)



## **Operator's and Parts Mnaual**

**Pixall  
100 Bean Street  
Clear Lake, WI 54005**

**Phone: (715) 263-2112  
Fax: (715) 260-3324**

**91198**  
*(Updated 5-27-2010)*



# Table of Contents

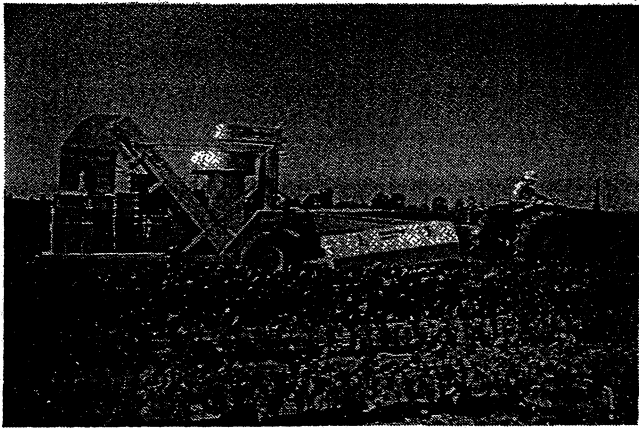
|                                |           |                                 |           |
|--------------------------------|-----------|---------------------------------|-----------|
| <b>Introduction</b>            | <b>1</b>  | <b>Preoperation</b>             | <b>39</b> |
| <b>General Information</b>     | <b>4</b>  | PREVENTATIVE MAINTENANCE        | 39        |
| SERIAL NUMBER AND LOCATION     | 4         | PREOPERATION CHECKLIST          | 40        |
| SERVICE INFORMATION            | 5         | LUBRICATION INFORMATION         | 41        |
|                                |           | Roller Chain                    | 41        |
|                                |           | Sealed Bearings                 | 41        |
| <b>Specifications</b>          | <b>6</b>  | LUBRICATION POINTS              | 42        |
| DIMENSIONS AND WEIGHTS         | 6         | LUBRICATION LOCATIONS - GREASE  | 43        |
| PICKING SYSTEM                 | 6         | LUBRICATION LOCATIONS - OIL     | 44        |
| CLEANING SYSTEM                | 6         | LUBRICATION SCHEDULE            | 45        |
| CONVEYORS                      | 6         |                                 |           |
| REAR BAGGING PLATFORM          | 6         | <b>Field Setup</b>              | <b>46</b> |
| HYDRAULIC SYSTEM               | 6         | ATTACHING THE HARVESTER         |           |
| TRACTOR REQUIRED               | 6         | TO THE TRACTOR                  | 46        |
| LUBRICATION                    | 6         | ATTACHING THE HARVESTER         |           |
| OPTIONS                        | 6         | TO THE STATIONARY DRAWBAR       | 46        |
| PIXALL® HARDWARE               |           | HYDRAULIC ATTACHMENT            | 47        |
| TORQUE STANDARDS               | 7         | LIFTING MECHANISM               | 48        |
|                                |           | RAISE THE PICKING REEL ASSEMBLY | 49        |
|                                |           | GROUND CLEARANCE                | 50        |
|                                |           | LOWER THE PICKING REEL ASSEMBLY | 51        |
|                                |           | CHECK MOVING PARTS              | 52        |
|                                |           | BAG ATTACHMENT                  | 53        |
|                                |           | SELECTOR LEVER FUNCTION         | 54        |
|                                |           |                                 |           |
|                                |           | <b>Adjustments</b>              | <b>55</b> |
|                                |           | REEL CLUTCH                     | 55        |
|                                |           | CONVEYOR/ELEVATOR BELTS         | 56        |
|                                |           | REEL                            | 58        |
|                                |           | AIR GATES                       | 59        |
|                                |           | VARI-SPEED FAN DRIVER           |           |
|                                |           | (HAND WHEEL)                    | 60        |
|                                |           | FAN DISCHARGE                   | 62        |
|                                |           | PTO COUNTER SHAFT               |           |
|                                |           | CHAIN TIGHTENERS                | 63        |
|                                |           |                                 |           |
|                                |           | <b>Field Operation</b>          | <b>64</b> |
|                                |           | TURNING THE HARVESTER           | 64        |
|                                |           | ALIGNING THE ROW                | 65        |
|                                |           | ROW DIVIDER/VINE LIFTER         |           |
|                                |           | ADJUSTMENT                      | 66        |
|                                |           | WHEEL ADJUSTMENT                | 67        |
|                                |           | PICKING REEL SPEED              | 68        |
|                                |           | FORWARD PICKING SPEED           | 69        |
|                                |           | OPERATORS TIPS                  | 70        |
|                                |           |                                 |           |
|                                |           | <b>Field Maintenance</b>        | <b>71</b> |
|                                |           | FREQUENT CHECKS                 | 71        |
|                                |           | CLEANOUT TUBE AND GRATE         | 72        |
|                                |           | CLIPPER LACING                  | 73        |
|                                |           | PICKING FINGERS                 | 74        |
|                                |           |                                 |           |
| <b>Theory of Operation</b>     | <b>24</b> |                                 |           |
| CROP PATH                      | 24        |                                 |           |
| POWER TRANSMISSION             | 26        |                                 |           |
|                                |           |                                 |           |
| <b>Assembly/Setup</b>          | <b>29</b> |                                 |           |
| ASSEMBLY AFTER SHIPMENT        | 29        |                                 |           |
| UNPACKING THE HARVESTER        |           |                                 |           |
| AFTER SHIPMENT                 | 30        |                                 |           |
| BAGGER PLATFORM ASSEMBLY       | 32        |                                 |           |
| ELEVATOR ASSEMBLY INSTALLATION | 36        |                                 |           |
| CONVEYOR/ELEVATOR              |           |                                 |           |
| BELT ADJUSTMENT                | 38        |                                 |           |

# Table of Contents

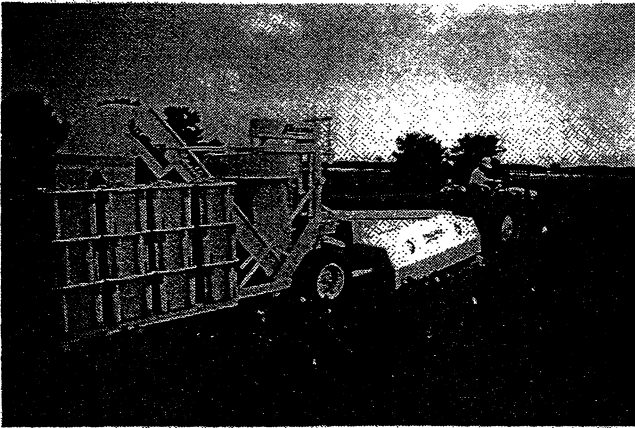
|   |           |
|---|-----------|
| <b>Cleaning and Storing</b>                             | <b>75</b> |
| CLEANING THE HARVESTER.....                             | 75        |
| STORING THE HARVESTER.....                              | 75        |
| <b>Warranty Information</b>                             | <b>76</b> |
| PIXALL® LIMITED WARRANTY.....                           | 76        |
| <b>Service Parts List</b>                               | <b>79</b> |
| MAIN FRAME .....  | 80        |
| POWER TAKE-OFF .....                                    | 82        |
| COUNTER SHAFT<br>AND FAN GEARBOX.....                   | 84        |
| FAN DRIVE<br>AND SUCTION LEG ASSEMBLY .....             | 86        |
| PICKING HEAD ASSEMBLY .....                             | 88        |
| REEL AND STRIPPER ASSEMBLY.....                         | 90        |
| EIGHT FOOT ELEVATOR .....                               | 92        |
| BAGGER PLATFORM.....                                    | 94        |
| FAN DRIVE GEARBOX.....                                  | 96        |
| CONVEYOR DRIVE GEARBOX.....                             | 98        |
| FAN VARI-SPEED SHEAVES -<br>DRIVER PULLEY ASSEMBLY..... | 100       |
| FAN VARI-SPEED SHEAVES -<br>DRIVEN PULLEY ASSEMBLY..... | 101       |
| OUTSIDE ROW DIVIDER KIT.....                            | 102       |



# Introduction



**BH100 Bean Harvester** revolutionized fresh market snap bean production more than two decades ago when it became the first mechanical harvester to deliver "hand picked" quality green beans. *Today, the sun never sets on the Pixall® BH100 Bean Harvester...hundreds are in use around the globe.*



# Introduction

The Pixall® BH100 Bean Harvester you have purchased is the most efficient harvester for fresh market green beans. Properly operated, it will harvest approximately one third acre per hour with a minimum of damage to the product and the maximum removal of debris.

What does this mean? The Pixall BH100 Bean Harvester is a high quality, low maintenance harvester that brings in a clean, quality crop.

This manual furnishes information and instructions that will help achieve years of dependable performance. These operation, adjustment, and maintenance instructions have been compiled from extensive field experience and engineering data. Some information may be general in nature due to varying conditions.

The adequate lubrication, proper adjustment and maintenance practices are the most cost effective way to extend the life expectancy of the harvester, create trouble free operation, and decrease horsepower requirements.

**IMPORTANT:** *Do not operate your new Pixall BH100 Bean Harvester without first carefully reading and understanding the Operator's manual. This will help to ensure that you obtain top efficiency and the most from your investment. The performance of your harvester depends on how well you understand the personal safety issues and follow these instructions. Study this manual carefully, regardless of any previous experience with bean harvesters.*

All illustrations in this manual are of a production machine, but due to possible in-line production changes, machines may vary slightly in detail. Pixall reserves the right to redesign and change the machine, as may be necessary, without notification.



## DANGER

Safety guards and protective shielding may be shown removed in this manual. **NEVER** operate the harvester with the safety guards or protective shielding removed. Close or replace all shielding before operating the harvester. An **IMMEDIATE HAZARD** exists which **WILL** result in a high probability of **DEATH** or **SEVERE PERSONAL INJURY** if the warning is ignored and proper safety precautions are not taken.



## DANGER

Make sure that everyone is clear of the harvester while the engine is running and that the operator understands and is familiar with all controls before attempting field operations. **DEATH, SEVERE PERSONAL INJURY, or substantial PROPERTY DAMAGE CAN occur.**

If any **questions** arise while reading this manual, contact a Pixall dealer and/or representative at **1-800-628-6196**. They will be happy to answer any questions regarding the harvester.

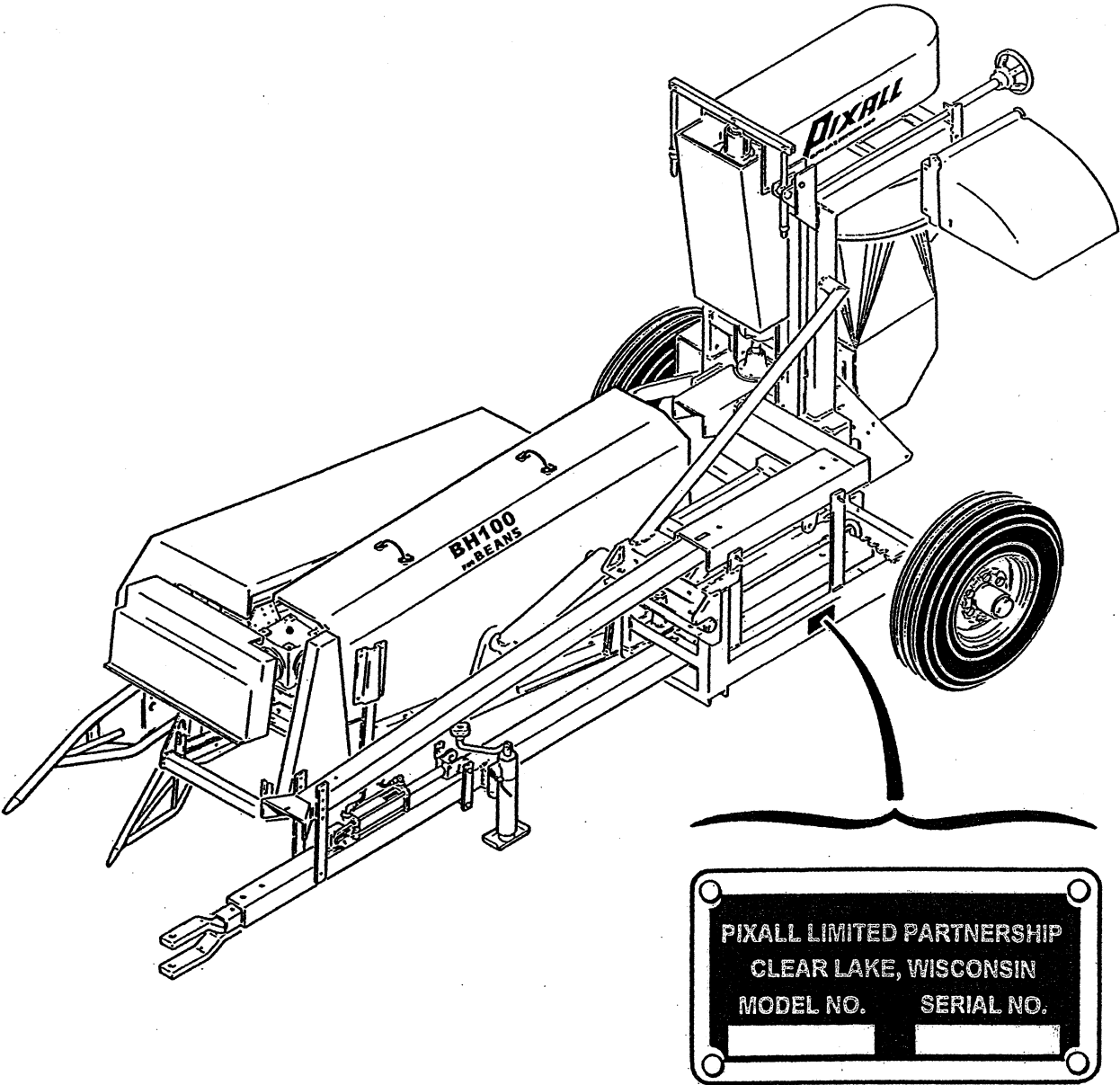


# General Information

## SERIAL NUMBER AND LOCATION

The serial number provides vital information about the BH100 Bean Harvester, identifying the individual machine, as well as the make, model, and year of production. To quickly obtain correct replacement parts for your harvester, supply the dealer with your serial number. For convenience, copy the serial number of your machine and carry it with you.

The serial number is located on the left side of the main frame.



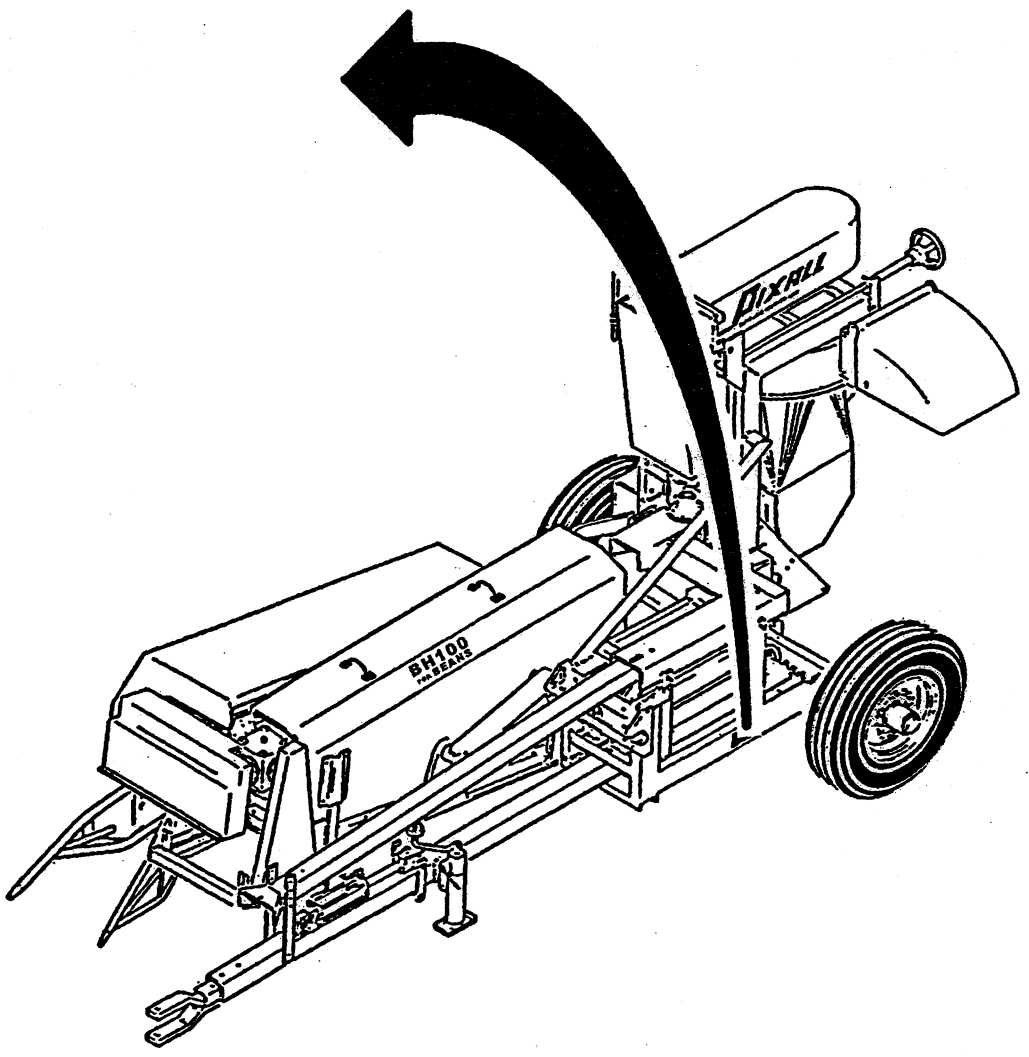
Model and Serial Number Nameplate Location

# General Information

## SERVICE INFORMATION

Consult your Pixall® Dealer for assistance and replacement parts. For quick reference when ordering parts, record the serial number in the space below and furnish to the dealer when ordering parts.

SERIAL NUMBER: PP1 - \_\_\_\_\_ - \_\_\_\_\_



# Specifications

## DIMENSIONS AND WEIGHTS

**Length:** Assembled: 24 ft. 8 in. (7.52 m)  
Knocked Down for  
Shipment: 14 ft. (4.27 m)

**Height:** 7 ft. 6 in. (2.29 m)

**Width Minimum:** 5 ft. 11 in. (1.80 m)

**Track:** Adjustable in 2 in. (5.1 cm) increments

Without Long Axle: 64-70 in. (1.63-1.78 m)  
With Long Axle: 74-80 in. (1.88-2.03 m)

**Weight:** Approx. 3,800 lbs. (1727 kg)

**Tire Size:** 11 L x 15

**Tire Inflation:** 32 psi

**Hitch:** Clevis Type With 4 Position Adjustable  
Offset Tongue

## PICKING SYSTEM

Picking Reel - 10 Bar  
2 ft. (.61 m) Diameter at Tips of Picking Fingers  
9 Picking Fingers Per Reel Bar  
17 Reel Strippers  
Reel Brush - 6 ft. (1.83 m) Long  
Standard Outside Row Divider  
40 Tooth Reel Drive Sprocket

## CLEANING SYSTEM

Single Stage Fan:  
27 in. (.69 m) Diameter  
Mechanical Drive  
Speed Adjustable by Hand

## CONVEYORS

**Collector Conveyor:** 18 in. (.46 m) Wide

**Elevator Conveyor:** 18 in. (.46 m) Wide

## REAR BAGGING PLATFORM

**Length:** 5 ft. (1.52 m)

**Height:** 18 in. (.46 m)

**Width:** 6 ft. (1.83 m)

**Front Bag Storage Area:** 2 ft. 8 in. (.81 m)  
Long by 2 ft. 6 in. (.76 m) Wide

## HYDRAULIC SYSTEM

Double Action Cylinder - 3 in. (7.6 cm) Diameter  
by 8 in. (20.3 cm) Long

2 Hoses - 8 ft. (2.74 m) Long with  
1/2 in. NPT Male Thread

## TRACTOR REQUIRED

**Minimum Horsepower:** 40 hp (30 kW)

Power Take Off (PTO) - 540 RPM with  
1 3/8-6 Spline ASAE

Hydraulics to Power Auxiliary  
Hydraulic Cylinder

Stationary Draw Bar

## LUBRICATION

**Grease Fittings and Wheel Bearings:**  
Lithium Complex Thickened Grease - NLGI #2

Must meet NLGI classification GC/LB

**IMPORTANT:** *Compatibility problems may occur with other types of thickened grease.*

**Oil:** Fan Drive Gearbox - 5.25 pt. (1.24 liters)  
SAE #80 - #90 Gear Lube

Conveyor Drive Gearbox - 1.25 pt. (0.29 liters)  
SAE #80 - #90 Gear Lube

Must meet API-GL-5 and Mack GO-H

## OPTIONS

Longer Adjustable Left Axle  
48 Tooth Reel Drive Sprocket

# Specifications

## PIXALL® HARDWARE TORQUE STANDARDS

| BOLT SIZE/<br>THREAD | GRADE 5 (3 STAR) |               | GRADE 8 (6 STAR) |               |
|----------------------|------------------|---------------|------------------|---------------|
|                      | Ft-Lbs (Nominal) | N·m (Nominal) | Ft-Lbs (Nominal) | N·m (Nominal) |
| 1/4 - 20             | 7                | 9             | 10               | 14            |
| 1/4 - 28             | 9                | 12            | 11               | 15            |
| 5/16 - 18            | 14               | 19            | 19               | 26            |
| 5/16 - 24            | 15               | 20            | 20               | 27            |
| 3/8 - 16             | 24               | 33            | 35               | 47            |
| 3/8 - 24             | 28               | 38            | 38               | 51            |
| 7/16 - 14            | 39               | 53            | 56               | 76            |
| 7/16 - 20            | 43               | 58            | 64               | 87            |
| 1/2 - 13             | 59               | 80            | 83               | 113           |
| 1/2 - 20             | 71               | 96            | 91               | 123           |
| 9/16 - 12            | 83               | 113           | 118              | 160           |
| 9/16 - 18            | 91               | 123           | 133              | 180           |
| 5/8 - 11             | 114              | 155           | 163              | 221           |
| 5/8 - 18             | 136              | 184           | 179              | 243           |
| 3/4 - 10             | 208              | 282           | 292              | 396           |
| 3/4 - 16             | 240              | 325           | 322              | 437           |
| 7/8 - 9              | 305              | 414           | 468              | 635           |
| 7/8 - 14             | 337              | 457           | 513              | 696           |
| 1 - 8                | 500              | 678           | 705              | 956           |
| 1 - 12               | 552              | 748           | 782              | 1,060         |
| 1 1/8 - 7            | 603              | 818           | 964              | 1,307         |
| 1 1/8 - 12           | 663              | 899           | 1,084            | 1,470         |
| 1 1/4 - 7            | 843              | 1,143         | 1,371            | 1,859         |
| 1 1/4 - 12           | 943              | 1,279         | 1,507            | 2,043         |

# Safety

## SAFETY DEFINITIONS



This Safety-Alert Symbol appears throughout this manual and on the machine decals. Each symbol is followed by a precautionary word such as: **DANGER**, **WARNING**, or **CAUTION**.

The specific safety instructions that appear with the Safety-Alert Symbol must be followed to protect the safety of all persons working on or around the harvester. **PLEASE READ ALL SAFETY PRECAUTIONS CAREFULLY.**



## DANGER

An **IMMEDIATE HAZARD** exists which **WILL** result in a high probability of **DEATH** or **SEVERE PERSONAL INJURY** if the warning is ignored and proper safety precautions are not taken.



## WARNING

A **HAZARD** or **UNSAFE PRACTICE** exists which **CAN** result in **DEATH** or **SEVERE PERSONAL INJURY** if the warning is ignored and proper safety precautions are not taken.



## CAUTION

A **POSSIBLE HAZARD** or **UNSAFE PRACTICE** exists which **WILL** or **CAN** result in **MINOR PERSONAL INJURY** if the warning is ignored and proper safety precautions are not taken.

**IMPORTANT:** *Possibility of harvester damage if a certain procedure is not properly followed, and also identifies information worthy of special attention.*



# Safety

## SAFETY PRECAUTIONS

For your own protection and for the protection of others near the harvester, study the following list of safety precautions. Fulfill your responsibility of informing anyone else operating the machine of these precautions.

Most machine accidents can be avoided by following a few simple safety precautions. Always follow the safety precautions.

- Always sound the horn before starting the tractor engine.
- Do not attempt to lubricate or make any adjustments on the harvester while it is in motion or while the tractor engine is running.
- Do not permit anyone to ride on the harvester other than the person operating the bagger. Do not allow riders on the harvester at any time.
- Be especially careful when operating on hillsides, as the harvester can tip sideways. Keep the tractor in gear when the harvester is going downhill.
- Watch for holes, ditches, or other irregularities in the terrain that could cause the harvester to tip sideways.
- A fire extinguisher should be available on the tractor when operating the harvester. Check it regularly to be sure it is fully charged.
- Do not work under the harvester when it is in the raised position unless it is properly blocked.
- Replace any frayed belts before they fail and break.
- Keep children away from and off the harvester at all times.
- Make sure that everyone is clear of the fan discharge area.
- Always disengage the PTO and shut off the engine before:
  - leaving the tractor seat.
  - lubricating.
  - cleaning the reel.
  - adjusting the machine.
- Wait for all movement to stop before servicing the harvester.
- Always disengage the harvester when parking.
- Always block wheels from rolling before working on or under the harvester.
- Always remain seated while operating the tractor.
- Always keep safety shields in place. Do not remove any of the safety shields while the harvester is in operation.

# Safety

- Always **keep** hands, feet, and clothing **away from moving parts**.
- Always **use adequate lights or safety warnings** when transporting machinery on **public roads** and after dark. Make sure the **slow moving vehicle (SMV) emblem is visible**. Check with your local law enforcement agencies for specific requirements.
- Limit towing speed to 20 mph.
- **Never check** the drive chains **while** the harvester is **running**.
- **Never stand by** the harvester while it is **in operation**.
- **Caution others**, especially children, about climbing on the harvester or being too close while the harvester is operating.
- **Operate** the harvester **only** at the recommended PTO speed.
- Make sure the tractor is in **safe operating condition** with **adequate braking** capabilities.
- Make sure **everyone is clear** of the harvester **before starting** the tractor, engaging the PTO, or beginning operation.
- **Recheck** the **wheel bolts** after the first 3-5 hours of operation to make sure they are tightened to 85 ft-lbs.
- **Maintain** the **tire pressure** at 32 psi.
- **Do not operate** the machine **without** the correct **drawbar adjustment**. Damage to the universal joints and drive shaft may occur.

# Safety

## DECAL REPLACEMENT INFORMATION

All decals on the BH100 Bean Harvester are shown on the following pages. The decal locations are also shown in this section.

It is very important that these decals remain intact and visible at all times. Decals must be replaced if they are illegible, damaged, or missing.

To affix new safety decals, the area must be thoroughly cleaned with a moist towel and allowed to dry. After the area has thoroughly dried, remove the backing and place the decal in the appropriate area, making sure to keep all air bubbles from behind the decal. If air bubbles do appear, work them to the nearest edge with a squeegee. Remove the protective covering from the decal.

Any new equipment components installed during the repair or maintenance of the BH100 Bean Harvester must include the current safety signs as specified by the manufacturer. The decals must be affixed to the replacement component.

New decals can be requested by contacting:

**YOUR DEALER:**

\_\_\_\_\_

\_\_\_\_\_

**PHONE**

\_\_\_\_\_

**MANUFACTURER:**

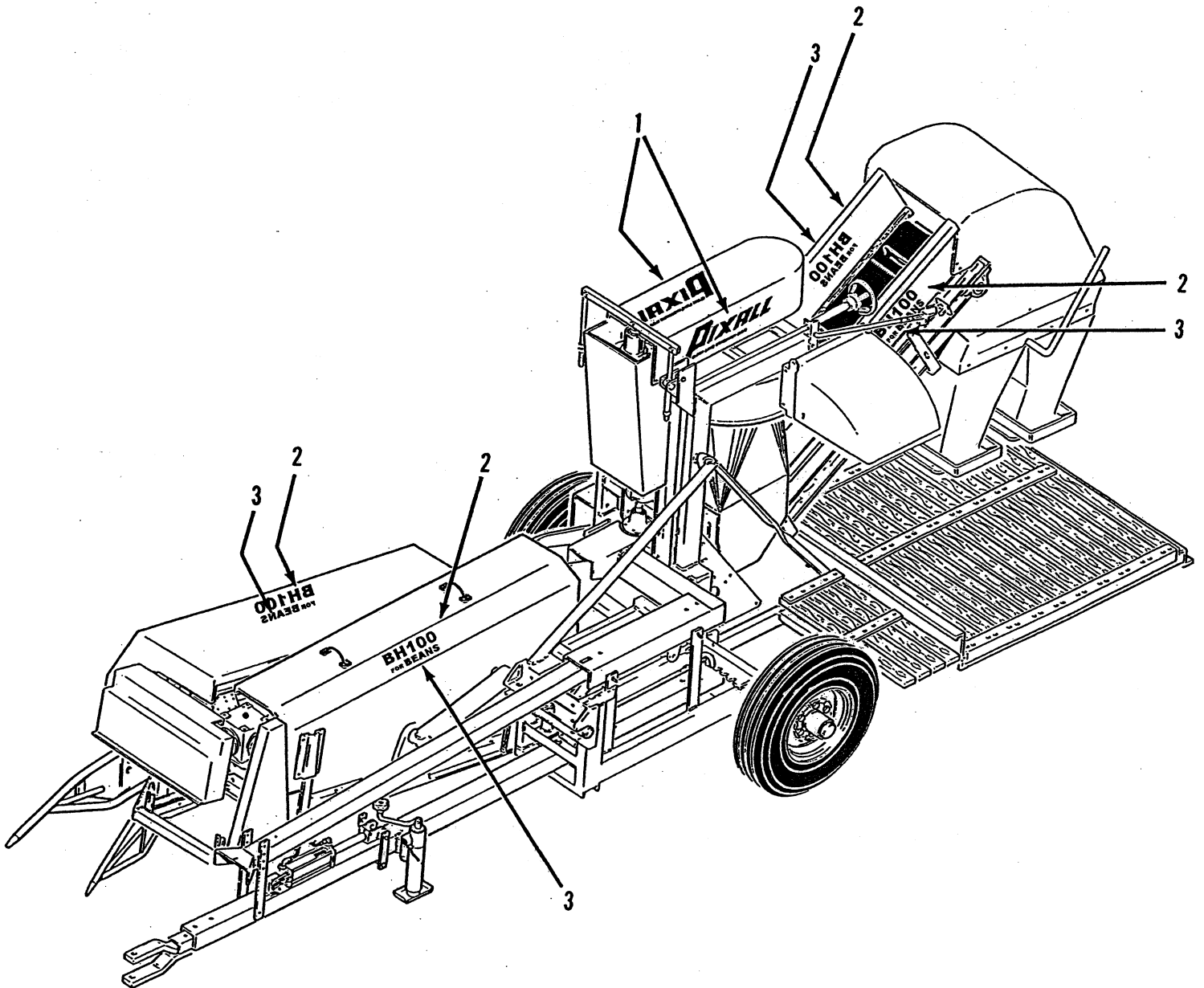
**PIXALL**  
100 BEAN STREET  
CLEAR LAKE, WISCONSIN 54005

Phone: (715) 263-2112  
Toll Free: (800) 628-6196 (U.S. only)  
Fax: (715) 263-3324

Pixall reserves the right to make changes and improvements without notice to the customer. These changes will not obligate Pixall to make changes or improvements on equipment sold previously.

# Safety

## PIXALL® DECALS



Pixall Decal Locations

# Safety

1.



**PIXALL® (3000-0200)**

Each side (right and left) of Fan Shield (1007-0101)

2

2.

**BH100**  
**BEAN HARVESTER**

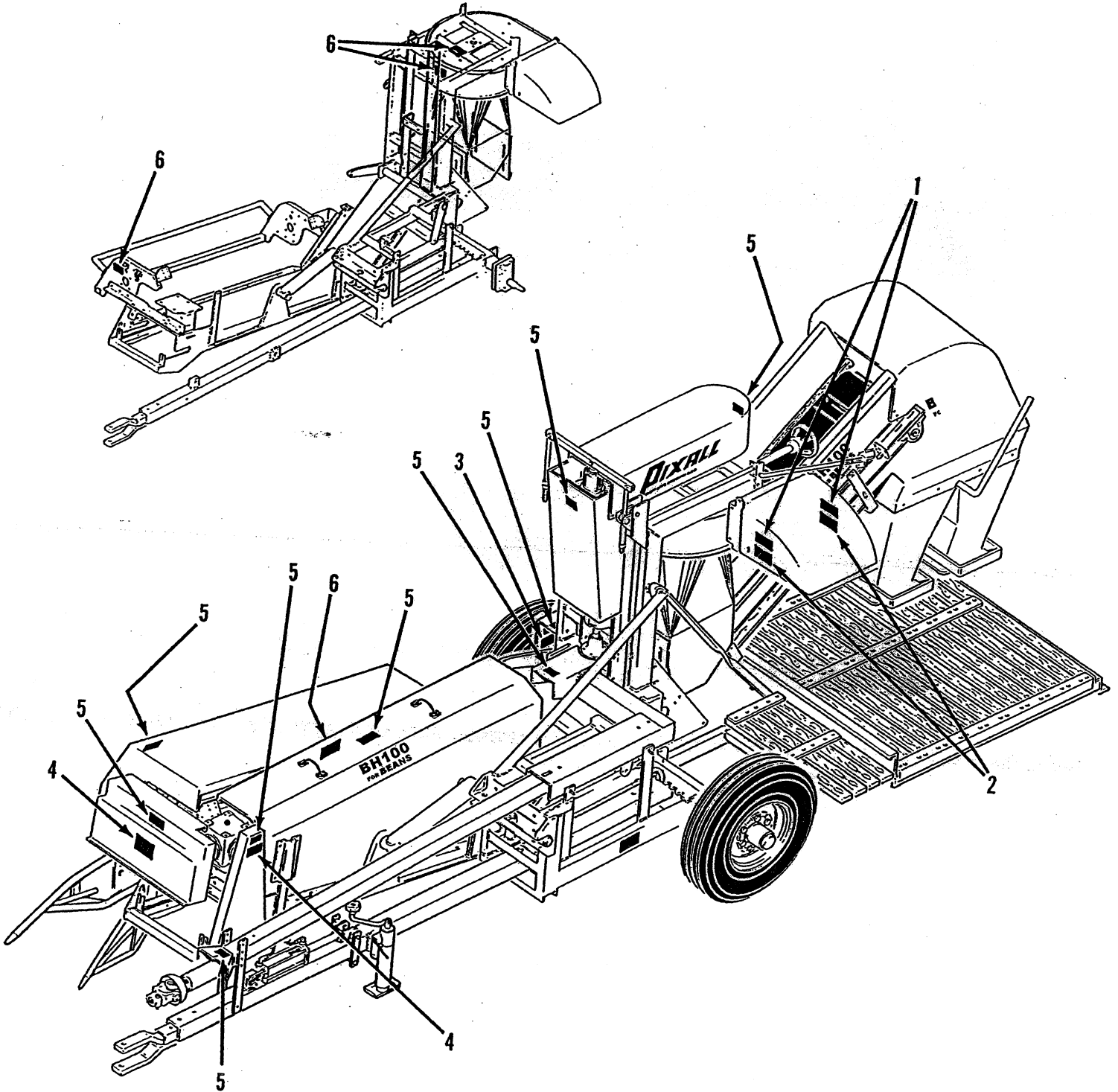
**BH100 BEAN HARVESTER (3000-0350)**

Each side (right and left) of Elevator Sides (1007-0091 )  
Reel Shield Assembly (4001-0011)  
Backboard Assembly (3023-0030)

2  
1  
1

# Safety

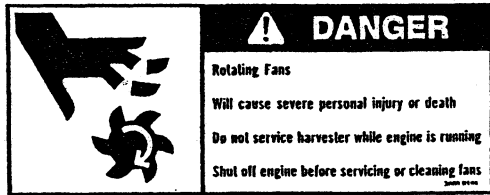
## SAFETY DECALS



Safety Decal Locations

# Safety

1.

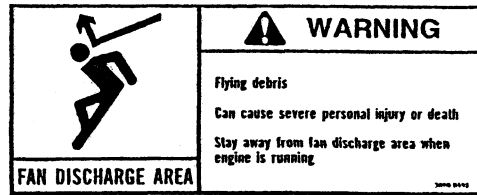


## AVOID ROTATING FAN (3000-0186)

Each side (right and left) of Discharge Chute (3002-0067)

2

2.

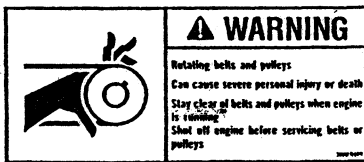


## FAN DISCHARGE AREA (3000-0192)

Each side (right and left) of Discharge Chute (3002-0067)

2

3.

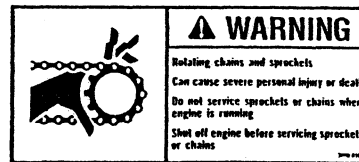


## KEEP HANDS FROM PULLEY (3000-0189)

Elevator Drive Shield (1007-0098)

1

4.



## CHAIN AND SPROCKET (3000-0188)

Shield R.H. (1007-0046)

Scow Drive Shield (1007-0110)

1

1

5.



## CAUTION (3000-0160)

Shield PTO End (1007-0114)

Elevator Drive Shield (1007-0098)

Fan Drive Gearbox Shield (1007-0094)

Backboard Assembly (4001-0011)

Reel Shield Assembly (3023-0030)

Shield R.H. (1007-0046)

Fan Shield (1007-0101)

Scow Drive Shield (1007-0110)

1

1

1

1

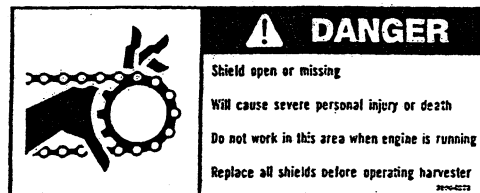
1

1

1

1

6.



## SHIELD OPEN OR MISSING (3000-0222)

Backboard Divider, Backboard Assembly (4001-0011)

Fan Housing, behind Shield Vertical Shaft (4007-0335)

Top of Fan Housing, under Fan Shield (1007-0101)

Behind Reel Shield (1007-0046)

1

1

1

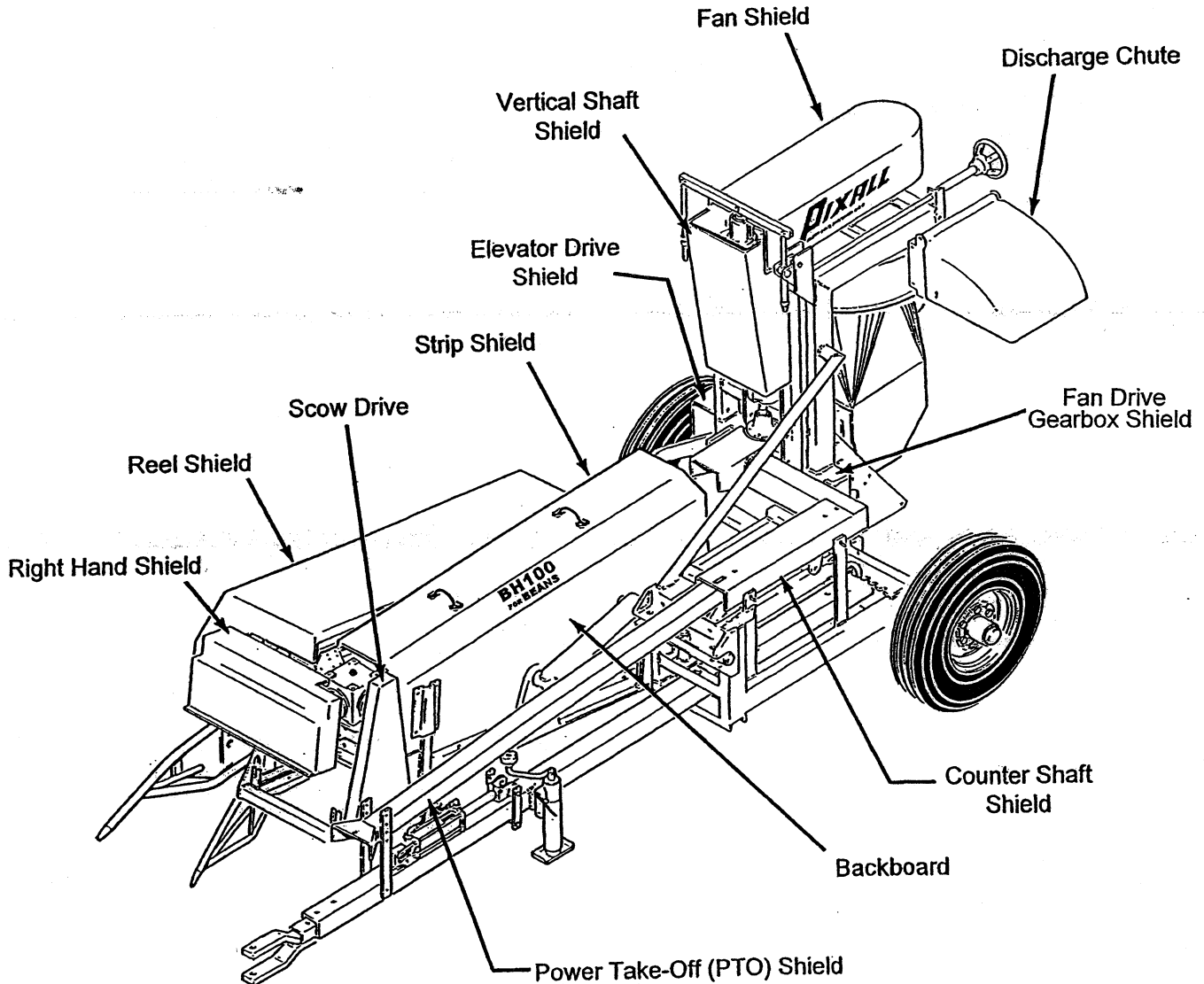
1

# Component Identification

The major features of the Pixall® BH100 Bean Harvester are illustrated in this section. Be familiar with the correct terminology for your harvester. For your convenience when obtaining replacement parts, provide your dealer with the serial and model numbers using the correct terminology.

 **DANGER**

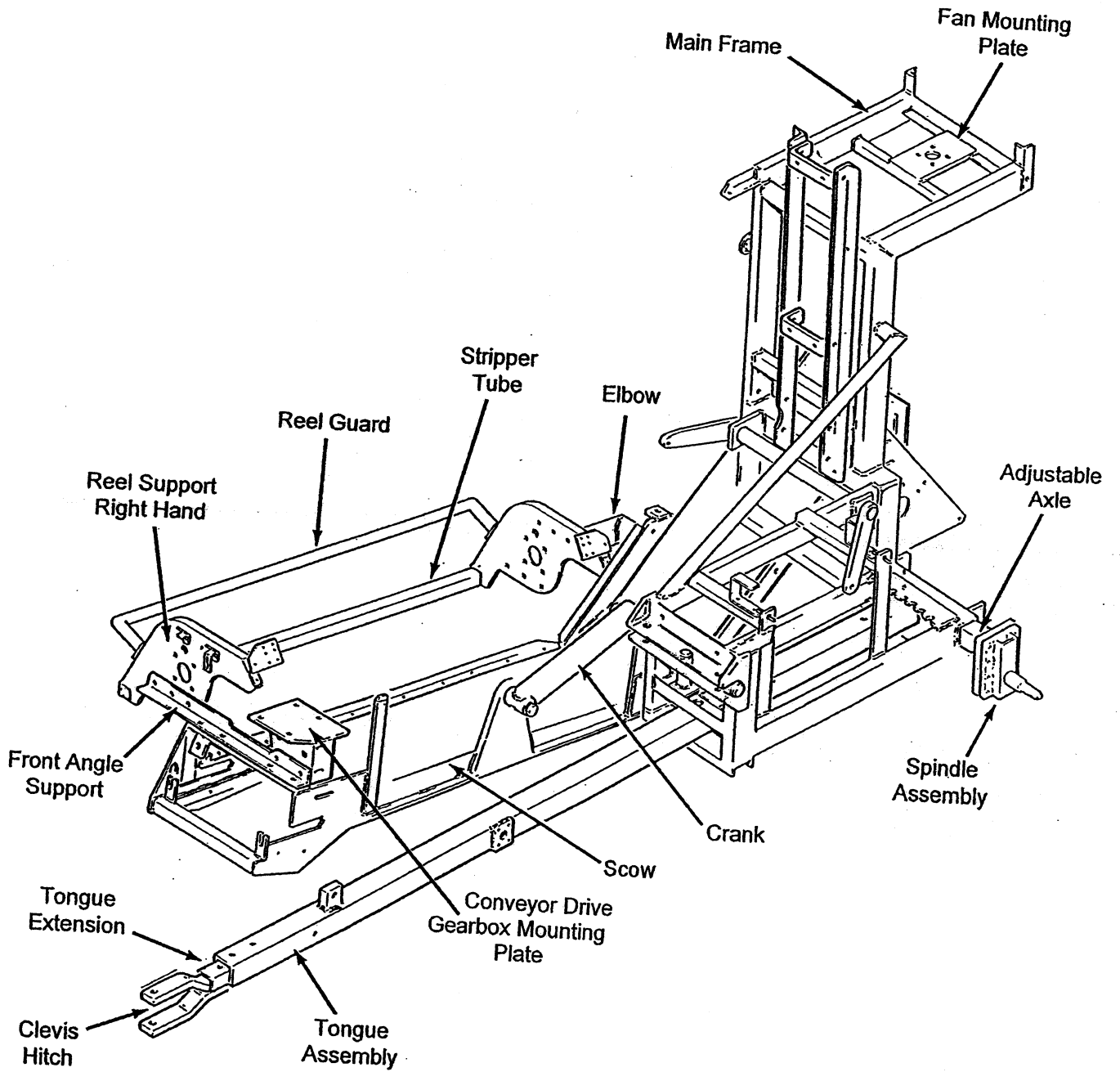
Safety guards and protective shielding may be shown removed in this manual. **NEVER** operate the harvester with the safety guards or protective shielding removed. Close or replace all shielding before operating the harvester.



**Safety Shields**

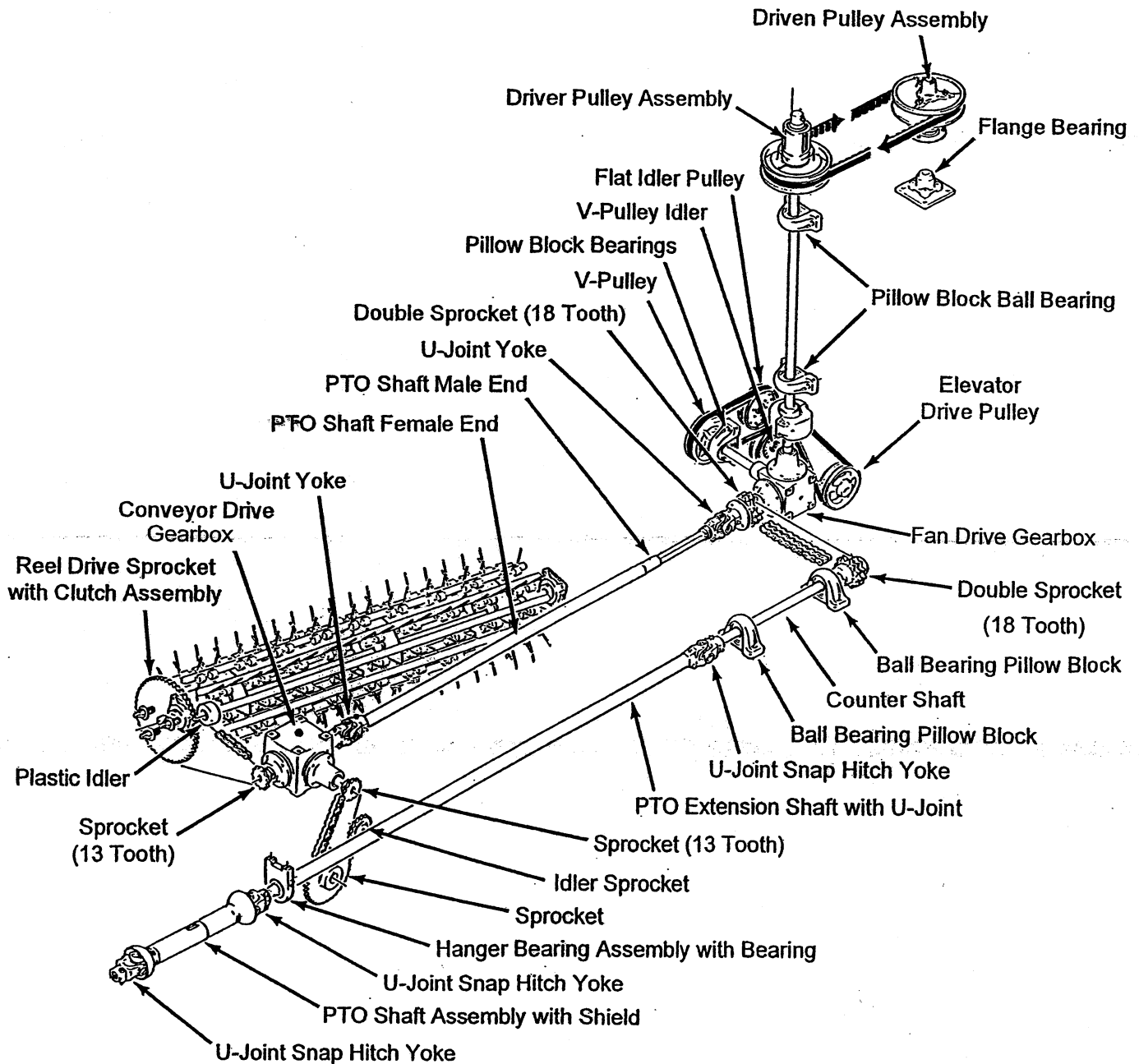


# Component Identification



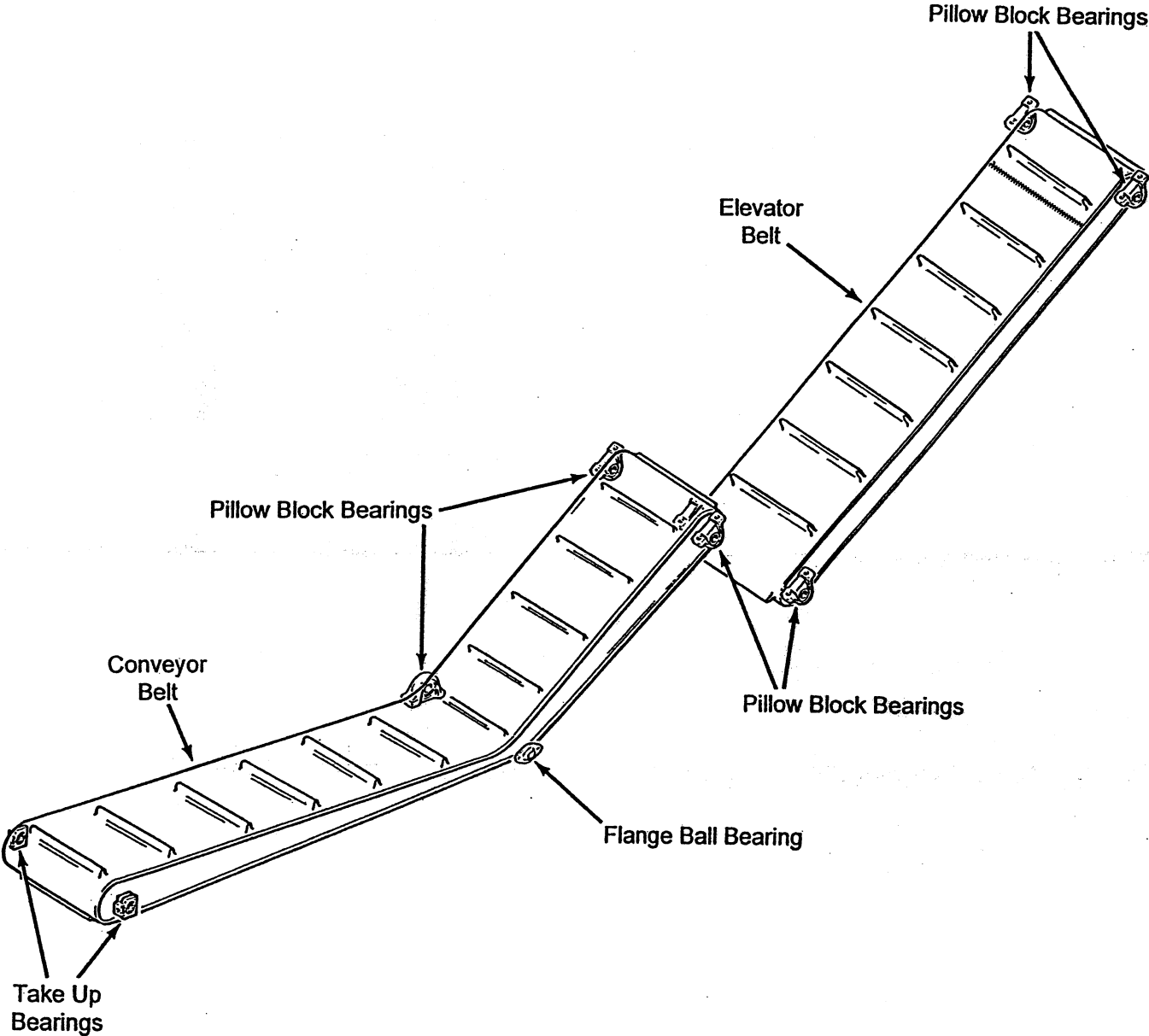
Main Frame

# Component Identification



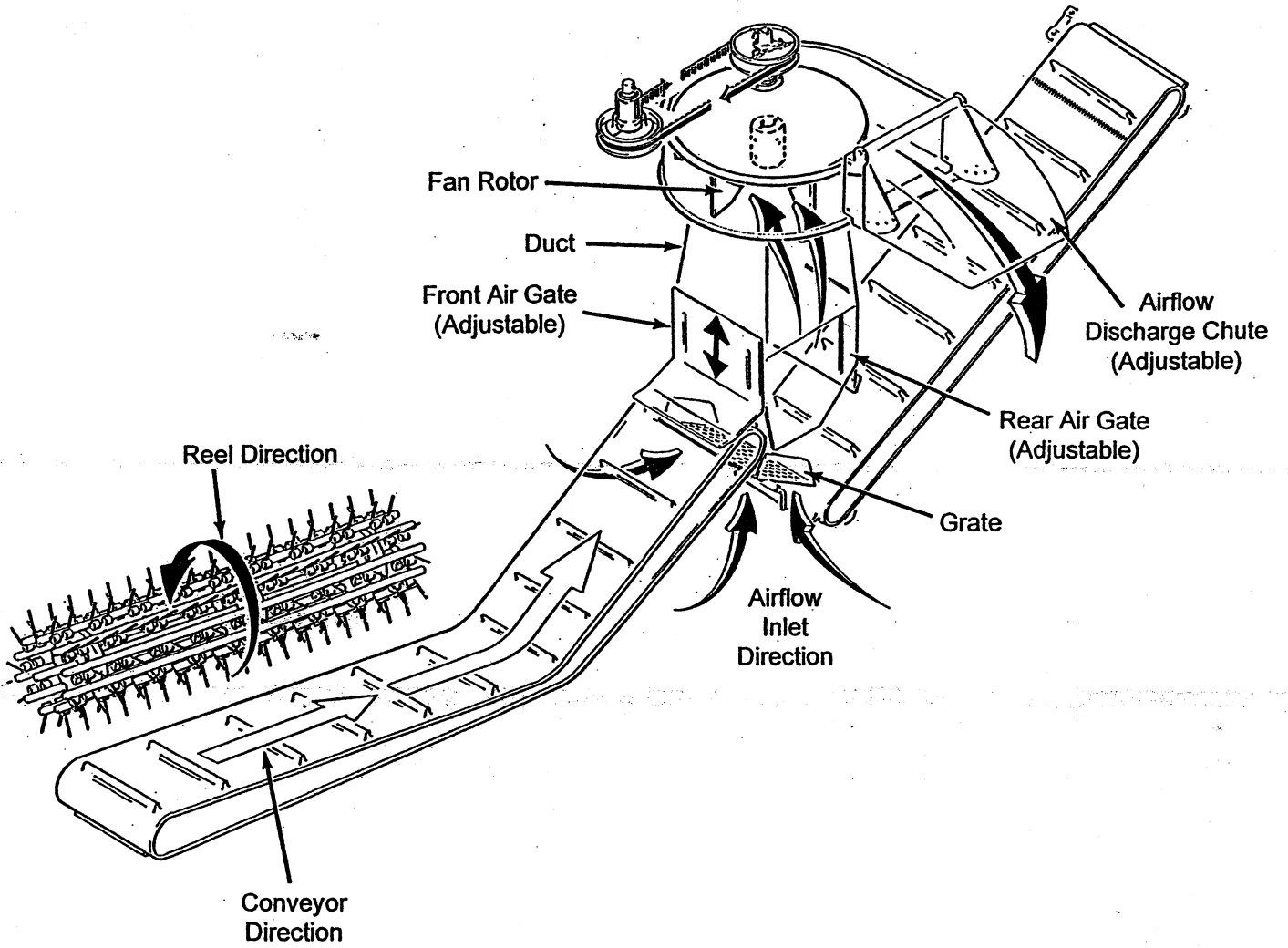
Drive Train

# Component Identification



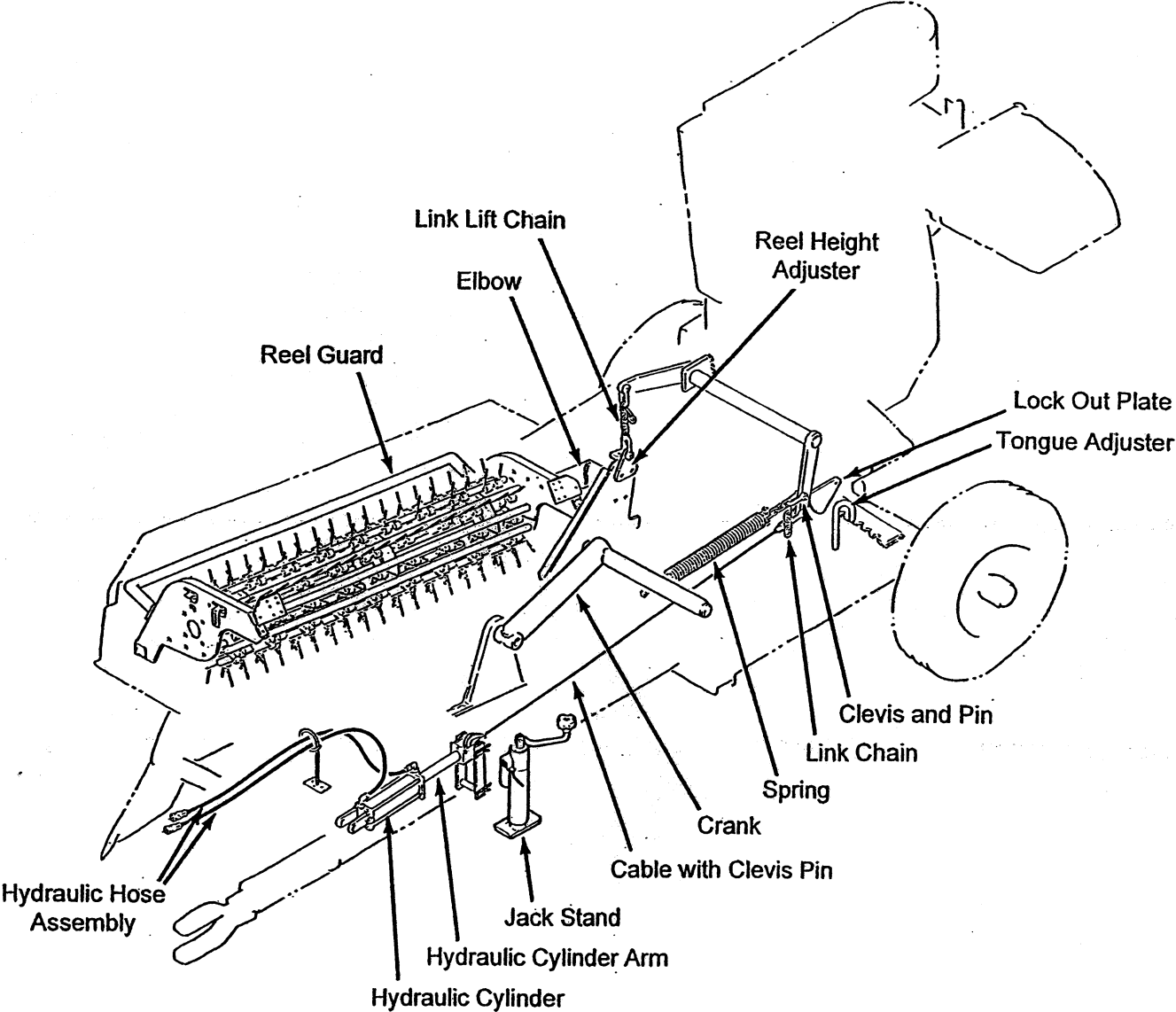
**Belts and Bearings**

# Component Identification



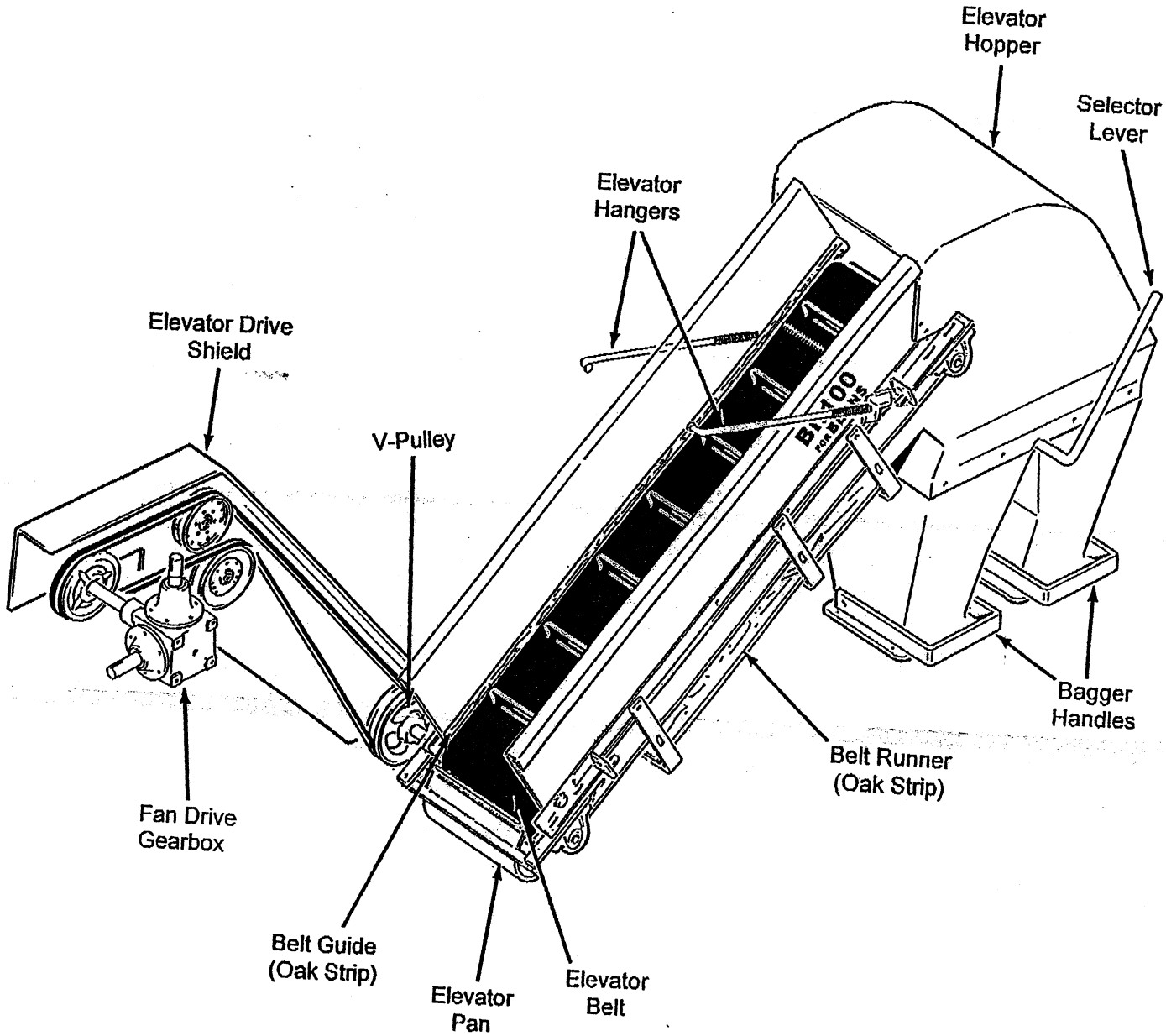
Fan Drive and Suction Leg

# Component Identification



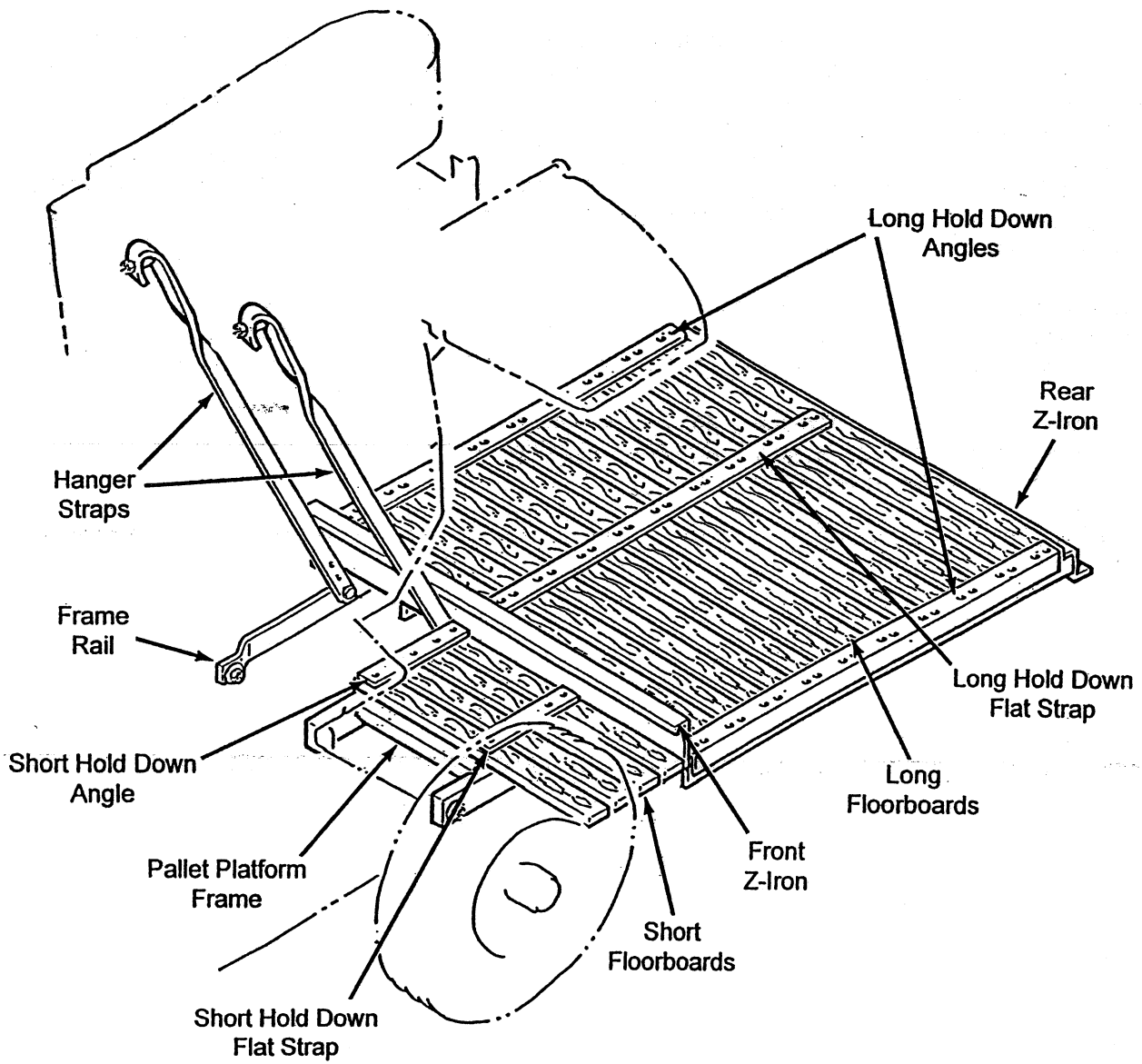
Main Frame Lifting Assembly

# Component Identification



Elevator Assembly

# Component Identification



**Bagger Platform**

# Theory of Operation

The Pixall® BH100 Bean Harvester is designed to pick green beans, and other similar crops. The BH100 Bean Harvester requires a 40 hp tractor equipped with a 540 RPM PTO and a hydraulic system capable of operating a 3 x 8 hydraulic cylinder. The PTO powers the harvester. The hydraulic system raises and lowers the picking head.

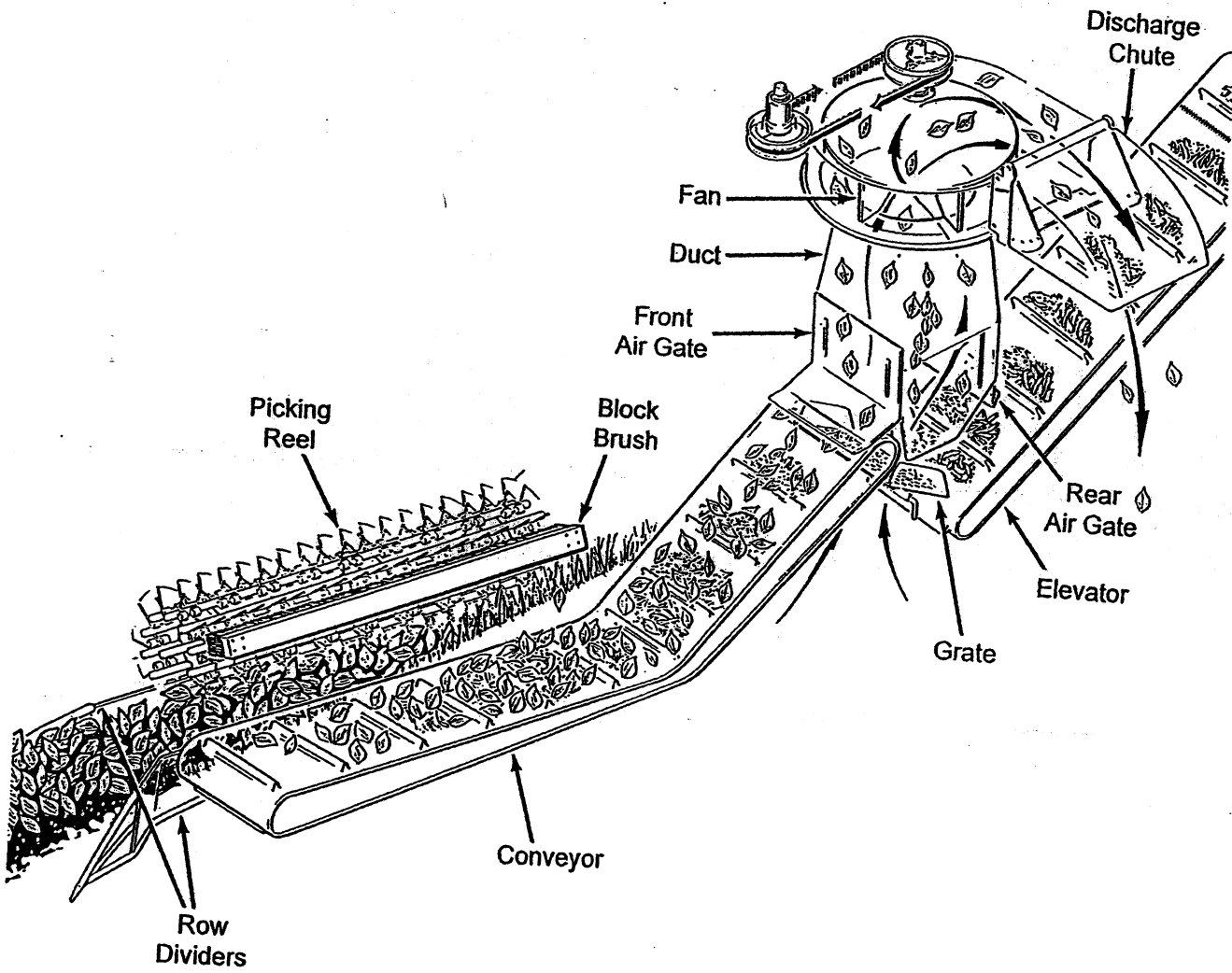
## CROP PATH

The BH100 Bean Harvester is pulled behind the tractor over a row of beans. The **row divider/vine lifters** gather the bean plant and guide the crop into the picking reel. The **picking reel** (which is set at an angle to pick the bean plant from the top of the plant down to the bottom of the plant) combs through the plant, carries the beans up, and deposits them against the **backboard** and onto the lower conveyor belt. The picking reel is equipped with **reel strippers** that keep vines from wrapping around the picking reel. The **block brush** keeps the beans from being carried over the picking reel, stripping them from the picking reel and dropping them onto the lower conveyor belt. The lower **conveyor belt** moves the beans back into the **duct** and drops them onto the **grate**.

The **fan** pulls air up through the front and rear air gates, the grate, and the duct to separate the debris from the beans. The air picks up the debris, passes through the fan, and comes out the **debris discharge chute**. The fan speed is adjustable to allow for different crops and varying cleaning conditions.

The **elevator** moves the beans from the grate to the elevator hopper where a selector directs the beans into one of two bagger discharge chutes. These discharge chutes are normally equipped with bag holders, but can be set up for pallet boxes.





Crop Path

# Theory of Operation

## POWER TRANSMISSION

The tractor PTO drives the **PTO shaft**, which drives the **PTO extension shaft**. The PTO extension shaft drives the **PTO counter shaft**.

A **sprocket** mounted on the back end of the PTO counter shaft drives the **fan drive gearbox** and the conveyor drive gearbox through a chain and sprocket. The sprocket mounted on the input shaft at the front of the fan drive gearbox is connected to the PTO extension shaft. The **PTO extension shaft** is connected to the through shaft at the back of the conveyor drive gearbox.

A sprocket mounted on the through shaft at the front of the **conveyor drive gearbox** drives the **picking reel** through a chain and sprockets. The sprocket assembly attached to the picking reel is equipped with a **reel slip clutch** that makes a noise when it slips. This warns the operator that the reel is overloaded.

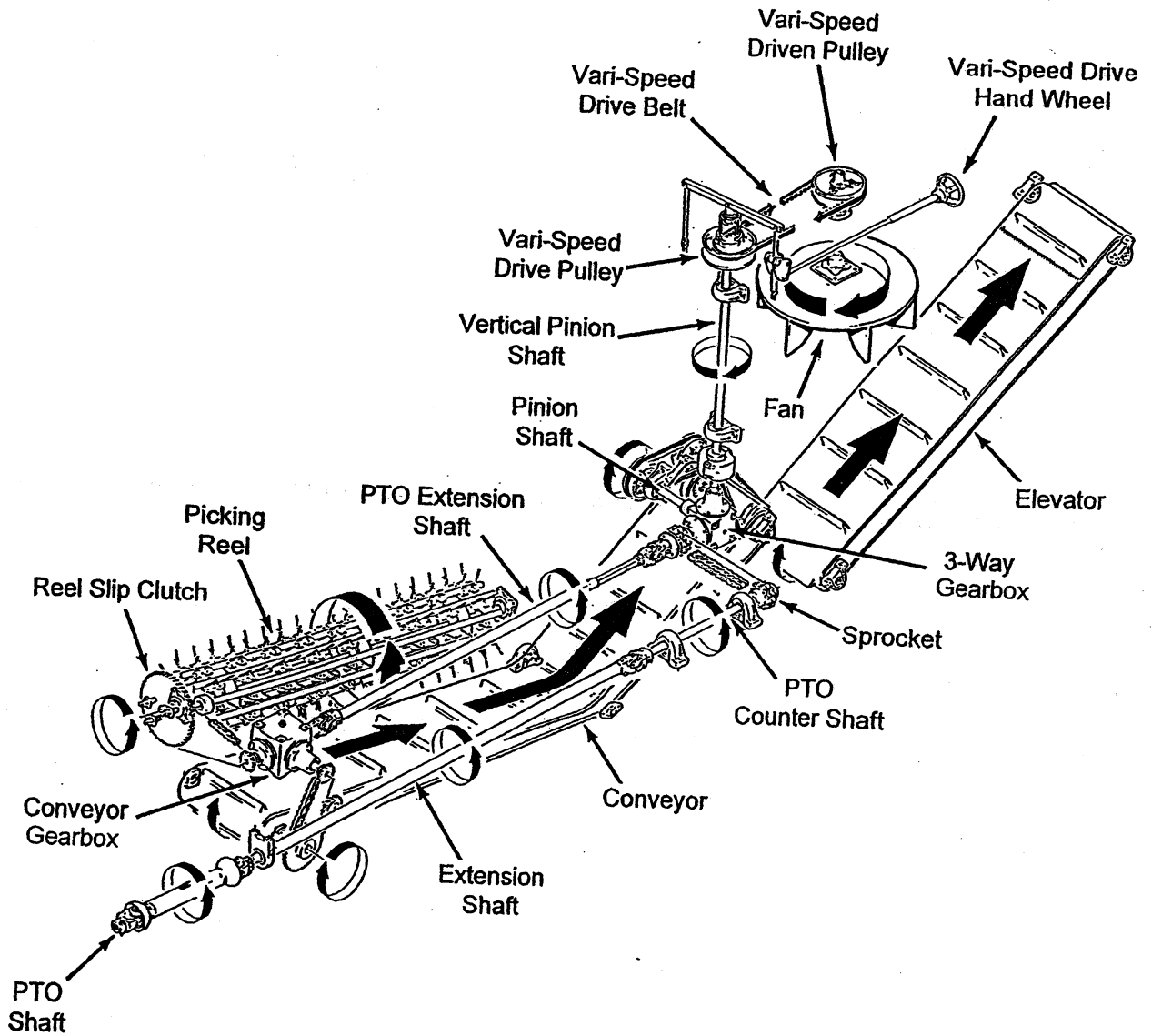
A sprocket mounted on the pinion shaft at the side of the **conveyor drive gearbox** drives the conveyor through a chain and sprockets.

A pulley mounted on the **pinion shaft** at the side of the fan drive gearbox drives the elevator through a belt and pulleys.

The **vertical pinion shaft** at the top of the fan drive gearbox drives the vari-speed drive shaft through the chain coupling assembly. The vari-speed drive shaft is connected to the **vari-speed drive pulley**, which drives the **vari-speed driven pulley** through the **vari-speed drive belt**. The vari-speed driven pulley drives the **fan** through the fan shaft. The fan speed is adjusted by turning the hand wheel. The hand wheel moves a linkage that is attached to the thrust stub shaft at the top of the vari-speed drive pulley.

**IMPORTANT:** *Make sure the vari-speed drive shaft is level and parallel with the chassis main frame. If the shaft is not level and parallel with the main frame it can cause the shaft bearings to wear out prematurely.*

# Theory of Operation



Power Transmission

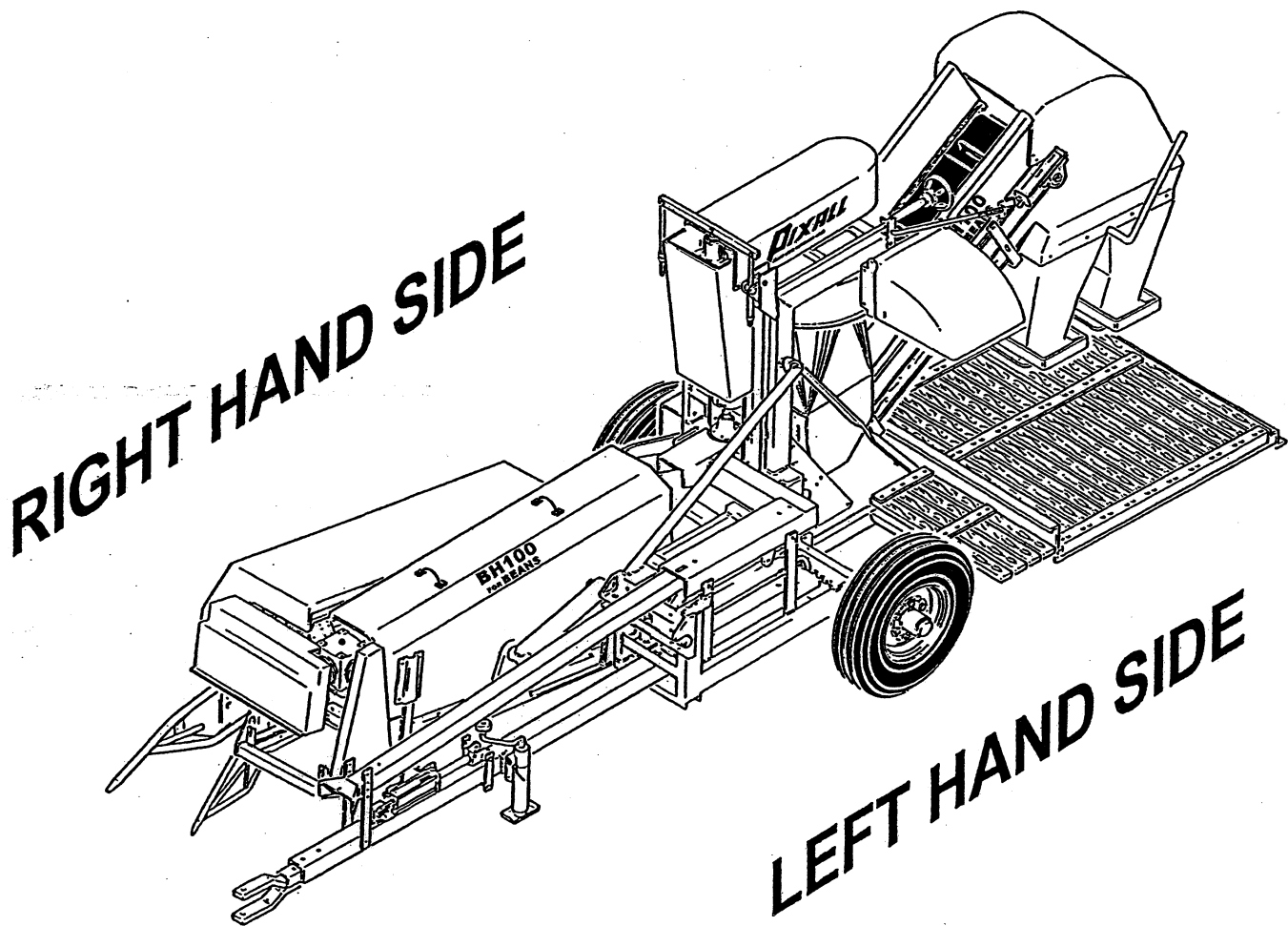


# Assembly/Setup

## ASSEMBLY AFTER SHIPMENT

A harvester purchased from a Pixall® dealer should already have the rear platform and elevator assembled. The Preoperation Checklist should also be completed. However, if the harvester has been purchased directly from the Pixall factory or has been transported a considerable distance, the Checklist items are not completed and will need to be performed. On some occasions it may be necessary for the rear platform and elevator to be assembled and attached (see Assembly instructions).

**IMPORTANT:** *Right and left hand sides are determined from the rear, facing in the direction of travel of the harvester.*



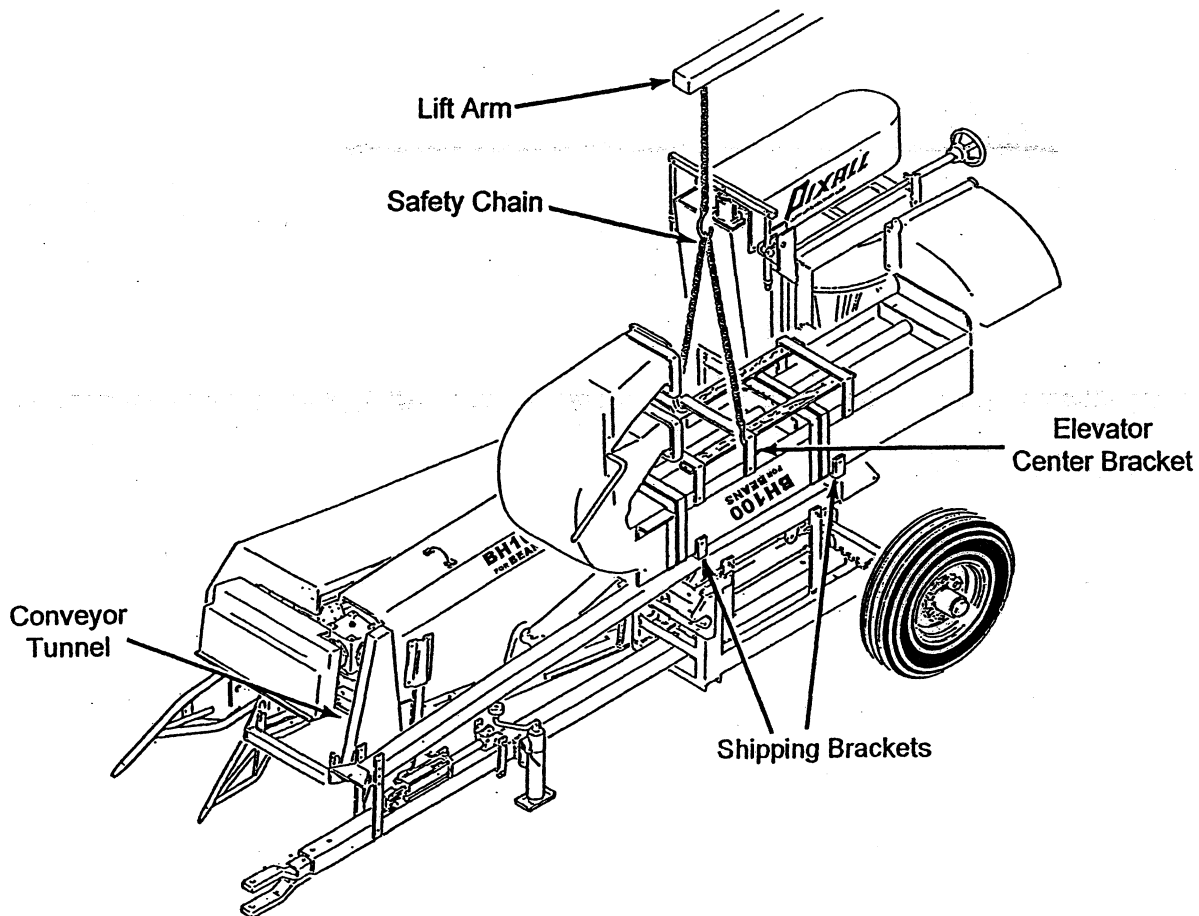
Right and Left Hand Side Identification

# Assembly/Setup

## UNPACKING THE HARVESTER AFTER SHIPMENT

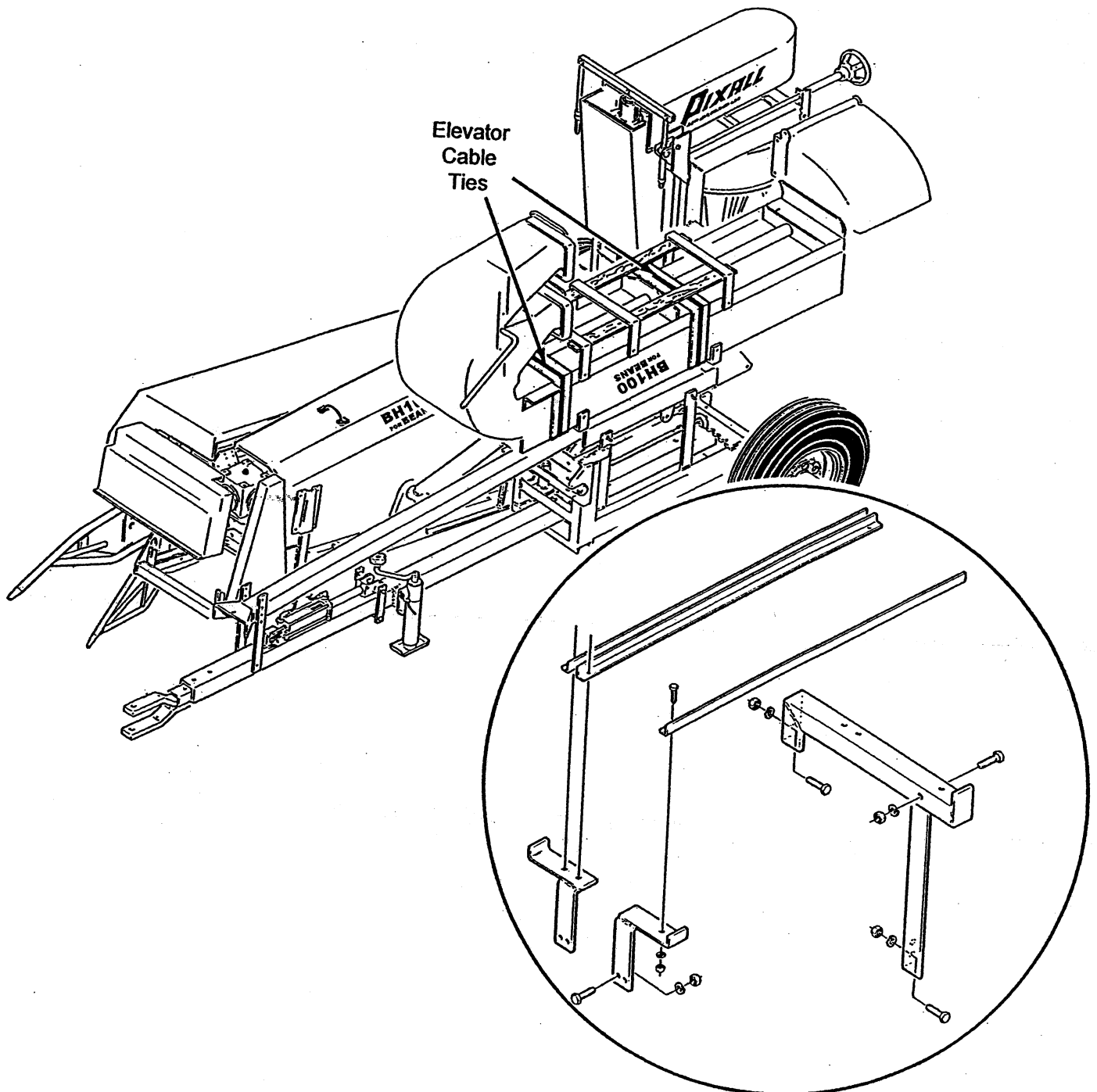
For shipping, all of the safety guards are cable tied in place. The PTO extension shaft and PTO end shield are fastened in place inside the conveyor tunnel with shipping fasteners and cable ties. Also, the elevator is fastened to the harvester in an upside down position on shipping brackets that will be discarded. Before final assembly, the cable ties, banding, protective cardboard, shipping fasteners, and shipping brackets are removed and discarded as follows:

1. Using a tin snip or wire cutter, clip all cable ties and banding. Remove and discard the protective cardboard.
2. Remove the shipping fasteners and cable ties from the PTO extension shaft and the PTO end shield. Remove the extension shaft and the end shield from the conveyor tunnel.
3. Attach one end of a safety chain to the center bracket on the elevator. Attach the other end of the safety chain to a lift. Remove the shipping fasteners from the elevator shipping brackets and lift the elevator from the harvester.
4. Remove the shipping brackets from the harvester and discard.



Lifting the Elevator from the Harvester

# Assembly/Setup



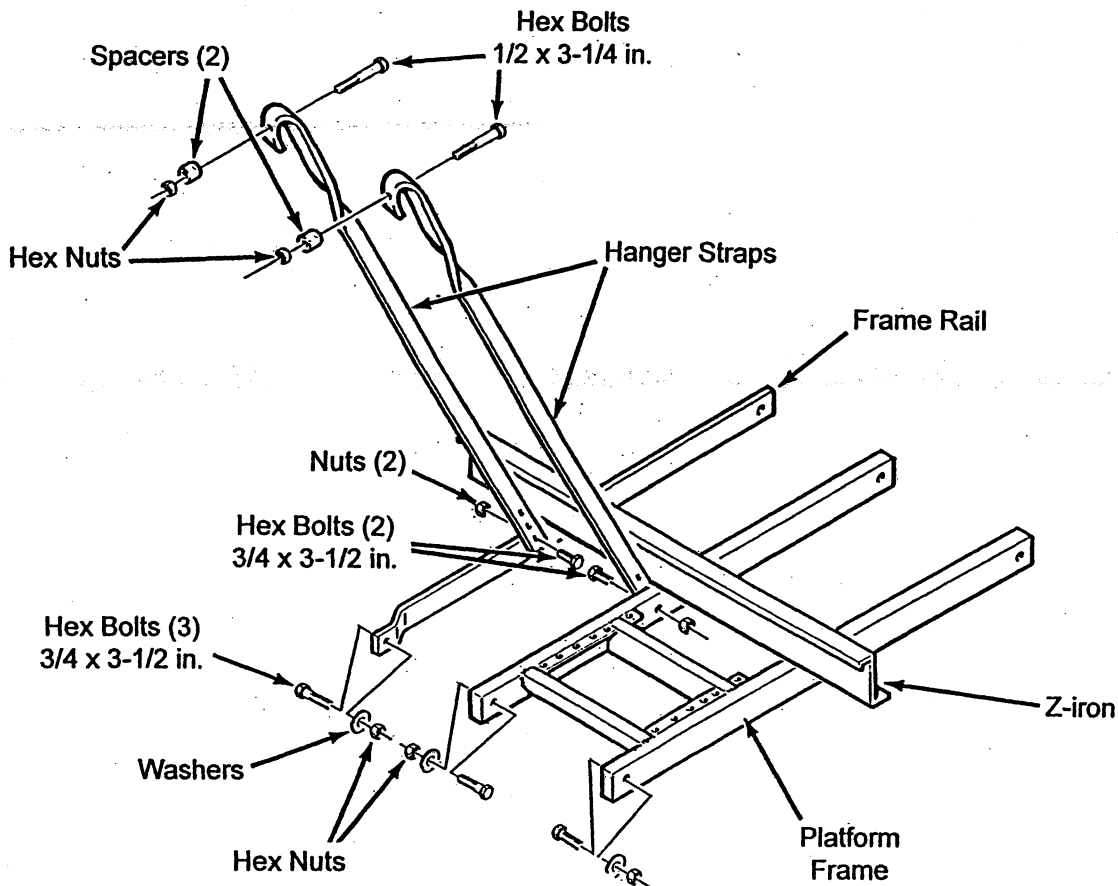
Elevator Shipping Brackets  
and Shipping Hardware  
To Be Discarded

Removing the Elevator Shipping Brackets

# Assembly/Setup

## BAGGER PLATFORM ASSEMBLY

1. Attach the frame rail to the right hand side of the harvester main frame. Install the 3/4 x 2 in. hex bolts, washers, and nuts.
2. Attach the platform frame to the harvester main frame platform attachment plates behind the wheel axles, using the top set of adjustment holes.
3. Secure the 3/4 x 2 in. hex bolts, washers, and nuts.
4. Attach the two hanger straps to the harvester main frame. Install the 1/2 x 3-1/4 in. hex bolts, washers, spacers, and nuts.
5. Attach the two hanger straps to the frame rail and the platform frame. Install the 3/4 x 3-1/2 in. hex bolts, washers, and nuts.
6. Select the adjustment hole for the proper ground clearance.
7. Attach the Z-iron to the frame rail and platform frame using the 3/8 x 3/4 in. hex bolts, washers, and nuts.
8. Make sure all mounting hardware is tight.

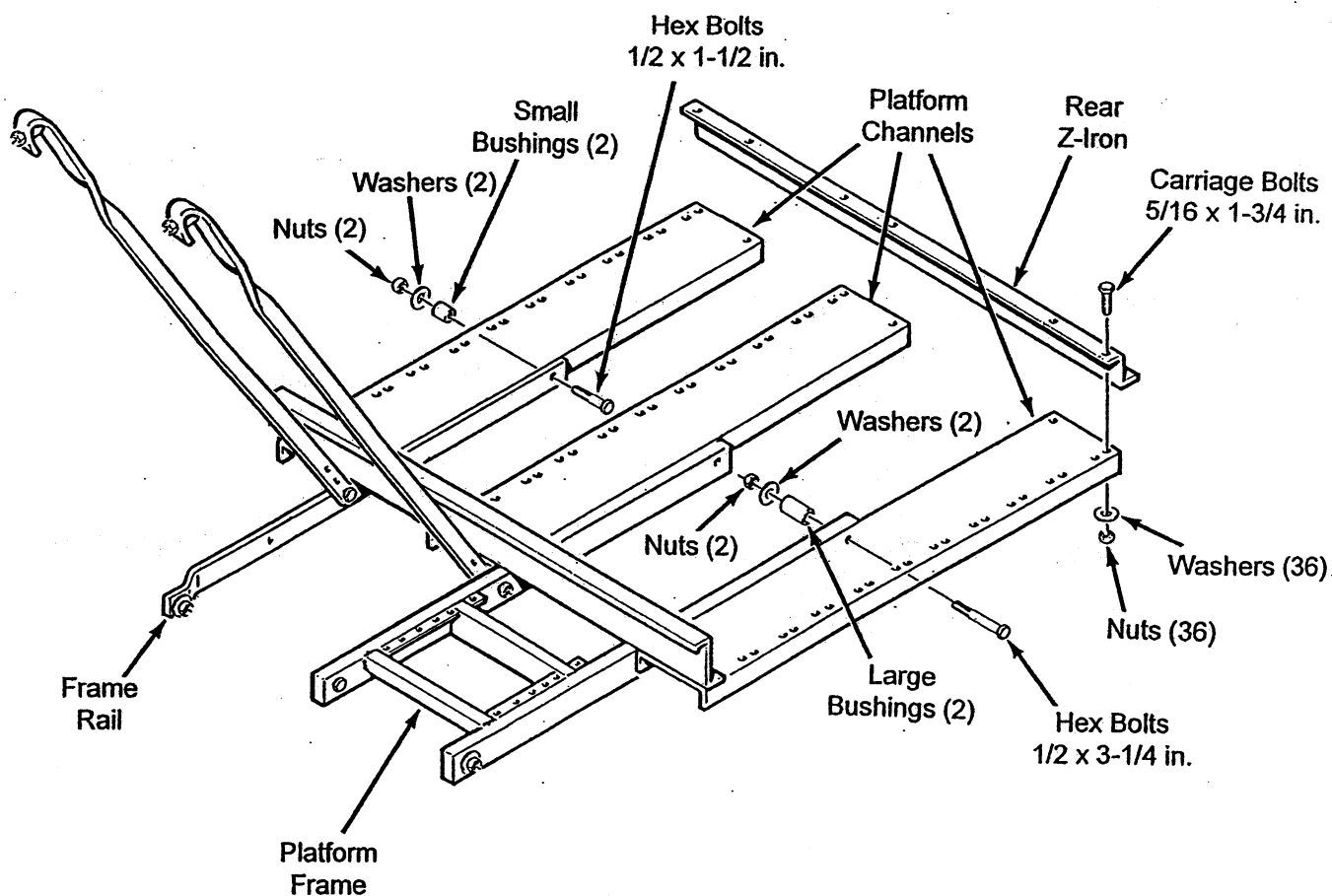


Attaching the Bagger Platform



# Assembly/Setup

9. Attach one of the platform channels to the frame rail using the 1/2 x 1-1/2 in. bolts, small bushings, flat washers, and nuts.
10. Attach the other two platform channels to the platform frame using the 1/2 x 3-1/4 in. carriage bolts, large bushings, flat washers, and nuts.
11. Bolt the rear Z-iron to the platform channels using the 5/16 x 1-3/4 in. carriage bolts, washers, and nuts.

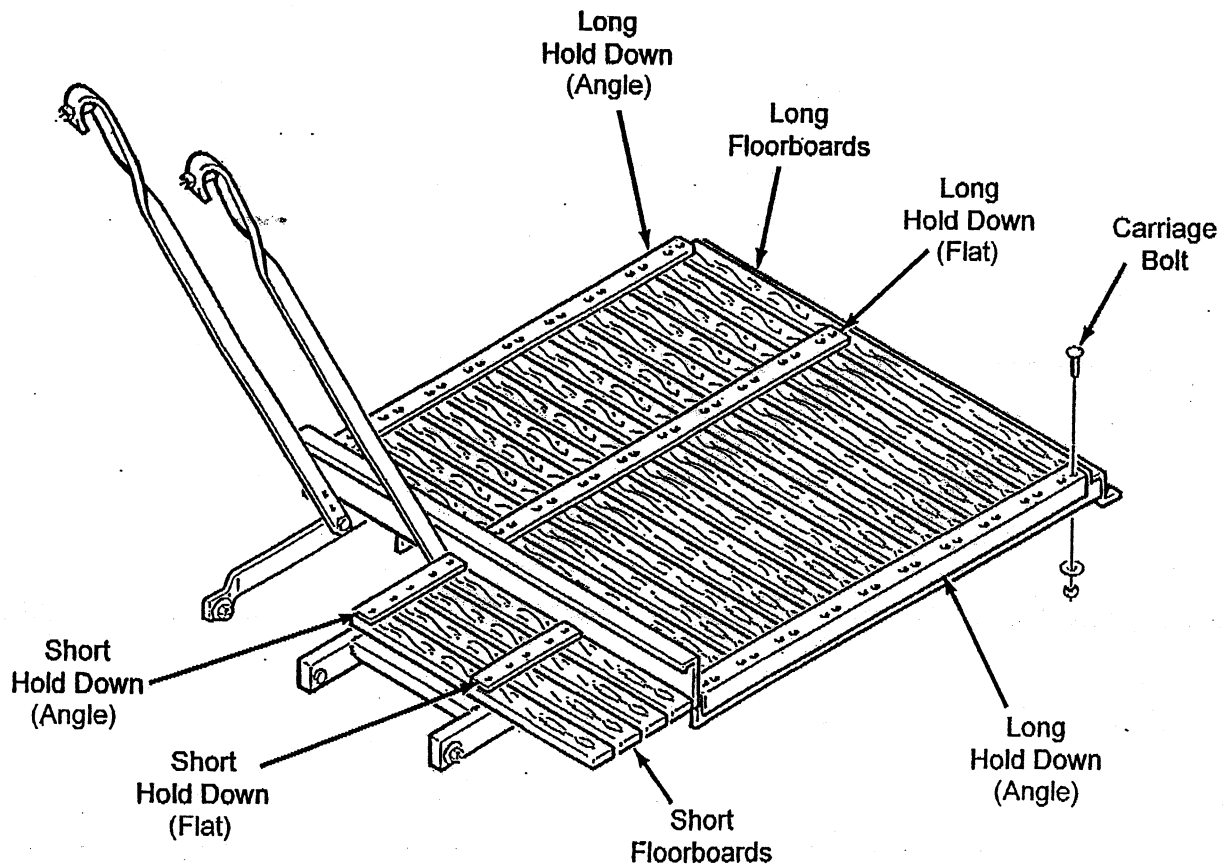


Assembling the Bagger Platform

# Assembly/Setup

12. Place the long wood floor board sections across the platform channel and secure in place with the long hold down (angles), long hold down (flat), and the 5/16 x 1-3/4 in. carriage bolts.
13. Attach the short wood floor boards the same way using one short hold down (angle) and one short hold down (flat).

**IMPORTANT:** The 5/16 in. carriage bolts are placed between the boards and not through the boards.



**Bagger Platform**

# Assembly/Setup

## Bagger Platform Packing Slip

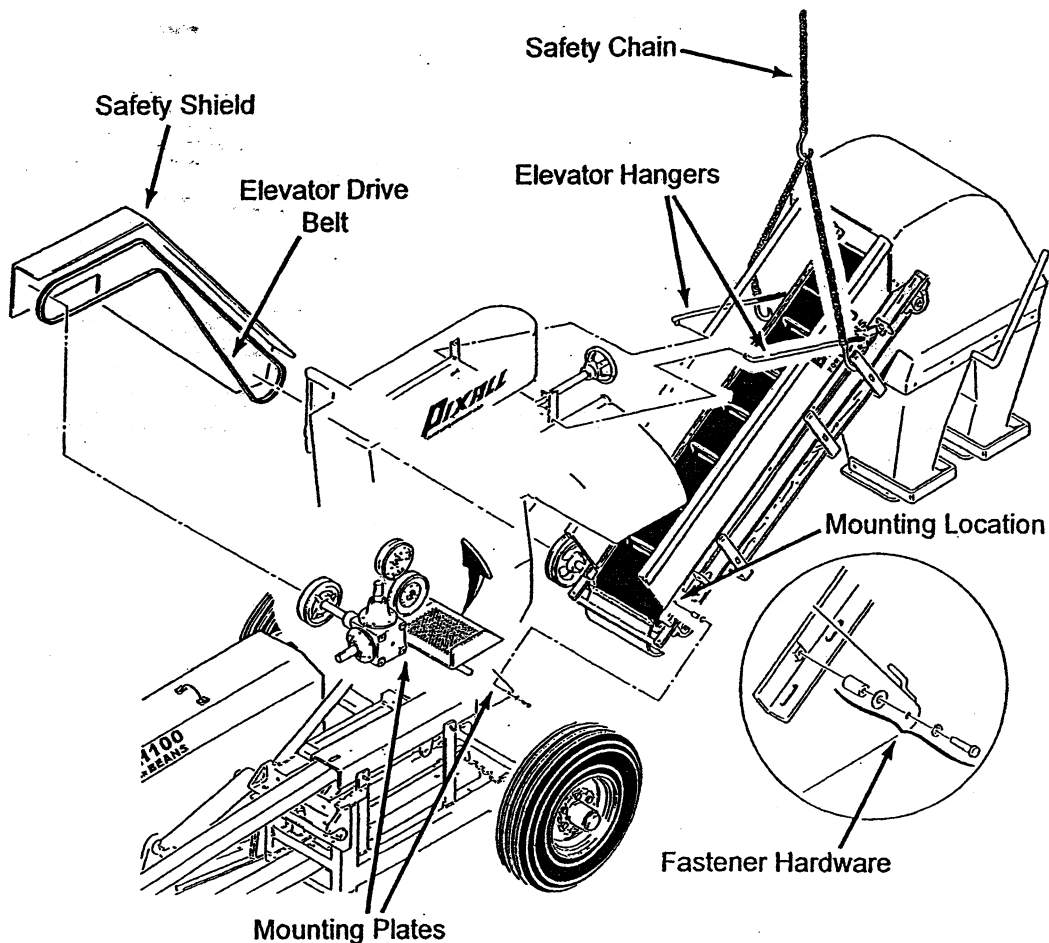
BAGGER PLATFORM  
BH100 Bean Harvester

|     |           |  |    |
|-----|-----------|--|----|
| 1.  | 1003-0042 | Bushing .....                                | 4  |
| 2.  | 3023-0022 | Hanger Strap .....                           | 2  |
| 3.  | 1009-0465 | Frame Rail .....                             | 1  |
| 4.  | 1007-0285 | Short Hold Down (Angle) .....                | 1  |
| 5.  | 3023-0004 | Frame-Pallet Platform .....                  | 1  |
| 6.  | 1009-0454 | Short Hold Down (Flat) .....                 | 1  |
| 7.  | 1003-0061 | Floor Board (Short) .....                    | 5  |
| 8.  | 1003-0060 | Floor Board (Long) .....                     | 9  |
| 9.  | 1007-0284 | Long Hold Down (Angle) .....                 | 2  |
| 10. | 1007-0283 | Z-Iron .....                                 | 2  |
| 11. | 1002-0128 | Platform Channel L.H. ....                   | 1  |
| 12. | 1002-0127 | Platform Channel R.H. ....                   | 2  |
| 13. | 1009-0453 | Long Hold Down (Flat) .....                  | 1  |
| 14. | 1003-0062 | Bushing .....                                | 1  |
| 15. | 0002-0140 | Hex Hd Bolt 3/8 - 16 x 3/4 in. lg. ....      | 12 |
| 16. | 0002-0146 | Hex Hd Bolt 1/2 - 13 x 3-1/4 in. lg. ....    | 6  |
| 17. | 0002-0198 | Hex Hd Bolt 3/4 - 10 x 3-1/2 in. lg. ....    | 3  |
| 18. | 0002-0247 | Small Service Flange Nut 5/16 in.-NC .....   | 36 |
| 19. | 0002-0248 | Small Service Flange Nut 3/8 in.-NC .....    | 12 |
| 20. | 0002-0250 | Small Service Flange Nut 1/2 in.-NC .....    | 8  |
| 21. | 0002-0235 | Hex Nut 3/4-NC .....                         | 5  |
| 22. | 0002-0045 | Lock Washer 3/4 .....                        | 5  |
| 23. | 0002-0065 | Carriage Bolt 5/16 - 18 x 1-3/4 in. lg. .... | 36 |
| 24. | 0002-0139 | Hex Hd Bolt 1/2 - 13 x 1-1/2 in. lg. ....    | 2  |
| 25. | 0002-0192 | Hex Hd Bolt 3/4 - 10 x 2 in. lg. ....        | 2  |
| 26. | 0002-0263 | Flat Washer - 1/2 in. ....                   | 3  |

# Assembly/Setup

## ELEVATOR ASSEMBLY INSTALLATION

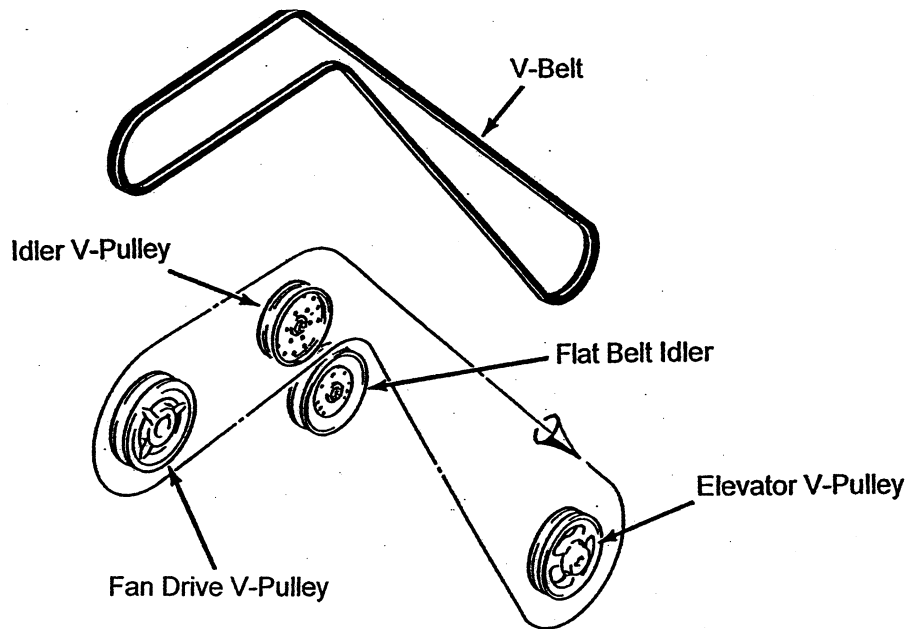
1. Attach a safety chain to the elevator as shown and lift the elevator into place.
2. Lift the grate up to allow the elevator to be positioned in place with the duct skirts inside the grate flanges.
3. Fit the elevator inside the elevator mounting plates attached to the main frame.
4. Install a spacer between the mounting plates and the elevator frame.
5. Secure the elevator with two hex head 3/4 x 2-3/4 in. bolts.
6. Release the grate and allow it to drop into place on the elevator.
7. Support the upper end of the elevator with the elevator hangers on the right and left hand side of the main frame.
8. The springs allow the elevator to float, so do not tighten the 3/4 in. flexloc nut too tight.



Elevator Assembly Installation

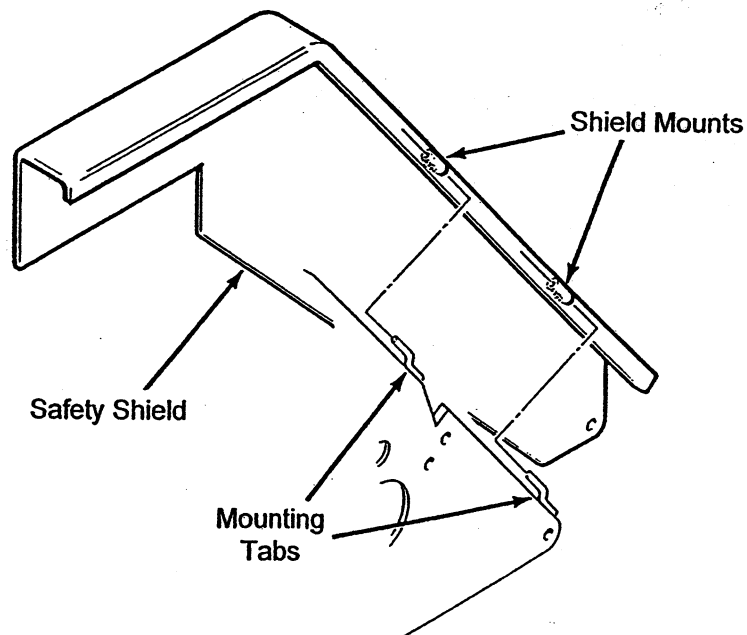
# Assembly/Setup

9. Install the V-Belt to the pulley on the horizontal shaft of the fan drive gearbox and to the pulley on the drive roller of the elevator.



**Belt Installation**

10. Install the safety shield by sliding it over the mount tabs.



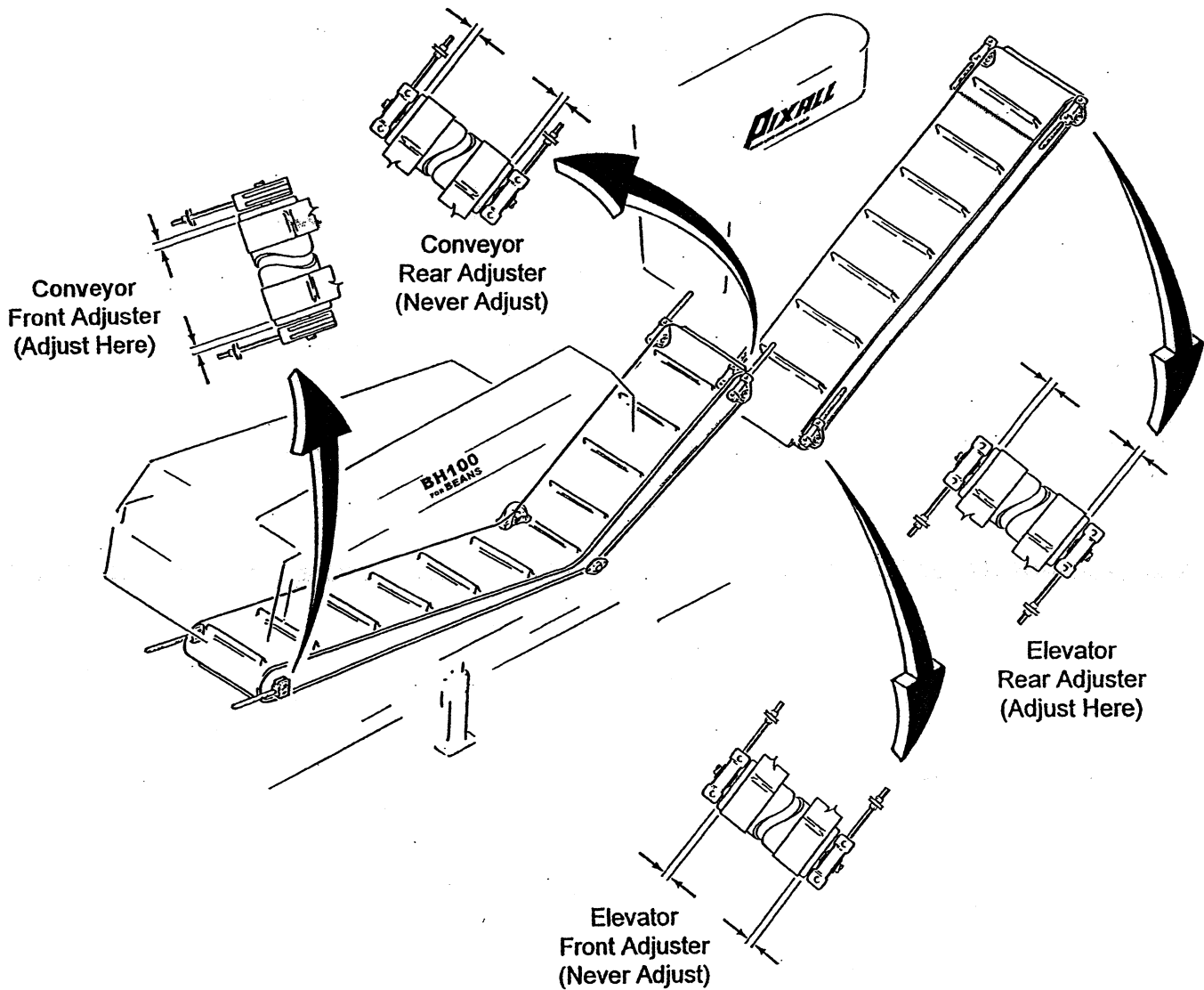
**Safety Shield Installation**

# Assembly/Setup

## CONVEYOR/ELEVATOR BELT ADJUSTMENT

 **DANGER**

Never service, lubricate, adjust, or perform any maintenance on the harvester while the power source-tractor PTO is running. Always disengage the PTO and shut off the tractor engine before checking, adjusting, and lubricating the harvester.



Conveyor/Elevator Belt Adjustment

# Preoperation

## PREVENTATIVE MAINTENANCE

The BH100 Bean Harvester will provide many years of trouble free service if it is maintained and lubricated properly.

Preventative maintenance can:

- Save on operating costs
- Keep equipment safe
- Reduce tractor horsepower requirements
- Extend equipment life
- Protect investment
- Increase trade-in value
- Reduce failures and downtime during peak harvest hours

The maintenance items in this section are listed by hour intervals and are to be completed at the hour interval shown. Within each hour interval, all maintenance is listed in a logical order starting from the left side of the harvester and working counterclockwise around the harvester. Use the hour meter on the engine tachometer as a guide for determining the interval when maintenance is required.

**IMPORTANT:** *Failure to complete the required maintenance at the intervals shown may result in rapid wear and unnecessary downtime.*



### DANGER

Never service, lubricate, adjust, or perform any maintenance on the harvester while the tractor PTO is running. Disengage the PTO and shut off the tractor engine.



### WARNING

To prevent personal injury, observe safety precautions before performing any adjustments or maintenance.

# Preoperation

## PREOPERATION CHECKLIST



### DANGER

Safety guards and protective shielding may be shown removed in this manual. **NEVER** operate the harvester with the safety guards or protective shielding removed. Close or replace all shielding before operating the harvester.

- Check the **tire pressure**. The correct tire pressure for the 11 L x 15 tire is **32 PSI**.
- Locate all **bearings** and **U-joints** (use parts section for assistance in locating). Check to see that all **set screws** are **tight**. Pay particular attention to the **PTO bearings** and the **fan bearings**.
- Check all **bolts**. Make sure they are **tight**; particularly the bolts and nuts on the **tongue**, the **hitch**, and the **wheels**. Use the proper torque as found in the Specifications section.
- Check the **hydraulic fittings**. Make sure they are **tight**.
- Make sure the **lifting chains** and **lifting cable** are **secure**. The lifting cable should be on the right side of the cable guide.
- Check the **three chain drives** for the following things:
  - a. The **set screws** are **tight**.
  - b. The **sprockets** are properly **aligned**.
  - c. The **chains** have the proper **tension**.
- Check the **drive belts**. Make sure they have the **proper tension**.
- Locate all **grease fittings** and make sure they are properly **lubricated**.
- Locate the **fan drive** and **conveyor drive gearboxes**, make sure they have the **proper amount** of #80 or #90 gear lube.
- Make sure the **fan speed** is properly **adjusted**. This will help ensure a minimum of product loss and the maximum removal of trash and debris.
- Make sure the **air gates** are **adjusted** properly for maximum efficiency.
- Make sure all **shields** are **in place** and are **secure**.



# Preoperation

## LUBRICATION INFORMATION



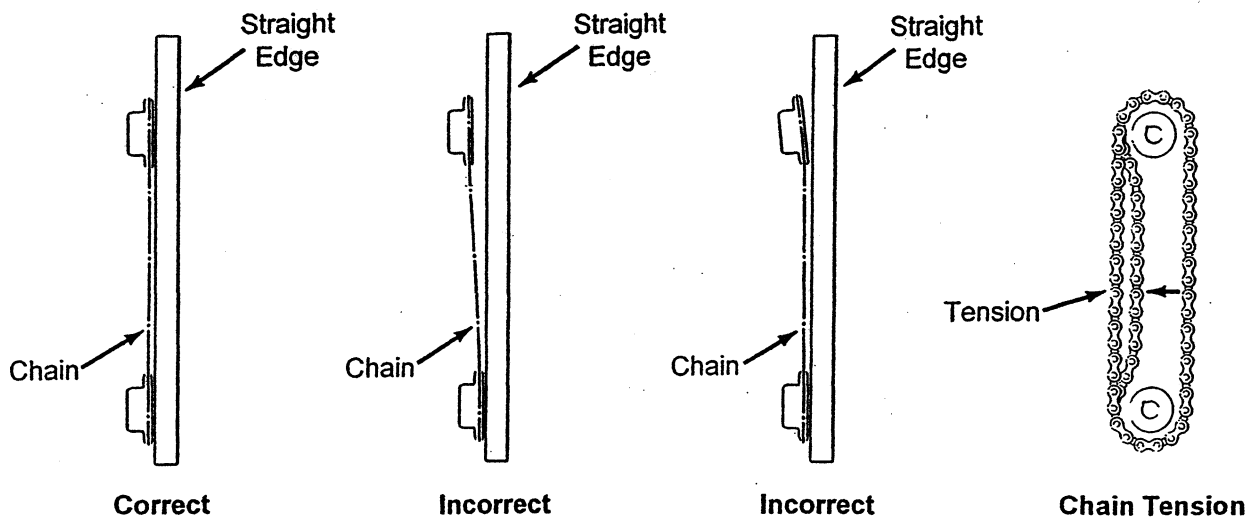
### DANGER

Never service, lubricate, or perform any maintenance on the harvester while the power source-tractor PTO is running. Always disengage the PTO and shut off the tractor engine before checking and lubricating the harvester.

**IMPORTANT:** *The harvester has been lubricated at the factory. Do not over lubricate and disturb the bearing seals.*

## Roller Chain

Chains should be lubricated frequently to maintain their high efficiency and give long, trouble-free service. Factors such as operating conditions (dirt and temperature), amount of power transmitted, speed of chain, and lubrication, influence the life of a chain. To effectively lubricate the chain joints, oil must be delivered to the spaces between the side bars. It is also essential that an adequate oil film be retained between the rollers and bushings to maintain a free and flexible chain. When a chain becomes stiff, it should be soaked and washed in a solvent to loosen and remove dirt and corrosion from the joints, then soaked overnight in oil until the lubricant penetrates between the rollers and bushings.



Chain Alignment and Tension Adjustment

## Sealed Bearings

Sealed bearings are used throughout the machine to provide trouble-free operation with a minimum of maintenance and lubrication. Sealed bearings are lubricated for life. Due to the seals, relubrication is not practical.

# Preoperation

## LUBRICATION POINTS

**IMPORTANT:** *DO NOT let excessive grease collect on or around parts.*

The following two pages show the location of all lubrication points. See the Lubrication Schedule for the recommended frequency of lubrication.

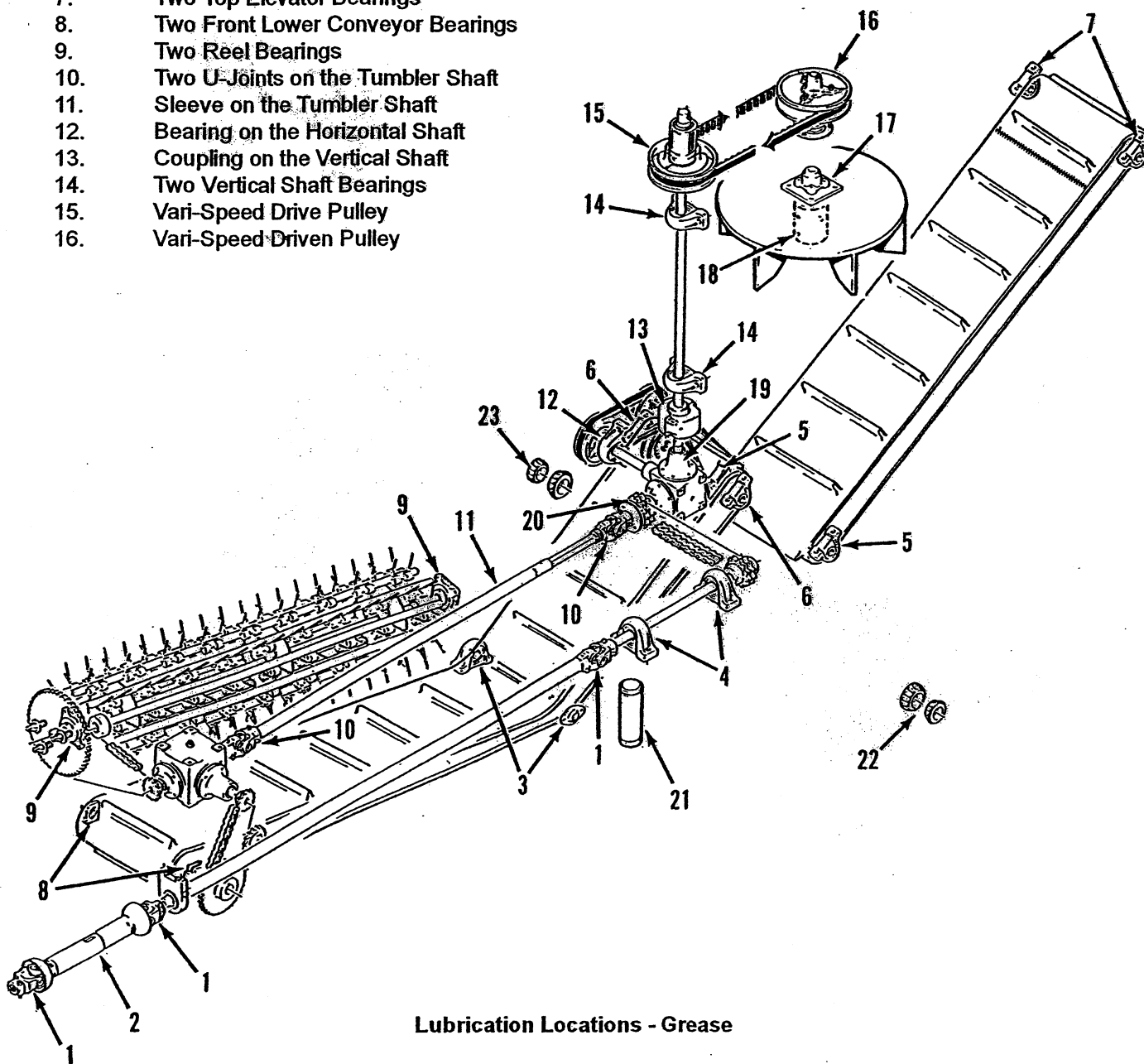
Use the Pixall® grease standard for all grease locations shown. Clean the fittings thoroughly before using the grease gun.

| APPLICATION   | LUBRICANT  |
|---|--|
| Pump Drive<br>Transmission<br>Feeder House Gearboxes<br>Bean Header Gearboxes | SAE 80W90<br>(must meet API-GL-5 and Mack GO-H)  |
| Grease Fittings   | Lithium Complex Thickened Grease<br>NLGI #2<br>(must meet NLGI classification GC/LB)<br><b>IMPORTANT:</b> <i>Compatibility problems may occur with greases of other thickened types.</i> |

# Preoperation

## LUBRICATION LOCATIONS - GREASE

| Item No. | Description                        | Item No. | Description                               |
|----------|------------------------------------|----------|---|
| 1.       | Three U-Joints on PTO              | 17.      | Two Fan Bearings                          |
| 2.       | Sleeve on the PTO shaft            | 18.      | Fan Hub                                   |
| 3.       | Two Middle Lower Conveyor Bearings | 19.      | Fitting on Top of the Fan Drive Gearbox   |
| 4.       | Two PTO Bearings                   | 20.      | Fitting on End of the Crank               |
| 5.       | Two Bottom Elevator Bearings       | 21.      | Cable Roller                              |
| 6.       | Two Rear Lower Conveyor Bearings   | 22.      | Two Wheel Bearings (wheel bearing grease) |
| 7.       | Two Top Elevator Bearings          |          |   |
| 8.       | Two Front Lower Conveyor Bearings  |          |   |
| 9.       | Two Reel Bearings                  |          |   |
| 10.      | Two U-Joints on the Tumbler Shaft  |          |   |
| 11.      | Sleeve on the Tumbler Shaft        |          |   |
| 12.      | Bearing on the Horizontal Shaft    |          |   |
| 13.      | Coupling on the Vertical Shaft     |          |   |
| 14.      | Two Vertical Shaft Bearings        |          |   |
| 15.      | Vari-Speed Drive Pulley            |          |   |
| 16.      | Vari-Speed-Driven Pulley           |          |   |

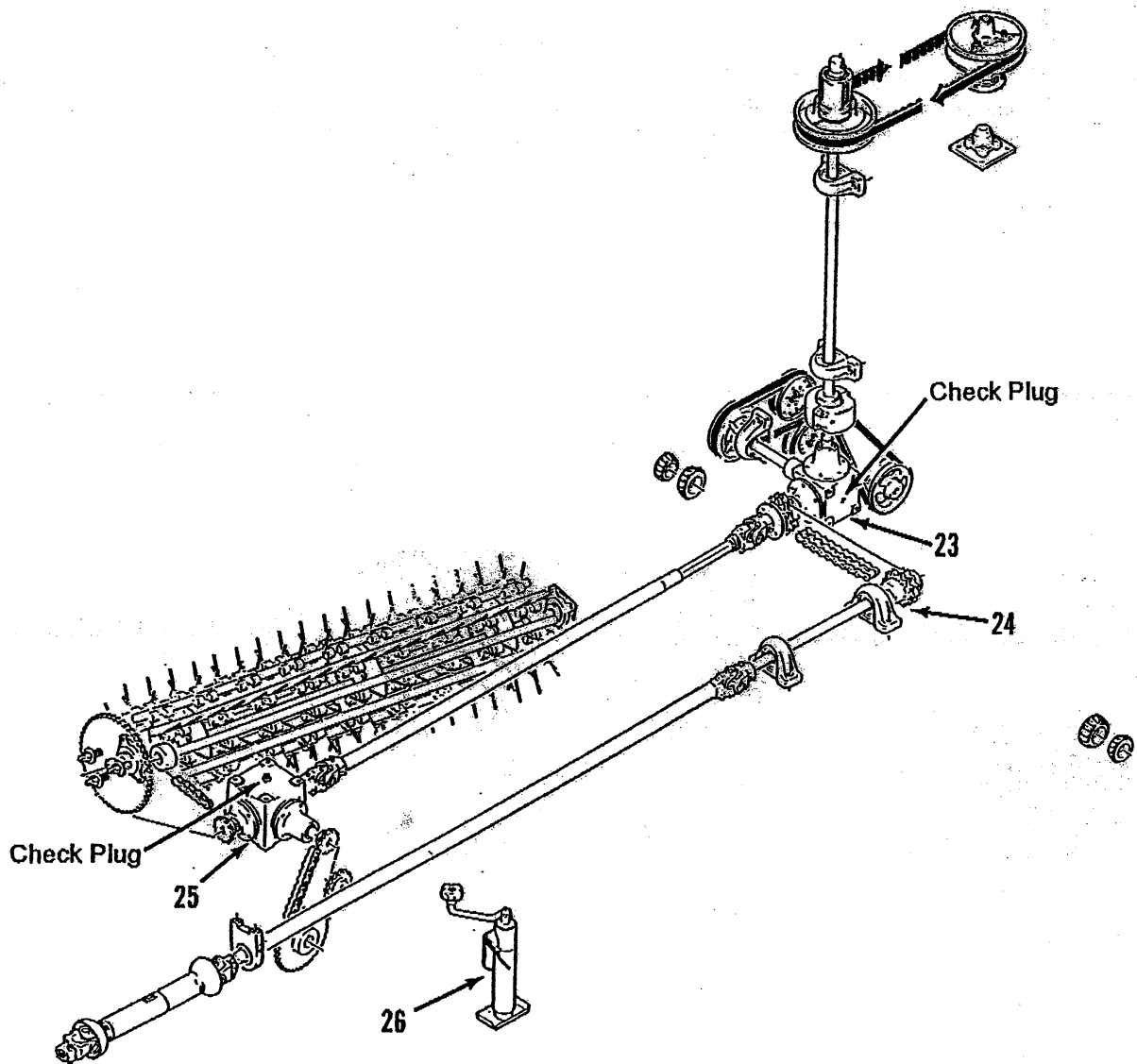


Lubrication Locations - Grease

# Preoperation

## LUBRICATION LOCATIONS - OIL

| Item No. | Description  |
|----------|--|
| 23.      | Fan Drive Gearbox - 5.25 pt. (1.24 liters) #80 - #90 gear lube     |
| 24.      | Vari-Speed Adjustment Shaft - lubrication oil                      |
| 25.      | Conveyor Drive Gearbox - 1.25 pt. (.29 liters) #80 - #90 gear lube |
| 26.      | Jack Stand - lubrication oil                                       |



Lubrication Locations - Oil

# Preoperation

## LUBRICATION SCHEDULE

Lubricate the components according to the schedule below. The frequency of lubrication is given in hours based on normal operating conditions. Severe or unusual conditions may require more frequent attention.

**IMPORTANT:** Do not over lubricate the sealed bearings.

| Item No. | Component                           | Quantity | Type * | 10 Hours | 40 Hours | 3 Months | Yearly |
|----------|-------------------------------------|----------|--------|----------|----------|----------|--------|
| 1        | U-Joints on PTO                     | 3        | G      | X        |          |          |        |
| 2        | Sleeve on PTO Shaft                 | 1        | G      | X        |          |          |        |
| 3        | Middle Lower Conveyor Bearings      | 2        | G      |          | X        |          |        |
| 4        | PTO Bearings                        | 2        | G      |          | X        |          |        |
| 5        | Bottom Elevator Bearings            | 2        | G      |          | X        |          |        |
| 6        | Rear Lower Conveyor Bearings        | 2        | G      |          | X        |          |        |
| 7        | Top Elevator Bearings               | 2        | G      |          | X        |          |        |
| 8        | Front Lower Conveyor Bearings       | 2        | G      |          | X        |          |        |
| 9        | Reel Bearings                       | 2        | G      |          | X        |          |        |
| 10       | U-Joints on Tumbler Shaft           | 2        | G      | X        |          |          |        |
| 11       | Sleeve on Tumbler Shaft             | 1        | G      | X        |          |          |        |
| 12       | Bearing on Horizontal Shaft         | 1        | G      |          | X        |          |        |
| 13       | Coupling on Vertical Shaft          | 1        | G      | X        |          |          |        |
| 14       | Vertical Shaft Bearings             | 2        | G      |          | X        |          |        |
| 15       | Vari-Speed Drive Pulley             | 1        | G      |          | X        |          |        |
| 16       | Vari-Speed Driven Pulley            | 1        | G      |          | X        |          |        |
| 17       | Fan Hub                             | 1        | G      |          | X        |          |        |
| 18       | Fan Bearings                        | 2        | G      |          | X        |          |        |
| 19       | Fitting on Top of Fan Drive Gearbox | 1        | G      |          | X        |          |        |
| 20       | Fitting on End of the Crank         | 1        | G      |          | X        |          |        |
| 21       | Cable Roller                        | 1        | G      | X        |          |          |        |
| 22       | Fan Drive Gearbox                   | 1        | O      |          |          | X        |        |
| 23       | Wheel Bearings                      | 2        | O      |          |          |          | X      |
| 24       | Vari-Speed Adjustment Shaft         | 1        | O      |          |          | X        |        |
| 25       | Conveyor Drive Gearbox              | 1        | O      |          |          | X        |        |
| 26       | Jack Stand                          | 1        | O      |          |          | X        |        |

\* G = Grease only, O = Oil only

# Field Setup

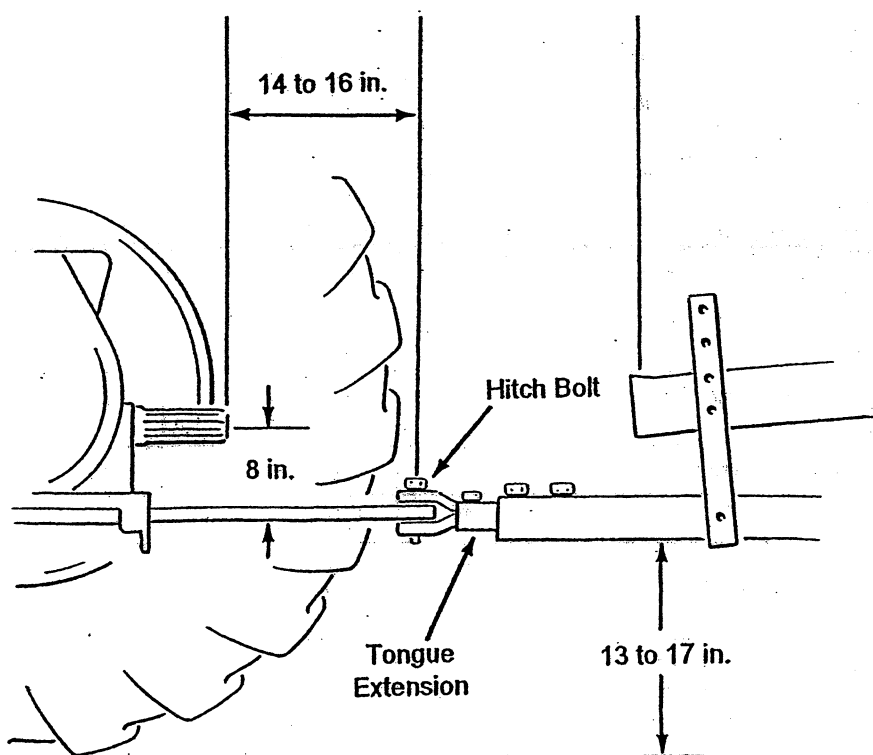
## ATTACHING THE HARVESTER TO THE TRACTOR

Use at least a 40 hp tractor, equipped with a 540 RPM live power PTO, and a hydraulic system to operate one double acting cylinder.

## ATTACHING THE HARVESTER TO THE STATIONARY DRAWBAR

1. Attach the harvester tongue clevis hitch to the stationary tractor drawbar that is secured in the center position.
2. Secure the clevis to the tractor drawbar using a large bolt with a jam nut or a pin with a cotter pin.
3. Release the jack stand and secure it in a horizontal position on the tongue.
4. Attach the PTO shaft assembly.
5. Adjust the tractor drawbar length to the correct distance between the end of the PTO shaft and the center of the hitch, as shown in the figure below.
6. Adjust the bearing hanger to allow the drive line to be in the straightest line possible; from the tractor PTO to the PTO Extension Shaft on the harvester.

**IMPORTANT:** *The hitch point should be located exactly as specified. Improper hookup will cause damage to the universal joints and drive shafts.*



Drawbar Adjustment

# Field Setup

## HYDRAULIC ATTACHMENT

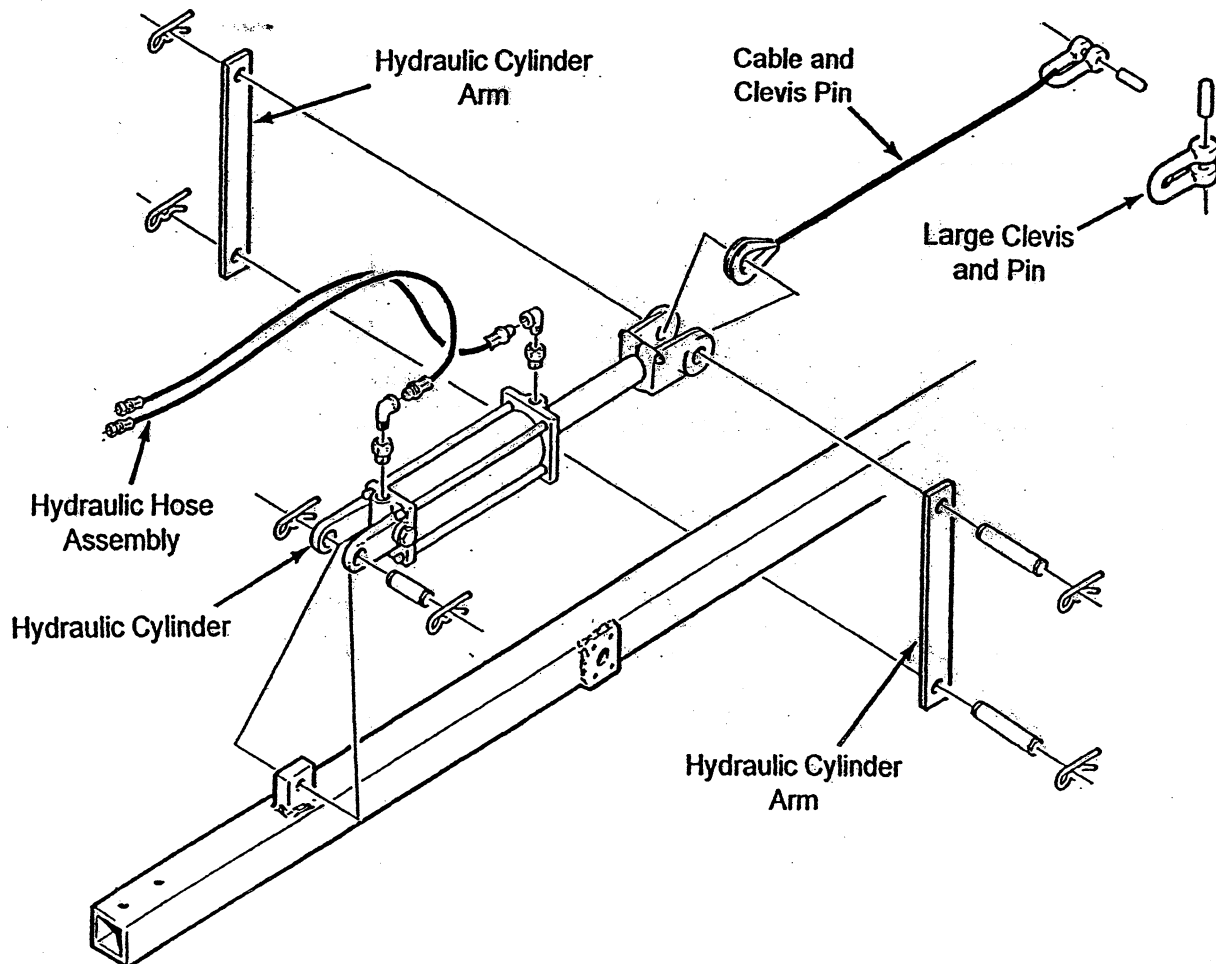
A double acting hydraulic cylinder with two 8 ft. (20.3 cm) hoses is furnished with the harvester. Quick couplings should be used to facilitate connecting and disconnecting the harvester from the tractor. Quick couplings are not furnished.

**⚠ DANGER**

Always relieve hydraulic pressure before disconnecting the hoses.

1. Attach the lifting hose, which is connected to the rear of the cylinder, to the tractor hydraulic system so that when the control lever is pushed ahead, or down, the harvester raises.
2. Make sure the hoses do not contact moving parts.

**IMPORTANT:** *The hoses may be damaged if contacted by moving parts.*



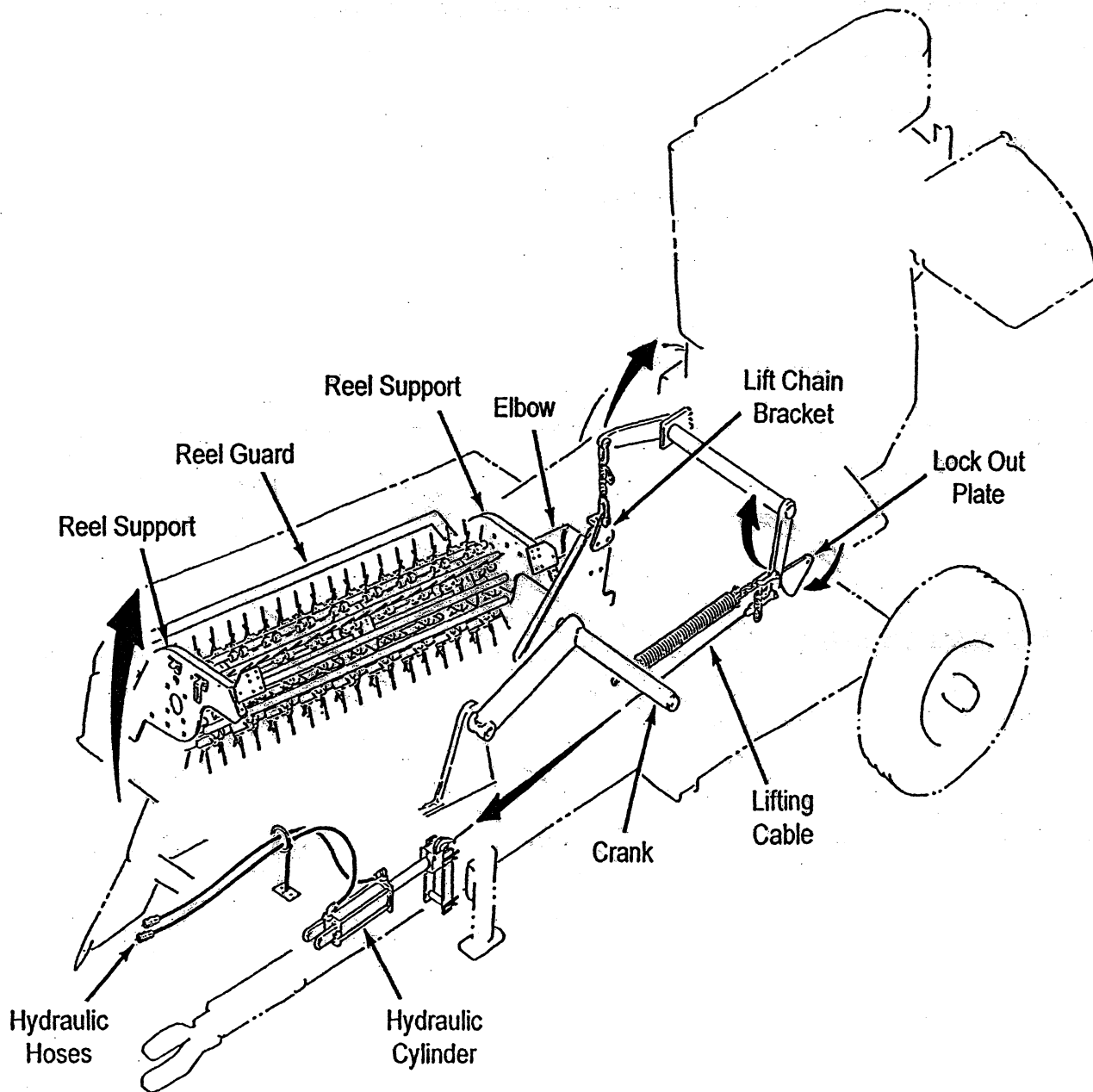
Hydraulic Hose Attachment

# Field Setup

## LIFTING MECHANISM

Before going to the field, check the lifting mechanism:

1. Make sure all cables and chains are secured.
2. Make sure there are no obstructions between the main frame and the picking unit.
3. Make sure the PTO shaft is free to telescope.



Lifting Mechanism

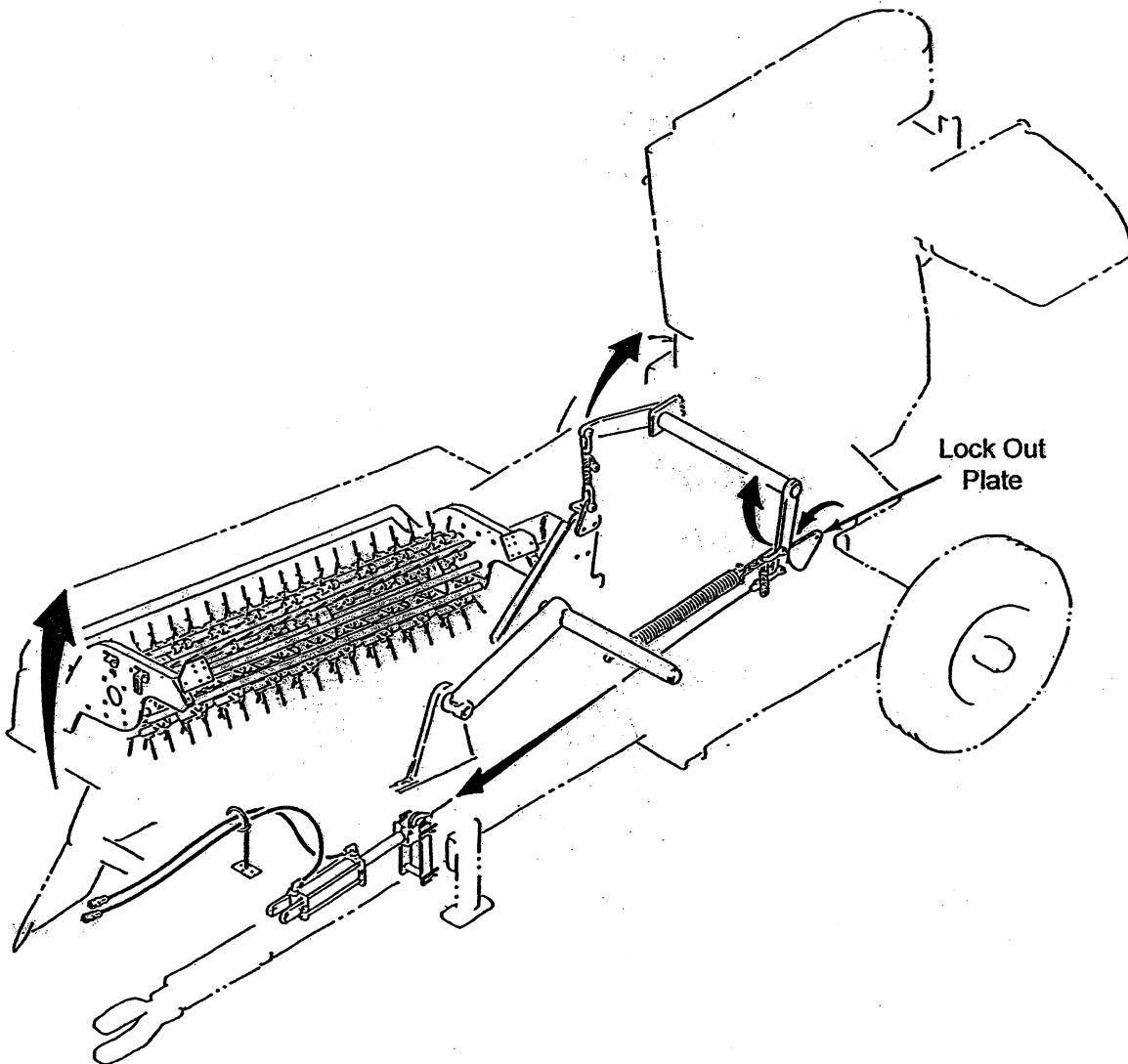


# Field Setup

## RAISE THE PICKING REEL ASSEMBLY

When the picking reel is in the raised position, the lockout plate should be in the lockout (forward) position for roadway towing. This relieves tension on the lifting cable.

**IMPORTANT:** *The arrows show the direction of movement of the components.*

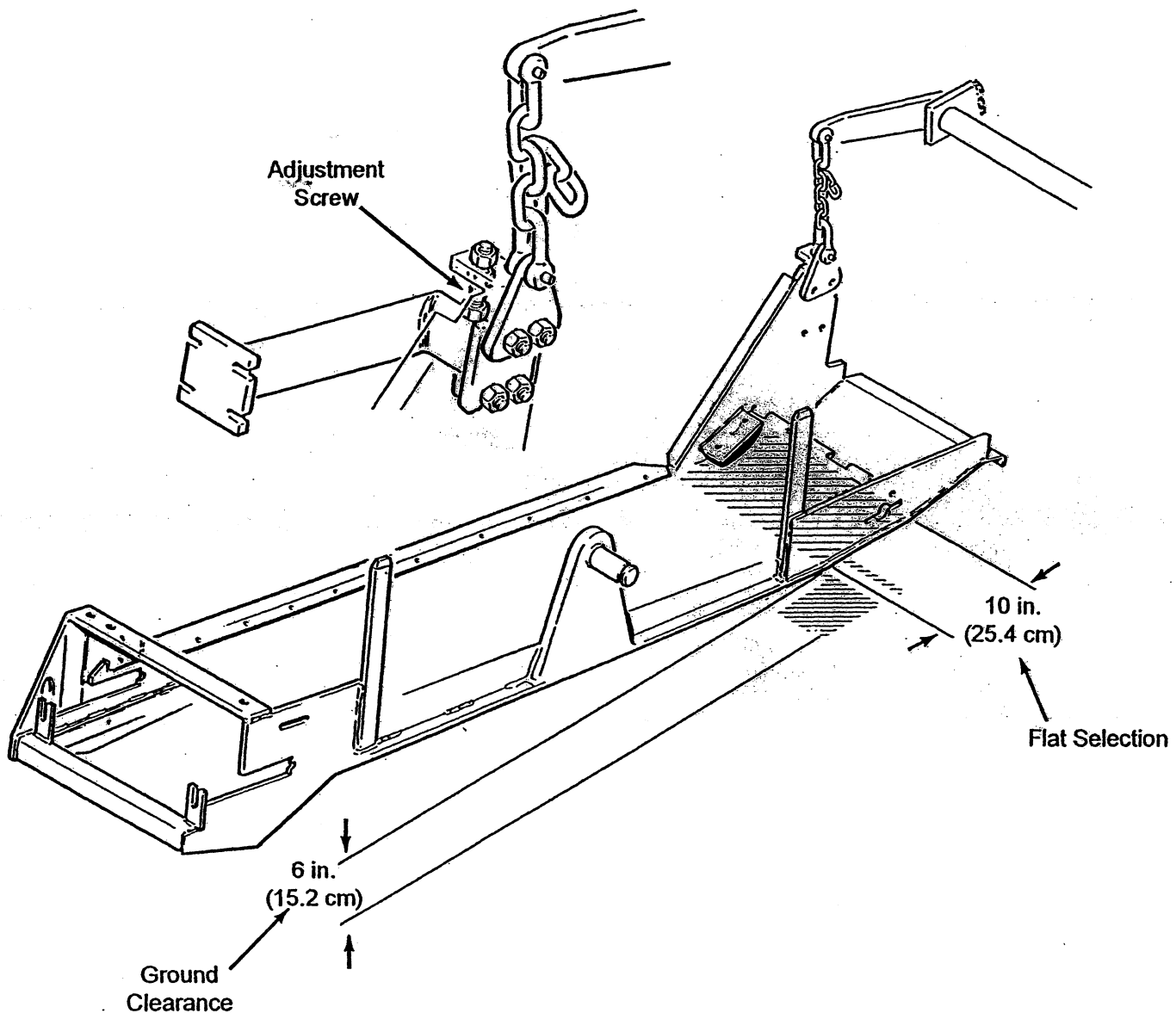


**Raising the Picking Reel Assembly**

# Field Setup

## GROUND CLEARANCE

1. With the harvester in the raised position while on level ground, make sure there is approximately 6 in. (15.2 cm) of ground clearance below the rear section of the scow, at the 10 in. (25.4 cm) flat section.
2. If additional clearance is needed, shorten the lift chain.
3. Make sure there is at least 9 in. (22.9 cm) of clearance at the row divider/vine lifter.
4. This unit is adjustable, but do not make any adjustment lower than the 9 in. (22.9 cm) position. If further adjustment is needed, use the fine adjustment screw.
5. Make sure that all shields do not hit or rub while the picking unit is in the raised position.



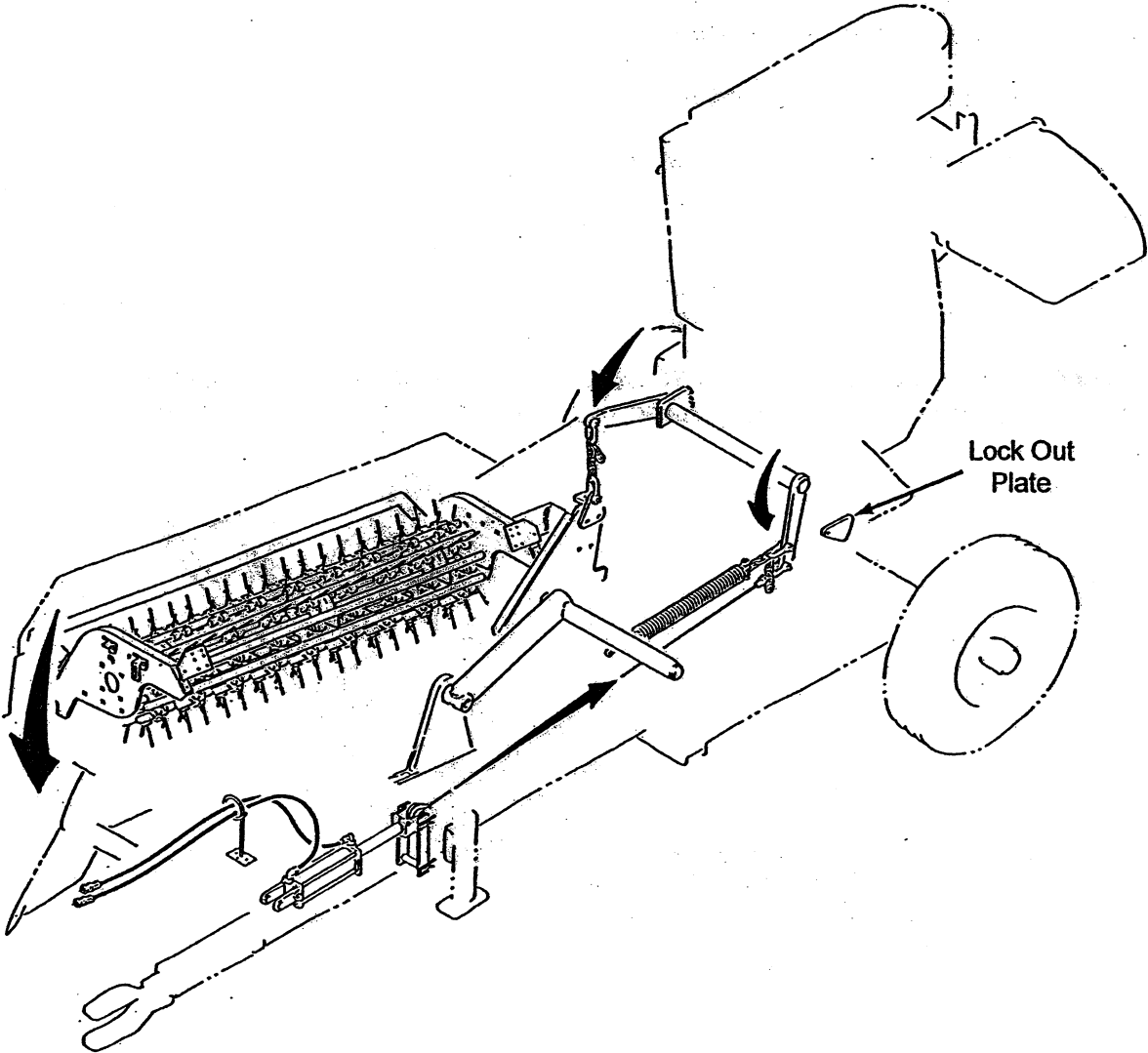
Ground Clearance Points of Measurement

# Field Setup

## LOWER THE PICKING REEL ASSEMBLY

- 1. Make sure the 10 in. (25.4 cm) long flat section at the rear of the scow will lay flat on level ground with very little or no clearance.
- 2. If not, it will be necessary to lengthen the lift chain to lower the picking reel unit.
- 3. See that the backboard shield assembly has clearance between it and the PTO shaft.

**IMPORTANT:** *The arrows show the direction of movement of the components.*



Lowering the Picking Reel Assembly

# Field Setup

## CHECK MOVING PARTS



### WARNING

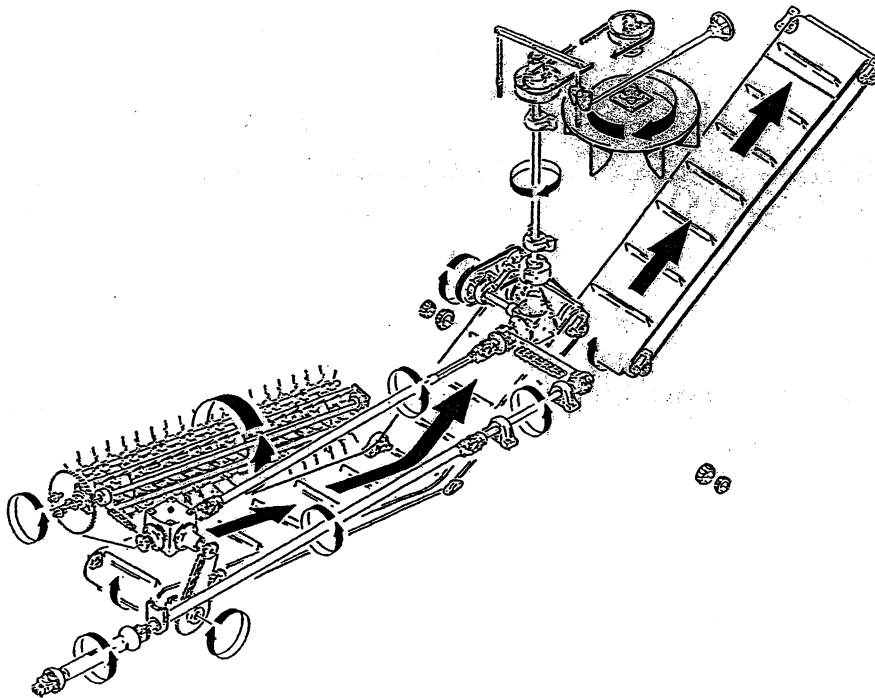
Never make adjustments to the harvester while the tractor is running. Stop the tractor engine to make repairs or adjustments.

Run the harvester to check the moving parts:

1. Stop the tractor engine and remove the key from the ignition.
2. Put the tractor transmission into Neutral.
3. Check for free and smooth operation of all shafts.
4. Make sure all chain drives are operating freely with proper alignment and tension.

**IMPORTANT:** To prevent excessive wear on the drive line, the picking unit and the scow should be in the lowered position while the harvester is operating.

**IMPORTANT:** Always engage the tractor PTO clutch slowly and at a slow tractor engine speed. Abrupt PTO engagement at a high tractor engine speed may result in harvester power train failure.



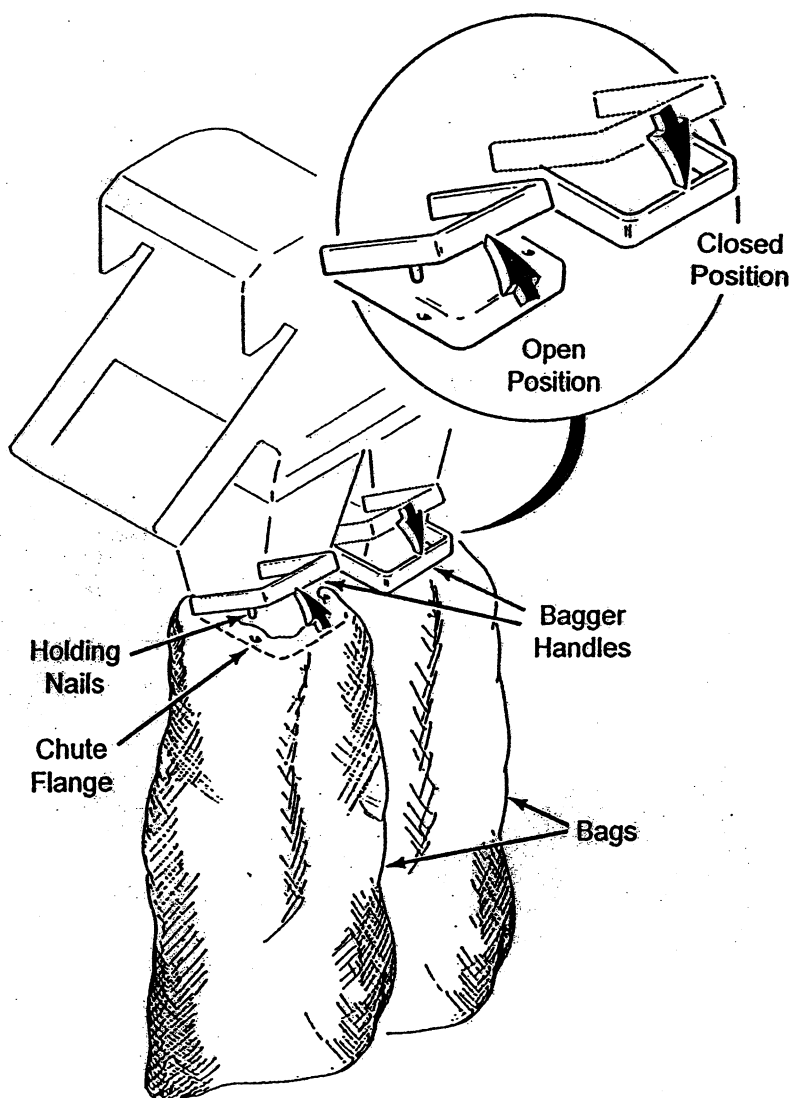
Drive Train Moving Parts

# Field Setup

## BAG ATTACHMENT

Bags are attached to the harvester as follows:

1. Lift the bagger handle.
2. Install the bag onto the chute flange.
3. Pull the top of the bag tightly around the bagger attachment flange.
4. Pull the bagger handle down. The bag will be held securely in place by the holding nails.

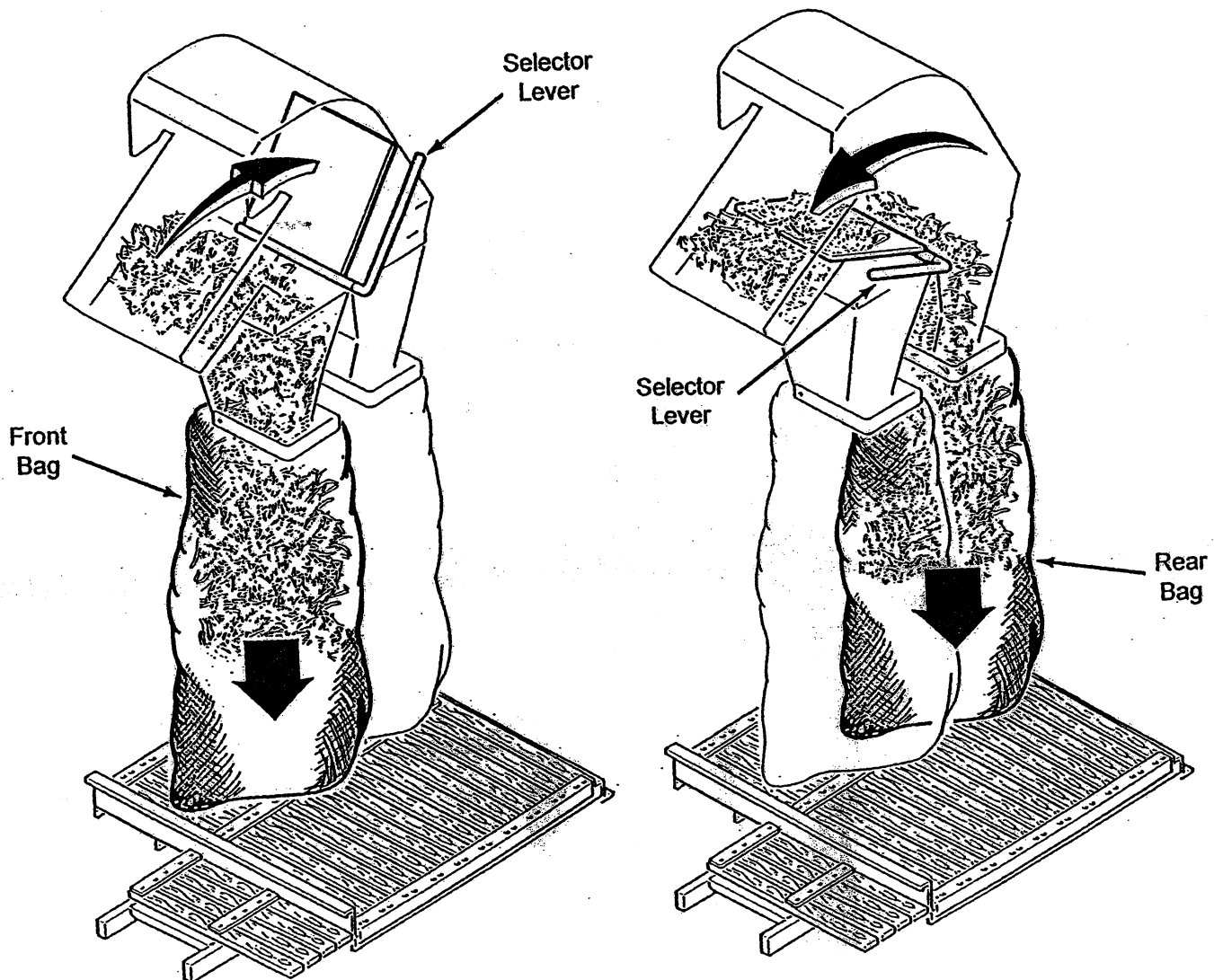


Bag Attachment

# Field Setup

## SELECTOR LEVER FUNCTION

The selector lever is used to direct the beans into either the front bag or the rear bag. Moving the selector lever to the rear position fills the front bag. Moving the selector lever to the front position fills the rear bag.



Selector Lever in the Rear Position

Selector Lever in the Front Position

# Adjustments

## REEL CLUTCH



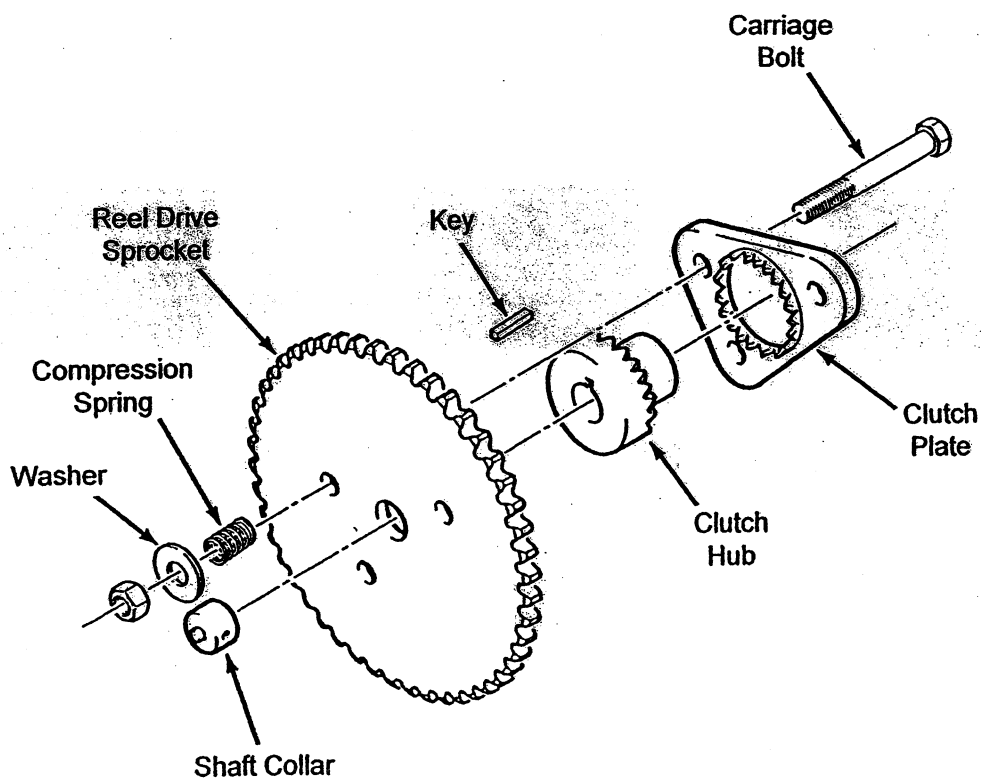
**DANGER**

Never make adjustments to the harvester while the tractor is running. Stop the tractor engine to make repairs or adjustments.

The picking reel has a safety clutch to prevent damage to the drive line. The safety clutch has been adjusted at the factory and should be correct.

The compression springs on the front of the reel drive sprocket are adjusted by tightening the nuts, compressing the springs so the clutch plate and the clutch hub mesh together. The nuts must be tight enough to drive the reel under normal picking conditions, yet loose enough to allow the clutch to slip if the reel becomes jammed. The slippage will protect the drive line from damage.

The reel clutch is adjusted by trial and error.



**Adjusting the Reel Clutch**

# Adjustments

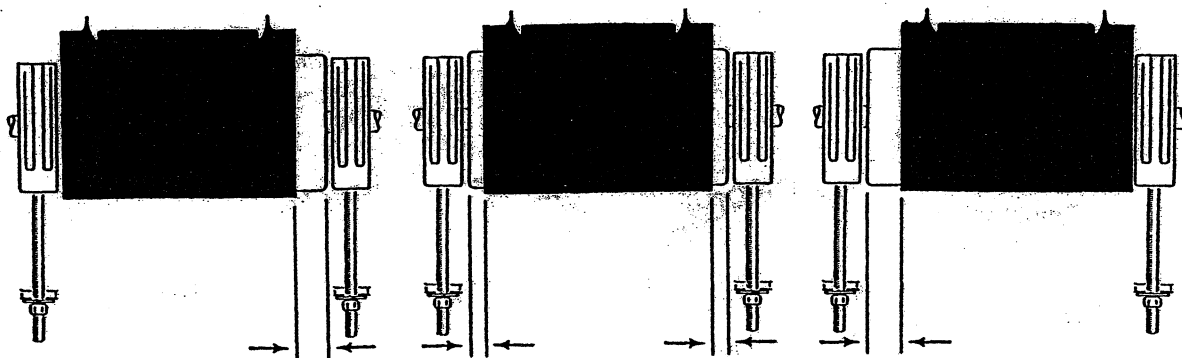
## CONVEYOR/ELEVATOR BELTS

Make sure all belts are operating and in proper alignment and tension.

**IMPORTANT:** *The belts have been adjusted and aligned at the factory and should be running properly. Do not tighten belts excessively.*

Adjustments can be made at either end of the harvester conveyors. However, it is best to adjust the scow belt from the front end. In some cases, this requires readjustment of the chain drive.

1. See that the picking reel is operating smoothly and that the picking fingers are not striking the moldboard of the scow.
2. The correct clearance at the center of the moldboard is approximately .5 in. (1.3 cm).
3. There is an adjustment on the right hand side of the scow to raise or lower the reel. This adjustment has been made at the factory and should be correct. (Refer to the Reel Adjustment section for readjustment instructions.)



Belt Running Left  
(Increase belt tension  
with left adjusting screw.)

Belt Centered  
(Correct)

Belt Running Right  
(Increase belt tension  
with right adjusting screw.)

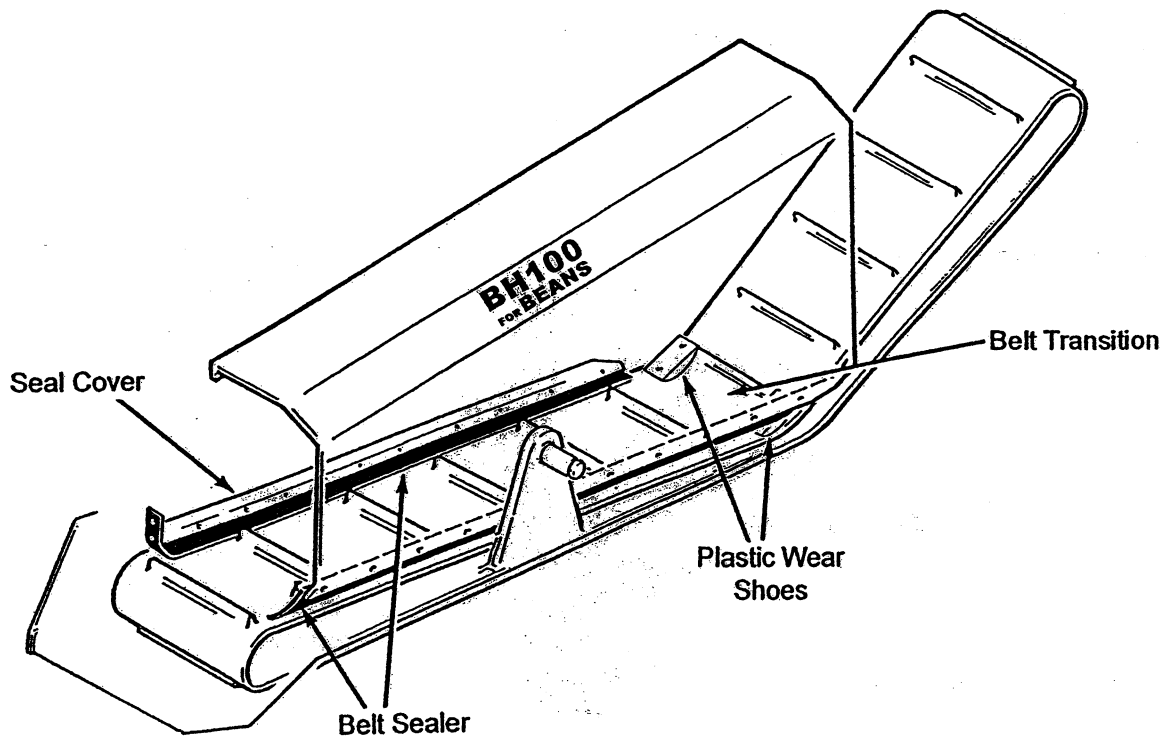
### Conveyor/Elevator Belt Alignment



# Adjustments

The conveyor/elevator belts normally require very little maintenance or adjustment. It is very important that the belts retain the proper tension and are kept in alignment. If the belt is over tightened it will pull out from under the plastic wear shoes at the belt transition.

**IMPORTANT:** *The belt sealers and plastic wear shoes should be adjusted so that they are as close to the belt as possible.*

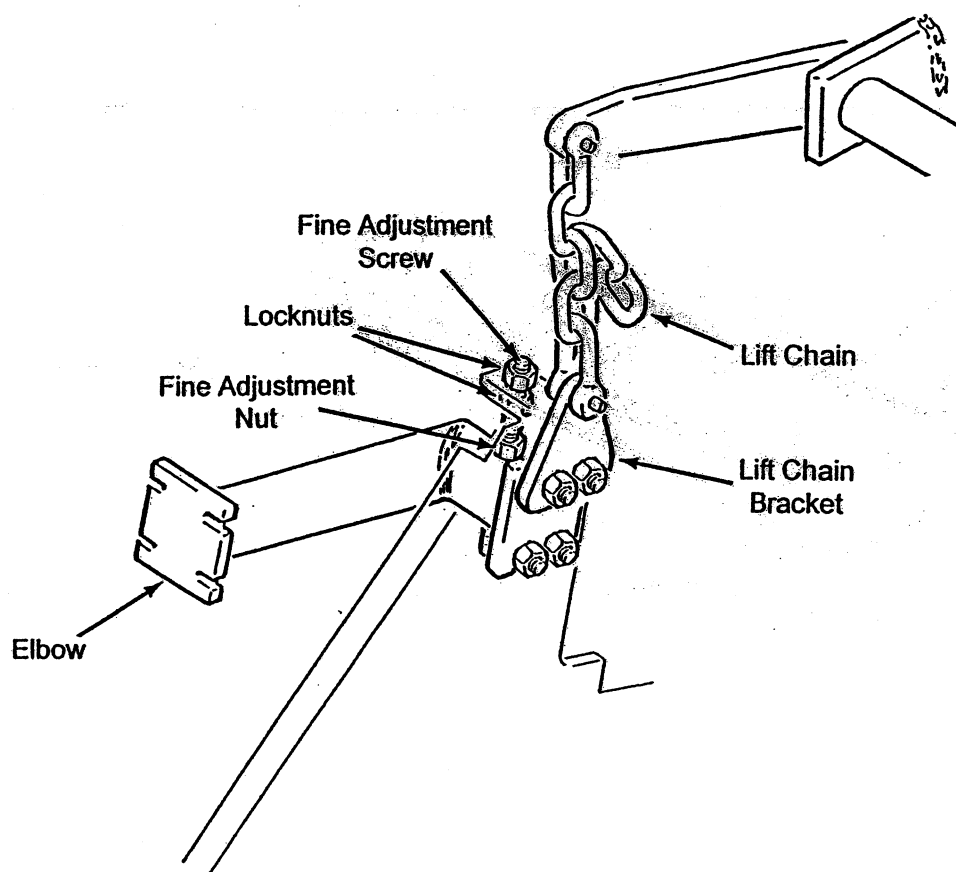


Conveyor/Elevator Belt Care and Wear Shoes

# Adjustments

## REEL

1. The reel has an adjustment on the right side of the scow where the elbow connects.
2. The correct setting is made at the factory and should not need adjusting until there is wear between the picking fingers and the scow mold board.
3. The space between the picking fingers and scow moldboard should be no less than .5 in. (1.3 cm) and no more than 1 in. (2.5 cm).
  - a. Too high of an adjustment will allow the picked product to fall through or slide out of the scow, causing increased loss.
  - b. Too low of an adjustment will result in broken or damaged product.
4. Reel adjustment is provided so that the reel can be set closer to allow for wear of the picking fingers.
5. Adjustment is not usually necessary until the harvester has been operated for about 200 hours.



Reel Height Adjustment

# Adjustments

## AIR GATES



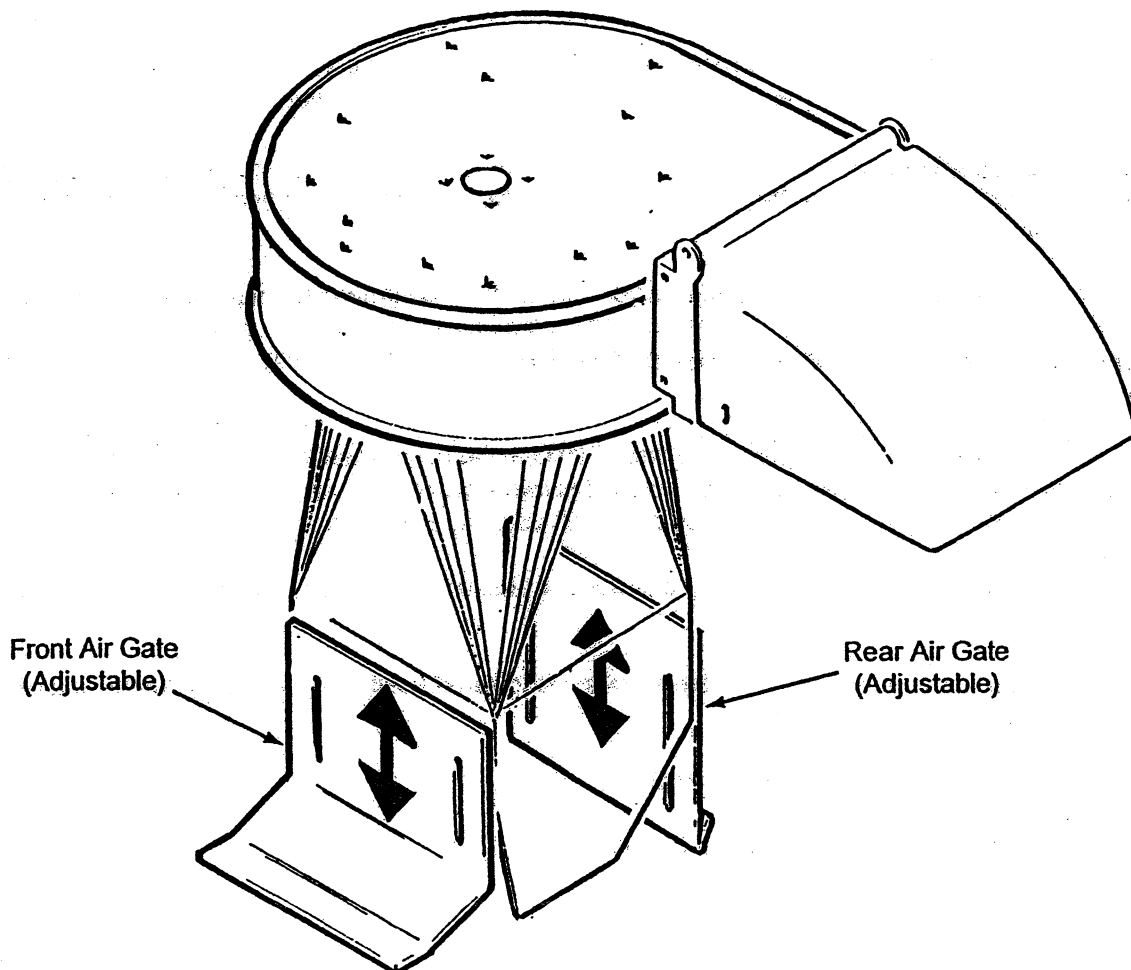
### WARNING

Trash and debris are thrown from the fan at high speed. Always be aware of the surroundings. Objects thrown from the fan may cause severe personal injury or death.

There are two adjustable gates on the fan duct, front and rear.

When either or both of these gates are **DOWN**, the suction of the fan is directed to the bottom, pulling air through the product and producing maximum cleaning. The **DOWN** position is recommended for good cleaning in damp and heavy trash conditions.

The **UP** position is recommended for dry and light trash conditions. When in the **UP** position, the air is allowed to flow in and over the top of the product.



Air Gate Adjustment

# Adjustments

## VARI-SPEED FAN DRIVER (HAND WHEEL)

The fan pulls air up through the front and rear air gates, the grate and the duct to separate the debris from the beans. The air picks up the debris, passes through the fan, and comes out the discharge chute. The fan speed is adjustable to allow for different crops and varying cleaning conditions.

Make sure the vari-speed fan driver and the vari-speed driven companion sheave are operating properly and will adjust.

**IMPORTANT:** *The harvester must be running to make any adjustment to the vari-speed fan drive.*



### CAUTION

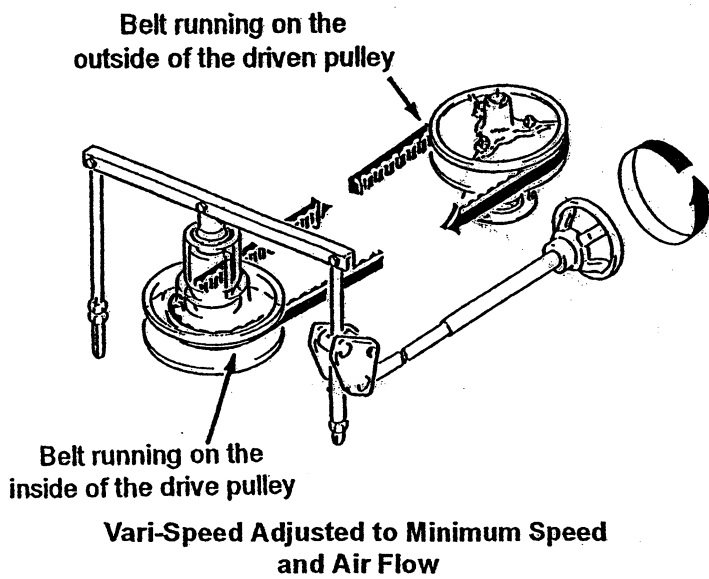
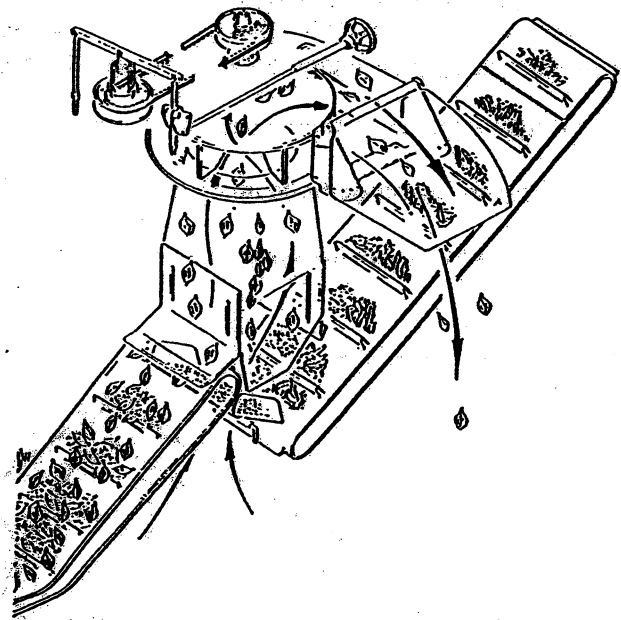
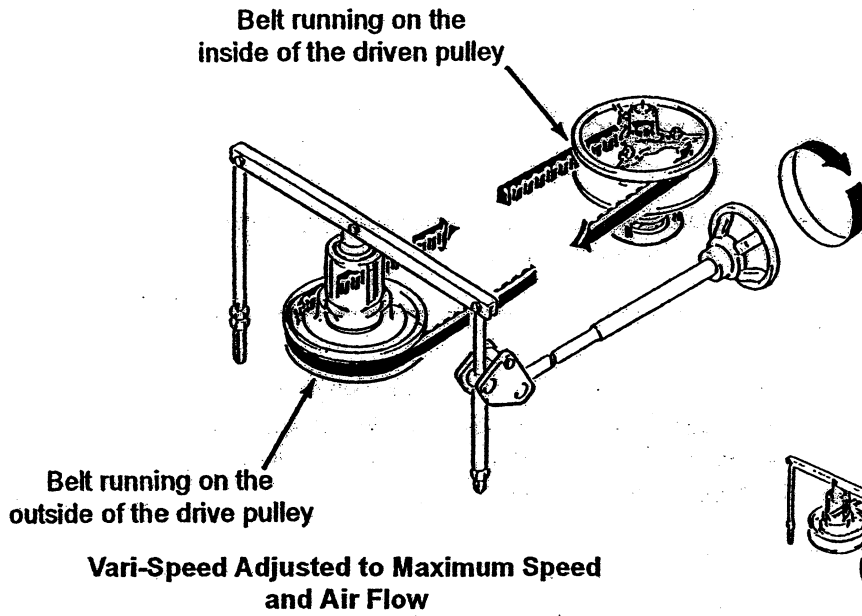
Be careful when making adjustments. Use only the hand wheel on the left hand side of the machine.

**IMPORTANT:** *Correct fan speed is determined while harvesting the product. Adjust the speed until the desired trash removal is attained, making sure to not remove any marketable beans.*

Fan speed is adjusted by rotating the hand wheel on the left hand side of the harvester so that the rod is drawn down or raised up, moving the vari-speed belt and adjusting the vari-speed pulley. Adjustment is done as follows:

1. To increase the fan speed, engage the tractor PTO at the recommended engine speed and turn the hand wheel to the right (tighten hand wheel) as shown below. The rod is drawn down and the vari-speed belt moves toward the outer edge of the pulley. The vari-speed pulley will adjust to maximum fan speed.
2. To decrease the fan speed, engage the tractor PTO at the recommended engine speed and turn the hand wheel to the left as shown below. The rod is raised up and the vari-speed belt moves toward in inner edge of the pulley. The vari-speed pulley will adjust to minimum fan speed.
3. Make sure the fan rotor turns smoothly and does not rub on or hit the top, bottom, or sides of the fan housing.
4. If time allows, run the harvester with the scow in the lowered position for several minutes and recheck the following:
  - a. Set screws and other bolts for tightness.
  - b. Belts and chain drives for proper alignment.
  - c. Conveyor belts for proper operation.

# Adjustments



# Adjustments

## FAN DISCHARGE

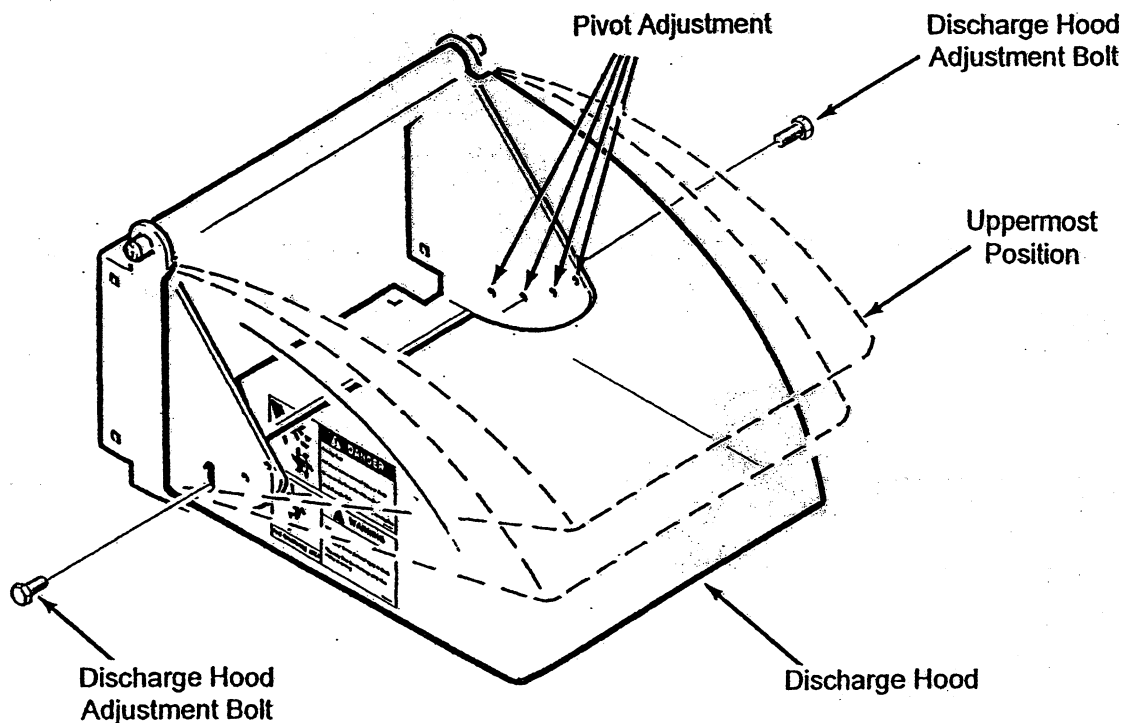


### WARNING

Debris is thrown from the fan at high speed. Always be aware of the surroundings. Objects thrown from the fan may cause severe personal injury or death.

The fan discharge on the left side of the harvester has an adjustable hood. It is recommended that the hood be in the uppermost raised position, allowing debris to be dispersed over a wide area with less restriction to the air flow of the fan. If necessary, the discharge hood may be lowered to discharge debris in a restricted area. The fan discharge is shown below.

1. Remove the adjustment bolts from the discharge hood.
2. Pivot the discharge hood up or down for the proper discharge hood adjustment.
3. Install and tighten the discharge hood adjustment bolts.



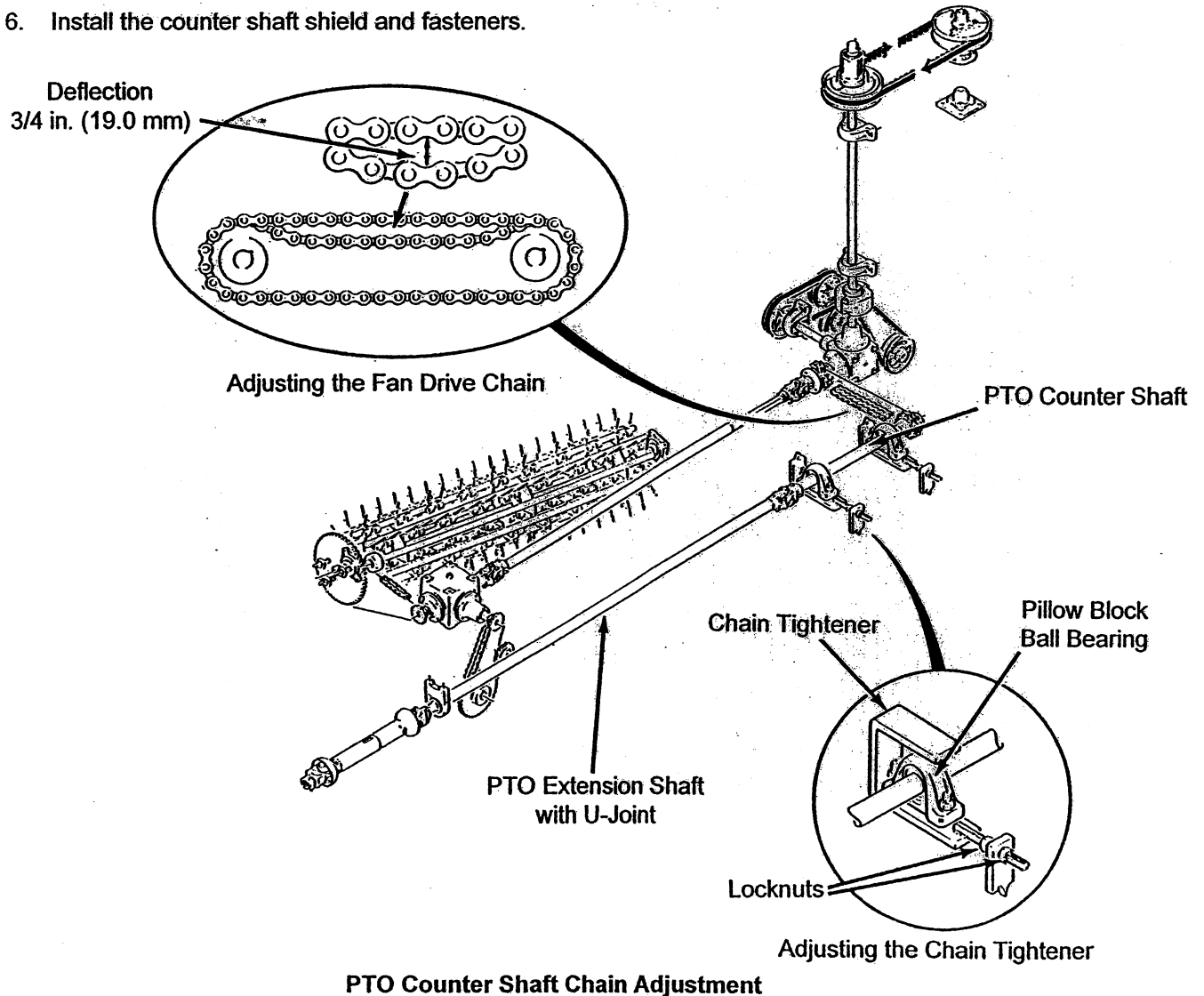
Fan Discharge Adjustments

# Adjustments

## PTO COUNTER SHAFT CHAIN TIGHTENERS

The PTO counter shaft chain tighteners are used to adjust the chain slack and to align the counter shaft, left to right. The PTO counter shaft chain is adjusted as follows:

1. Remove the counter shaft shield and fasteners.
2. Loosen the chain tightener locknuts.
3. Tighten or loosen the chain adjusters evenly. Proper chain adjustment requires approximately .75 in. (1.9 cm) of chain deflection.
4. Perform a visual check and use a straight edge to make sure that the PTO counter shaft and the PTO extension shaft are properly aligned.
5. Tighten the chain tightener locknuts.
6. Install the counter shaft shield and fasteners.



# Field Operation

## TURNING THE HARVESTER

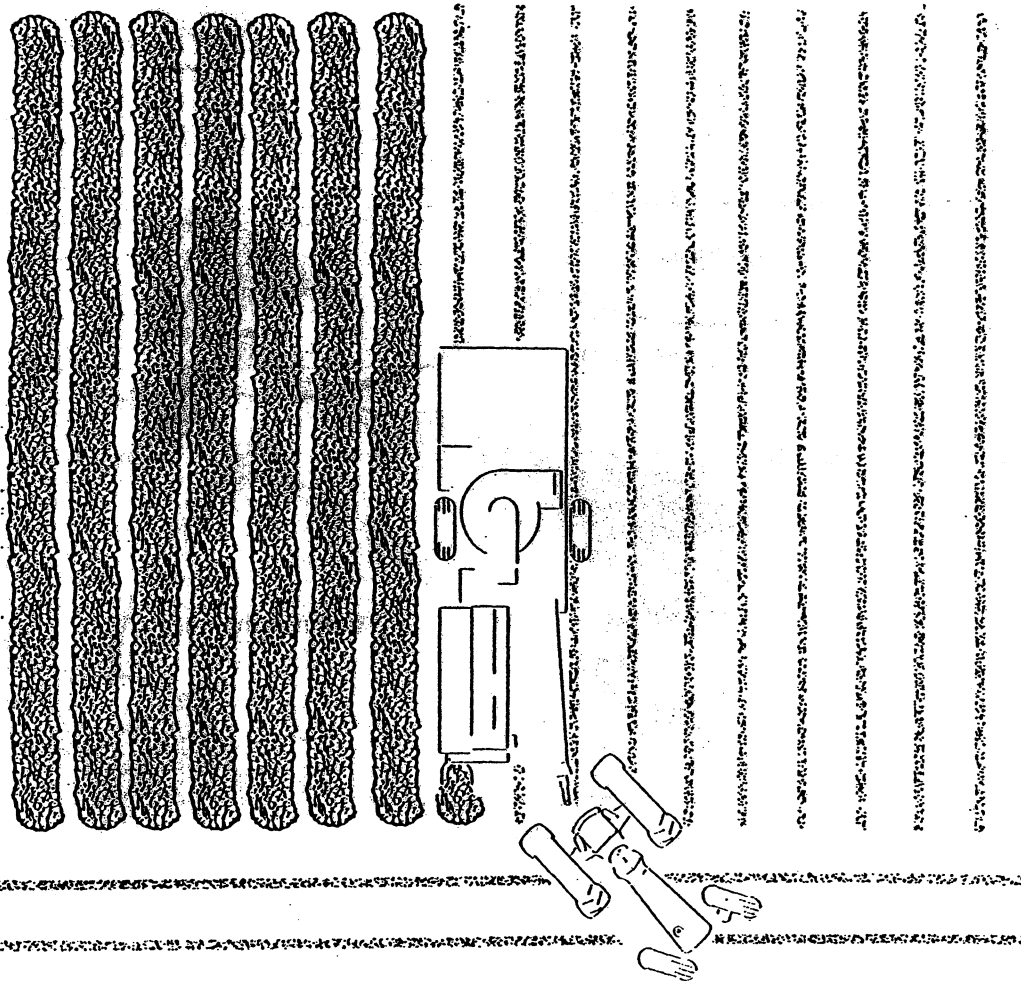


### WARNING

When turning to the right with the picking unit in the raised position, take extra care to make sure that the point of the row divider and the rear tractor tire do not come in contact with each other.

The harvester should be disengaged when turning at the end of the row or when the picking unit is in the raised position. Do not back up the harvester when the scow is in the lowered position.

Turn to the left whenever possible to prevent possible tire puncture damage or interference with the adjustable row divider.



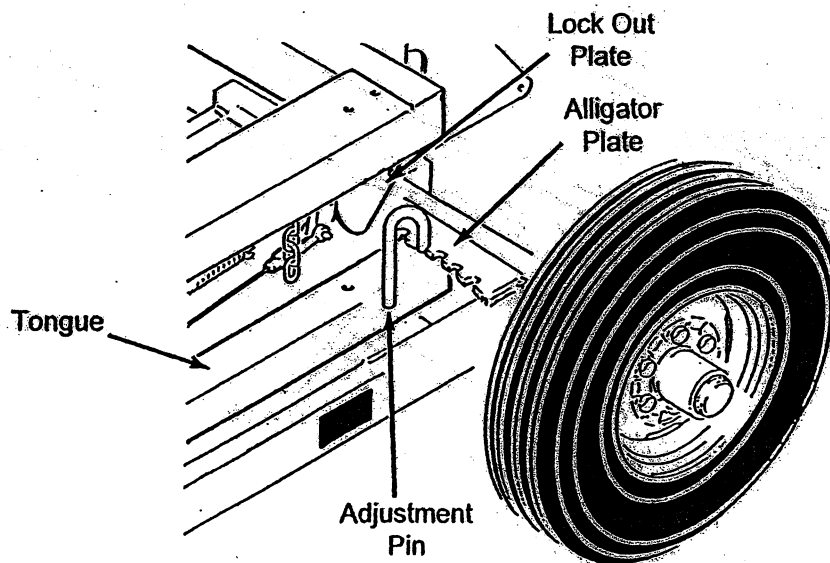
Turning the Harvester



# Field Operation

## ALIGNING THE ROW

1. The harvester will pick the row that is on the right side of your right tractor tire.
2. With the tractor PTO disengaged and the picking unit in a raised position, lift the tongue adjustment pin at the rear of the tongue on the left side of harvester. This will allow the tongue and picking unit to swing freely.
3. Move the picking unit to the right and align the row to be picked between the center of picking reel and the edge of the scow mold board. Usually this is the innermost adjustment.
4. Reset the tongue adjustment pin.
5. The center of the row to be picked (the plant stem) should be almost to the edge of the scow mold board or approximately 3 in. (7.6 cm) to the left of the center of picking reel.
6. Lower the picking unit until the 10 in. (25.4 cm) flat section at the rear of scow has approximately .25 in. (0.6 cm) to .5 in. (1.3 cm) ground clearance.
7. Do not allow the picking fingers to dig into the soil.
8. It may be necessary at times to lower the picking unit in order to pick up low laying or wide spreading vines.



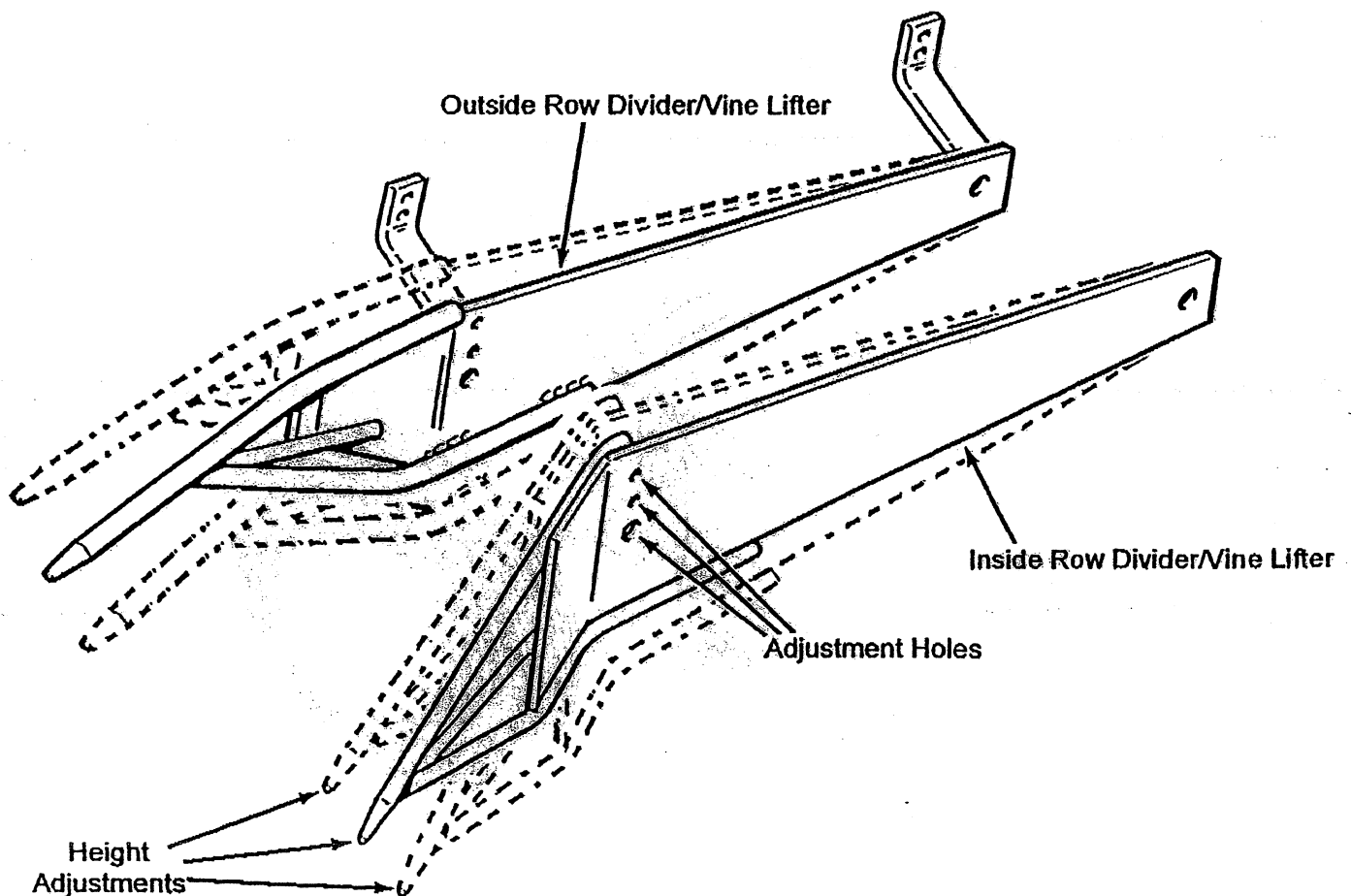
Tongue Adjustment/Row Alignment

# Field Operation

## ROW DIVIDER/VINE LIFTER ADJUSTMENT

The row divider/vine lifter gathers and controls the crop. They are adjustable up and down at the front of each divider.

1. If low laying or wide spreading vines are a continuing problem, the outside row divider/vine lifter attachment is recommended.
2. The inside row divider point should be under the left side of the vines in the row being picked, lifting the complete vine up and into the area between the reel and the scow moldboard. This prevents the vine or vine runners from going under the scow and causing a loss of beans on that section of the plant.
3. The row divider is adjustable. Be careful not to raise it too high so that the picking fingers hit or to lower it too low so that the point digs deep into the ground.
4. It may be necessary to bend the point of the row divider/vine lifter up so it does not have such a sharp angle down.



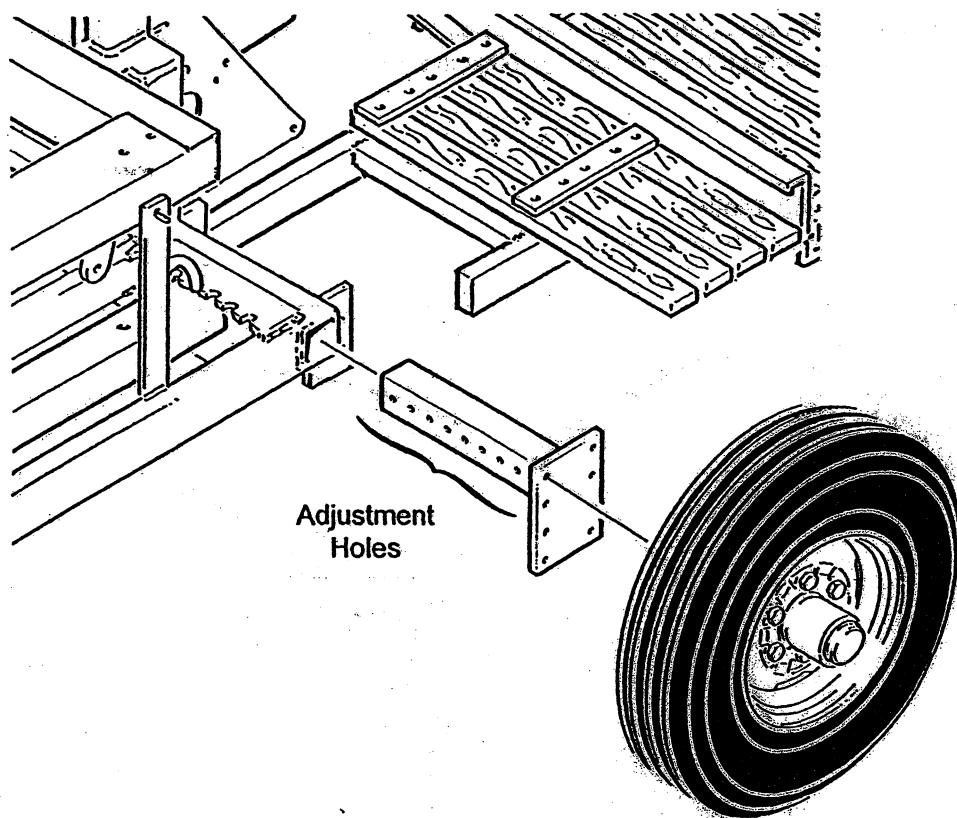
Row Divider/Vine Lifter

# Field Operation

## WHEEL ADJUSTMENT

The left hand axle is adjustable to various row spacings. Check to see that it is running on an unpicked row. An optional adjustable extension axle is available if needed for rows planted with 30 in. (76.2 cm) centers.

The height of the wheels is also adjustable. Height adjustment may be needed when harvesting on raised beds or rows. (See the illustration for axle adjustment.)



**Axle Adjustment**

# Field Operation

## PICKING REEL SPEED

The correct picking reel speed is determined by several factors: vine growth, crop maturity, recovery desired, and product quality desired.

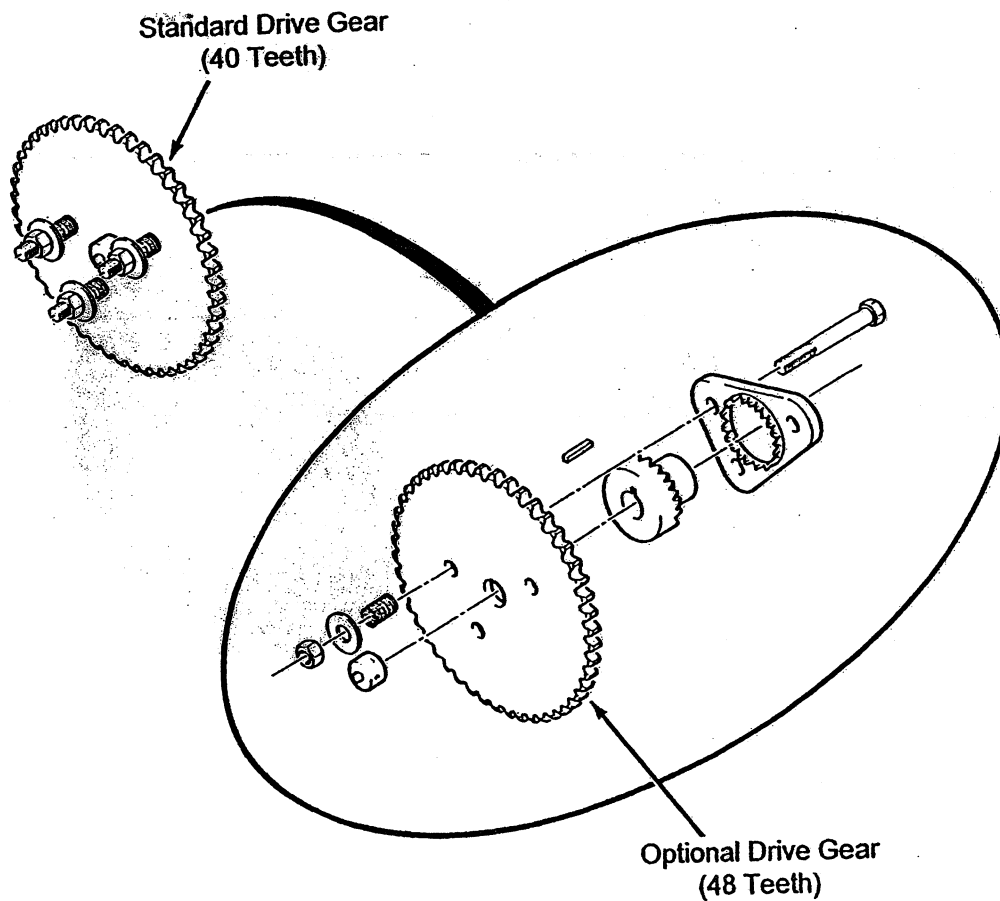
To find the reel RPM divide the tractor tachometer RPM by 10 (i.e. 1400 tractor engine RPM - reel RPM of 140).

Under normal conditions, a reel speed of 140 to 160 RPM is satisfactory. The reel RPM will correspond to the tractor engine RPM.

If too many beans are broken, decrease the reel RPM.

If recovery of beans from the vine is not satisfactory, increase the reel RPM.

If, for any reason, the RPM ratio needs to be changed, an optional reel drive sprocket is available. Reel speed can be increased by using the 48 tooth reel drive sprocket.



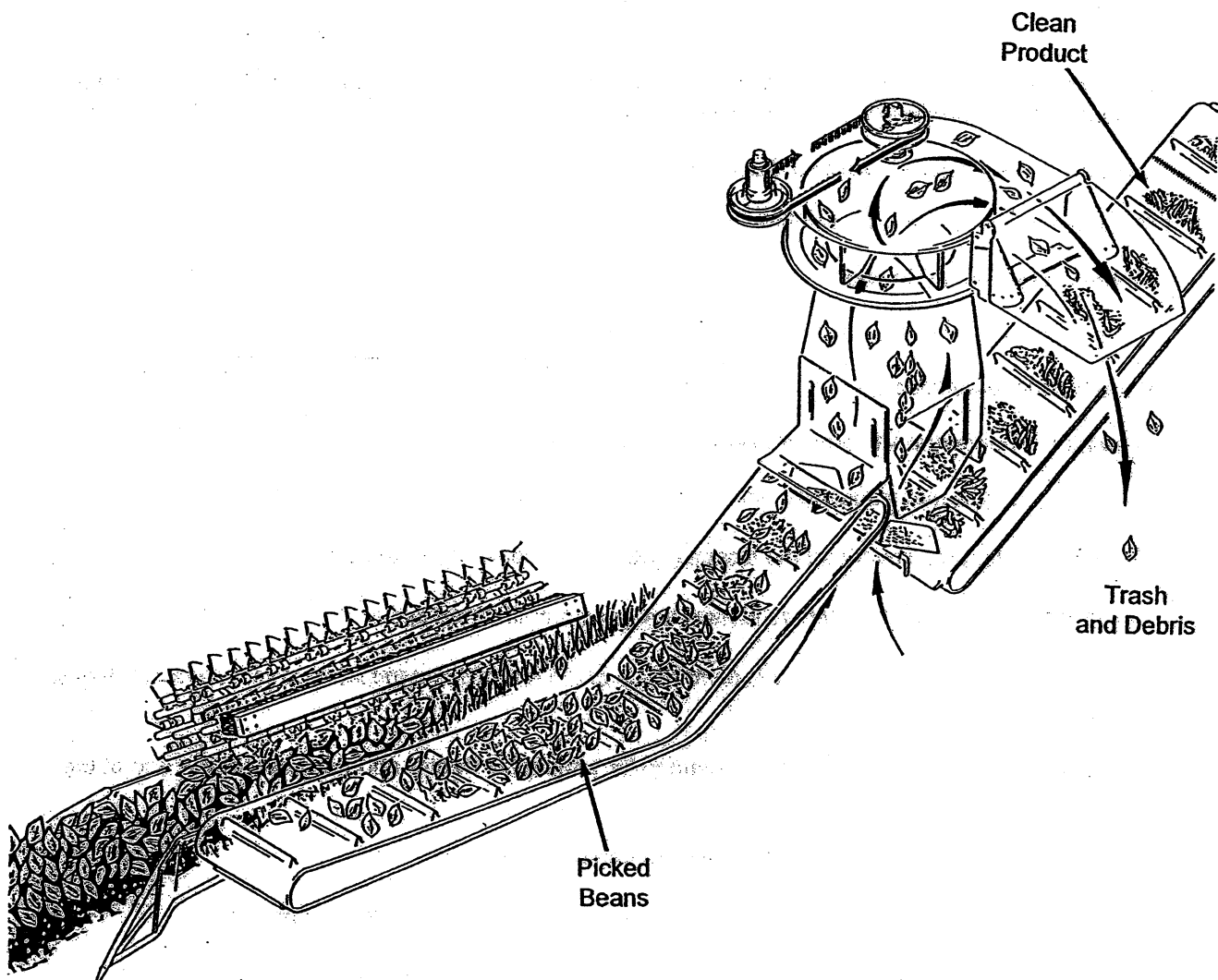
Picking Reel Drive Sprockets

# Field Operation

## FORWARD PICKING SPEED

Forward speed is important to the recovery of product. The heavier the vine, the slower the travel needs to be. Usually a tractor engine RPM of 1400 to 1600 and the lowest gear will furnish the proper forward speed of 3/4 to 1 MPH.

**IMPORTANT:** Remember, too much reel RPM plus too fast tractor MPH equals excessive broken product and trash.



Forward Picking Speed Adjustment

# Field Operation

## OPERATORS TIPS

1. Reduce the tractor RPM before engaging the PTO to start operation.
2. Reduce the tractor RPM before disengaging the PTO to stop operation.
3. Disengage the PTO before turning around.
4. To reduce broken beans, operate the reel at a slow RPM during field operation. Use the optional sprocket to maintain a slow reel RPM.
5. Watch the condition of the product while harvesting. Look for any remaining beans or parts of beans. To obtain the best product condition, adjust the row divider forward speed and the reel height and speed .
6. Watch the trash content while harvesting. Operating the reel at too slow or too fast RPM may increase field loss, with beans left on the plant or on the ground.
7. Listen for unusual noises from the harvester.
8. Make major adjustments prior to long harvesting runs.
9. Properly lubricate the harvester.
10. Watch for any inconsistencies (vibrations, etc.) in the harvester.
11. Keep the harvester clean.
12. Operate the harvester with smooth, gentle action - prevent jerks.
13. Traveling too slow may cause excessive stems in the product.
14. Traveling too fast may overload the cleaning system and leave unpicked beans on the plant.
15. Adjust the row divider/vine lifters to contact the ground at the front tips.

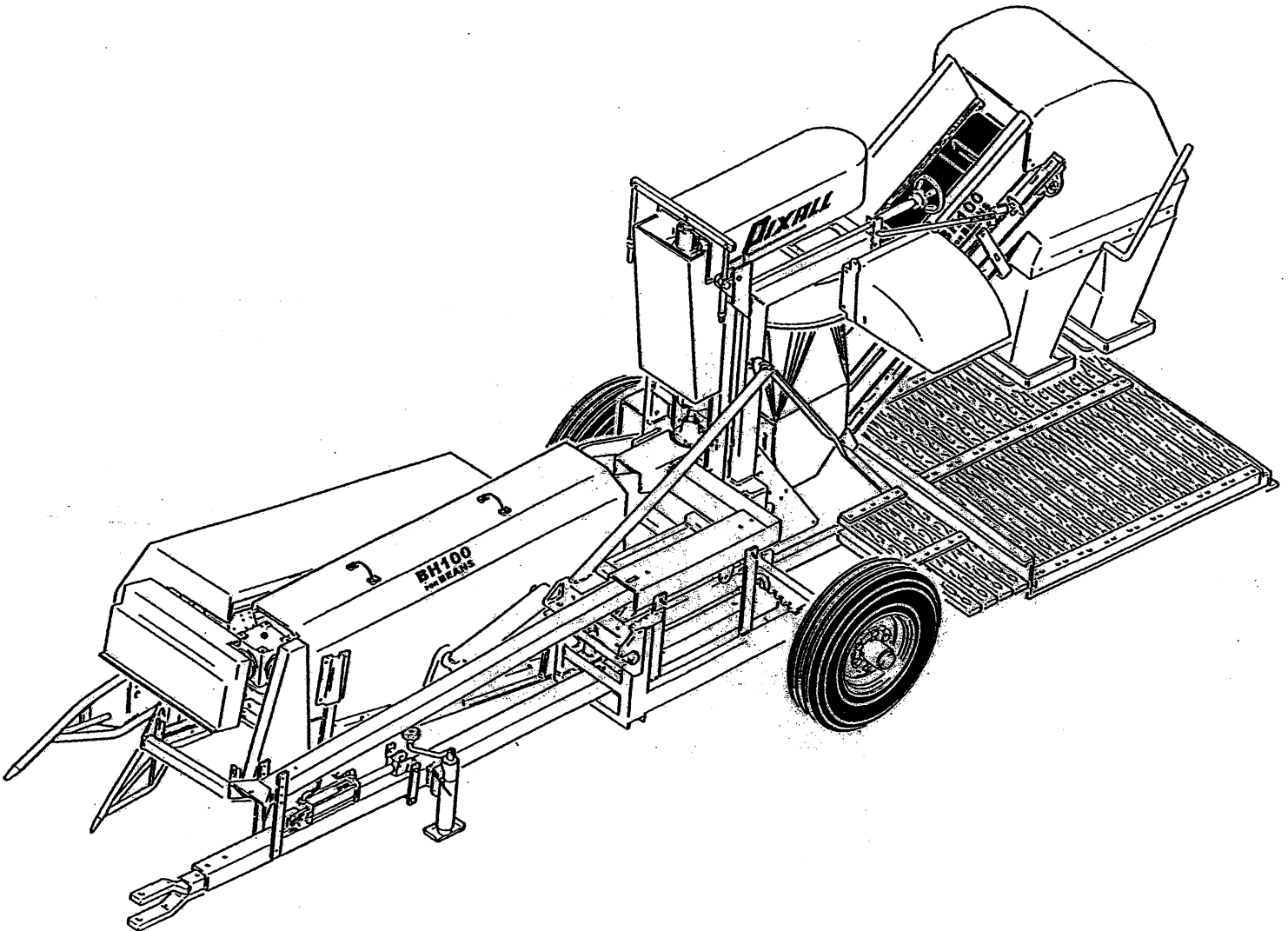
**IMPORTANT:** *It may be necessary to bend the tip of the row divider/vine lifter up so it does not dig into the ground when harvesting.*

16. A minimum of eight end rows is recommended for turning the tractor and harvester at the end of the field.
17. Crops planted on side hills are more difficult to harvest.
18. Long straight rows are preferred. Rows with sharp curves are more difficult to harvest.
19. As much as possible, fields should be free of rocks, corn stubble, and weeds.
20. When cultivating, it is important to keep the ground as flat as possible. The less amount of hilling to the plants, the better the crop recovery.

# Field Maintenance

## FREQUENT CHECKS

1. Check all shafts for vine wrapping. There are shields that prevent vine wrap, however tall weeds or excessive weed conditions will require frequent checks.
2. Check for trash gathering in front of the scow belt, under the sealer belt, or at the curved section under the wear shoes.
3. Also check for trash gathering under the conveyor shields.



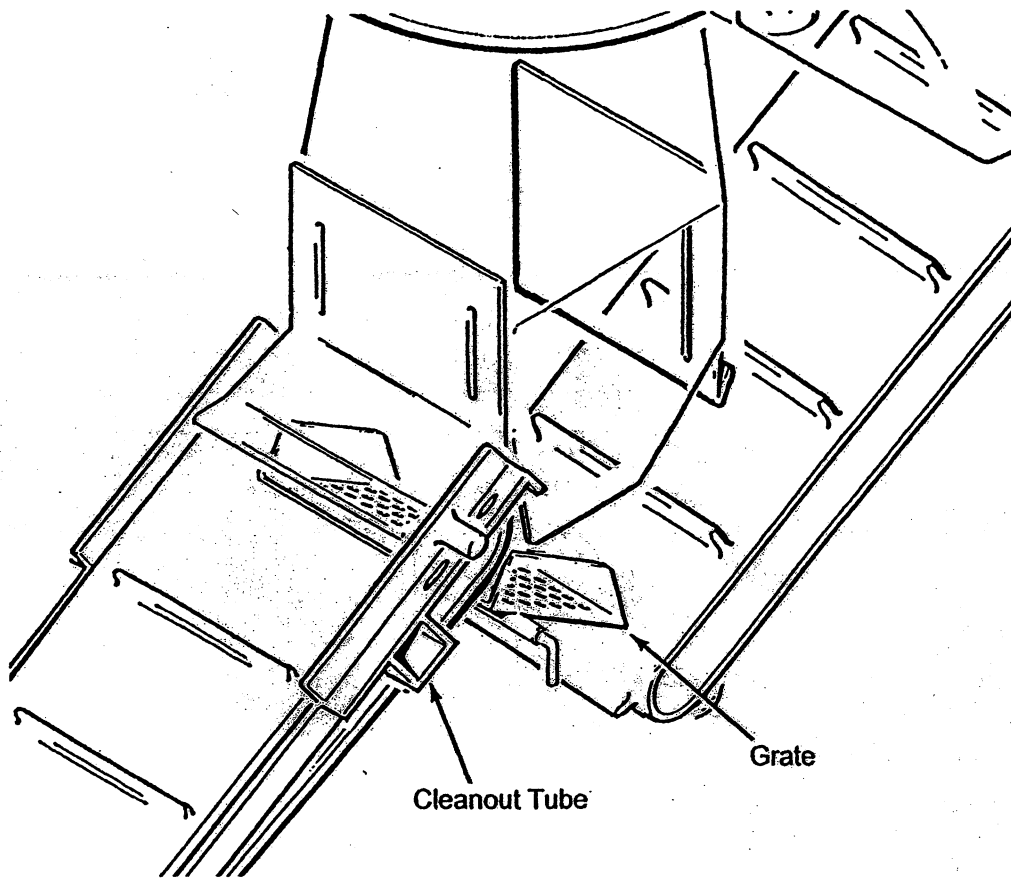
Harvester

# Field Maintenance

## CLEANOUT TUBE AND GRATE

The scow conveyor has a 4 in. (10.1 cm) x 4 in. (10.1 cm) cleanout tube just behind the harvester wheels. Dirt is cleaned from the underside of the belt and collected in this tube. Keeping this tube clean will increase the life of the scow belt.

The grate must be kept free of dirt and debris. Air must be able to flow freely through the grate.



Cleanout Tube and Grate



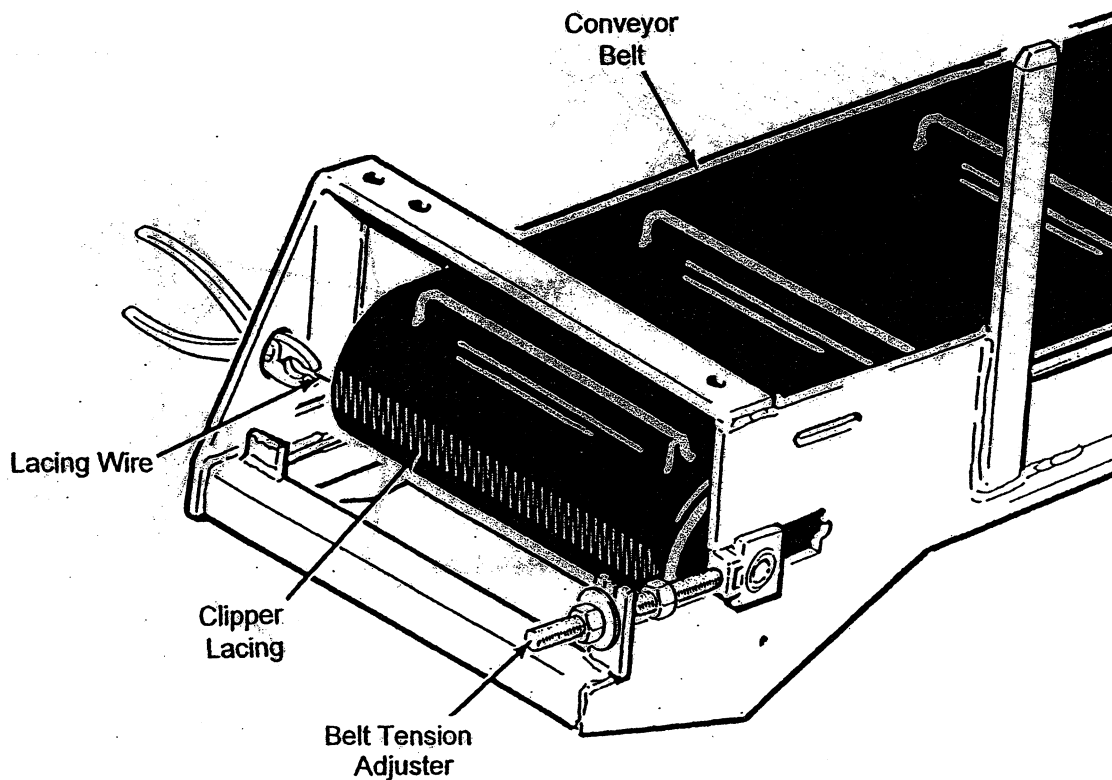
# Field Maintenance

## CLIPPER LACING

The clipper lacing should be checked from time to time for wear on the edges. If the belt becomes extremely worn, it should be replaced. The illustration below shows the lacing being removed.

The repair procedure is as follows:

1. Rotate the belt seam to be exposed to the front of the conveyor (or the top of the elevator if replacing the elevator belt) for access to the seam.
2. Release the belt tension at the adjusters.
3. Remove the lacing wire.
4. Repair or replace the elevator belt as required.
5. Fill the lacing with silicone sealer.
6. To reassemble, reverse this procedure.

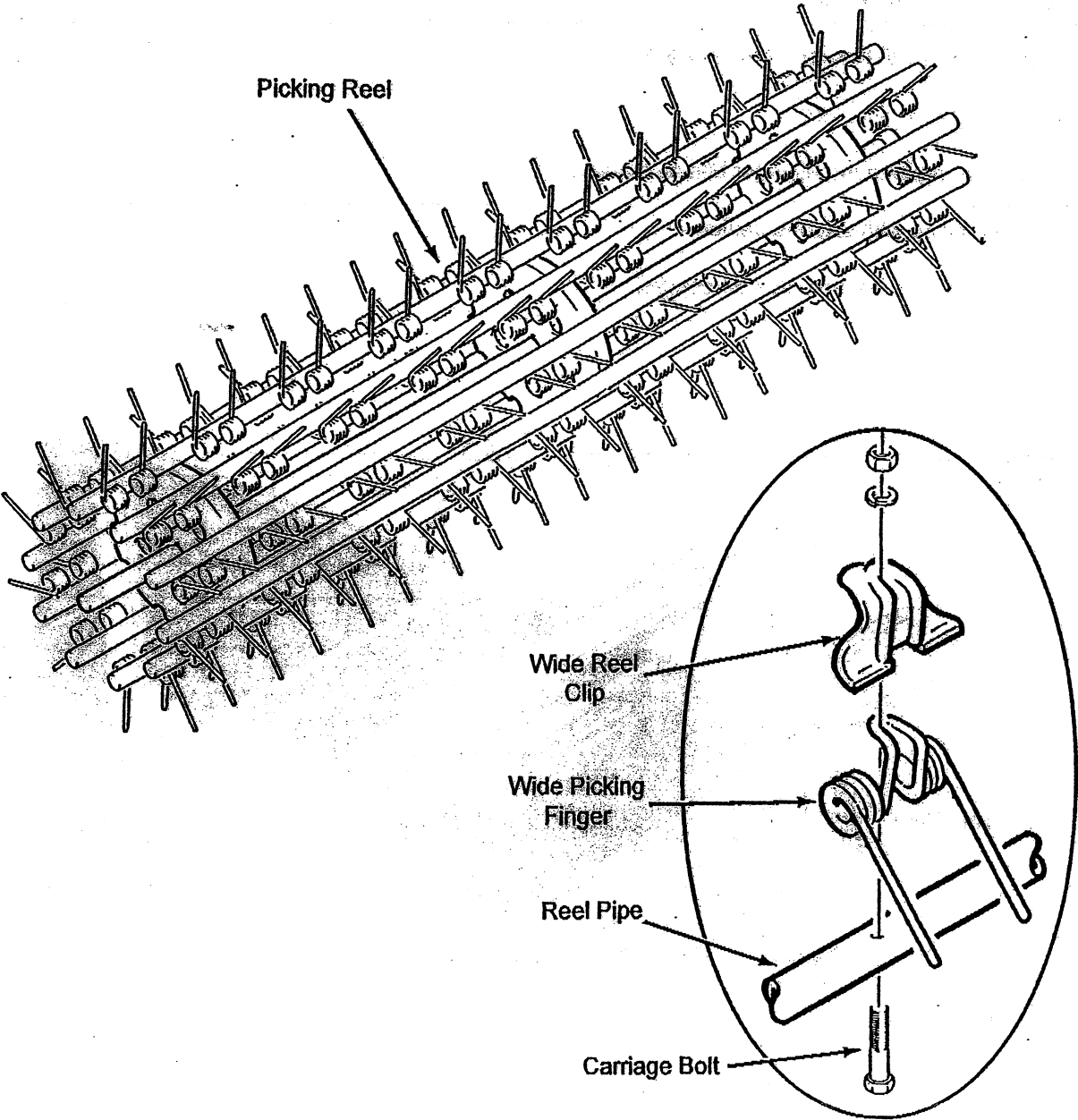


Clipper Lacing

# Field Maintenance

## PICKING FINGERS

Check the picking fingers occasionally to make sure they are not loose. Also check to make sure the stripper assembly is aligned with the picking fingers.



Picking Fingers

# Cleaning and Storing

**IMPORTANT:** *If extremely wet and muddy conditions are encountered, the entire cleaning system may require cleaning.*

## CLEANING THE HARVESTER

Pixall® recommends that the harvester be cleaned periodically using a power washer.

1. Remove and clean all safety shields.
2. Check all components for wear and proper adjustment. Any necessary component repair or replacement should be performed at this time.
3. After the cleaning and/or maintenance is complete, lubricate all harvester grease and oil locations. Refer to the Preoperation section for lubrication locations.
4. Reinstall all of the safety shields.

## STORING THE HARVESTER

For increased belt life and trouble free start up, the conveyor belts should be removed from the harvester and rolled up for storage after the final harvest. If this is not done, the belts may adhere or stick to the conveyor bottom or frame.

# Warranty Information

## PIXALL® LIMITED WARRANTY

Pixall's limited warranty is as follows:

### A. Basic Limited Warranty Coverage.

Pixall warrants that it will repair or, at its option, replace any parts manufactured by Pixall and found to be defective in factory material or workmanship for a period of 6 months or 500 engine hours after delivery to the original purchaser, whichever occurs last. Equipment which has been used for demonstration purposes for less than 250 hours is considered "new" for this purpose. Any parts or remanufactured assemblies furnished under this warranty are warranted against defects in material or workmanship for the longer of 90 days or expiration of the warranty on the equipment for which such parts or assemblies were supplied.

### B. Pixall's Obligations.

Pixall will at its expense repair or, at its option, replace any parts manufactured by it and found to be defective in material or workmanship during the applicable warranty period, provided that the owner of the warranted equipment complies with the "Warranty Claims Procedure" set forth below. The equipment owner will be responsible for the expense of returning any parts to Pixall for warranty evaluation. Pixall will at its expense return any part repaired or replaced under this warranty to the owner of the warranted equipment, by truck, United Parcel Service or U.S. Mail, at Pixall's option. The equipment owner will be responsible for the cost of any other method of shipment, including air freight.

### C. Items not Covered.

Pixall's limited warranty does not cover: 1. labor; 2. a mechanics travel time; 3. the cost of removal of defective parts and reinstallation of repaired or replacement parts; 4. used equipment, unless specifically covered by a separate written warranty; 5. component parts manufactured by others, including but not limited to, bearings, gear boxes, engines, transmissions and hydraulic components (but, if new, such items are ordinarily warranted by the manufacturer thereof); 6. depreciation or damage caused by normal wear and tear, accident, abuse, improper maintenance, abnormal use, use other than in accordance with Pixall's instructions, or improper protection in storage; 7. equipment which has been modified or altered other than with the prior written approval of Pixall; or 8. the cost of normal maintenance or service, including but not limited to the cost of replacement oil, bearings, sprockets, ignition parts, cutting parts, belts, chains, and brake linings; 9. consequential damages (the cost of repairing other property which is damaged when the equipment does not work properly).

### D. Warranty Claim Procedures.

The owner of any warranted item claimed to be defective must:

1. Notify Pixall in writing on Pixall's Warranty Claim Report immediately upon discovery of any defect covered by this warranty.
2. Provide to Pixall contemporaneous documentary evidence of the date of delivery of the item to the original purchaser; and
3. If requested by Pixall, ship the defective part(s) to Pixall, freight prepaid, for inspection.

# Warranty Information

E. No Other Warranties.

Pixall makes no warranty other than that set forth above express or implied.

**PIXALL SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE. PIXALL GIVES NO WARRANTY THAT THE PRODUCTS SOLD WILL BE DELIVERED FREE OF THE RIGHTFUL CLAIM OF ANY THIRD PARTY FOR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR TRADEMARK OR ANY OTHER PROPRIETARY RIGHTS.**

None of Pixall's dealers are authorized to make any representation for warranty on Pixall's behalf or in its name.

F. Obligations and Remedies are Exclusive.

Pixall's only obligations and its customers' only remedies, in connection with the sale of Pixall agricultural equipment, are those set forth in this warranty.

**IN NO EVENT SHALL PIXALL BE RESPONSIBLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO DAMAGES FOR LOSS OF CROPS, LOSS OF PROFITS, OR RENTAL OF SUBSTITUTE EQUIPMENT, WHETHER FOR BREACH OF WARRANTY OR OTHER BREACH OF CONTRACT, NEGLIGENCE OR OTHER TORT, OR ANY STRICT LIABILITY THEORY.**

G. Your Rights Under State Law.

This warranty gives you specific legal rights and you may have other rights which may vary from state to state.



# SERVICE PARTS LIST

**BH100**

**FRESH MARKET BEAN HARVESTER**

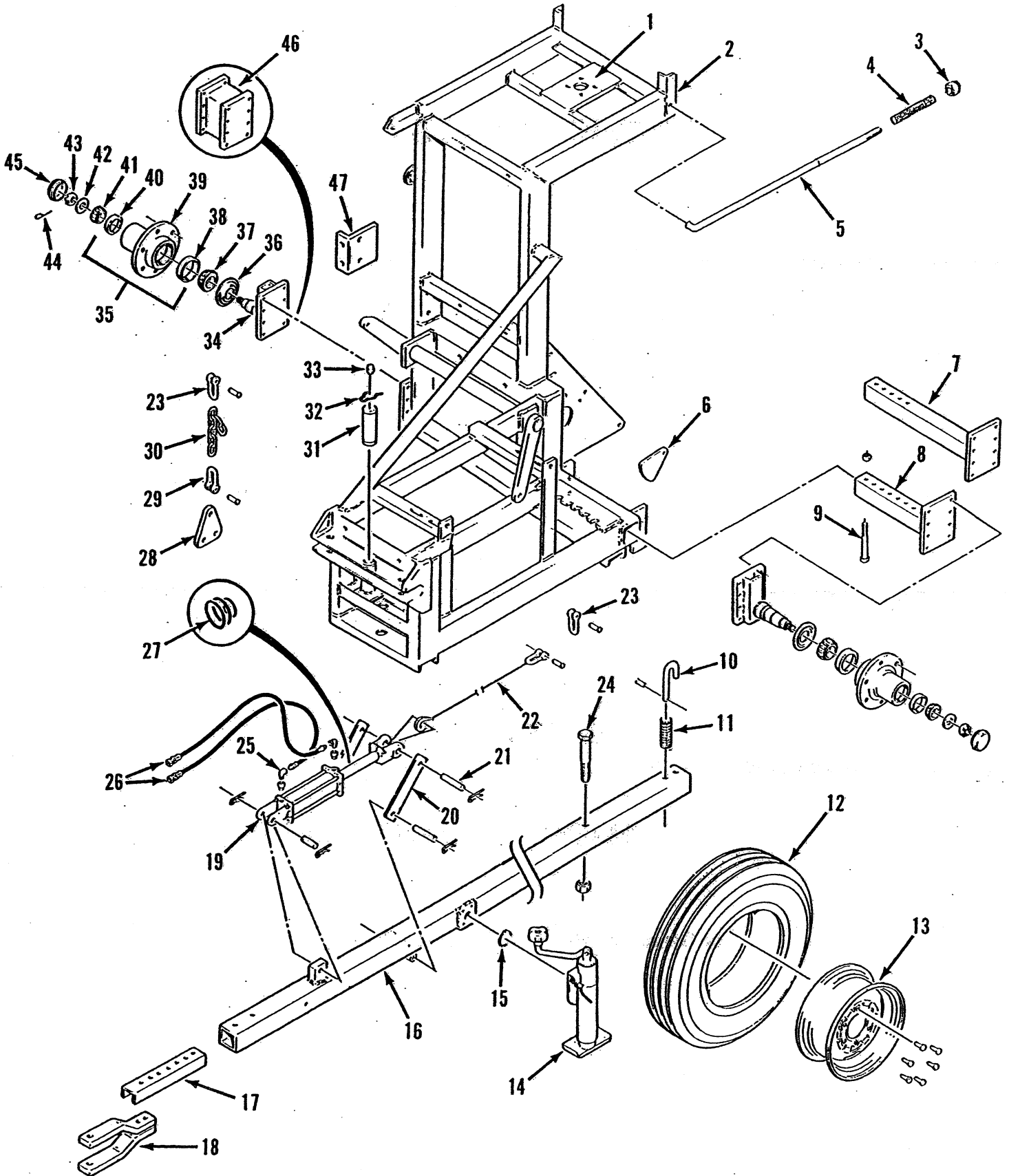
For Serial No. PPI-419388 through PPI-\_\_\_\_\_

Manufactured By

**PIXALL®**

CLEAR LAKE, WISCONSIN 54005

# MAIN FRAME



Use only genuine Pixall® replacement parts.

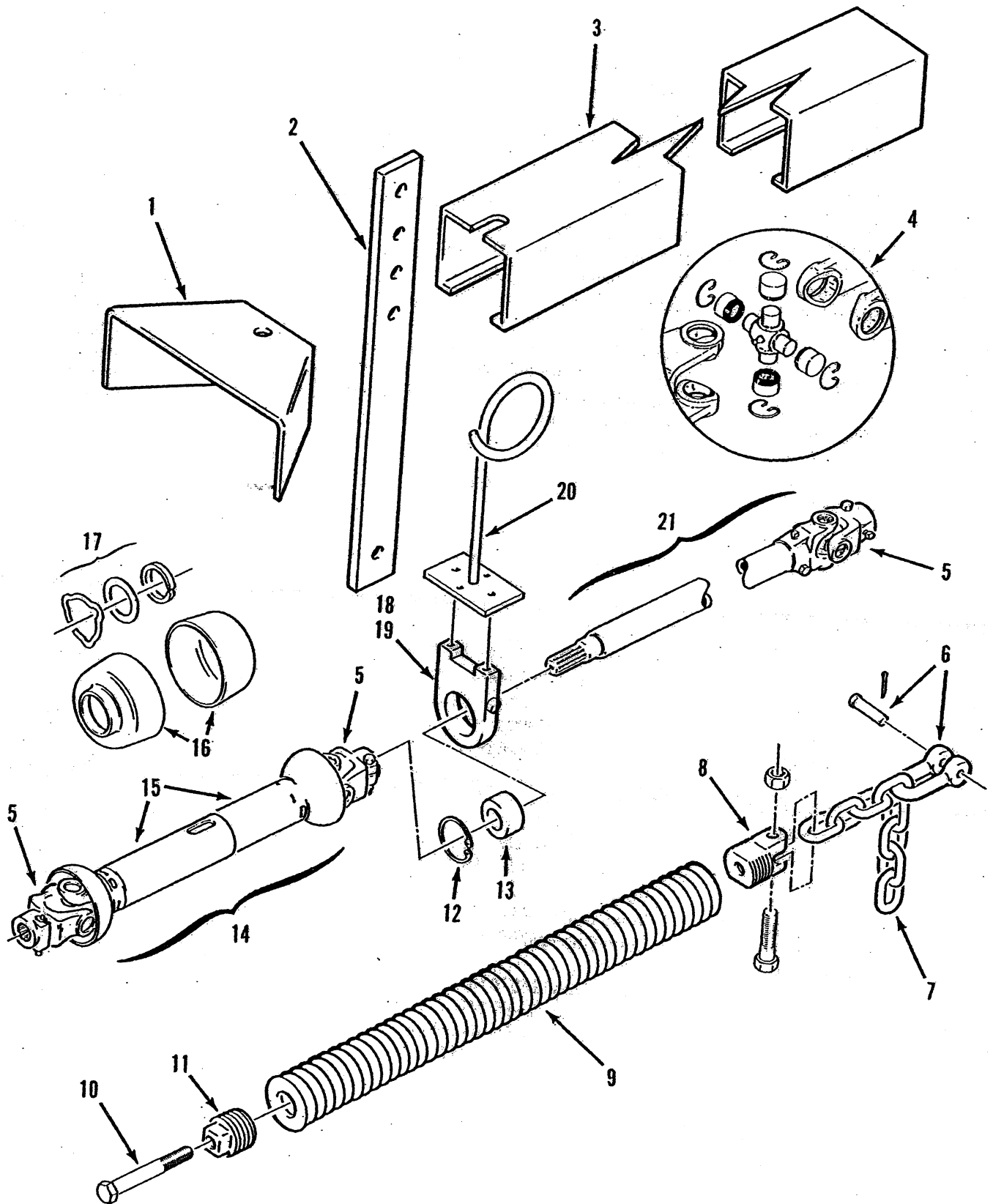


# MAIN FRAME

| REF<br>NO | PART<br>NO | DESCRIPTION  | QTY |
|-----------|------------|--|-----|
| 1         | 1010-0074  | Fan Mounting Plate .....                                   | 1   |
| 2         | 3023-0033  | Main Frame .....   | 1   |
| 3         | 0002-0228  | Nut, Flexlock 3/4 in. - 10 .....                           | 2   |
| 4         | 1025-0005  | Elevator Hanger Spring .....                               | 2   |
| 5         | 1006-0123  | Elevator Hanger .....                                      | 2   |
| 6         | 1010-0202  | Lockout Plate .....  | 1   |
| 7         | 3023-0029  | Adjustable Axle (30 in. Row). Use Instead of Item 18 ..... | 1   |
| 8         | 3023-0003  | Adjustable Axle .....                                      | 1   |
| 9         | 0002-0179  | Bolt, Hex Head 5/8 - 11 x 4 in. ....                       | 2   |
| 10        | 1006-0122  | Tongue Adjuster .....                                      | 1   |
| 11        | 1025-0008  | Spring .....   | 1   |
| 12        | 1018-0019  | Tire 11 L-15 .....   | 2   |
| 13        | 1017-0013  | Wheel 8 x 15, 6 Bolt. ....                                 | 2   |
| 14        | 1005-0020  | Jack Stand w/o Lock Ring .....                             | 1   |
| 15        | 1016-0030  | Retaining Ring .....                                       | 1   |
| 16        | 3023-0031  | Tongue Assembly .....                                      | 1   |
| 17        | 1002-0120  | Tongue Extension .....                                     | 1   |
| 18        | 1009-0302  | Clevis Hitch .....   | 2   |
| 19        | 1013-0090  | Hydraulic Cylinder w/Clevis Pin .....                      | 1   |
| 20        | 3023-0086  | Arm, Cylinder .....  | 2   |
| 21        | 3023-0085  | Pin .....  | 2   |
| 22        | 1026-0017  | Cable, w/Clevis Pin (109 in. Centers) .....                | 1   |
| 23        | 0001-0062  | Clevis and Pin, Large. ....                                | 2   |
| 24        | 0002-0349  | Bolt, Hex Head 1 - 16 x 6 in. ....                         | 1   |
| 25        | 1013-0005  | Elbow - Street .....                                       | 2   |
| 26        | 1013-0205  | Hydraulic Hose Assembly 8 ft. Long .....                   | 2   |
| 27        | 1005-0016  | Seal Kit for 1013-0090 .....                               | A/R |
| 28        | 1010-0165  | Lift Chain Bracket .....                                   | 1   |
| 29        | 1004-0014  | Clevis & Pin, Small .....                                  | 1   |
| 30        | 1019-0181  | Link Chain 1 ft. Long .....                                | 1   |
| 31        | 1014-0199  | Pipe for Cable .....                                       | 1   |
| 32        | 1016-0024  | Retaining Ring .....                                       | 1   |
| 33        | 1015-0027  | Grease Fitting .....                                       | 1   |
| 34        | 3023-0002  | Spindle Assembly .....                                     | 2   |
| 35        | 1011-0030  | Hub Assy. w/Cups, Studs, & Nuts .....                      | 2   |
| 36        | 1015-0105  | Seal .....   | 2   |
| 37        | 1015-0104  | Inner Cone LM29749 .....                                   | 2   |
| 38        | 1015-0107  | Inner Cup LM29710 .....                                    | 2   |
| 39        | 1011-0032  | Hub .....  | 2   |
| 40        | 1015-0103  | Outer Cup LM67010 .....                                    | 2   |
| 41        | 1015-0106  | Outer Cone LM67048 .....                                   | 2   |
| 42        | 0002-0348  | Washer, Flat Spindle 3/4 in. ....                          | 2   |
| 43        | 0002-0347  | Nut, Spindle 3/4 in. - 16 .....                            | 2   |
| 44        | 0002-0279  | Cotter Pin 3/16 x 1-1/2 in. ....                           | 2   |
| 45        | 1011-0031  | Hub Cap .....  | 2   |
| 46        | 3023-0032  | Axle Extension 3-1/2 in. (Optional) .....                  | 1   |
|           | 3023-0068  | Axle Extension 12 in. (Optional) .....                     | 1   |
| 47        | 1010-0197  | Bearing Support Angle .....                                | 1   |

Use only genuine Pixall® replacement parts.

# POWER TAKE-OFF



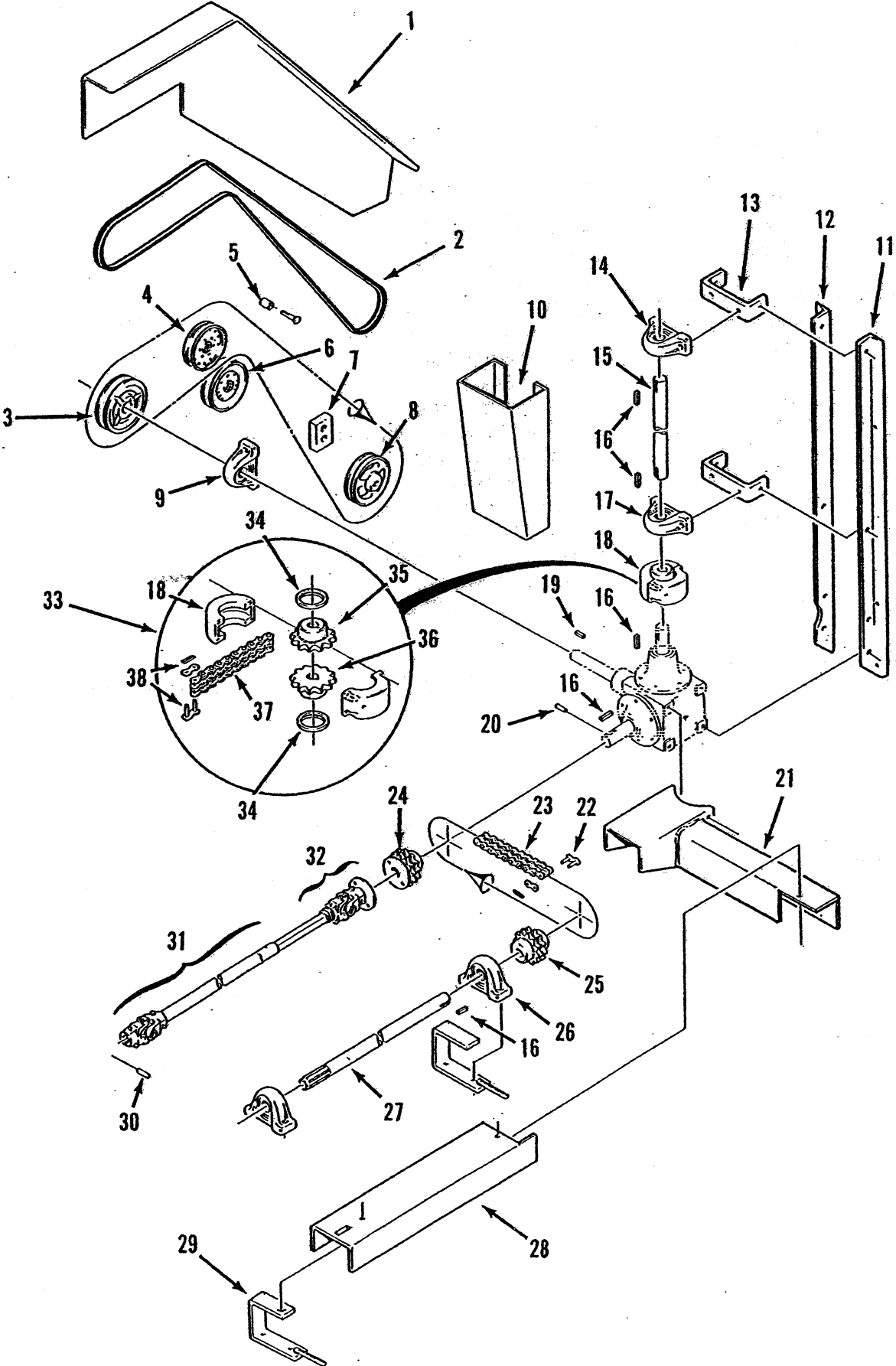
Use only genuine Pixall® replacement parts.

## POWER TAKE-OFF

| REF<br>NO | PART<br>NO | DESCRIPTION  | QTY |
|-----------|------------|--|-----|
| 1         | 1007-0114  | Shield, PTO End .....                                    | 1   |
| 2         | 1009-0311  | Mounting for Hanger Bearing .....                        | 2   |
| 3         | 1007-0319  | PTO Shield .....   | 1   |
| 4         | 1015-0024  | Universal Joint Cross Kit .....                          | 3   |
| 5         | 1019-0215  | Universal Joint Snap Hitch Yoke .....                    | 3   |
| 6         | 0001-0062  | Clevis & Pin (Large) .....                               | 1   |
| 7         | 1019-0181  | Link Chain 1 ft. Long .....                              | 1   |
| 8         | 1025-0011  | Clevis Spring End .....                                  | 1   |
| 9         | 1025-0010  | Spring .....   | 1   |
| 10        | 1006-0128  | Bolt, Hex Head 5/8 - 11 x 9 in. ....                     | 1   |
| 11        | 1025-0012  | Threaded Spring End .....                                | 1   |
| 12        | 1016-0026  | Retaining Ring .....                                     | 1   |
| 13        | 1015-0116  | Bearing, 1-3/8 in. Bore .....                            | 1   |
| 14        | 6050-7175  | PTO Shaft Assembly w/Shield .....                        | 1   |
| 15        | 1019-0217  | PTO Shield (Plastic) .....                               | 1   |
| 16        | 1022-0203  | Plastic Shield Cone .....                                | 2   |
| 17        | 1019-0216  | Shield Kit w/Bearing, Thrust Washer & Snap Ring .....    | 2   |
| 18        | 1008-0082  | Bearing Housing Casting Only .....                       | 1   |
| 19        | 1015-0109  | Hanger Bearing Assembly w/Bearing & Retaining Ring ..... | 1   |
| 20        | 1001-0095  | Hose Hanger Bracket .....                                | 1   |
| 21        | 1022-0163  | PTO Extension Shaft w/U-Joint .....                      | 1   |

Use only genuine Pixall® replacement parts.

# COUNTER SHAFT AND FAN GEARBOX



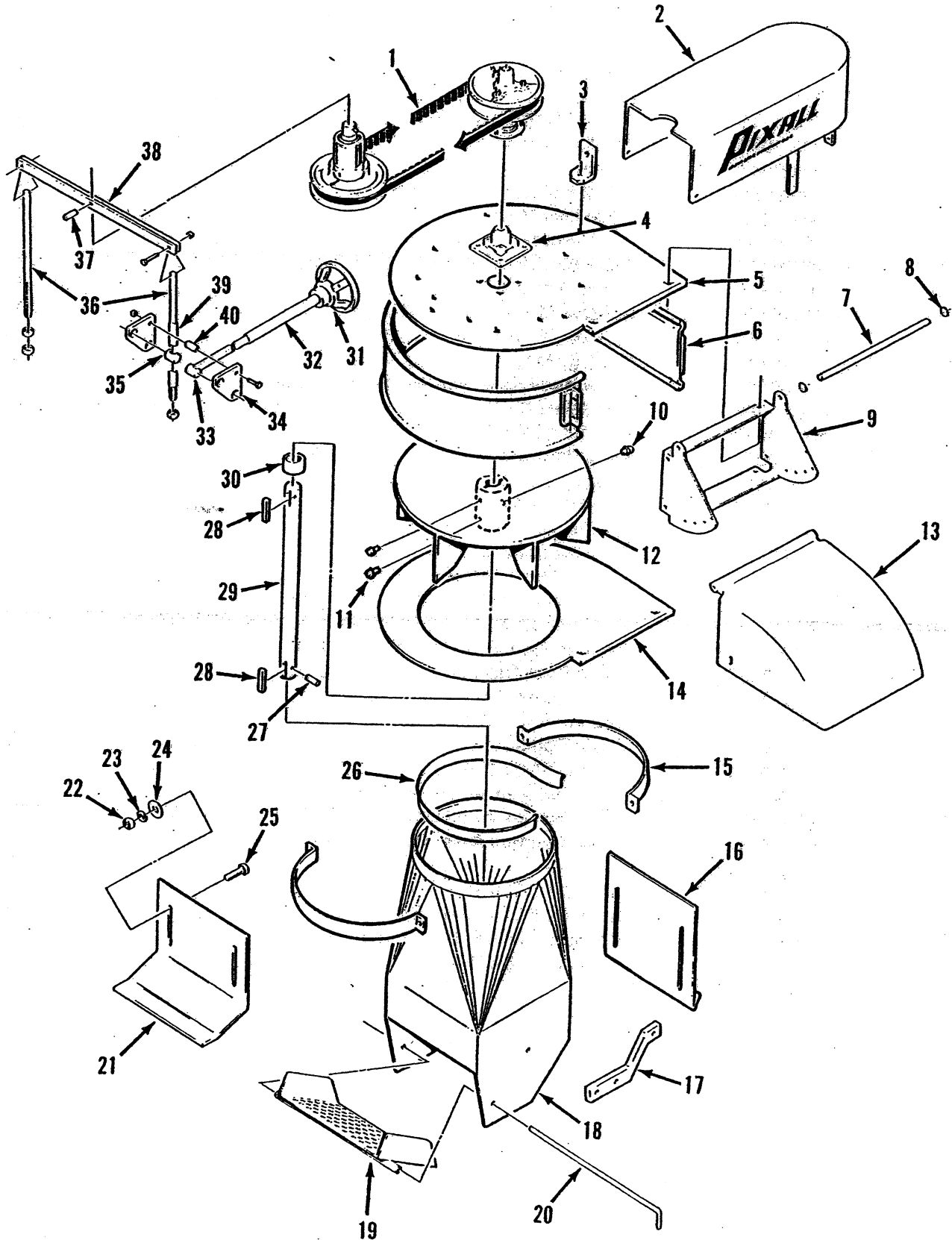
Use only genuine Pixall® replacement parts.

## COUNTER SHAFT AND FAN GEARBOX

| REF<br>NO | PART<br>NO | DESCRIPTION   | QTY |
|-----------|------------|---|-----|
| 1         | 1007-0321  | Elevator Drive Shield .....   | 1   |
| 2         | 1021-0005  | V-Belt (B-100) .....  | 1   |
| 3         | 1020-0048  | 5 in. V-Pulley 1-1/4 in. Bore .....                                 | 1   |
| 4         | 1020-0050  | V-Pulley Idler 5/8 in. Bore .....                                   | 1   |
| 5         | 1003-0046  | Spacer .....  | 1   |
| 6         | 1020-0051  | Pulley, Flat Idler 5/8 in. Bore .....                               | 1   |
| 7         | 1001-0105  | Offset Idler Mounting .....   | 1   |
| 8         | 1020-0049  | 7 in. V-Pulley 1 in. Bore .....                                     | 1   |
| 9         | 1015-0031  | Pillow Block Ball Bearing 1-1/4 in. Bore .....                      | 1   |
| 10        | 1007-0335  | Shield Vertical Shaft. ....   | 1   |
| 11        | 1023-0159  | Gearbox Mounting Angle (R.H). ....                                  | 1   |
| 12        | 1023-0160  | Gearbox Mounting Angle (L.H).....                                   | 1   |
| 13        | 1009-0145  | Bearing Hanger .....  | 2   |
| 14        | 1015-0080  | Pillow Block Roller Bearing, 1-7/16 in. Bore .....                  | 1   |
| 15        | 1022-0088  | Vari-Speed Shaft .....  | 1   |
| 16        | 1006-0030  | Key, 3/8 x 3/8 x 2 in.....  | 1   |
| 17        | 1015-0082  | Pillow Block Ball Bearing 1-7/16 in. Bore. ....                     | 1   |
| 18        | 1019-0115  | Housing Type P .....  | 2   |
| 19        | 1006-0093  | Key, 1/4 x 1/4 x 1-1/2 in. ....                                     | 2   |
| 20        | 0002-0301  | Roll Pin, 3/8 x 3-1/2 in.....                                       | 1   |
| 21        | 1007-0094  | Fan Gearbox Shield .....  | 1   |
| 22        | 1019-0121  | Double Strand RC60 Connector Link .....                             | 1   |
| 23        | 1019-0178  | Roller Chain Double 60 x 76 Pitches Including Connecting Link. .... | 1   |
| 24        | 1019-0111  | Sprocket Double 60B18T w/Plate .....                                | 1   |
| 25        | 1019-0077  | Sprocket Double 60B18T 1-3/8 in. Bore .....                         | 1   |
| 26        | 1015-0067  | Pillow Block Ball Bearing 1-3/8 in. Bore.....                       | 2   |
| 27        | 1022-0095  | PTO Counter Shaft .....   | 1   |
| 28        | 1007-0097  | Counter Shaft Shield .....  | 1   |
| 29        | 3023-0018  | Chain Tightener & Shield Mounting .....                             | 2   |
| 30        | 0002-0294  | Roll Pin 5/16 x 2 in. ....  | 1   |
| 31        | 1019-0138  | PTO Shaft Female End w/U-Joint .....                                | 1   |
| 32        | 1019-0167  | PTO Shaft Male End w/Shear Plate.....                               | 1   |
| 33        | 1019-0114  | Chain Coupling Assembly Complete .....                              | 1   |
| 34        | 1019-0120  | Seal .....  | 2   |
| 35        | 1019-0116  | Sprocket RC50 16 w/1-7/16 in. Bore .....                            | 1   |
| 36        | 1019-0117  | Sprocket RC50 16 w/1-3/8 in. Bore .....                             | 1   |
| 37        | 1019-0119  | Coupling Chain RC50-2 x 16 Pitches .....                            | 1   |
| 38        | 1019-0118  | Connector Link RC-50-2 .....  | 1   |

Use only genuine Pixall® replacement parts.

# FAN DRIVE AND SUCTION LEG ASSEMBLY



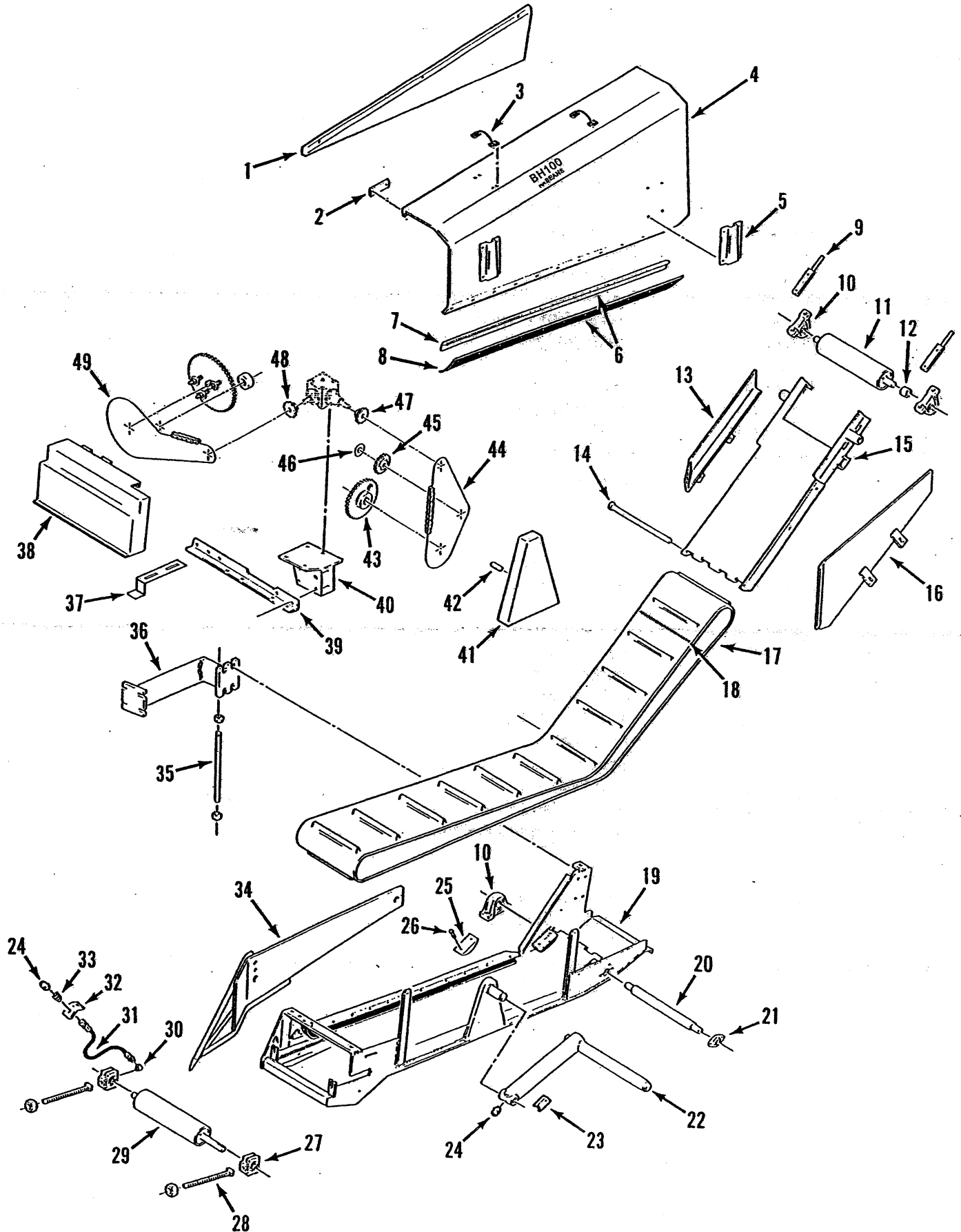
Use only genuine Pixall® replacement parts.

## FAN DRIVE AND SUCTION LEG ASSEMBLY

| REF<br>NO | PART<br>NO | DESCRIPTION   | QTY |
|-----------|------------|---|-----|
| 1         | 1021-0064  | Vari-Speed Belt . . . . .                               | 1   |
| 2         | 1007-0101  | Fan Shield . . . . .                                    | 1   |
| 3         | 1023-0128  | Fan Housing Hanger . . . . .                            | 4   |
| 4         | 1015-0050  | Flange Bearing Type "E" 4-Bolt 1-1/4 in. Bore . . . . . | 2   |
| 5         | 3002-0060  | Fan Housing Top Plate . . . . .                         | 1   |
| 6         | 3002-0062  | Fan Housing . . . . .                                   | 1   |
| 7         | 1006-0118  | Rod, 1/2 x 19 in. Long . . . . .                        | 1   |
| 8         | 1016-0010  | Retaining Ring . . . . .                                | 2   |
| 9         | 1001-0078  | Fan Housing Discharge . . . . .                         | 1   |
| 10        | 1015-0027  | Grease Fitting 1/8 NPT . . . . .                        | 1   |
| 11        | 0002-0028  | Set Screw, 3/8 in. - 16 x 1 . . . . .                   | 2   |
| 12        | 3002-0066  | Fan Rotor . . . . .                                     | 1   |
| 13        | 3002-0067  | Discharge Chute . . . . .                               | 1   |
| 14        | 3002-0061  | Fan Housing Bottom Plate . . . . .                      | 1   |
| 15        | 1004-0004  | Band . . . . .  | 2   |
| 16        | 3002-0071  | Rear Duct Gate . . . . .                                | 1   |
| 17        | 1009-0304  | Duct Hanger Flat . . . . .                              | 2   |
| 18        | 3023-0016  | Duct . . . . .  | 1   |
| 19        | 3023-0015  | Grate . . . . .   | 1   |
| 20        | 1006-0131  | Grate Rod 25-1/2 in. Long . . . . .                     | 1   |
| 21        | 3002-0072  | Front Duct Gate . . . . .                               | 1   |
| 22        | 0002-0036  | Nut, Flexlock 3/8 in. - 16 . . . . .                    | 4   |
| 23        | 0002-0002  | Washer, Flat 3/8 in. . . . .                            | 8   |
| 24        | 1025-0004  | Spring . . . . .  | 4   |
| 25        | 0002-0057  | Bolt, Carriage 3/8 - 16 x 1-3/4 in. . . . .             | 4   |
| 26        | 1021-0075  | Rubber Flange 65 in. Long . . . . .                     | 1   |
| 27        | 0002-0297  | Roll Pin, 3/8 x 2 in. . . . .                           | 1   |
| 28        | 1006-0095  | Key, 1/4 x 1/4 x 3 in. . . . .                          | 2   |
| 29        | 1022-0096  | Fan Shaft . . . . .                                     | 1   |
| 30        | 1003-0025  | Spacer . . . . .  | 1   |
| 31        | 1008-0015  | Hand Wheel . . . . .                                    | 1   |
| 32        | 3023-0078  | Spacer Hand Wheel . . . . .                             | 1   |
| 33        | 3023-0071  | Adjustment Rod Weldment . . . . .                       | 1   |
| 34        | 3023-0076  | Bell Crank . . . . .                                    | 2   |
| 35        | 3023-0074  | Cross Pin . . . . .                                     | 1   |
| 36        | 1022-0056  | Sheave Adjusting Shaft . . . . .                        | 2   |
| 37        | 1006-0033  | Roll Pin, 3/8 x 2 in. . . . .                           | 1   |
| 38        | 1009-0305  | Flat . . . . .  | 2   |
| 39        | 3023-0077  | Spacer . . . . .  | 1   |
| 40        | 3023-0075  | Spacer . . . . .  | 1   |

Use only genuine Pixall® replacement parts.

# PICKING HEAD ASSEMBLY



Use only genuine Pixall® replacement parts.

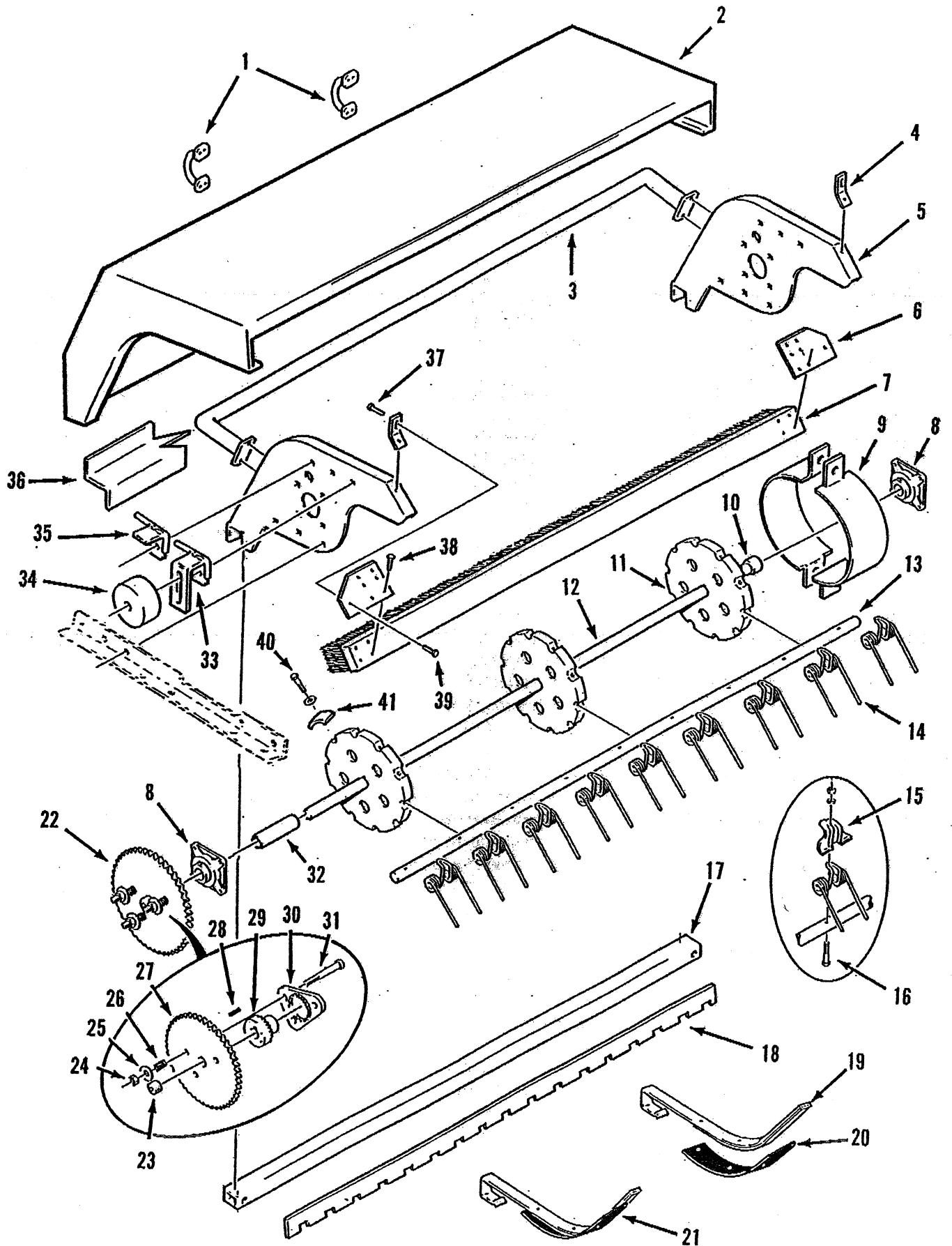


## PICKING HEAD ASSEMBLY

| REF<br>NO | PART<br>NO | DESCRIPTION  | QTY |
|-----------|------------|--|-----|
| 1         | 1007-0109  | Shield Strip .....   | 1   |
| 2         | 1009-0335  | Middle Divider Support .....   | 2   |
| 3         | 0001-0024  | Handle .....   | 2   |
| 4         | 1007-0105  | Backboard, Sheet Only .....  | 1   |
| 5         | 1007-0108  | Stake Pocket .....   | 2   |
| 6         | 1021-0117  | Belt Sealer .....  | 1   |
| 7         | 1009-0089  | Seal Cover .....   | 2   |
| 8         | 1021-0059  | Sealer Belt .....  | 2   |
| 9         | 3014-0004  | Tightener Assembly .....   | 2   |
| 10        | 1015-0078  | Pillow Block Ball Bearing 1 in. Bore .....                           | 3   |
| 11        | 1020-0044  | Idler Roller .....   | 1   |
| 12        | 1003-0066  | 1 in. Spacer .....   | 2   |
| 13        | 3004-0054  | Bean Shield (R.H.) .....   | 1   |
| 14        | 1006-0124  | Hinge Rod .....  | 1   |
| 15        | 3023-0020  | Lower Conveyor Idler End .....                                       | 1   |
| 16        | 3023-0021  | Bean Shield (L.H.) .....   | 1   |
| 17        | 1021-0077  | Lower Conveyor Belt 18 in. x 21 ft. x 10 in. Long .....              | 1   |
| 18        | 1006-0130  | Lacing Wire .....  | 1   |
| 19        | 3023-0017  | BH100 Scow .....   | 1   |
| 20        | 1022-0097  | Idler Roller 1-3/8 in. OD .....                                      | 1   |
| 21        | 1015-0108  | Flange Ball Bearing 1 in. Bore .....                                 | 1   |
| 22        | 3023-0028  | Crank .....  | 1   |
| 23        | 1009-0309  | Scow Retainer Clip .....   | 2   |
| 24        | 1015-0027  | Grease Fitting .....   | 2   |
| 25        | 1027-0001  | Plastic Wear Shoe .....  | 2   |
| 26        | 0002-0351  | Bolt, Hex Head 5/16 -18 x 3/4 in. Nylon .....                        | 4   |
| 27        | 1015-0033  | Take-Up Bearing 1 in. Bore .....                                     | 2   |
| 28        | 1012-0026  | Threaded Rod & Nut .....   | 2   |
| 29        | 1020-0045  | Drive Roller .....   | 1   |
| 30        | 1013-0299  | Street Ell 90° 1/8 in. NPT .....                                     | 1   |
| 31        | 1013-0350  | Hose Assembly 1 ft. Long .....                                       | 1   |
| 32        | 1009-0485  | Grease Hose Bracket .....  | 1   |
| 33        | 1013-0351  | Pipe Coupling 1/8 in. NPT .....                                      | 1   |
| 34        | 3012-0015  | Adjustable Row Divider (R.H.) .....                                  | 1   |
| 35        | 1012-0072  | Threaded Rod, 1/2 - 13 x 9 in. ....                                  | 1   |
| 36        | 3004-0075  | Elbow .....  | 1   |
| 37        | 1007-0339  | Stop Shield .....  | 1   |
| 38        | 1007-0331  | Shield (R.H.) .....  | 1   |
| 39        | 1023-0161  | Front Support Angle .....  | 1   |
| 40        | 3023-0019  | Reel Gear Box Mounting Plate .....                                   | 1   |
| 41        | 1007-0110  | Scow Drive Shield .....  | 1   |
| 42        | 1014-0135  | Pipe Spacer .....  | 1   |
| 43        | 1019-0025  | Sprocket RC50B32T 1 in. Bore .....                                   | 1   |
| 44        | 1021-0086  | Roller Chain RC50 x 80 Pitches Including Connector Link .....        | 1   |
| 45        | 1019-0051  | Idler Sprocket RC50 5/8 in. Bore .....                               | 1   |
| 46        | 6001-0057  | Flat Washer, Sq. ID .....  | 1   |
| 47        | 1019-0073  | Sprocket RC50B13T 1-1/4 in. Bore .....                               | 1   |
| 48        | 1019-0131  | Sprocket RC60B13T 1-1/4 in. Bore .....                               | 1   |
| 49        | 1019-0335  | Roller Chain RC60 x 88 .....   | 1   |
|           | 1019-0452  | Chain RC60 82 Pitches (Used w/40 Tooth Reel Drive Sprocket) .....    | 1   |
|           |            | Pitches Incl. Connector Link (Used w/48 Tooth Reel Drive Sprocket) . | 1   |

Use only genuine Pixall® replacement parts.

# REEL AND STRIPPER ASSEMBLY



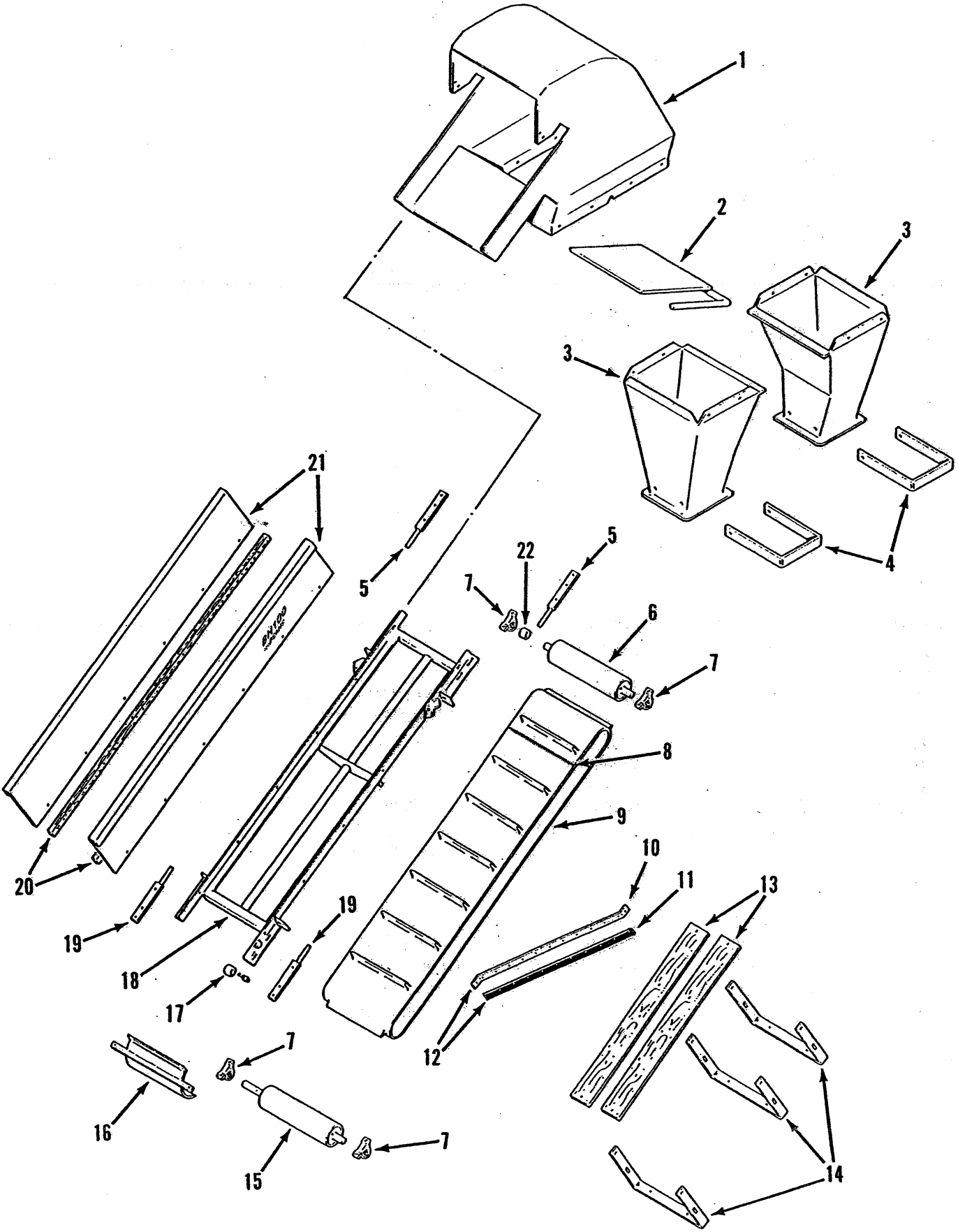
Use only genuine Pixall® replacement parts.

## REEL AND STRIPPER ASSEMBLY

| REF<br>NO | PART<br>NO | DESCRIPTION                                 | QTY |
|-----------|------------|---|-----|
| 1         | 0001-0024  | Shield Handle                               | 2   |
| 2         | 3023-0030  | Reel Shield                                 | 1   |
| 3         | 1007-0015  | Reel Guard                                  | 1   |
| 4         | 1009-0101  | Bracket                                     | 2   |
| 5         | 3004-0038  | Reel Support (R.H.)                         | 2   |
| 6         | 1009-0100  | Brush Mounting Plate                        | 2   |
| 7         | 3004-0049  | Brush                                       | 1   |
| 8         | 1015-0007  | Flange Ball Bearing 1-1/4 in. Bore          | 2   |
| 9         | 1021-0063  | Wrapping Guard                              | 2   |
| 10        | 1003-0049  | Spacer 2-1/2 in. Long                       | 1   |
| 11        | 1008-0024  | Reel Spider                                 | 3   |
| 12        | 1022-0050  | Reel Shaft 1-1/4 Diameter x 82-1/2 in. Long | 1   |
| 13        | 1014-0003  | Reel Pipe                                   | 10  |
| 14        | 3004-0004  | Wide Picking Finger                         | 90  |
| 15        | 3004-0076  | Wide Reel Clip                              | 90  |
| 16        | 0002-0102  | Bolt, Carriage 3/8 -16 x 2 in. Long         | 90  |
| 17        | 1024-0002  | Stripper Tube                               | 1   |
| 18        | 1009-0280  | Stripper Aligner, Fresh Market Reel         | 1   |
| 19        | 1009-0264  | Wide Stripper                               | 17  |
| 20        | 1021-0002  | Wide Stripper Rubber                        | 17  |
| 21        | 3004-0059  | Wide Stripper Assembly                      | 17  |
| 22        | 3015-0008  | Reel Drive Sprocket w/Clutch Assembly       | 1   |
| 23        | 1012-0064  | Shaft Collar 1-1/4 in. Bore                 | 1   |
| 24        | 0002-0331  | Nut, Flexlock 5/8 in. - 11                  | 3   |
| 25        | 0002-0050  | Washer, Flat 5/8 in.                        | 3   |
| 26        | 1025-0006  | Compression Spring                          | 3   |
| 27        | 1019-0157  | Sprocket RC60A48T 1-1/4 in. Bore            | 1   |
| 28        | 1006-0093  | Key, 1/4 x 1/4 x 1-1/2 in.                  | 1   |
| 29        | 1008-0051  | Clutch Hub                                  | 1   |
| 30        | 1008-0050  | Clutch Plate                                | 1   |
| 31        | 0002-0047  | Bolt, Carriage 5/8 - 11 x 4-1/2 in.         | 3   |
| 32        | 1003-0012  | Spacer 8-1/8 in. Long                       | 1   |
| 33        | 1001-0062  | Tightener Bracket and Shield Mounting       | 1   |
| 34        | 1027-0010  | Plastic Idler                               | 1   |
| 35        | 1001-0063  | Shield Mounting Bracket                     | 1   |
| 36        | 1007-0316  | Z-Iron                                      | 1   |
| 37        | 0002-0026  | Bolt, Hex Head 1/2 - 13 x 1 in. Long        | 2   |
| 38        | 0002-0040  | Lag Screw, 5/16 x 1 in. Long                | 8   |
| 39        | 0002-0128  | Bolt, Carriage 1/2 - 13 x 1 in. Long        | 2   |
| 40        | 0002-0114  | Bolt, Hex Head 3/8 -16 x 2 in. Long         | 30  |
| 41        | 1016-0008  | Washer, Half Moon 3/8 in.                   | 30  |

Use only genuine Pixall® replacement parts.

# EIGHT FOOT ELEVATOR



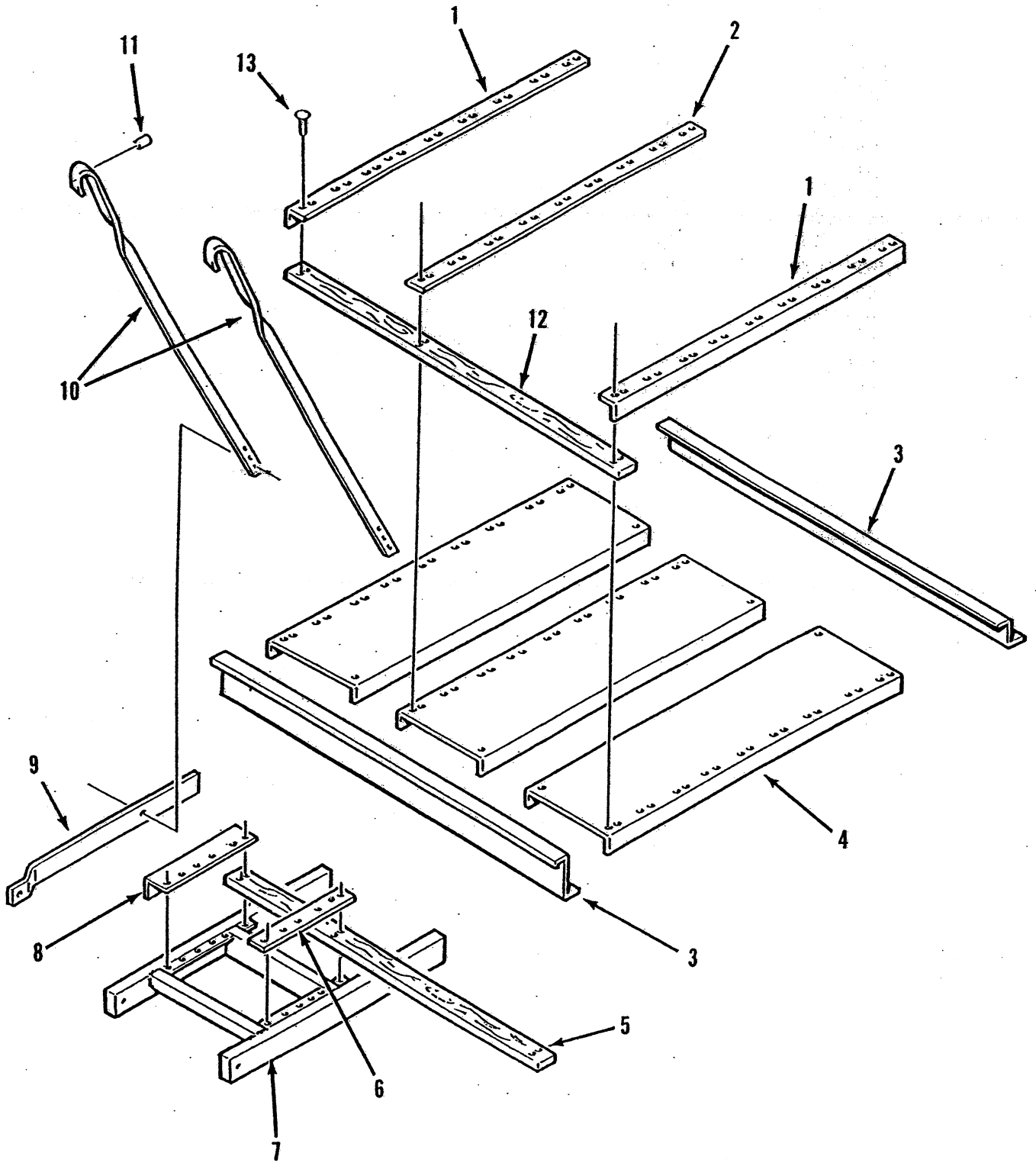
Use only genuine Pixall® replacement parts.

## EIGHT FOOT ELEVATOR

| REF<br>NO | PART<br>NO | DESCRIPTION                            | QTY |
|-----------|------------|--|-----|
| 1         | 3023-0011  | Elevator Hopper.....                   | 1   |
| 2         | 3023-0023  | Flipper.....                           | 1   |
| 3         | 3005-0093  | Bagger Attachment.....                 | 2   |
| 4         | 1009-0266  | Handle.....                            | 2   |
| 5         | 3014-0004  | Tightener & Spacer Assembly.....       | 2   |
| 6         | 1020-0044  | Idler Roller.....                      | 1   |
| 7         | 1015-0078  | Bearing, 1 in. Pillow Block.....       | 4   |
| 8         | 1006-0130  | Lacing Wire.....                       | 1   |
| 9         | 1021-0079  | Elevator Belt 15 ft. x 4 in. Long..... | 1   |
| 10        | 1009-0300  | Wiper Flat.....                        | 1   |
| 11        | 1021-0078  | Rubber Scraper.....                    | 1   |
| 12        | 3023-0013  | Wiper Assembly.....                    | 1   |
| 13        | 1003-0041  | Oak Strip, Belt Runner.....            | 2   |
| 14        | 1009-0298  | Belt Runner Bracket.....               | 3   |
| 15        | 1020-0043  | Drive Roller.....                      | 1   |
| 16        | 3023-0014  | Elevator Pan.....                      | 1   |
| 17        | 1003-0043  | Elevator Spacer.....                   | 2   |
| 18        | 3023-0012  | Elevator Frame.....                    | 1   |
| 19        | 3014-0014  | Tightener & Spacer Assembly.....       | 2   |
| 20        | 1003-0040  | Oak Strip, Belt Guide.....             | 2   |
| 21        | 1007-0091  | Elevator Side.....                     | 2   |
| 22        | 1003-0066  | Spacer 1 in. Long.....                 | 4   |

Use only genuine **Pixall**® replacement parts.

# BAGGER PLATFORM



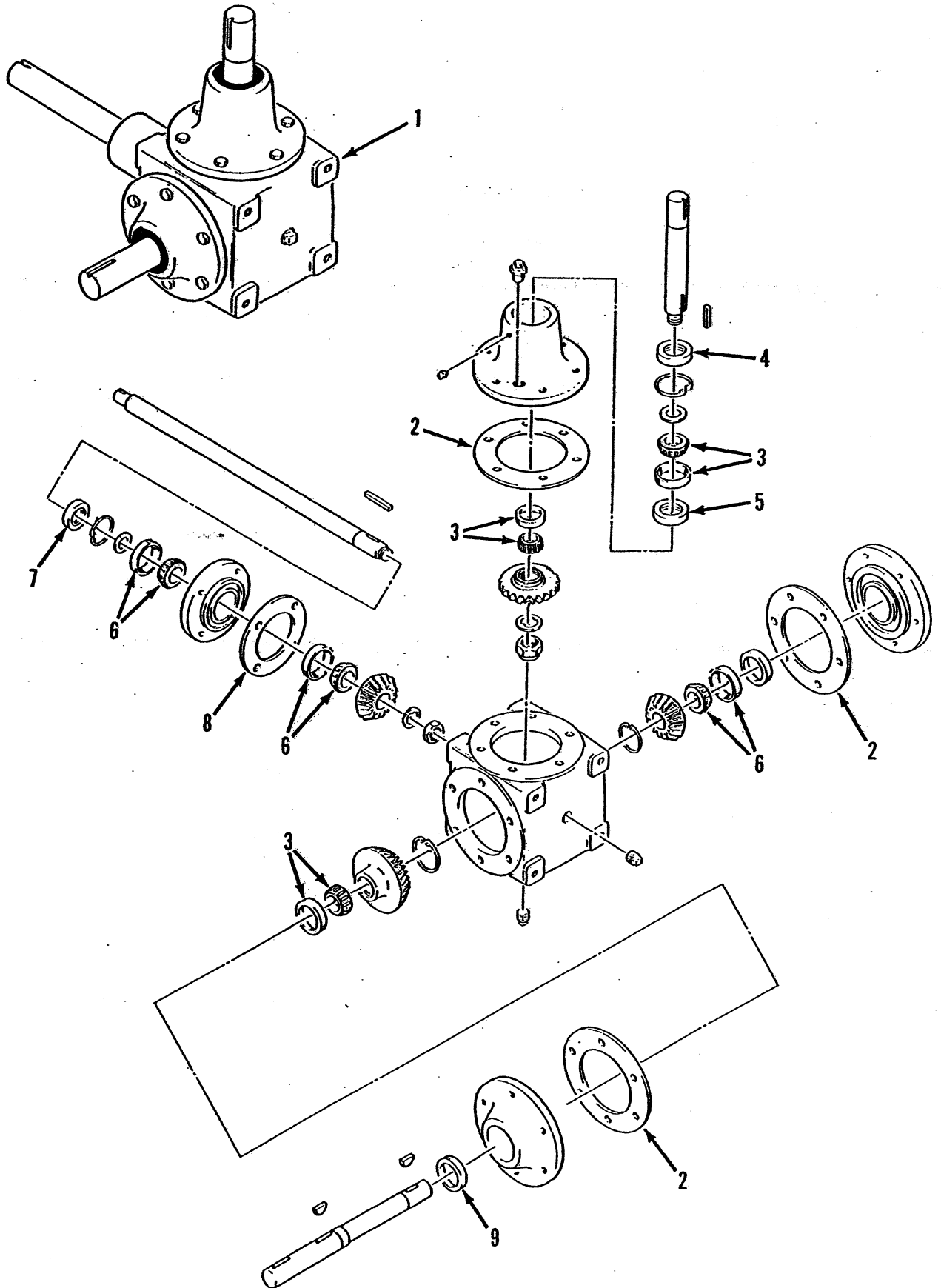
Use only genuine Pixall® replacement parts.

# BAGGER PLATFORM

| REF<br>NO | PART<br>NO | DESCRIPTION                             | QTY |
|-----------|------------|---|-----|
| 1         | 1007-0284  | Long Hold Down Angle .....              | 2   |
| 2         | 1009-0453  | Long Hold Down Flat .....               | 1   |
| 3         | 1007-0283  | Z-Iron .....                            | 2   |
| 4         | 1002-0127  | Platform Channel .....                  | 3   |
| 5         | 1003-0061  | Short Floor Board .....                 | 5   |
| 6         | 1009-0454  | Short Hold Down Flat .....              | 1   |
| 7         | 3023-0004  | Pallet Platform Frame .....             | 1   |
| 8         | 1007-0285  | Hold Down Angle (Short) .....           | 1   |
| 9         | 1009-0488  | Frame Rail .....                        | 1   |
| 10        | 3023-0022  | Hanger Strap .....                      | 2   |
| 11        | 1003-0042  | Bushing .....                           | 5   |
| 12        | 1003-0060  | Long Floor Board .....                  | 9   |
| 13        | 0002-0065  | Bolt, Carriage 5/16 -18 x 1-3/4 in..... | 36  |

Use only genuine **Pixall®** replacement parts.

# FAN DRIVE GEARBOX (1019-0108)



Use only genuine **Pixall**® replacement parts.

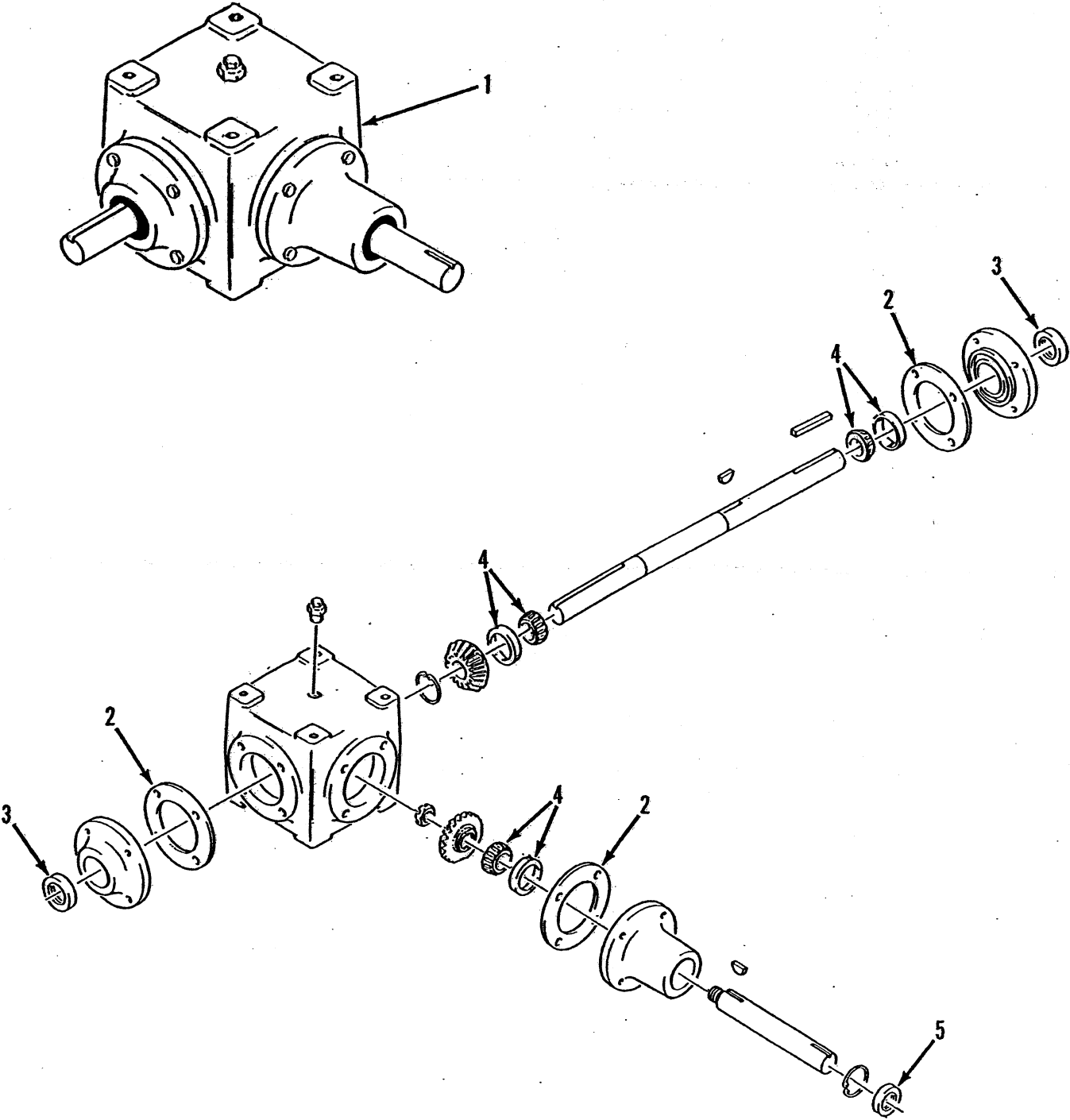


## FAN DRIVE GEARBOX (1019-0108)

| REF<br>NO | PART<br>NO | DESCRIPTION                            | QTY |
|-----------|------------|--|-----|
| 1         | 1019-0108  | Remanufactured Gearbox (Complete)..... | 1   |
| 2         | 1019-0251  | Gasket 6 Hole .....                    | AR  |
| 3         | 1015-0062  | Timken Cone .....                      | 3   |
| 4         | 1019-0221  | Seal, 1-3/8 in. Shaft .....            | 1   |
| 5         | 1019-0226  | Seal, 1-3/8 in. Shaft .....            | 1   |
| 6         | 1015-0106  | Timken Bearing .....                   | 3   |
| 7         | 1019-0236  | Seal, 1-1/4 in. Shaft .....            | 1   |
| 8         | 1019-0252  | Gasket 4 Hole .....                    | AR  |
| 9         | 1019-0248  | Seal, 1-3/8 in. Shaft .....            | 1   |

Use only genuine **Pixall**<sup>®</sup> replacement parts.

# CONVEYOR DRIVE GEARBOX (1019-0165)



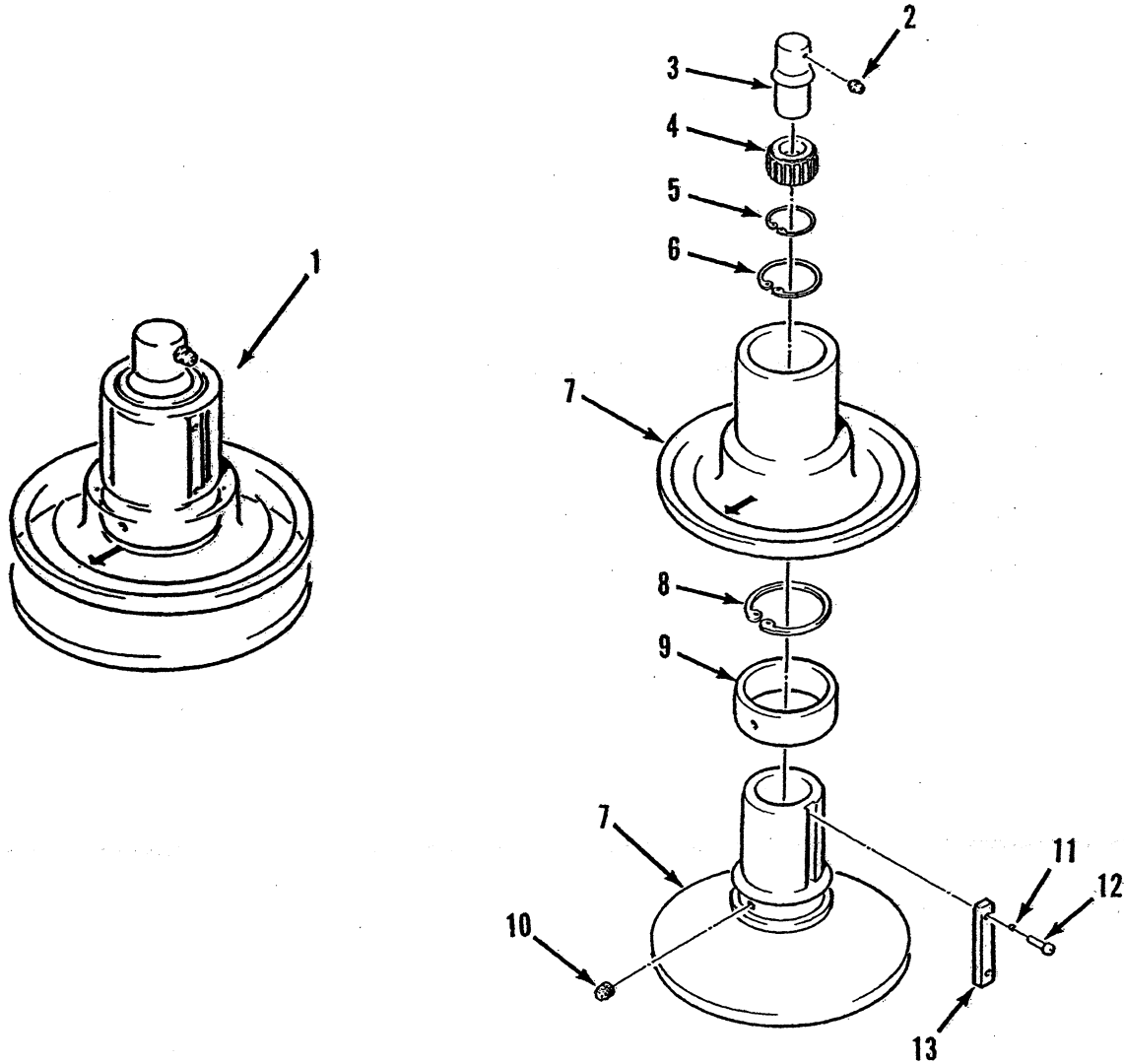
Use only genuine Pixall® replacement parts.

## CONVEYOR DRIVE GEARBOX (1019-0165)

| REF<br>NO | PART<br>NO | DESCRIPTION                            | QTY |
|-----------|------------|--|-----|
| 1         | 1019-0165  | Remanufactured Gearbox (Complete)..... | 1   |
| 2         | 1019-0252  | Gasket 4 Hole .....                    | AR  |
| 3         | 1019-0254  | Seal, 1-3/8 in. Shaft .....            | 2   |
| 4         | 1015-0106  | Timken Bearing .....                   | 3   |
| 5         | 1019-0236  | Seal, 1-1/4 in. Shaft .....            | 1   |

Use only genuine **Pixall**<sup>®</sup> replacement parts.

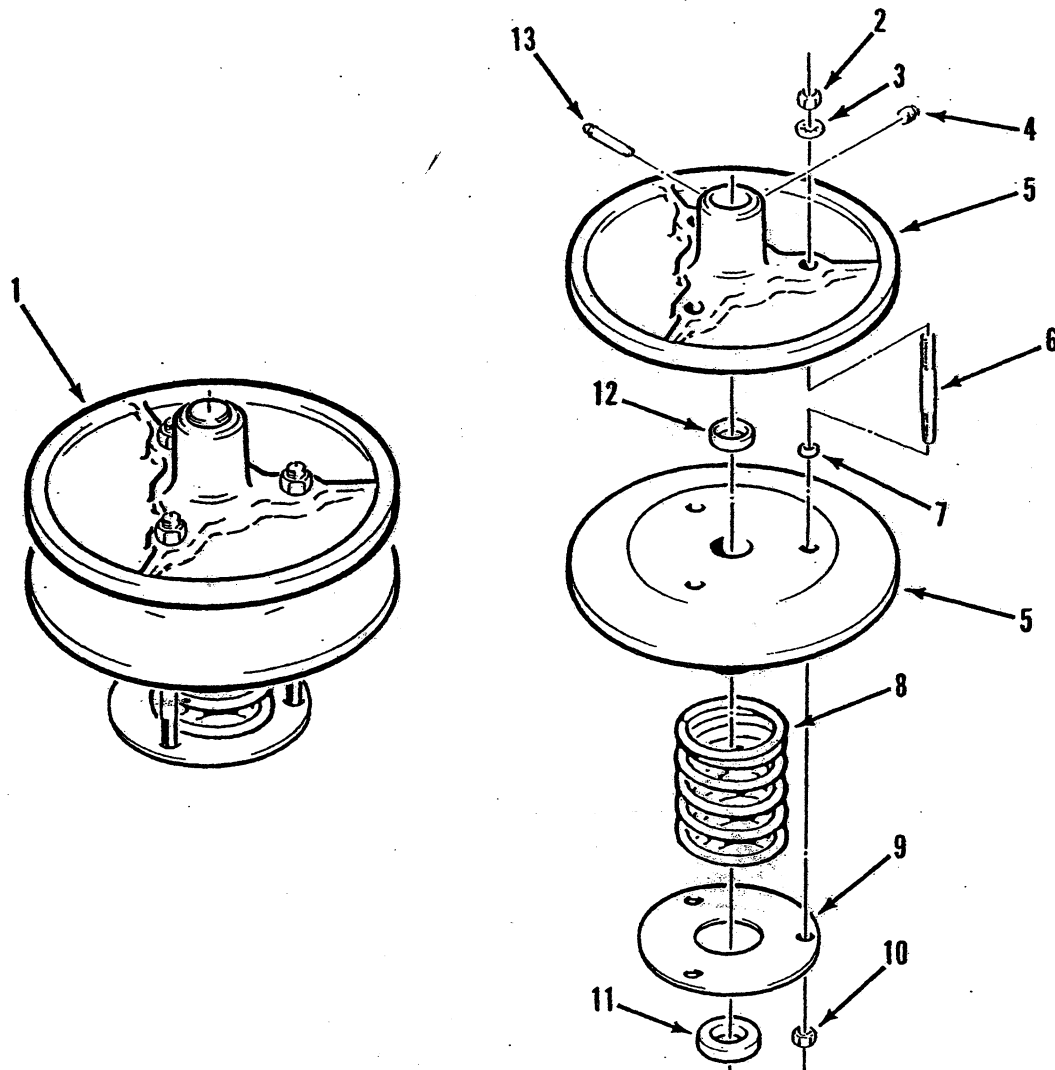
# FAN VARI-SPEED SHEAVES DRIVER PULLEY ASSEMBLY



| REF NO | PART NO   | DESCRIPTION   | QTY |
|--------|-----------|---|-----|
| 1      | 1020-0041 | PULLEY ASSEMBLY, DRIVER .....                         | 1   |
| 2      | 1015-0027 | Grease Fitting .....                                  | 1   |
| 3      | 1022-0005 | Thrust Stub Shaft. ....                               | 1   |
| 4      | 1015-0071 | Bearing .....   | 1   |
| 5      | 1016-0003 | Retaining Ring .....                                  | 1   |
| 6      | 1016-0026 | Retaining Ring .....                                  | 1   |
| 7      | 1020-0063 | Driver Sheave Matched Set. ....                       | 1   |
| 8      | 1016-0033 | Retaining Ring .....                                  | 1   |
| 9      | 1014-0229 | Idler Collar with Bushing .....                       | 1   |
| 10     | 0003-0022 | Set Screw, Socket Head 3/8 - 16 x 1/4 in. Nylon. .... | 1   |
|        | 0003-0010 | Set Screw, Socket Head 3/8 - 16 x 3/8 in. Nylon. .... | 1   |
| 11     | 0002-0353 | Washer, Internal Tooth Lock 1210-6 .....              | 4   |
| 12     | 0002-0354 | Bolt, Socket Head #10 - NC x 1/2 in. ....             | 4   |
| 13     | 1006-0092 | Key. ....   | 2   |

Use only genuine Pixall® replacement parts.

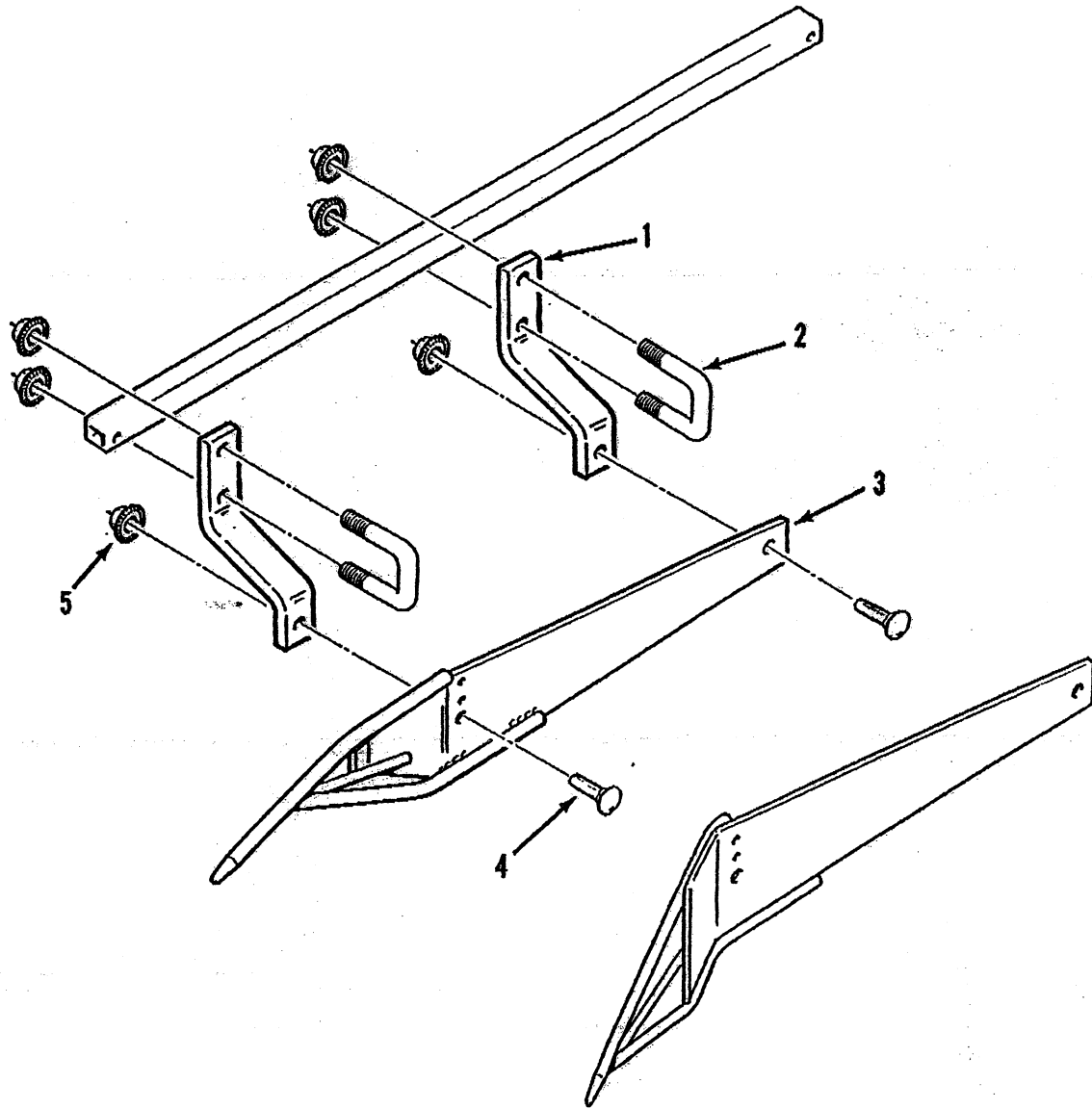
## FAN VARI-SPEED SHEAVES DRIVEN PULLEY ASSEMBLY



| REF NO | PART NO   | DESCRIPTION                                    | QTY |
|--------|-----------|--|-----|
| 1      | 1020-0021 | PULLEY ASSEMBLY, DRIVEN                        | 1   |
| 2      | 0002-0024 | Nut, Hex 1/2 in.                               | 3   |
| 3      | 1016-0034 | Washer, Internal Tooth Lock 1/2 in.            | 3   |
| 4      | 0002-0352 | Set Screw, Socket Head 10 - 24 x 3/8 in. Nylon | 1   |
| 5      | 1020-0066 | Driven Sheave Matched Set                      | 1   |
| 6      | 1012-0019 | Drive Stud                                     | 3   |
| 7      | 1015-0128 | Bushing, Oilite                                | 3   |
| 8      | 1025-0001 | Spring   | 1   |
| 9      | 1016-0002 | Spring Tension Plate                           | 1   |
| 10     | 0002-0241 | Nut, Nylock 3/8 in.                            | 3   |
| 11     | 1019-0329 | Seal   | 1   |
| 12     | 1015-0127 | Bushing, Oilite                                | 2   |
| 13     | 1015-0126 | Grease Fitting, 1-1/8 in. Long                 | 1   |

Use only genuine Pixall® replacement parts.

# OUTSIDE ROW DIVIDER KIT (4500-0027)



| REF NO | PART NO   | DESCRIPTION                                    | QTY |
|--------|-----------|--|-----|
| 1      | 1009-0475 | Flat Bracket .....                             | 2   |
| 2      | 1004-0019 | U-Bolt.....                                    | 2   |
| 3      | 3012-0017 | Adjustable Row Divider .....                   | 1   |
| 4      | 0002-0355 | Bolt, Hex Button Head 1/2 - 13 x 1-1/4 in..... | 2   |
| 5      | 0002-0250 | Nut, Small Ser Flg 1/2 in. -13.....            | 6   |

Use only genuine Pixall® replacement parts.

