HAYBUSTER®

H-1100 Tub Grinder
OPERATOR'S MANUAL
PARTS BOOK

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WARRANTY

Haybuster Mfg. Inc., warrants to the original purchaser for one year from purchase date that this product will be free from defects in material and workmanship when used as intended and under normal maintenance and operating conditions. This warranty is limited to the replacement of any defective part or parts returned to our factory in Jamestown, N.D., within thirty (30) days of failure.

This warranty shall become void if in Haybuster Mfg. Inc's., judgment the machine has been subject to misuse, negligence, alterations, damaged by accident or lack of required normal maintenance, or if the product has been used for a purpose for which it was not designed.

All claims for warranty must be made through the dealer which originally sold the product and all warranty adjustments must be made through same.

This warranty does not apply to tires or bearings or any other trade accessories not manufactured by Haybuster Mfg. Inc. Buyer must rely solely on the existing warranty, if any, of these respective manufacturers.

Haybuster Mfg. Inc., shall **not** be held liable for damages of any kind, direct, contingent, or consequential to property under this warranty. Haybuster Mfg. Inc., cannot be held liable for any damages resulting from causes beyond its control. Haybuster Mfg. Inc., shall **not** be held liable under this warranty for loss of crops, or rental costs or any expense or loss for labor or supplies.

Haybuster Mfg. Inc., reserves the right to make changes in materials and/or designs of this product at any time without notice.

This warranty is void if Haybuster Mfg. Inc., does not receive a valid warranty registration card at its office in Jamestown, N.D., within 10 days from date of original purchase.

All other warranties made with respect to this product, either expressed or implied, are hereby disclaimed by Haybuster Mfg. Inc.

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2 SAFETY INSTRUCTIONS

The safety of the operator is of great importance to Haybuster Manufacturing Company. We have provided decals, shields and other safety features for your protection. In addition, we ask you to be a careful operator who will properly use and service your Haybuster equipment.

WARNING: BEFORE ATTEMPTING TO OPERATE YOUR TRACTOR WITH THE GRINDER, CAREFULLY READ AND FOLLOW INSTRUCTIONS GIVEN BELOW AND CONTAINED ELSEWHERE IN THIS MANUAL.

1. Read and follow all instructions contained in:
   a. this grinder operator's manual
   b. tractor operator's manual
   c. decals placed on the grinder and tractor

NOTE: Additional copies of the above mentioned materials can be obtained from your dealer.

2. Be sure all safety shields and covers are securely in place when machine is running.

3. Allow only responsible, properly instructed individuals to operate machines. Carefully supervise inexperienced operators.

4. Make no modifications to this equipment unless specifically requested or recommended by Haybuster Manufacturing Co.

5. Tighten or replase any loose or cracked bolts, chain, hoses or connections.

6. Check overhead for electrical power lines or other obstructions and be certain there is adequate clearance.

7. Make sure the machine is in good operating condition and that all protective shields are in place and in proper working order. Replace damaged shields before operating.

8. Check periodically for breaks or unusual wear and make any necessary repairs.

9. Be sure that the tractor operator is the only person riding the tractor. Allow no one to ride on the grinder at any time.

10. **REMEMBER:** Loose clothing, necklaces and similar items are more easily caught in moving parts. Avoid the use of these items if possible and keep long hair confined.

11. Watch out for and avoid any object that might interfere with the proper operation on the machine.

12. Keep hands, feet and clothing away from power driven parts.

13. When folding or unfolding discharge conveyor follow the procedure found on page 10.

14. The discharge conveyor is equipped with telescoping, safety bars. Use these bars when grinding or transporting. Do not rely solely on winch to support conveyor.

DURING SERVICE AND MAINTENANCE

1. Before working on or near grinder for any reason, including servicing, inspecting or unclogging machine:
   a. disengage power to grinder
   b. place transmission in park or set park brake
   c. shut off engine and remove key
   d. wait for all movement to stop

2. When replacing any part on your grinder, be sure to use only Haybuster authorized parts.

3. Relieve all pressure in the hydraulic system before disconnecting the lines or performing other work on the system. Make sure all connections are tight and the hoses and lines are in good condition before applying pressure to the system.

4. Hydraulic fluid escaping under pressure can be invisible and have enough force to penetrate the skin. When searching for a suspect leak, use a piece of wood or cardboard rather than your hands. If injured, seek medical attention immediately to prevent serious infection or reaction.

WHEN TRANSPORTING ON PUBLIC ROADS

1. Use good judgment and drive carefully, especially over rough and uneven roads.

2. Be sure tractor brakes are properly adjusted and foot pedals are locked together.

3. Check your state laws regarding the use of lights, slow moving vehicle sign, safety chain and other possible requirements.

4. Be aware of machine width at all times, do not exceed 20 mph.

WARNING: FAILURE TO COMPLY WITH ANY OF THE PRECEDING SAFETY INSTRUCTIONS OR THOSE THAT FOLLOW WITHIN THIS MANUAL MAY RESULT IN SEVERE INJURY OR DEATH.

THIS GRINDER IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT IS INTENDED AS EXPLAINED IN THE OPERATOR'S MANUAL, ADVERTISING MATERIALS AND OTHER PERTINENT WRITTEN MATERIAL PREPARED BY HAYBUSTER MANUFACTURING.

SAFETY DECALS

Safety decals located on your machine contain important and useful information that will help you operate your equipment safely.

1. Keep decals clean. Use soap and water - not mineral spirits, adhesive cleaners, and other similar cleaners that will damage the decal.

2. Replace any damaged or missing decals. When attaching decals, surface temperature of the metal must be at least 40° Fahrenheit. The metal must also be clean and dry.

3. When replacing a machine component to which a decal is attached, be sure to also replace the decal.

4. Replacement decals can be purchased from your Haybuster dealer.

IMPORTANT SAFETY INFORMATION

1. This brake winch is built for multipurpose hauling and lifting operations. It is not to be used as a hoist for lifting, supporting or transporting people, or for loads over areas where people could be present.

2. Respect this winch. High forces are created when using a winch, creating potential safety hazards. It should be operated and maintained in accordance with instructions. Never allow children or anyone who is not familiar with the operation of the winch to use it. A winch accident could result in personal injury.

3. Check winch for proper operation on each use. Do not use if damaged. Seek immediate repairs.

4. Never exceed rated capacity. Excess load may cause premature failure and could result in serious personal injury.

5. Never apply load on winch with cable fully extended. Keep at least three full turns of cable on the reel.

6. Secure load properly. When winching operation is complete, do not depend on winch to support load.

7. Operate with hand power only. This winch should not be operated with a motor of any kind. If the winch cannot be cranked easily with one hand, it is probably over-loaded.

4 SPECIFICATIONS

SPECIFICATIONS

	H1100
Weight	7,000 lbs.
Width	11 feet
Height	9 feet
Length	23 feet with conveyor
Wheels	Drop center rims, Timken bearings
Bearings	All standard size, grease sealed
Recommended Tire Size	9.5 x 15 (4)
Recommended Power	100 to 200
Recommended Cylinder Speed	2000 rpm
Capacity	Hay - up to 40 tons/hr. Ear Corn - up to 800 bu./hr. Grain and shelled corn- up to 3400 bu./hr. Will grind big round bale
HAMMERMILL-Std. No. of Hammers	88
Hammer Size	2-1/2x7-3/4x3/8
CYLINDER-Shaft diameter	3-1/2 in. stress proof steel
Cylinder Size	50 in. long, 26 in. diameter hammers extended
Screen Area	2,565 sq. in.
Screens Available (inches)	3/16, 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1-1/2, 2, 3, 4
Feed Delivery	22 ft. folding rubber belt conveyor w/slats, 18" wide
Tub Size	108" I.D.
Tub Depth	58 inches
Tub Drive	Electro-Hydraulic

AVAILABLE OPTIONS FOR HAYBUSTER TUB GRINDER MODEL H1100:

Tub Seal Kit
Corn Cob Kit
Geyser Plate
Grain Grinding Hopper
Rack for Loose Hay
Electric Stationary Models Also Available
Various Screen Sizes

All grinders are shipped with the discharge conveyor removed.

Mounting Conveyor:

H-1100

1. Remove stabilizer brackets from rear of grinder frame.
2. Place lower end of conveyor on bearing mounts. Loosen eccentric lock collars so bearing can slide freely on the shaft.
3. Reassemble the stabilizer brackets.
4. Center conveyor between stabilizer brackets by sliding shaft in bearings. Lock bearing to shaft.
5. Loosen allen screws and align sprocket on conveyor shaft with driving sprocket.
6. Install No. 60 chain, adjust chain idler.
7. Attach drive chain shield.
8. Hook cable blocks in discharge conveyor brackets, unfold conveyor and raise to operating position.

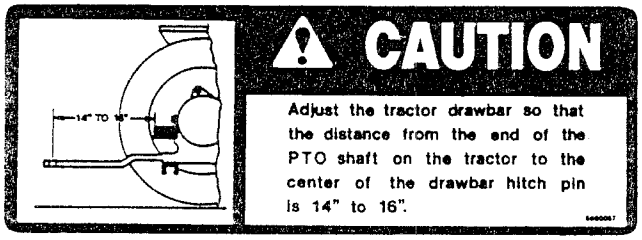
6 BEFORE OPERATING

HITCHING TO THE TRACTOR

For safe P.T.O. operation, horizontal distance from the center of the drawbar pin to the end of the tractor P.T.O. shaft should be as shown. .

To reduce wear on the P.T.O. shaft knuckle joints, tractor P.T.O. shaft should be in line (parallel) with the grinder. If tractor is equipped with swinging drawbar, adjust so that tractor P.T.O. and tub grinder drive shaft are in line.

NOTE: Recommended power H-1100 100 to 200 hp



CAUTION: To insure a safe hook-up, the Tub Grinder should be hooked to the tractor with a 1" locking pin.

SCREEN SELECTION

The coarseness of the material to be ground is determined by the hole size in the screens. Hole sizes can vary from 3/16" diameter through 4" diameter. The larger the hole diameter the coarser the grind.

NORMAL SHUT-DOWN PROCEDURE

For your safety and the safety of others, you must use the following normal shut-down procedure before leaving the controls unattended for any reason, including servicing, cleaning, or inspecting. A variation of the following procedure may be used if so instructed within this manual or if an extreme emergency requires it.

a. disengage power to grinder
b. place transmission in park or set park brake
c. shut off engine and remove key
d. wait for all movement to stop

All machines have been pre-run at the factory to assure all functions are operating properly. The hydraulic reservoir tank contains approximately 6 gallons of hydraulic oil for test running only. Before operating your machine, additional oil must be added to the reservoir tank. It will take approximately 8 more gallons of hydraulic oil. This should bring the oil level to within 3-1/2" below the top of the reservoir.

CAUTION: Lack of proper hydraulic oil level in the reservoir tank will cause system to heat under continuous running. (Recommend Mobil 423, Co-op super HTB or similar oil.)

CAUTION: In extremely cold weather, it may be necessary to add a gallon of kerosene to the reservoir tank to thin down the oil.

PRE-STARTING INSPECTION INSTRUCTION

To insure long life and economical operation, we highly recommend the operator of the grinder be thoroughly instructed in the maintenance and operation of the machine. There is no substitute for a sound preventative maintenance program and a well trained operator.

Prior to starting the engine, we recommend the operator make a visual inspection of the unit. This can be done as the lubrication is being carried out. Any items that are worn, broken, missing or needing adjustment must be serviced accordingly before operating the grinder.

WARNING: Before inspecting the machine, use the normal shut-down procedure on this page.

PRE-OPERATING CHECKS

Before operating the Tub Grinder, follow these instructions:

1. Read and have a thorough understanding of the operator's manual, especially the sections pertaining to machine operation and safety.

2. Be sure anyone who will assist you in the operation of this machine knows how the machine operates.

3. Know the machine's safety features and understand the safety precautions.

4. Be sure all lubrication points have been lubricated. **See lubrication chart.**

5. Give the machine a "once-over" for any loose bolts.

6. Make sure machine is properly adjusted. See Adjustments pages 9 through 24.

7. Be sure the machine is hitched properly to the tractor.

8. Check hydraulic oil level.

9. Check hydraulic components for leaks or damage.

WARNING: Hydraulic fluid escaping under pressure can be almost invisible and can have sufficient force to penetrate the skin. When searching for suspected leaks, use a piece of wood or cardboard rather than your hands. If injured, seek medical attention immediately to prevent serious infection or reaction.

10. Visually examine cylinder to see if any parts show excessive wear. These parts include shaft, plates, rods, hammers and moveable plate.

11. Check screens, screen hold downs, for wear and tightness.

12. Visually examine cylinder bearings and mounting bolts.

13. Check all bearings for wear.

14. Always grind with the machine and tractor stationary.

15. Watch for unusual or excessive vibration. If any occur, immediately shut off the power. Check to see what is wrong and correct it before starting the grinder again.

16. Start the machine and check the tub direction, speed control governor for proper operation.

17. In cold weather, allow five minutes for the machine to warm up before grinding.

18. Make sure all shields and guards are in place.

19. Lug nuts for tightness.

20. Condition of tire rims.

21. Tires for proper air pressure.

22. Installation and condition of hammers.

23. Chains and belts for proper tension and condition.

24. Condition of decals.

25. If grinding grain, be sure proper grain attachment is in place. See page 71.

All Haybuster grinders have two screens. They come equipped from the factory with a 2" diameter hole screen and a 3" diameter hole screen. Any combination of hole sizes may be used.

If a combination is used, the smallest hole diameter should be placed on the right hand side of the cylinder box where the forage enters the cylinder.

CHOOSING PROPER SCREEN

The size of perforation in the screen determines the fineness of grind. In general, larger screen sizes are used for grinding hay.

Round perforated screens available are: 3/16", 1/4", 3/8", 1/2", 5/8", 3/4", 1", 1-1/2", 2", 3", 4".

Slotted screens and dummy screens are available.

As a general guide, the following screen sizes are recommended:

Hay	2" to 4"
Ear Corn	5/8" to 1"
Shelled Corn	3/4" dry, 5/8" high moisture
Small Grains	1/4" to 3/8"

CAUTION: Keep all foreign objects out of the tub and away from the mill. Foreign objects may result in personal injury or damage to the machine.

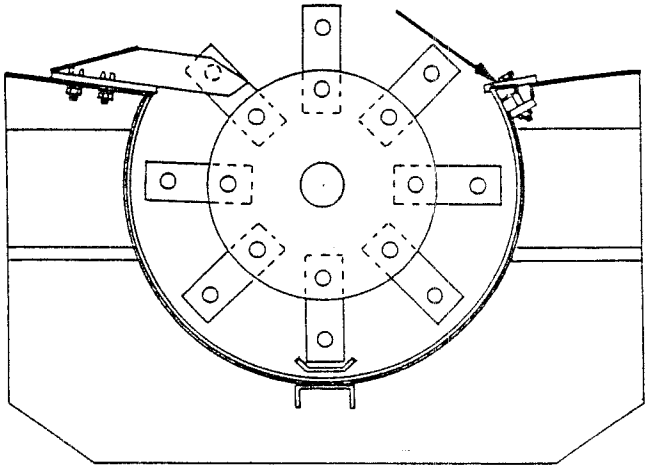
8 BEFORE OPERATING

INSTALLING A SCREEN

CAUTION: Disengage PTO, and shut off tractor before entering tub.

1. Loosen and remove bolts on the screen holding down clip.
2. With a large hook or bar, pull the screen from its chamber.
3. Make sure material is clear from screen holders.
4. Insert the new screen.
5. Replace the hold down clip and bolts. Tighten all bolts securely.

SCREEN HOLD DOWN CLIP



NOTE: A fire extinguisher should be handy at all times due to the possibility of sparks from tractor or hammers hitting a foreign object.

INTRODUCTION

Tractor engines are designed to reach maximum power at PTO speed (1000 rpm), and most tractors are capable of engine speeds from 10 to 20 percent over PTO speed.

A cylinder speed of 2000 rpm is recommended. It will be necessary to operate tractor PTO at approximately 1200 rpm.

The Electronic Governor controls the feed rate to keep the tractor at its peak power point. The operator is able to select the operating range so that when the feed of material lugs down the tractor, the Electronic Governor will stop the feed at a high enough PTO speed for the tractor to recover automatically if a slug is encountered.

OPERATION

The Electronic Governor monitors the speed of the tractor. The hydraulic flow to the feed mechanism is regulated proportionally to the tractor's PTO speed. The flow is cut back, slowing the feed, as the PTO speed slows and is increased, increasing the feed, as the PTO speeds up. The regulation range is moved by adjusting the "engine rpm" knob on the front of the governor. Turning the "engine rpm" knob counter clockwise will increase load on tractor by keeping the feed (tub rotation) engaged at a lower engine rpm.

Turning the "engine rpm" knob clockwise will decrease load on tractor by disengaging the feed (tub rotation) at a higher engine rpm. **Note: With control box switched to manual, the tub will continue to rotate regardless of tractor rpm.**

1. Be sure the machine is hitched properly to the tractor. (See hitching to the tractor, page 6.) Next attach governor power cable to the tractors 12 volt negative ground system with the red lead positive, and the black lead negative.

2. When first starting machine, run at less than full throttle to allow hydraulic system to warm up before operating. In extremely cold weather, it may be necessary to add a gallon of kerosene to the hydraulic reservoir to thin down the oil.

3. With tractor engine running at full throttle, set control box engine rpm dial to max position and set toggle switch in auto position. Engage tub control level. Check indicator light on your control box before doing any adjusting! At this point, the auto light should be lit. If it is not, read the trouble shooting section, pages 20 thru 24.

4. If tub is not turning, turn the "engine rpm" knob counter clockwise until tub begins to rotate. If you are unable to engage tub, read trouble shooting section, pages 20 thru 24.

5. If tub is turning you are ready to proceed to the grinding section of this book. Remember the "engine rpm" knob adjusts the load placed on the tractor and under normal conditions will be the only adjustment you will have to make!

Haybuster Manufacturing test runs every grinder before it leaves the factory. The control box was calibrated at this time and should not need any further adjustment. Before attempting to adjust the control box, read the trouble shooting section, pages 20 thru 24.

GRINDING

Materials to be ground should be placed directly into the tub. The best method for filling the tub is:

1. Fill the tub about half full of underground materials before starting tub rotation.
2. Start tub.
3. Place additional materials in the tub.

LOOSE HAY

The best capacity will be obtained if the tub is consistently kept no less than half full of loose hay. When loading the tub, place materials slightly to the rear rather than directly over the mill. An optional hay guide attachment should be used to guide large quantities of loose hay into the tub (see Optional Equipment section). For best results feed the tub with small portions.

WET OR FROZEN HAY

This is the toughest material for any grinder to handle. When filling the tub with wet or frozen hay, deposit small quantities on a more frequent basis rather than filling the tub with one load.

SMALL GRAINS

Grinding small grains requires special attachments. These attachments fit directly over the cylinder. It is not recommended that small grains be ground without the use of one of the small grain attachments. (See Optional Equipment section.)

LARGE ROUND BALES

Large round bales can be placed in the tub on end or on the side. Try grinding bales each way to determine which method will work best for you. Before placing a large bale into the tub, place about 1 to 2 feet of loose hay in the bottom of the tub. This practice keeps the bale from lodging in the center of the tub.

IMPORTANT: Never drop a large round bale into the tub from a high level. Ease the bale over the edge and down into the tub carefully.

CROP RESIDUE

When grinding crop residues, use the same methods as with loose hay. Extremely wet or frozen materials should be placed sparingly into the tub.

EAR CORN

Grinding ear corn requires a special attachment. This attachment fits directly over the cylinder and allows flow to the mill to be regulated by regulating tub speed. (See Optional Equipment Section.)

IF LODGING OCCURS

Occasionally materials may lodge against the side of the tub and not feed down to the mill. If this occurs, reverse the tub direction for about two rotations and then start the tub in a clockwise direction again. This practice normally dislodges any materials.

CAUTION: Never attempt to dislodge material inside the mill when the machine is in operation by physically pushing materials down. WHEN THE MACHINE IS IN OPERATION, STAY OUT OF THE TUB.

STOPPING THE MACHINE

At full speed, energy is stored in the cylinder. Do not use the tractor PTO brake to stop the mill.

CAUTION: The stored up energy in the cylinder causes it to rotate long after the tractor PTO has been disengaged. Before performing any maintenance on the machine or getting into the tub, be sure cylinder and all moving parts have come to a complete stop.

TRANSPORTING

CAUTION: DO NOT MOVE TUB GRINDER without first securing the conveyor in transport position.

TO PREPARE FOR ROAD TRANSPORT

1. Be sure all loose parts (shields, screens, extra hammers) are securely fastened down.
2. Make sure all bystanders are clear, moving parts can cause injuries.
3. Read manual winch safety information found on page 3.
4. The conveyor is equipped with telescoping safety bars. Use these bars where grinding or transporting. Do not rely solely on winch to support conveyor.
5. When folding the conveyor, lower discharge conveyor down until it's level with the ground. Release tension adjusting handle on idler roller. Push down on folding part of conveyor while releasing latch handle. **NOTE: Discharge end will raise slightly when latch is released.**

WARNING: Failure to use caution while folding the conveyor could result in serious injury.

6. Standing beside conveyor, raise discharge end and follow it over to its folded position. Reverse procedure to unfold. Make sure no one positions themselves inside or under conveyor while folding or unfolding.

7. Lock conveyor in folded position. Raise conveyor and lock in transport position. Be sure all spectators are clear of the area.

8. Secure all conveyor transport bars (4) into their proper locations.

9. Hitch the grinder to a towing vehicle with adequate load carrying and breaking capacity. Be sure to attach safety chains between towing vehicle and grinder.

10. Be sure PTO shaft is fastened to transport bracket and locked in place, or for longer trips pull PTO apart and fasten end to transport bracket.

11. Hitch jack should be in "up" position.

12. Check the turning clearance between grinder and the towing vehicle.

13. Check local ordinances regarding restrictions for machine travel on local roads.

14. Be aware of machine width at all times; do not exceed 20 mph.

15. Check your state laws regarding the use of lights, slow moving vehicle signs, safety chain and other possible requirements.

16. Use good judgment and drive carefully, especially over rough and uneven roads.

12 LUBRICATION

CAUTION: Always shut off machine before adjusting or lubricating.

Hydraulic oil reservoir capacity: 14 gallons. Change hydarulic oil and filter at least once a year.

Gear Box: Check level periodically. Drain and refill with No. 90 gear lube once a year..

When grinder is operated during cold weather, all lubrication should be performed after bearings are at operating temperatures.

BEARING LUBRICATION

Bearings operating in the presence of dust and water should contain as much grease as speed will permit, since a full bearing with a slight leakage is the best protection against entrance of foreign material. In the higher speed ranges, too much grease will cause overheating.

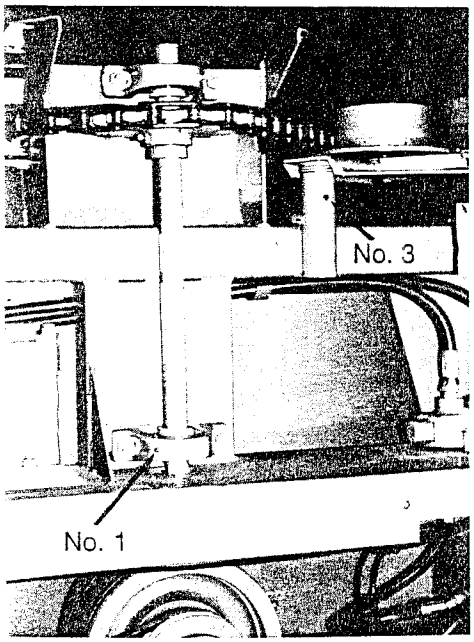
High speed operation, abnormal bearing temperature may indicate faulty lubrication. Normal temperature may range from "cool to warm to the touch" up to a point. Unusually high temperatures "too hot to touch for more than a few seconds" accompanied by excessive leakage of grease indicates too much grease. High temperatures with no grease showing at the seals, particularly if the bearing seems noisy, usually indicates too little grease. Normal temperature and a slight showing of grease at the seals indicate proper lubrication.

The following chart is a general guide for relubrication. Certain conditions may require a change of lubrication periods as dictated by experience.

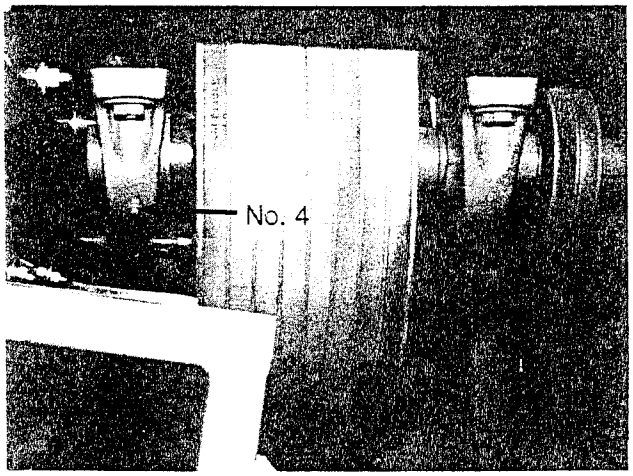
LUBRICATION CHART

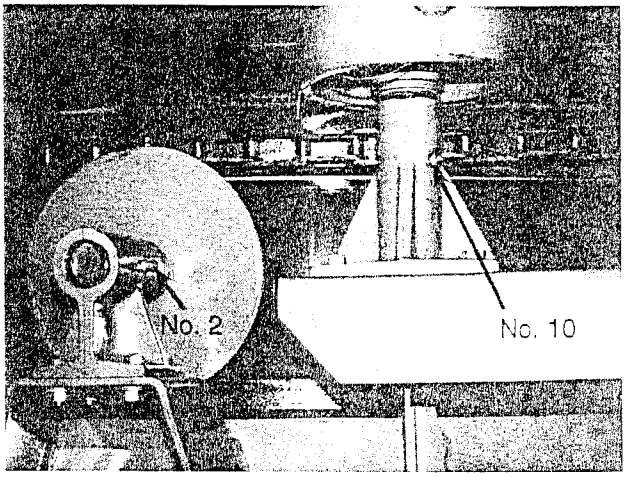
Ref. No.	Location	Number of Zerks	Frequency	
1	Tub Drive Shaft	2	40 hrs.	
2	Tub Rollers	8	40 hrs.	*
3	Tub Chain Idler Cast	1	5 hrs.	
4	Input Shaft	2	10 hrs.	*
5	Pump Shaft	2	40 hrs.	*
6	Discharge Conveyor Drive Shaft	3	40 hrs.	*
7	Discharge Conveyor	4	40 hrs.	*
8	Belly Conveyor	4	40 hrs.	*
9	Cylinder	2	10 hrs.	*
10	Tub Pressure Rollers Cast	2	5 hrs.	
11	Tub Pressure Roller	1	Annually	
12	Wheel Bearings	4	Annually	
13	P.T.O.	3	40 hrs.	*
14	Roller Chains	3	Oil Daily in Dusty Conditions	*

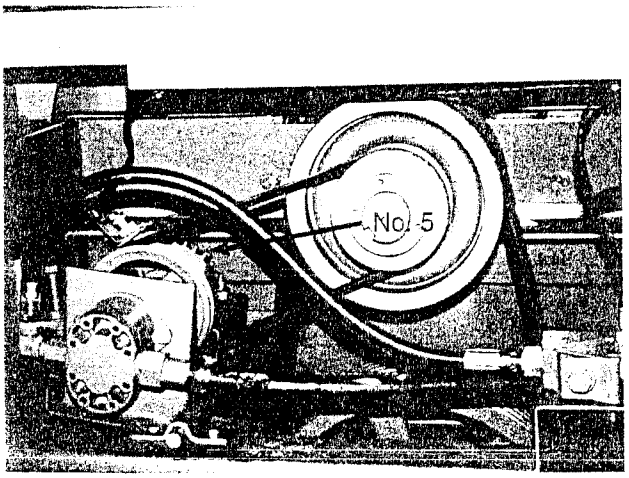
Refer to bearing lubrication for the following.*

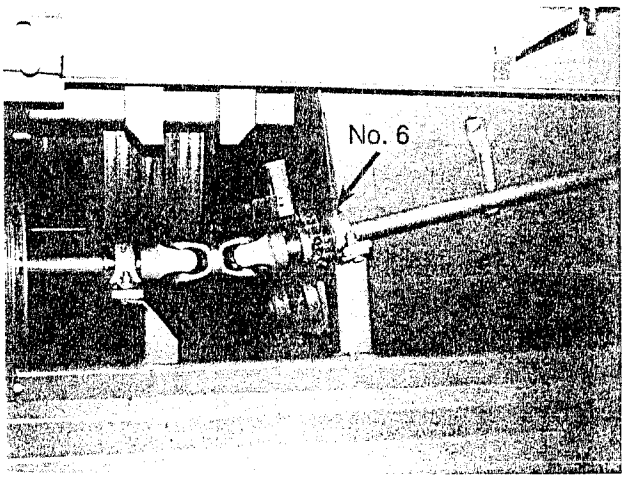


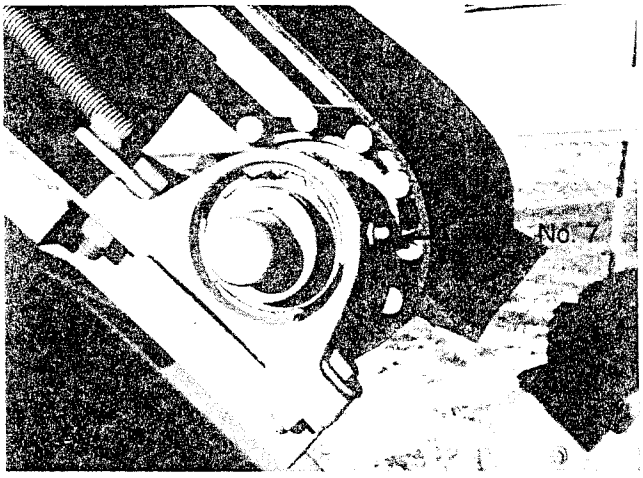
NOTE: Reference numbers on the following pictures correspond with the lubrication chart. See page 12.







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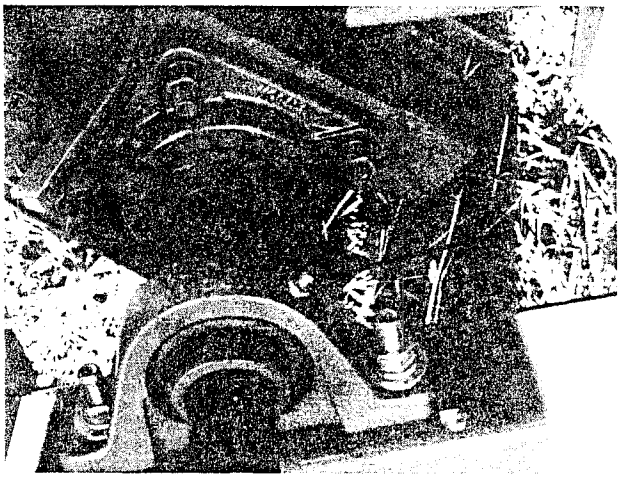
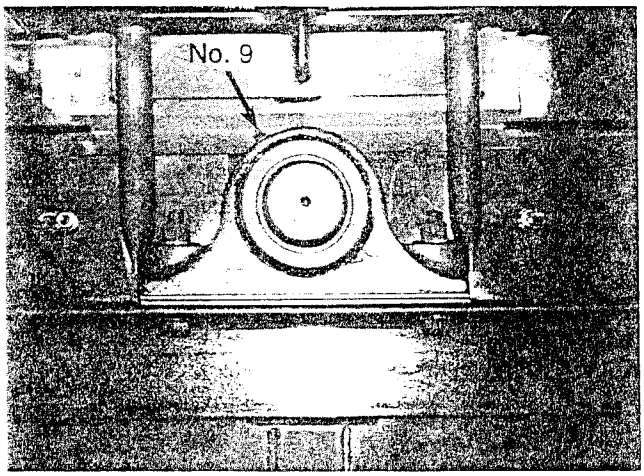
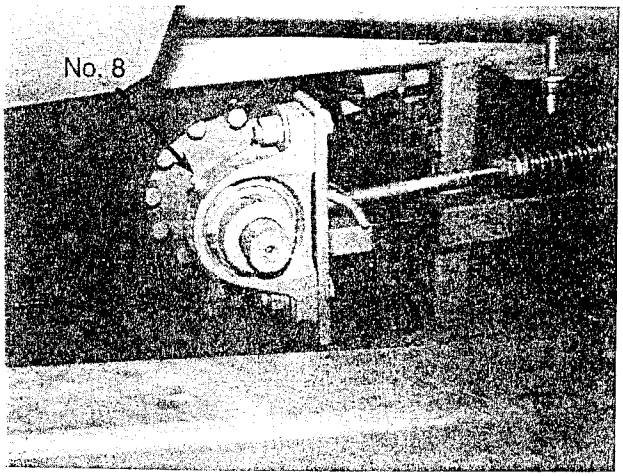



No. 9


No. 8

IMPORTANT SAFETY INSTRUCTIONS READ ALL INSTRUCTIONS

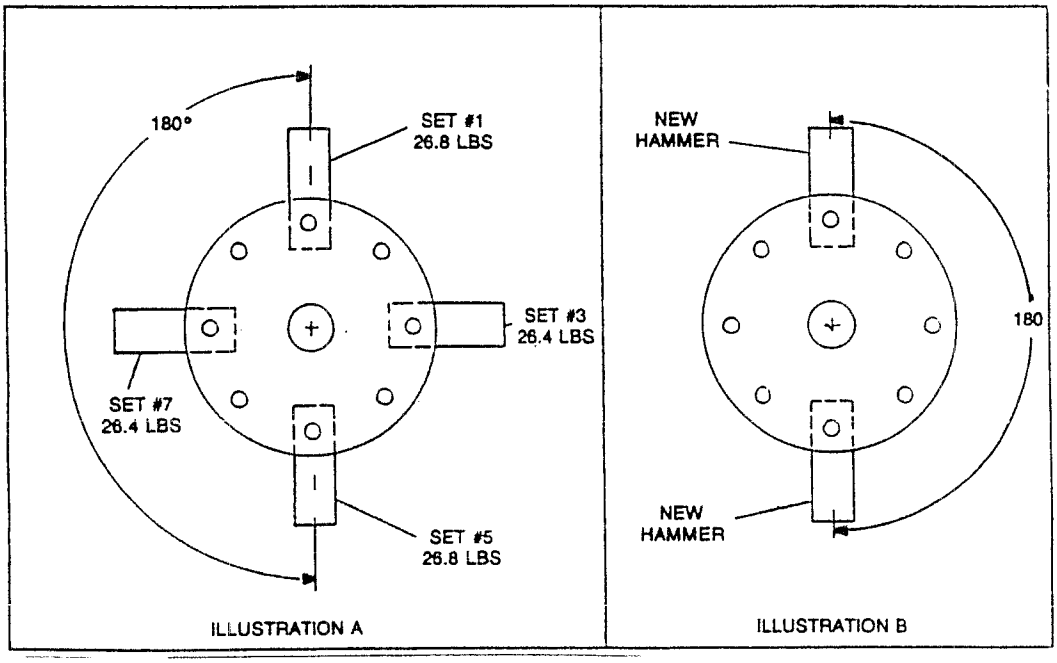
Visually examine mill to see if any internal parts show excessive wear. Repair or replace needed parts. These parts should include body, liners, rotor discs and holes in the discs that support the rods. Enlarged holes can cause rods to break. Also check rods, rod locking or retaining devices, hammers, screens, screen channels or hold downs, main shaft, lid locking devices, hinges or anything else that could wear and perhaps fail if not properly maintained, and cause damage to the hammermill and/or personnel. Bearings and motor alignment should also be checked along with mounting bolts to insure a firm foundation and reduced vibration. Foreign material in a mill can cause severe damage to hammers, screens, rods, and other parts and may cause part and subsequent hammer mill failure.

Keep all foreign objects out of the tub and away from the mill. Foreign objects may result in personal injury or cause severe damage to hammers, screens, rods, and other parts which will cause hammermill failure.

When installing or changing hammers, be sure to follow directions on the installation spacer diagram carefully. Misplacement could cause excessive vibration. We recommend that hammers be balanced in sets according to the rod on which they are to be installed. Sets of equal weight should be installed 180° apart (See Illustration B). When starting the hammermill after installing a new set of hammer or turning corners, watch for unusual or excessive vibration. If any occurs, immediately shut off the mill. Check to see what is wrong and correct it before starting the mill again.

JACOBS HAMMERS are designed to grind the normal ingredients used in the manufacture of feed and related products. "They are not designed to grind or crush, on a primary basis, hard materials such as coal or minerals. Metals, rock, or other similar materials, which could cause parts to fail, should never be allowed to enter a hammermill.

JACOBS HAMMERS have been designed and manufactured to provide the best compromise between hardness for good wearing qualities and strength for dependability and resistance to breakage. Any alteration of the hammer by heating, grinding, resurfacing or any other process can change the mechanical properties of the hammer and make it unsuitable or dangerous to use.



MAINTENANCE

WARNING: Before servicing machine, read the Service and Maintenance section of the Safety Instructions.

CAUTION: If for any reason arc welding is to be done, always ground cylinder to frame of machine to prevent arcing in bearings.

HAMMERS: Because of the high capacity of the machine, the hammers will wear and must be considered expendable. Each hammer has four cutting corners. For maximum life, it is suggested that hammers be rotated periodically to even out the wear over the entire hammer.

HAMMER AND SCREEN CONDITION

Cylinder hammers and screens are the heart of the grinder. If cutting edges of the hammers become rounded, hammers should be replaced or turned to expose a new cutting edge. Each hammer has four cutting edges. If end of hammer is allowed to wear too long, one cutting edge is lost. Also badly worn hammers weaken area around hole in hammer so it cannot be turned end for end.

Screens have two cutting edges. When hole cutting edges become rounded, screen can be turned end for end exposing new cutting edges.

The results of badly worn hammers and screens is loss of capacity, and added horse power requirements.

NOTE: Hammer and hammer rod life can be extended by keeping cylinder rotating at 2000 rpm. Too much tractor horse power and/or over feeding the cylinder will cause the hammers to lay back resulting in excessive wear on both hammers and rods!

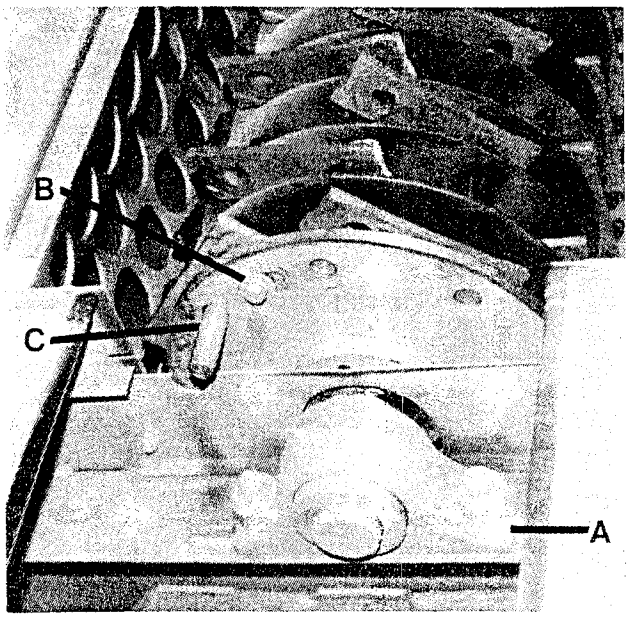
HAMMER RODS: Rods can be turned end for end exposing a new surface area for wear. This will extend service life although hammer rods must be considered expendable.

CAUTION: Keep all foreign objects out of the tub and away from the mill. Foreign objects may result in personal injury or damage to the machine.

HAMMER REPLACEMENT

CAUTION: Disengage PTO and shut off tractor before entering tub.

To install new hammers or change the cutting edge on existing hammers, tub floor should be free of all forage for easy access to cylinder and rear cylinder bearing cover.



1. Remove rear cylinder bearing cover. Item A in illustration.

2. Loosen two bolts at rear of cylinder which holds the hammer rod retainer plate in place. Item B in illustration.

3. Rotate retainer plate counter clockwise to align holes allowing hammer rods to be removed through rear of cylinder. Item C in illustration.

4. Remove one row of hammers and replace, taking note as to where spacers are located. (Separate sheet shows proper spacer location.)

5. After all hammers have been replaced, reassemble retainer plate and rear cylinder bearing cover.

IMPORTANT

Care should be exercised when replacing only a few hammers and not the whole set. If one or more new hammers are inserted on a rod, the same number of new hammers should be inserted on the rod directly across the cylinder. This will maintain a balanced cylinder for vibration free operation.

CONVEYOR BELTS: Both discharge and belly conveyor idler rollers are adjustable to allow for belt stretch. If conveyor belt slows down or stops during operation, tighten both adjusting bolts equally to keep belt centered on idler roller. Due to the conveyors length, the belt will sag on the lower side. This is normal and belt tightness should be judged on slippage.

CAUTION: Do not overtighten conveyor belts.

ADJUSTING CONVEYOR BELT TRACKING: Both discharge and belly conveyor rollers are adjustable.

IF BELT IS RUNNING TO THE RIGHT SIDE: Loosen the right bearing and tighten the belt on the right side to center belt on roller.

IF BELT IS RUNNING TO THE LEFT SIDE: Loosen the right bearing and loosen the belt on the right side to center belt on roller.

Be sure to tighten bolts after correction is made.

Adjust idler roller respectively!

1. Check for loose chains or belts, sprockets or pulleys loose on shaft, badly worn chains or belts.

2. Keep sprockets and pulleys aligned.

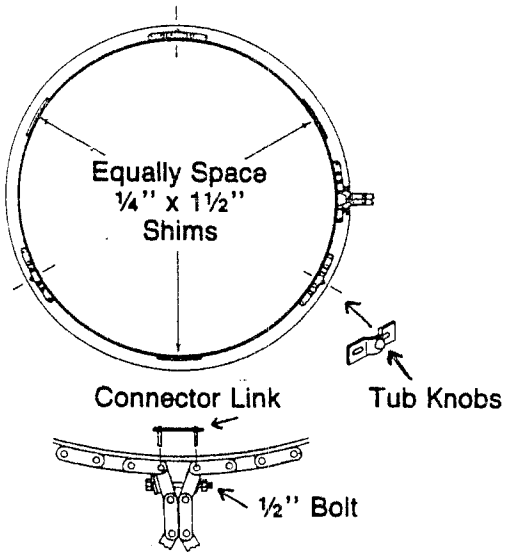
3. Inspect cylinder and all rotating parts for wrapped twine or wire build up.

4. If machine is going to set for an extended period of time, tub floor should be cleaned to prevent rust and sticking problems at start up time.

5. Adjustment has been provided for tightening main drive belts. Belts tend to stretch rapidly when first put into operation. Tighten regularly to prevent slippage. Belt tension should be checked at 30 minute intervals or as necessary until stretch is eliminated. Correct belt tension can be obtained by pressing on individual belts with thumb (approximately 20 lbs.) in the center of the span. Deflection should be 1/2" or thickness of V-belt.

6. Tub drive chain is equipped with a spring tensioned idler.

7. Due to normal wear, drive chain may tend to climb on driving knobs of tub. If this should occur, the chain should be sized to fit the tub, and the tub knobs adjusted for proper spacing in the chain. Step 1 (sizing the chain). Loosen tub knobs and wrap the chain around tub. (Do not run the chain around tightener rollers or drive gear.) Using 1/2" bolt, pull chain together so center to center on link pins matches pins on connector link. If the distance is less or greater than the connector link, shims must be added. Equally space shims of equal thickness and length under chain until proper distance is obtained. Do not add shims under tub knobs. (See illustration.) Step 2. Adjust tub knobs so all three knobs contact chain link on the same side of the knobs. Tighten bolts holding knobs in place and return chain to working position.



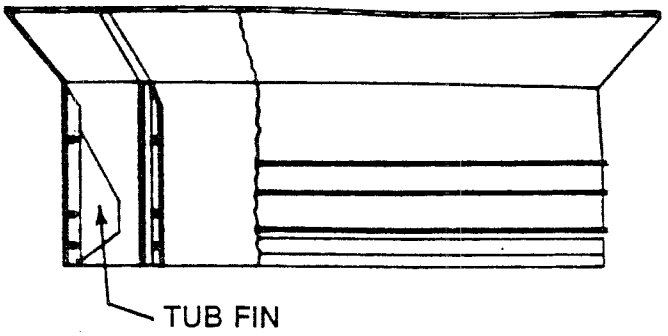
Tire Pressure: The proper tire pressure is 50 psi.

Wheel Bearings: The wheel bearings should be checked for lubrication and adjustment yearly, preferably at the end of the season.

If a generous amount of grease is on the bearing and in the housing, and if the grease is soft, the grease will not need changing.

If the lubricant is caked and the bearing seems dry, the bearing should be washed to remove old grease. Repack the bearings.

Pressure Roller: The H-1100 has a pressure roller with tapered roller bearing. Follow wheel bearing maintenance schedule above.

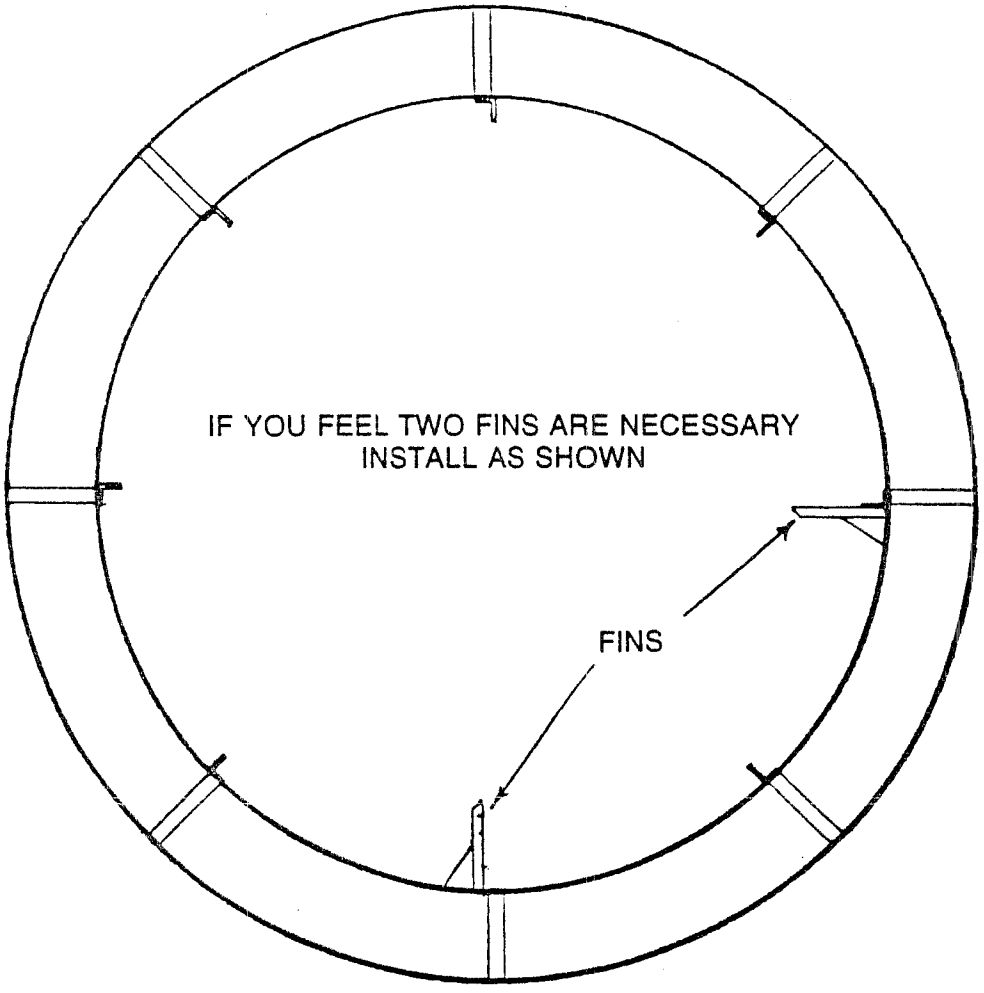


TUB

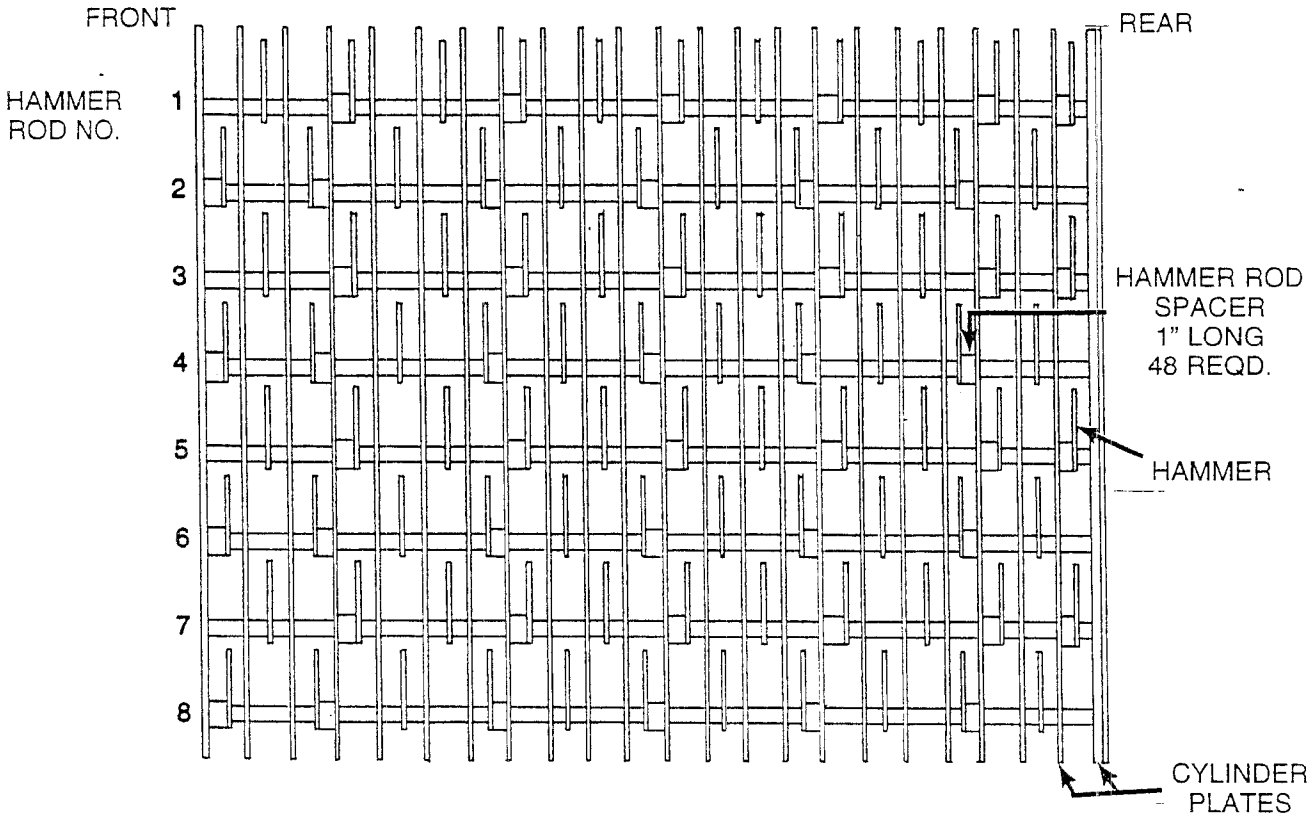
Two tub fins are furnished with the grinder.

When grinding large round bales, use only one of the fins. Two fins across from each other may hold the bale up and reduce capacity.

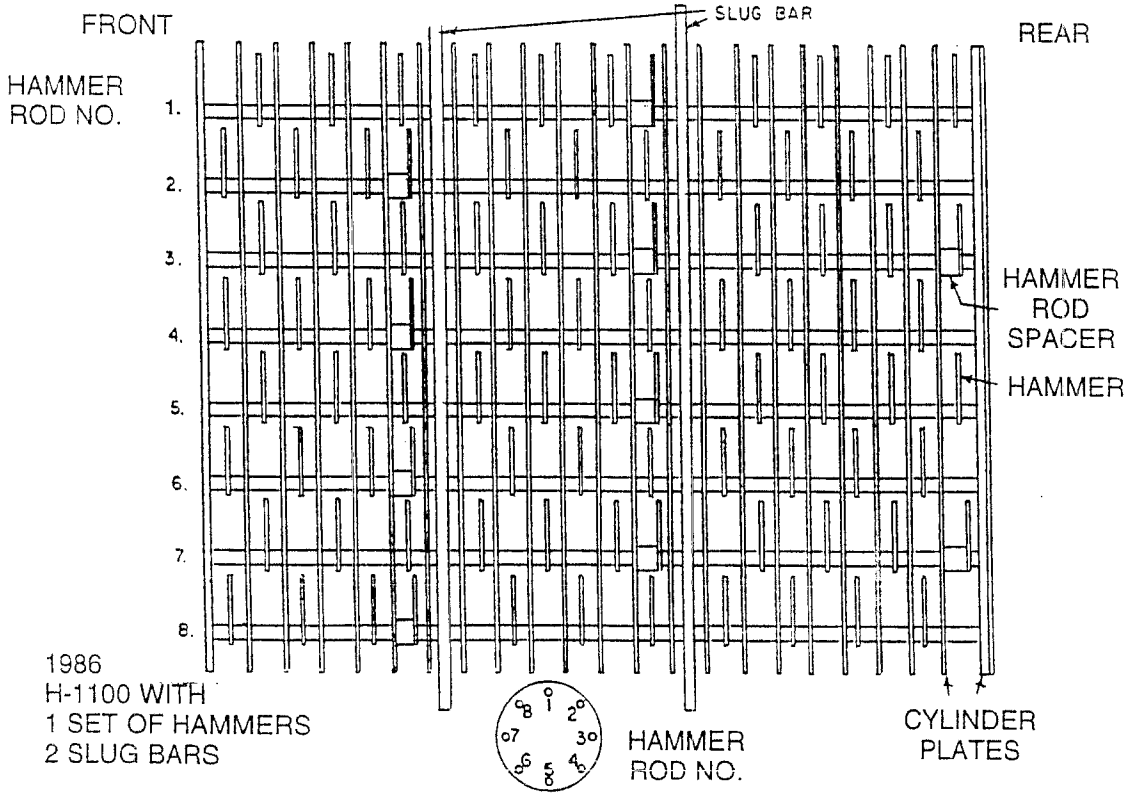
Two fins may be used for small round or square bales.



H-1100 HAMMER SPACING 1989 thru

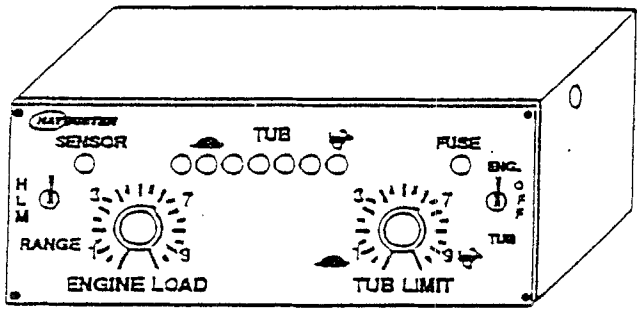


H-1100 HAMMER SPACING 1978 to 1988



1986
H-1100 WITH
1 SET OF HAMMERS
2 SLUG BARS

MODEL RCB93 ELECTRONIC GOVERNOR INTRODUCTION

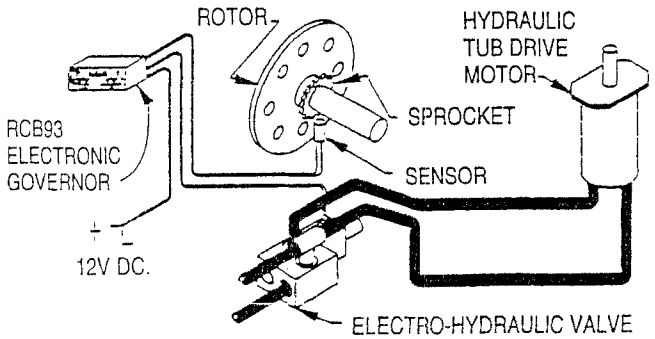


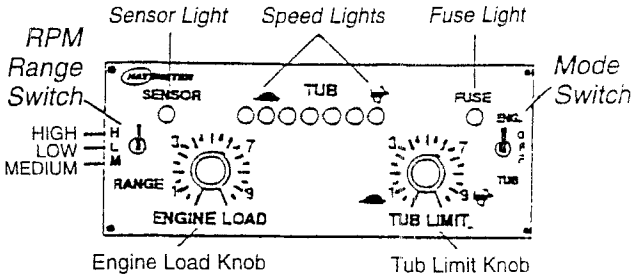
The MODEL RCB93 Electronic Governor automatically controls the feed rate to keep the engine operating in its' optimum power zone. ("ENGINE" mode). When the load on the grinding rotor begins to lug the engine, the Electronic Governor automatically reduces the tub rotation speed in proportion to the load. The result is a nearly constant load on the engine, which will maximize grinding efficiency.

The RCB93 Electronic Governor will also perform as a simple tub speed control. ("TUB" mode). In this mode the tub speed is constant and it will not change to match varying load conditions.

When the Electronic Governor is switched to the engine mode, it is monitoring the rotation speed of the engine. The hydraulic flow to the tub drive mechanism is regulated proportionally to the engine speed (RPM). When the engine begins to lug, (decreased RPM), the hydraulic oil flow is reduced which in turn slows the tub rotation. With proper calibration the engine will only lug down to its' optimum horsepower RPM and the tub rotation will be varied proportionally to keep the engine at this RPM.

TYPICAL ELECTRONIC GOVERNOR SYSTEM





EXPLANATION OF FRONT PANEL

"FUSE" LIGHT - The light is **on** whenever the electronic governor is receiving power.

"SENSOR" LIGHT - This light is **on** whenever the electronic governor is receiving enough input signal from the sensor.

"SPEED" LIGHTS - These lights indicate how fast your tub should be turning based on the output signal that the electronic governor is sending to the electro-hydraulic valve. When the first light (furthest to the left) turns **on**, the electronic governor is sending approximately **3 volts** to the electro-hydraulic valve. The tub should begin to rotate slowly when the first or second light turns **on**. Each additional "speed" light represents **one** additional **volt** being sent to the electro-hydraulic valve, with a corresponding increase in tub rotation speed. The last light (furthest to the right, under the rabbit symbol) will be **on** when a **9 volt** signal is sent to the electro-hydraulic valve, which will rotate the tub at the maximum speed. During operation in the **ENGINE MODE**, these lights will move back and forth automatically between the turtle and rabbit symbols as the tub speed increases and decreases.

"RANGE" SWITCH (HI, MEDIUM, & LOW) - This switch is used only when in the **ENGINE MODE**. This switch is a coarse adjustment which tells the electronic governor what RPM range your engine will be operating in (typically medium). Use the **"ENGINE LOAD KNOB"** as a fine adjustment for the **RANGE** switch.

"MODE" SWITCH - ENGINE MODE places a near constant load on the engine based on the settings of the **"ENGINE LOAD KNOB"** and **"TUB LIMIT KNOB"**. **TUB MODE** rotates the tub at a constant speed based only on the setting of the **"TUB LIMIT KNOB"**. The Electronic

Governing function will not operate in the **"TUB"** mode.

"ENGINE LOAD KNOB" - This single turn knob is used only in **ENGINE MODE**. Turning this knob to the **right** (to a **higher number** setting) will allow the engine to **operate at a higher RPM, decreasing** the **load** on the engine. Turning the knob to the **left** (to a **lower number** setting) will **lug** the engine to a **lower RPM**, which **increases** the **load** on the engine.

"TUB LIMIT KNOB" - This single turn knob can be used in either the **ENGINE MODE** or **TUB MODE**. This dial sets the **maximum** tub speed. In **ENGINE MODE** the tub speed will be governed from the maximum speed set by the **"TUB LIMIT KNOB"** down to zero tub RPM. In the **TUB MODE** the **"TUB LIMIT KNOB"** will set a **constant** tub rotation **speed** with **no** governing control. The **"TUB LIMIT KNOB"** will be most useful during **tough grinding conditions** when you don't want the tub to rotate at full speed if the grinding load temporarily becomes light. The closer the knob is set to the turtle, or 1, the slower the maximum speed of rotation will be. the closer the knob is set to the rabbit, or 9, the faster the maximum speed of rotation will be. When the knob is turned all the way to rabbit, or 9, the tub rotation speed will not be limited at all.

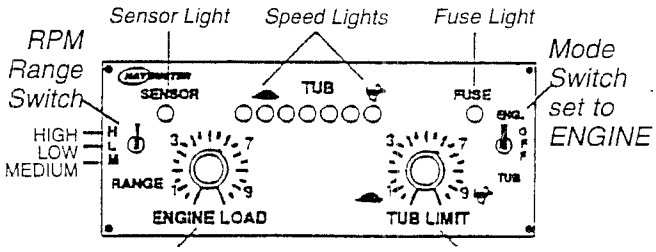
TUB LIMIT ADJUSTMENT

If you wish to limit the maximum rotating speed of the tub, the adjustment can be made at this time, or at any time during the grinding operation by following this procedure. This function is most useful when grinding in tough conditions when you don't want the tub to turn full speed if the load happens to temporarily become light.

Switch the **"MODE"** switch to **"TUB"** position. Turn the **"TUB LIMIT KNOB"** counter-clockwise to reduce the maximum rotating speed of the tub. Observe the **"SPEED"** lights to get an indication of the tub speed. If all of the lights are **on** the tub maximum rotation speed will not be limited at all. If only the first light is **on** the maximum tub rotation speed will be very slow. Choose the speed that you find desirable. This setting will be the maximum speed that the tub will turn. When the **"MODE"** switch is returned to the **"ENG."** position the Electronic Governor will adjust tub speed slower if required but the tub will not rotate faster than the maximum setting determined by the **"TUB LIMIT KNOB"**. Switch the **"MODE"** switch back to **"ENG."** position to begin grinding.

The grinder may be operated in the **"TUB"** mode if desired but the Electronic Governor will not control the load on the engine. Only the maximum rotation speed of the tub will be controlled in this mode.

ENGINE MODE

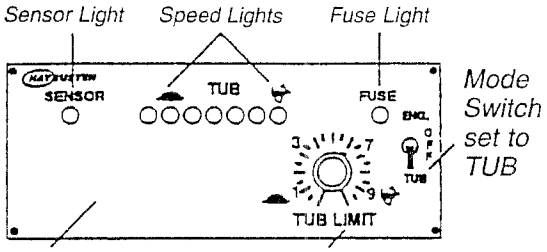


Use Engine Load dial as a fine adjustment for the RPM Range switch. Sets load desired on engine.

Use Tub Limit to set maximum tub speed. Best use is for tough grinding. No tub limiting when set to '9'.

HINT: Easiest way to set maximum tub RPM for **engine** mode of operation is to switch to **tub** mode prior to engaging rotors and set **tub** speed limit dial for a specific speed lamp(s) to be on, then switch to **engine** mode and engage clutch to start rotor.

TUB MODE



Engine Load dial and RPM Range switch have no effect in Tub mode.

Tub will operate at full speed in Tub Mode unless it is limited with this dial. Closer to '1' will set maximum speed to slow. Closer to '9' will set a fast maximum speed. No limiting when dial is set full clockwise (at '9').

MODE	USED FOR
ENGINE	Sets max. tub RPM at one engine RPM. Tub RPM will increase and decrease as engine RPM increases and decreases.
TUB	Fixed tub RPM at any engine RPM. Tub RPM limited only by Tub Limit Dial. Tub RPM constant regardless of engine fluctuation.

MODEL RCB 93 ELECTRONIC GOVERNOR OPERATION

Switch the **"MODE"** switch to **"ENG."** position for automatic load control when grinding. Throttle the engine to 2200-2300 RPM before engaging the tub hydraulic drive. As the material is fed into the grinding rotor the engine will be lugged to about 2000 RPM and the tub rotation speed will automatically be adjusted to keep a near constant load on the engine. If the engine is not working hard enough, turn the **"ENGINE LOAD KNOB"** counter-clockwise to increase the load. If the engine is lugged down too much, turn the **"ENGINE LOAD KNOB"** clockwise to reduce the load on the engine. If the load is very intermittent such as when grinding large logs, the **"TUB LIMIT KNOB"** may need to be turned counter-clockwise to limit the maximum rotating speed of the tub. This will prevent a large load from being forced to the grinding rotor too quickly, when gaps occur in the load, causing a sudden overload.

TROUBLESHOOTING THE ELECTRONIC GOVERNOR SYSTEM

These are some simple procedures to follow in the event that problems occur with your Electronic Governor System. If the problems remain after following these procedures, follow the directions under **MANUAL OVERRIDE,** and see your dealer as soon as possible.

"FUSE" light - This light is **on** whenever the Electronic Governor is receiving power. If this light fails to go on and the tub will not turn, check fuse, battery connections, and wiring harness. If the **"FUSE"** light is **on**, the wiring harness is functioning correctly between the battery and the electronic governor.

"SENSOR" light - This light is **on** whenever the Electronic Governor is receiving an adequate input signal from the sensor. If this light fails to go on and the tub will not turn, check sensor gap spacing, sensor connections, and wiring harness. If the **"SENSOR"** light is **on,** the wiring harness is functioning correctly between the sensor and the electronic governor.

"SENSOR GAP SPACING" - The sensor is found near the front grinding rotor bearing. A sprocket is located on the rotor shaft in front of the front bearing. There should be a **3/32" gap** (the thickness of a nickel) between the end of the sensor and the tips of the sprocket teeth. The sensor must not come in contact with the sprocket teeth. Any contact between the sensor and the rotating sprocket will destroy the sensor.

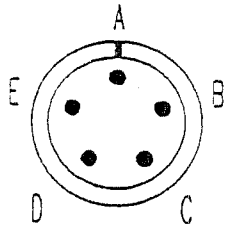
"SPEED" LIGHTS - These lights indicate how fast your tub should be turning based on the output signal that the electronic governor is sending to the electro-hydraulic valve. When the first light (furthest to the left) turns **on,** the electronic governor is sending approximately **3 volts** to the electro-hydraulic valve. The tub should begin to rotate slowly when the first or second light turns **on.** Each additional "speed" light represents **one** additional **volt** being sent to the electro-hydraulic valve, with a corresponding increase in tub rotation speed. the last light (furthest to the right, under the rabbit symbol) will be **on** when a **9 volt** signal is sent to the electro-hydraulic valve, which will rotate the tub at the maximum speed. During operation in the **ENGINE MODE,** these lights will move back and forth automatically between the turtle and rabbit symbols as the tub speed increases and decreases.

To test the output voltage to the electro-hydraulic valve, shut down entire machine including switching the **"MODE"** switch on the electronic governor to **"OFF"**. Disconnect the wiring harness from the electro-hydraulic valve and route the leads so you can easily connect a voltmeter to them. Switch the voltmeter to read 12 volt DC current. Connect the red lead of the voltmeter to the red lead on the wiring harness. Connect the black lead on the voltmeter to the black lead on the wiring harness. Switch the electronic governor to **"TUB"** position. Turn the **"TUB LIMIT KNOB"** counter-clockwise until the left hand **"SPEED"** light is **on**. (The light nearest the turtle symbol.) The voltmeter should read approximately 3 volts. Turn the **"TUB LIMIT KNOB"** clockwise until the center **"SPEED"** light is **on.** The voltmeter should read approximately 6 volts. Turn the **"TUB LIMIT KNOB"** clockwise until the 7th light just turns **on**. The voltmeter should read approximately 9 volts. The voltage readings are not critical but the fact that the readings increase as the **"TUB LIMIT KNOB"** is turned clockwise is important. The RCB93 Electronic Governor is working correctly if you get readings

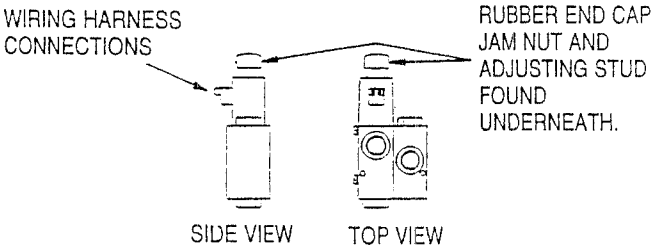
similar to those shown. The wiring harness to the electro-hydraulic valve is functioning correctly if you are able to obtain readings at the valve end of the harness.

If no readings are obtainable at the valve end of the harness, switch the electronic governor **"MODE"** switch to **"OFF"**. Disconnect the wiring harness from the rear of the electronic governor. Refer to the diagram of the wiring harness connector below. Check **pin D** and the **red** valve lead on the harness for continuity. Also check **pin E** and the **black** valve lead for continuity. If there is no continuity in either one of the leads the wiring harness must be replaced. If you have continuity in both valve leads, the valve leads in the wiring harness are **OK.** Clean the contacts on the wiring harness connector and reconnect the wiring harness to the electronic governor. Check again for voltage at the valve leads as described above. If no voltage is present at the end of the valve leads the RCB93 Electronic Governor is faulty.

VIEW OF WIRING HARNESS CONNECTOR
LOOKING DIRECTLY AT CONNECTOR.



A - 12 VOLTS DC
B - GROUND
C - DIGITAL SENSOR SIGNAL
D - (+) TO VALVE
E - (-) TO VALVE



ELECTRO-HYDRAULIC VALVE ADJUSTMENT

Remove the rubber end cap from the end of the valve coil to find a jam nut and an adjusting stud with a screwdriver slot. Disconnect the wiring harness from the coil. Loosen the jam nut. Start the engine and engage the tub drive in the forward direction by pushing the hydraulic tub control lever towards the machine. Throttle the engine up to 2000 RPM. **Do not engage the clutch!**

IMPORTANT: Stay clear of all moving parts while adjusting the "ELECTRO-HYDRAULIC VALVE". The tub will be rotating during this adjustment.

If the tub is not rotating, turn the adjusting stud clockwise until the tub begins to rotate. When the tub begins to rotate, turn the adjusting stud counter-clockwise until the tub just stops. (If the adjusting stud comes all the way out and the tub is still rotating, then the valve is faulty.) Lock the adjusting stud with the jam nut and replace the rubber cap. Shut down the entire machine. Reconnect the wiring harness to the valve coil.

ELECTRO-HYDRAULIC VALVE COIL TEST

This test requires an accurate ohm meter. Disconnect the wiring harness leads at the valve coil. Set the meter to read ohms (Ω). Place one test lead from the meter on each of the two electrical connections of the valve coil. The reading should be from 8-14 ohms. If the reading is not in that range, replace the coil.

MANUAL OVERRIDE

NOTE: If there is an electrical failure with your machine you may still be able to grind. Switch the RCB93 Electronic Governor to **"OFF".** Remove the rubber end cap and loosen the jam nut on the electro-hydraulic valve. Start the machine and engage the tub drive as previously described.

IMPORTANT: DO NOT ENGAGE CLUTCH AT THIS TIME!

Turn the adjusting stud clockwise until the tub rotates at the desired speed. Lock the jam nut on the adjusting stud and replace the rubber end cap on the valve coil. The valve will function only as a

manual flow control when it is adjusted in this manner. The grinder will now operate as it would if the **RCB93 Electronic Governor** were switched to the **"TUB"** mode. There will be **NO** automatic tub control!

Contact your dealer for further repairs or replacement parts as soon as practical. When the problems are corrected, loosen the jam nut on the electro-hydraulic valve and turn the adjusting stud counter-clockwise until the tub just stops. Tighten the jam nut and replace the rubber cap.

MODEL RCB93 ELECTRONIC GOVERNOR CALIBRATION

Begin the calibration procedure with entire grinder completely shut down. Place the **"MODE"** switch in the **"OFF"** position and the **"RANGE"** switch in the **"M"** position. Rotate the **"TUB LIMIT KNOB"** fully clockwise toward the **"rabbit"** position. Turn the **"ENGINE LOAD KNOB"** clockwise until it is pointing to the number **"9"** position.

Shift the tub control lever into neutral, and verify that the clutch lever and conveyor belt drives are in neutral. Inspect entire machine to verify that **all personnel** are **out of harm's way.**

Start the engine by following the operating instructions in the engine operator's manual. Run the engine at about 1/2 throttle to allow the hydraulic system to warm up before calibrating the RCB93 Electronic Governor.

When the engine and hydraulic system have reached operating temperature the calibration process may begin. Throttle the engine to 1000-1200 RPM and engage the clutch. Engage the tub drive in the forward direction by pushing the hydraulic tub control lever towards the machine. Throttle the engine up to 2000 RPM. Switch the **"MODE"** switch to the **ENG.** position. The **"FUSE"** light and the **"SENSOR"** light should come **on.** The tub should not be rotating at this time. If it is rotating then switch the range switch to **"H"** or **"HIGH"** position.

Slowly rotate the **"ENGINE LOAD KNOB"** counter-clockwise until the tub just begins to move. The tub should begin to rotate before you have turned the **"ENGINE LOAD KNOB"** counter-clockwise to the number **"7"**. If it does not begin to rotate then switch the **"RANGE"** switch to **"L"** or **"LOW"** position. The Electronic Governor is properly calibrated when the **"ENGINE LOAD KNOB"** is positioned somewhere between "7" and "9" and the tub is just beginning to creep.

HAYBUSTER

H-1100 Tub Grinder
Parts Book

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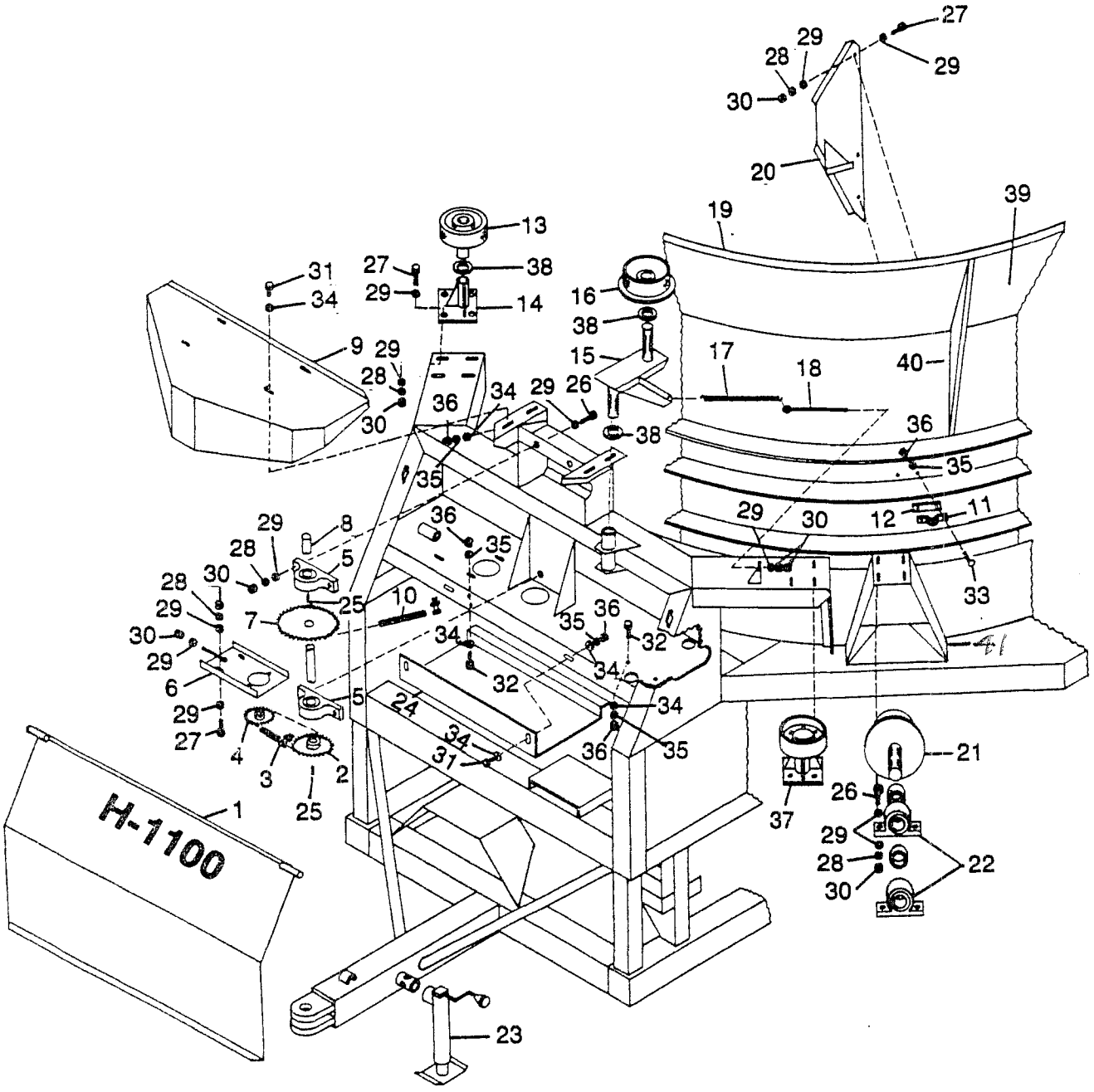
26 MAIN FRAME & TUB

Serial No. 0001 Thru 2370

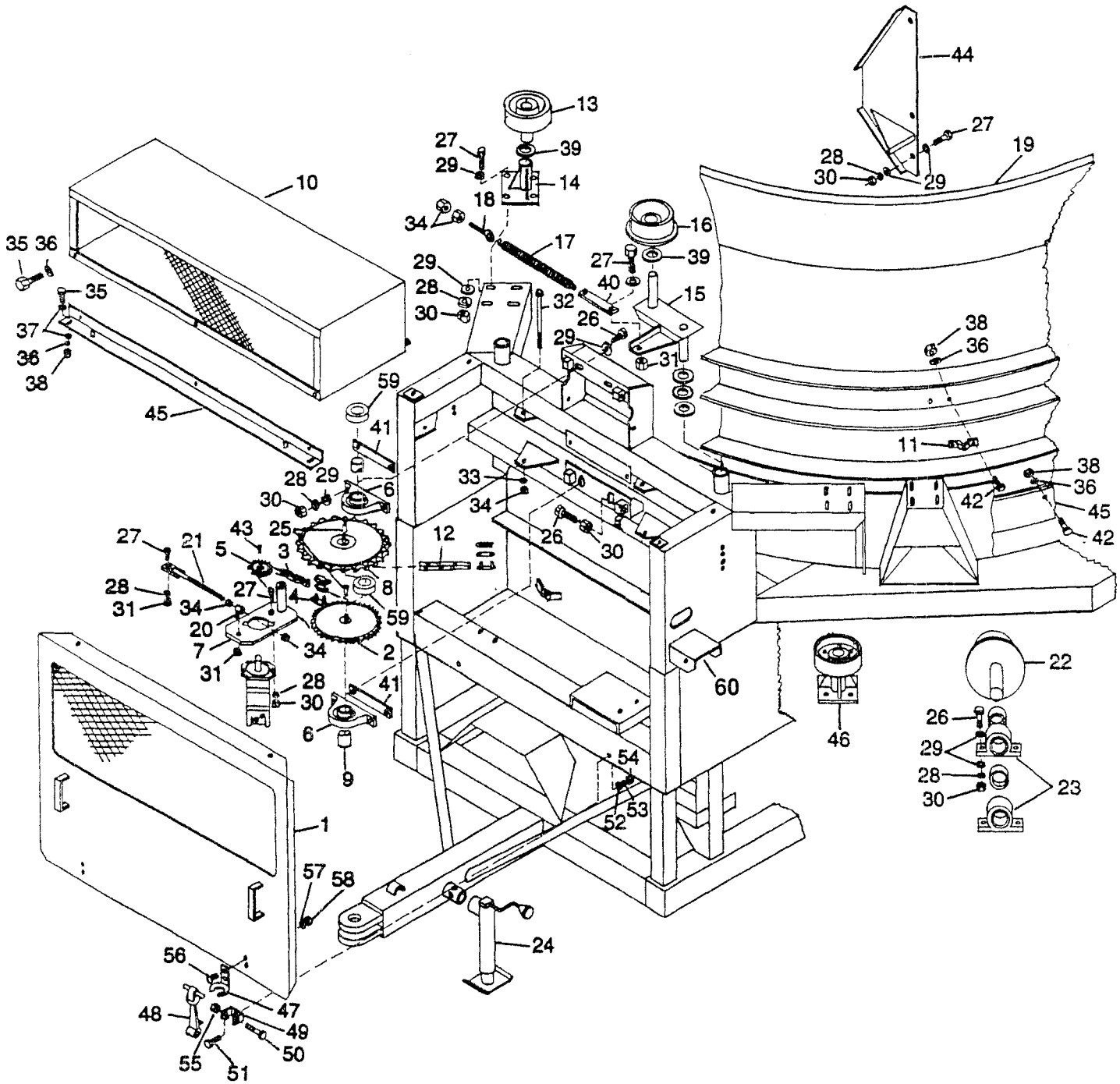


Serial No. 0001 Thru 2370

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500084	1	Front Shield
2	1000004	1	Sprocket - 60-30
2A	1000009	1	60-36 Sprocket (Optional)
3	1100088	1	60 Chain - 43 Links Plus Connectors
4	1000020	1	Sprocket - 60-12
5	2000502	2	Bearing, 1-1/4" Pillow Back
6	4500048	1	Orbit Motor Tightening Bracket, New Bracket
7	1000077	1	80B 30 x 1-1/4" Bore Sprocket
8	4500007	1	Tub Drive Shaft, 27-1/4" x 1"
9	4500037	1	Shield, Tub Drive
10	1100075	1	2080 Chain, 177 Links plus Connectors
11	4500018	3	Tub Knobs
12	4500163	1	Tub Knob Shim (As Needed)
13	1200008	1	No. 5 Roller
14	1200005	1	No. 44 Stand
15	4500087	1	Swing Idler Arm
16	1200007	1	No. 6 Roller
17	6100001	1	Spring
18	4800074	1	Spring Tension Bolt, 1/2" x 6-1/2"
19	4500085	1	Tub
20	4500086	1	Tub Fin 10"
20A	4500250	1	Tub Fin 14"
21	1200002	4	No. 2 Roller
22	2000501	8	Bearing
23	5800601	1	Jack
24	4500138	1	Tub Drive Shield
25	6200014	2	1/4" SQ x 1-1/4" Key
26	4800007	22	1/2"x2" Hex Head Bolt
27	4800082	13	1/2"x1-1/2" Hex Head Bolt
28	5000006	35	1/2" Lock Washer
29	5000004	70	1/2" Flat Washer
30	4900001	38	1/2" Hex Nut
31	4800003	6	3/8" x 1" Hex Head Bolt
32	4800146	3	3/8" x 2" Hex Head Bolt
33	4800098	6	3/8" x 1-1/4" Carriage Bolt
34	5000001	10	3/8" Flat Washer
35	5000019	12	3/8" Lock Washer
36	4900002	12	3/8" Hex Nut
37	4500247	1	Pressure Roller, Refer to Page 56
38	5000008	1	Narrow Rim Machine Bushing
39	4500213	1	Tub Petal
40	4500212	8	Tub Gusset
41	4500547	4	Tub Roller Stand

28 MAIN FRAME & TUB

Serial No. 2371 Thru

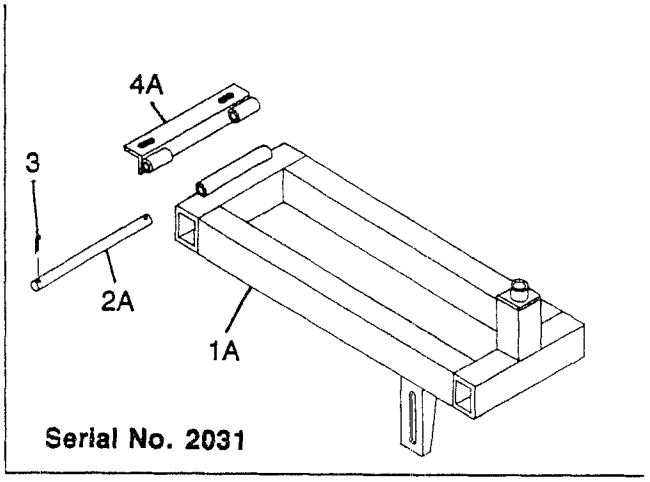


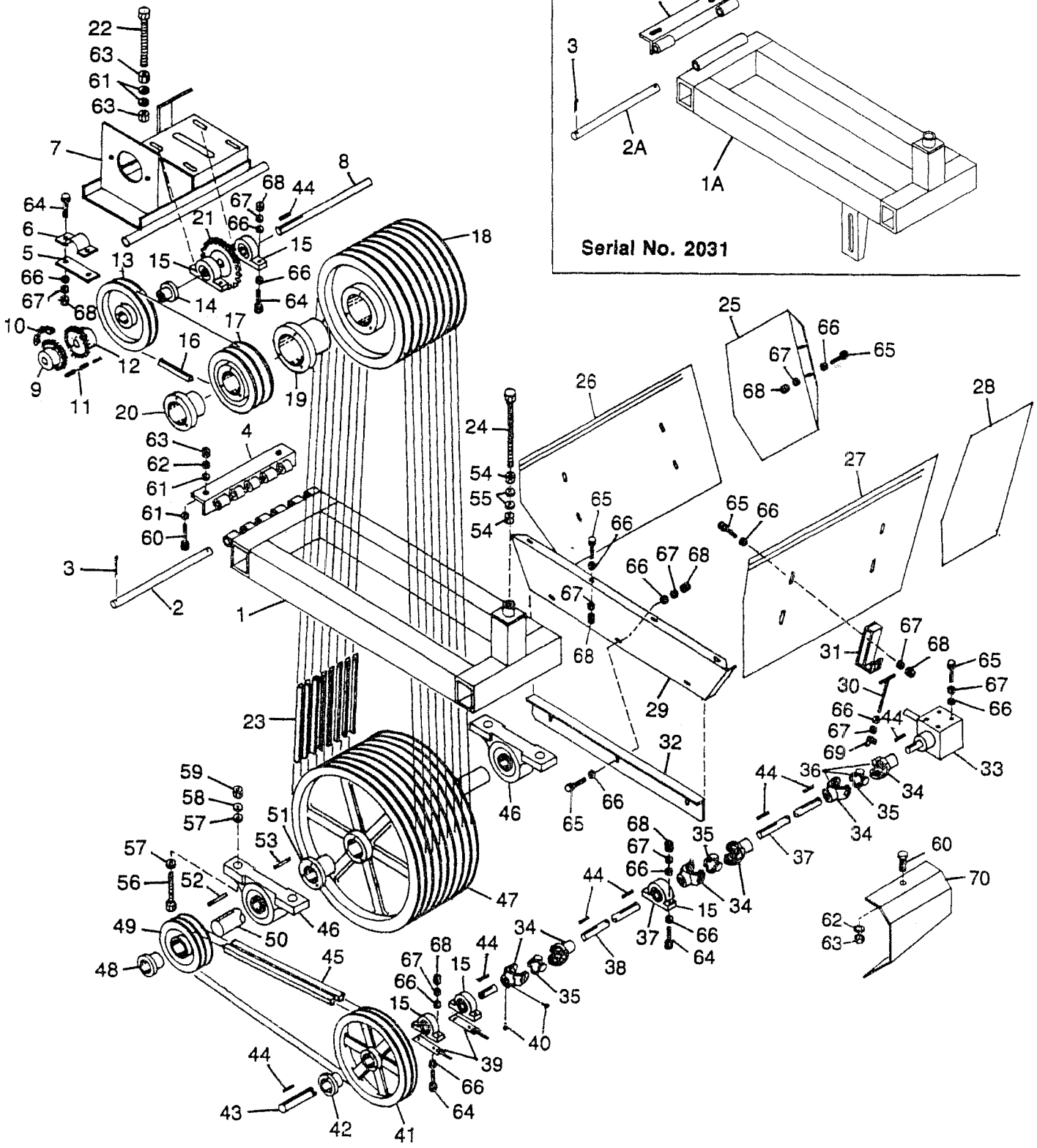
Serial No. 2371 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500436	1	Front Shield
2	1000033	1	Sprocket, 60-30
3	1100013	1	No. 60 Chain, 43 Links
4	1100062	1	Connector Link No. 60
5	1000020	1	Sprocket, 60-12
6	2000502	2	Bearings 1-1/4" P.B.
7	4500333	1	Orbit Motor Tightener Bracket
8	1000077	1	80B 30x1-1/4" Bore Sprocket
9	4500491	1	Tub Drive Shaft 20-3/4" x1-1/4"
10	4500329	1	Tub Drive Shield
11	4500137	3	Tub Knobs
12	1100075	1	2080 Chain, 177 Links Plus Offset & Conn. Links
13	1200008	1	No. 5 Roller
14	1200005	1	No. 44 Stand
15	4500337	1	Swing Idler Arm L.H.
15A	4500336	1	Swing Idler Arm R.H. (Not Shown)
16	1200007	2	No. 6 Roller
17	6100001	2	Spring
18	4500197	2	Spring Tension Bolt
19	4500085	1	Tub
20	4500334	1	Orbit Motor Tightening Rod Mount
21	4500335	1	Orbit Motor Tightening Rod
22	1200002	4	No. 2 Roller
23	2000501	8	1-1/2" Pillow Block Bearing
24	5800601	1	Jack-2-SM-10
25	6200005	2	1/4" SQ x 1-1/2" Key
26	4800114	20	1/2" x 2" Hex Head Bolt
27	4800082	20	1/2" x 1-1/2" Hex Head Bolt
28	5000006	41	1/2" Lock Washer
29	5000004	70	1/2" Flat Washer
30	4900001	41	1/2" Hex Nut
31	4900014	3	1/2" Lock Nut
32	4800261	1	5/8" x 8-1/2" Bolt
33	5000003	1	5/8" Lock Washer
34	4900005	5	5/8" Hex Head Nut
35	4800098	21	3/8" x 1-1/4" Bolt
36	5000019	46	3/8" Lock Washer
37	5000001	57	3/8" Flat Washer
38	4900002	46	3/8" Nut
39	5000008	12	1-1/2" Narrow Rim Bushing
40	4500331	2	Spring Link
41	4500332	4	Shim
42	4800012	28	3/8"x1-1/4" Carriage Bolt
43	6200022	1	5/16" SQ x 1-1/2" Key Hardened
44	4500086	1	Tub Fin 10"
44A	4500250	1	Tub Fin 14"
45	4500448	1	Shield Mount
45	1700068	1	3/8" x 5" Belting 28' Long
46	4500247	1	Pressure Roller, Refer to Page 56
47	7500190	2	Rubber Latch Catch
48	7500166	2	Rubber Latch
49	7500347	2	Rubber Latch Mount
50	4800281	2	5/16" x 2" Bolt NF
51	4800013	2	5/16" x 1" Bolt
52	5000023	2	5/16" Flat Washer
53	5000022	2	5/16" Lock Washer
54	4900003	2	5/16" Nut
55	4900071	2	5/16" Lock Nut NF
56	4800282	4	10/24 x 3/4" Screw
57	5000063	4	10/24 Star Washer
58	4900072	4	10/24 Nut
59	2000805	2	1-1/4" Lock Collar
2A	1000009	1	Sprocket 60-36 (Option)
60	4701028	1	Control Box Mount
	4500504	1	Top Tube Ring
	SERIAL NO. 2831 THRU		
11A	4500561	3	Tub Knobs
22A	1200013	4	Tub Roller

30 DRIVE SYSTEM

Serial No. 1866 Thru



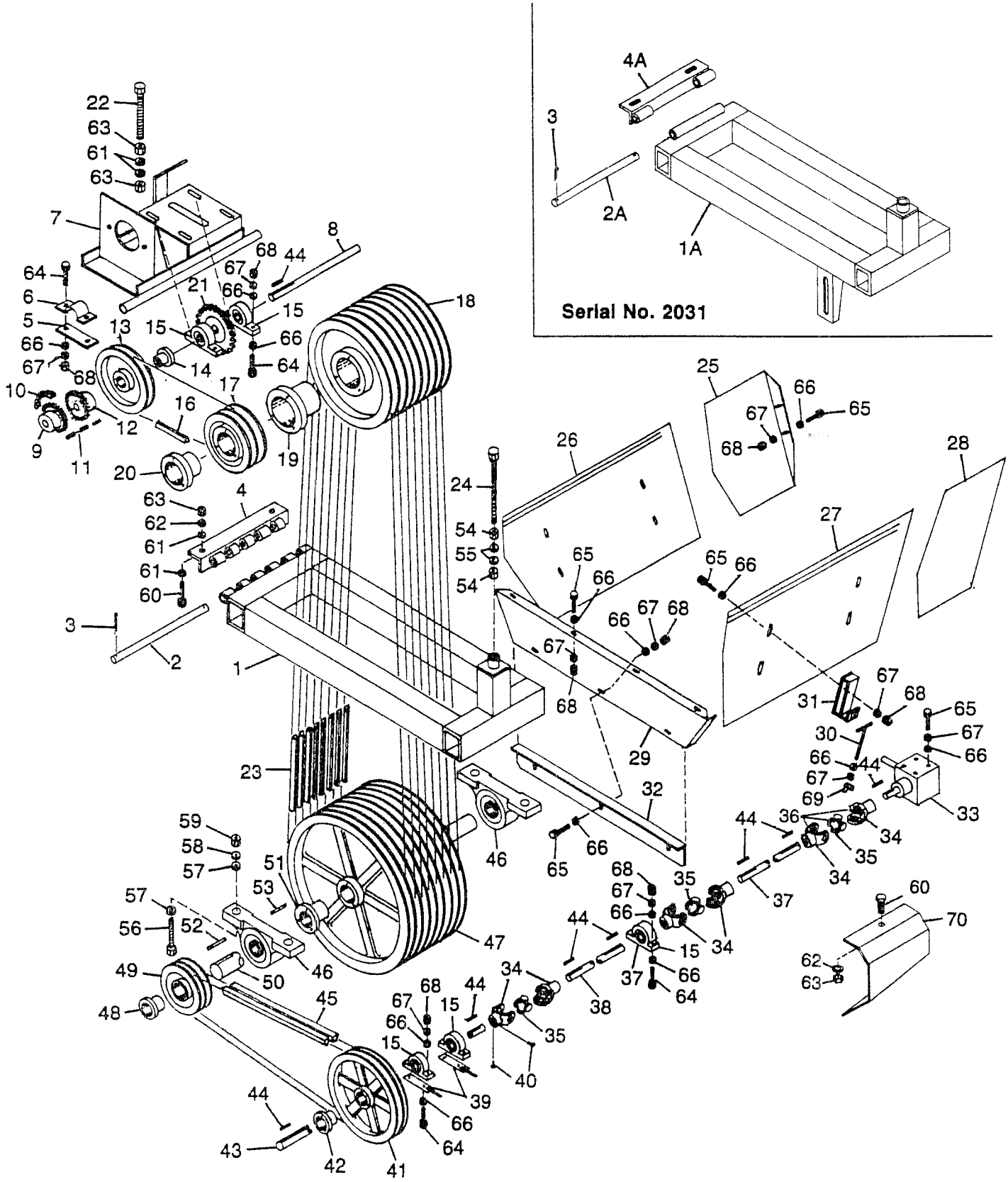


Serial No. 1866 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500073	1	Bull Wheel Cradle
1A	4500231	1	Bull Wheel Cradle
2	4800072	1	1" x 16-1/2" Support Pin
2A	4500233	1	1" x 16" Support Pin
3	4800050	2	3/16" x 1-1/2" Cotter Pin
4	4500072	1	Bull Wheel Hinge
4A	4500232	1	Bull Wheel Hinge
5	4500071	1	Plate
6	4500070	1	Clamp
7	4500069	1	1979 Pump Bracket
8	4500477	1	10-1/2" x 1" Shaft Serial No. 1866 thru 2620
8A	4500463	1	Shaft 1" x 11" Serial No. 2621 thru
9	1000049	1	50B14H Sprocket, 3/4" Bore
10	1100026	1	50-13 CL Double Chain
11	1100099	1	Double Chain Conn. Link
12	1000029	1	50B14H Sprocket, 1" Bore
13	1400003	1	Pulley, BK72H
14	1400503	1	Hub, 1" Bore
15	2000503	5	Bearing, 1" Pillow Block
16	1600020	1	Belt, B46 Cogged
17	1400006	1	Pulley, 2B 56Q
18	1400016	1	Pulley, 8B110R
19	1400520	1	R2 - 3" Hub
20	1400508	1	Q1 - 2-7/16" Hub
21	1000090	1	50B24 Sprocket, 1" Bore
22	4800191	1	1/2" x 6" Threaded Rod
23	1600007	8	B83" V-Belt
24	4500045	1	3/4" x 12" Threaded Rod
25	4500074	1	Right Hand Shield
26	4500075	1	Right Hand Belly Pan Side Cover
27	4500076	1	Left Hand Belly Pan Side Cover
28	4500077	1	Left Hand Shield
29	4500078	1	Cylinder Box Bottom Plate
30	4500496	4	Hold Down Bolt
31	4500160	4	Hold Down Handle
32	4500079	1	Belly Pan Front Plate
33	3100166	1	1:1 35C Gear Box Serial No. 1866 thru 2570 (See Page 64-65)
34	3600103	6	Yoke - 6R
35	3600008	3	Cross & Bearing
36	3600091	3	Single U-Joint 6R 1" Bore
37	4500484	1	29-1/2" x 1" Shaft, Back Conv. Drive
38	4500485	1	55" x 1" Shaft, Front Conv. Drive
39	4500080	2	Belt Tightener
40	4800143	12	Socket Set Screw, 3/8" x 3/8"
41	1400018	1	2BK100H Pulley
42	1400503	1	H-1" Hub
43	4500483	1	11" x 1" Shaft
44	6200014	9	1/4" SQ x 1-1/4" Key
45	1600009	2	B-60 V-Belt
33A	3100187	1	2207-402 Gear Box Serial No. 2571 thru (See Page 66-67)

32 DRIVE SYSTEM

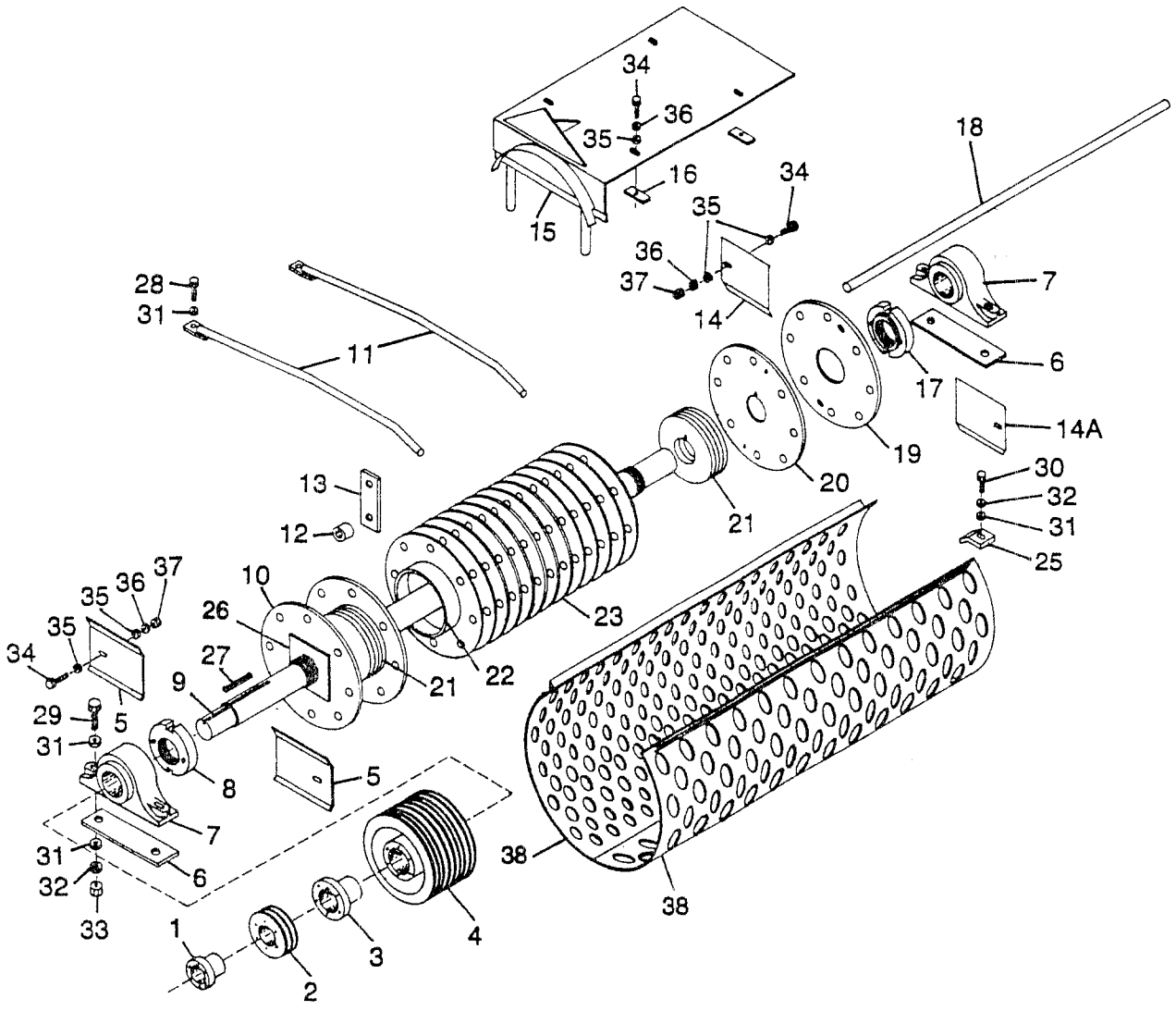
Serial No. 1866 Thru



Serial No. 1866 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
46	2000510	2	2" Bearing Pillow Block
47	1400017	1	Pulley 8B184R
48	1400504	1	P1-1-3/4" Hub
49	1400008	1	Pulley, 2TB50
50	4500478	1	2" x 23-1/2" Input Shaft
50A	4500490	1	23-1/2" x 2-1/4" Input Shaft
51	1400518	1	R2-2" Hub
51A	1400526	1	R2-2-1/4" Hub
52	6200008	1	3/8" SQ x 2" Key
53	6200015	1	1/2" SQ x 4-1/2" Key
54	4900004	2	3/4" Hex Nut
55	5000005	2	3/4" Flat Washer
56	4800144	4	5/8" x 6-1/2" Hex Head Bolt
57	5000002	8	5/8" Flat Washer
58	5000003	4	5/8" Lock Washer
59	4900005	4	5/8" Hex Nut
60	4800082	4	1/2" x 1-1/2" Hex Head Bolt
61	5000004	6	1/2" Flat Washer
62	5000006	4	1/2" Lock Washer
63	4900001	4	1/2" Hex Nut
64	4800034	14	3/8" x 1-1/2" Hex Head Bolt
65	4800003	23	3/8" x 1" Hex Head Bolt
66	5000001	48	3/8" Flat Washer
67	5000019	41	3/8" Lock Washer
68	4900002	41	3/8" Hex Nut
69	4900032	4	3/8" Wing Nut
70	4500464	2	Conveyor Drive Shaft Shield

34 CYLINDER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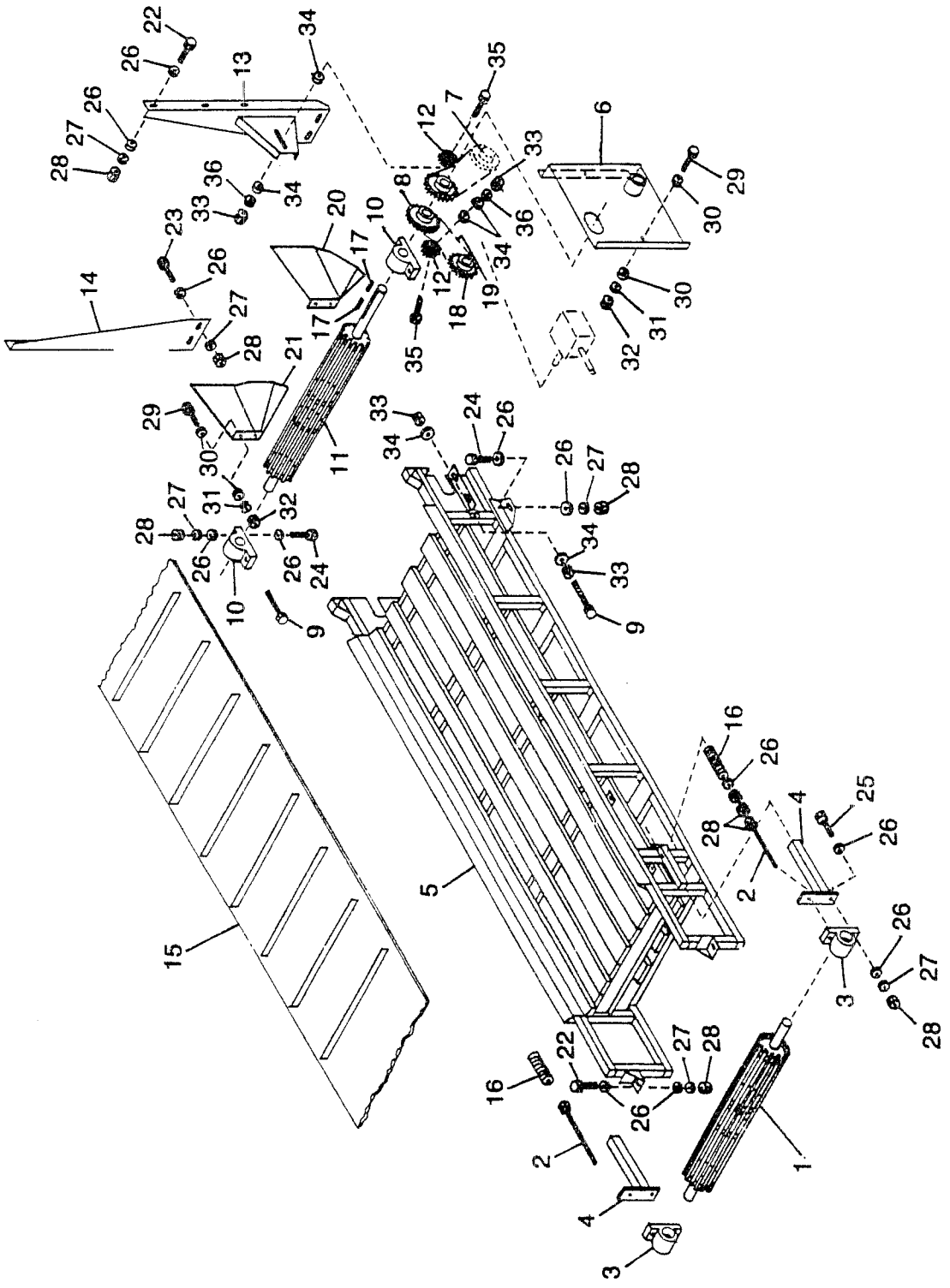
ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
1	1400508	1	Q1 - 2-7/16" Hub		5400066		1-1/2" Screen
2	1400006	1	2B56Q Pulley		5400050		2" Screen
3	1400520	1	R-2, - 3" Hub		5400051		3" Screen
4	1400016	1	BB110R Pulley		5400062		4" Screen
5	4500105	2	Front Cylinder Bearing Plate		5400080		Dummy Screen
6	4500097	4	Bearing Shim, 7 Ga.	39	4500151		Complete Cylinder
7	2000512	2	P.B. Bearing, 3"				(Less Bearings,
8	4500142	1	Cylinder Nut				Hammers & Rods)
9	4500482	1	Cylinder Shaft	40	4500407		Complete Cylinder,
10	4500505	1	Cylinder End Plate 3-1/2" I.D. Slugs Welded On				Rebuilt (Less Bearings,
11	4500025	2	Slug Bar Serial No. thru 8912220				Hammers & Rods)
				41	4500503		Cylinder Plate w/Doubler
12	4500017	12	Hammer Rod 1-1/4" Spacer Slug Bar	12A	4500248	48	Hammer Rod 1" Spacer Slugbuster
13	5200002	88	Hammers				
14	4500144	1	Rear Cylinder Bearing Plate R.H.		4500511		Rotor Core
14A	4500145	1	Rear Cylinder Bearing Plate, L.H.				
15	4500252	1	Cylinder Bearing Cover w/Hay Guide				
16	4500094	4	Clips				
17	4500146	1	Cylinder Nut w/Shoulder				
18	5300008	8	Hammer Rod				
19	4500508	1	Moveable Plate 3-1/2" I.D.				
20	4500506	1	Cylinder End Plate 3-1/2" I.D. Drilled & Taped				
21	4500149	6	11-1/2" Plate Spacer, 2" Solid				
22	4500106	16	Spacer, Cylinder Plate				
23	4500507	21	1/4" Cylinder Plate 3-1/2" I.D. Std.				
24	4500459	1	Screen Hold Down Clip/Notched & Nippled (Not Shown)				
25	4500251	1	Screen Hold Down Clip/Notched				
26	4500253	2	Thrust Washer				
27	6200013	1	5/8" SQ x 4-1/2" Key				
28	4800106	2	5/8" x 1-1/2" Hex Head Bolt				
29	4800100	4	5/8" x 4" Hex Head Bolt				
30	4800054	2	5/8" x 3-1/2" Hex Head Bolt				
31	5000002	10	5/I8" Flat Washer				
32	5000003	8	5/8" Lock Washer				
33	4900005	4	5/8" Hex Nut				
34	4800003	4	3/8" x 1" Hex Bolt				
35	5000001	16	3/8" Flat Washer				
36	5000019	8	3/8" Lock Washer				
37	4900002	8	3/8" Hex Nut				
38	5400064		1/8" Screen				
	5400074		3/16" Screen				
	5400052		1/4" Screen				
	5400053		3/8" Screen				
	5400054		1/2" Screen				
	5400055		5/8" Screen				
	5400056		3/4" Screen				
	5400049		1" Screen				

36 BELLY CONVEYOR

Serial No. Thru 2370

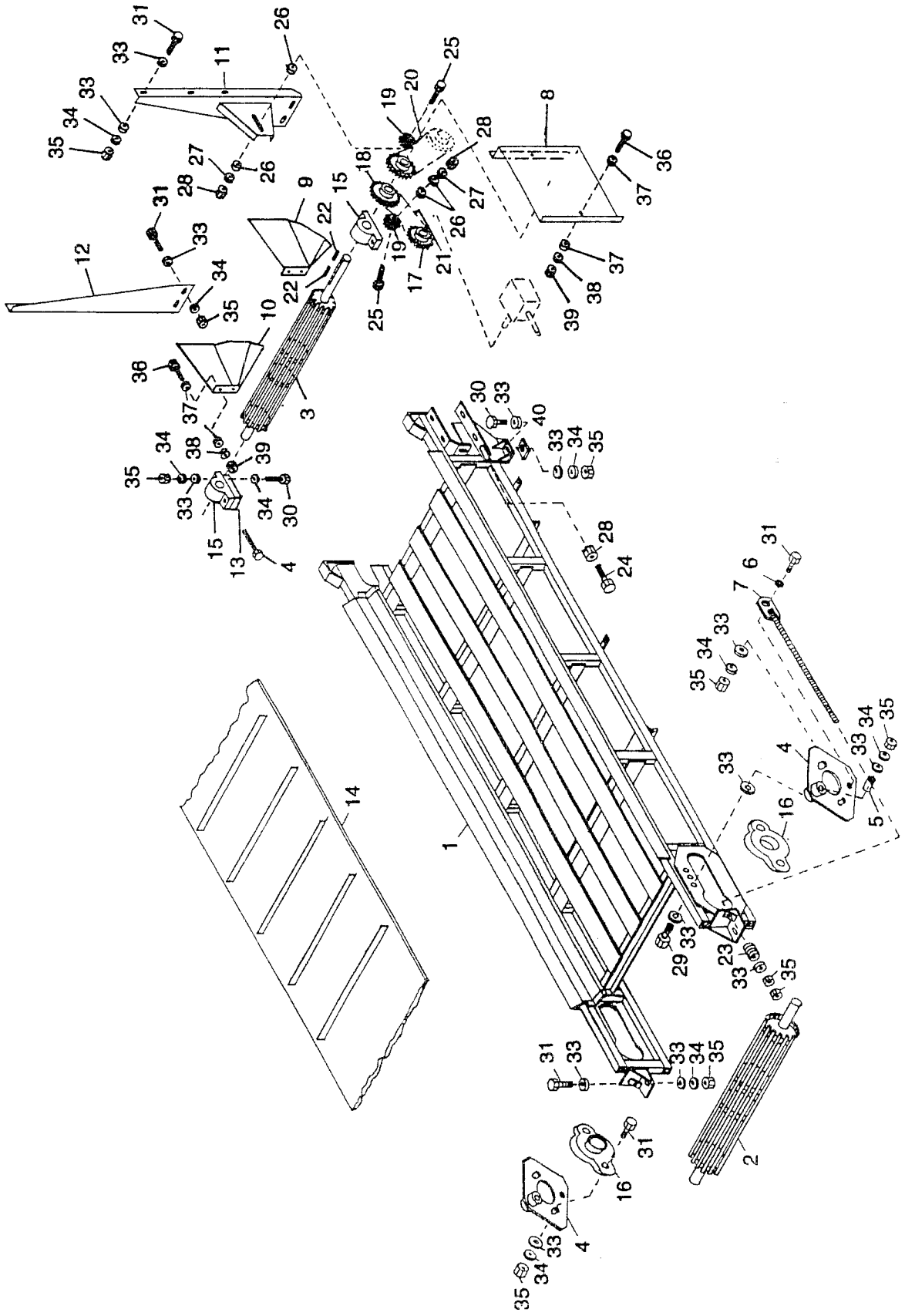


Serial No. Thru 2370

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500091	1	Idler Roller
2	4500152	2	1/2" x 14" Adj. Bolt
3	2000502	2	Bearing, 1-1/4" Pillow Block
4	4500153	2	Bearing Bracket
5	4500119	1	Belly Pan Frame
6	4500118	1	Shield
6A	4500254	1	Shield Without Slot
7	1100005	1	60 Pitch, 61 Links & Conn.
8	1000085	2	60B 20 Sprockets, 1-1/2" Bore
9	4800096	2	5/8" x 6" Adj. Bolt
10	2000501	2	Bearing, 1-1/2" Pillow Block
11	4500154	1	Drive Roller, 1-1/2" Shaft
12	1000007	2	Idler Sprocket
13	4500090	1	Left Hand Support Bracket
14	4500089	1	Right Hand Support Bracket
15	1700031	1	Belly Pan Belt, 30" x 18'
16	6100027	2	Spring
17	6200008	2	3/8" SQ x 2" Key
18	1000084	1	60B 15" x 1" Sprocket
19	1100045	1	60 Chain, 47 Links & Cl.
20	4500155	1	Deflector, L.H.
21	4500156	1	Deflector, R.H.
22	4800018	8	1/2" x 1-1/2" Hex Head Bolt
23	4800082	4	1/2" x 1-1/2" Hex Head Bolt
24	4800070	6	1/2" x 2-1/2" Hex Head Bolt
25	4800114	4	1/2" x 2" Hex Head Bolt
26	5000004	38	1/2" Flat Washer
27	5000006	24	1/2" Lock Washer
28	4900001	26	1/2" Hex Nut
29	4800003	6	3/8" x 1" Hex Head Bolt
30	5000001	12	3/8" Flat Washer
31	5000019	6	3/8" Lock Washer
32	4900002	6	3/8" Hex Nut
33	4900005	6	5/8" Hex Nut
34	5000002	8	5/8" Flat Washer
35	4800079	2	5/8" x 2-1/2" Hex Head Bolt
36	5000003	2	5/8" Lock Washer

38 BELLY CONVEYOR

Serial No. 2371 Thru

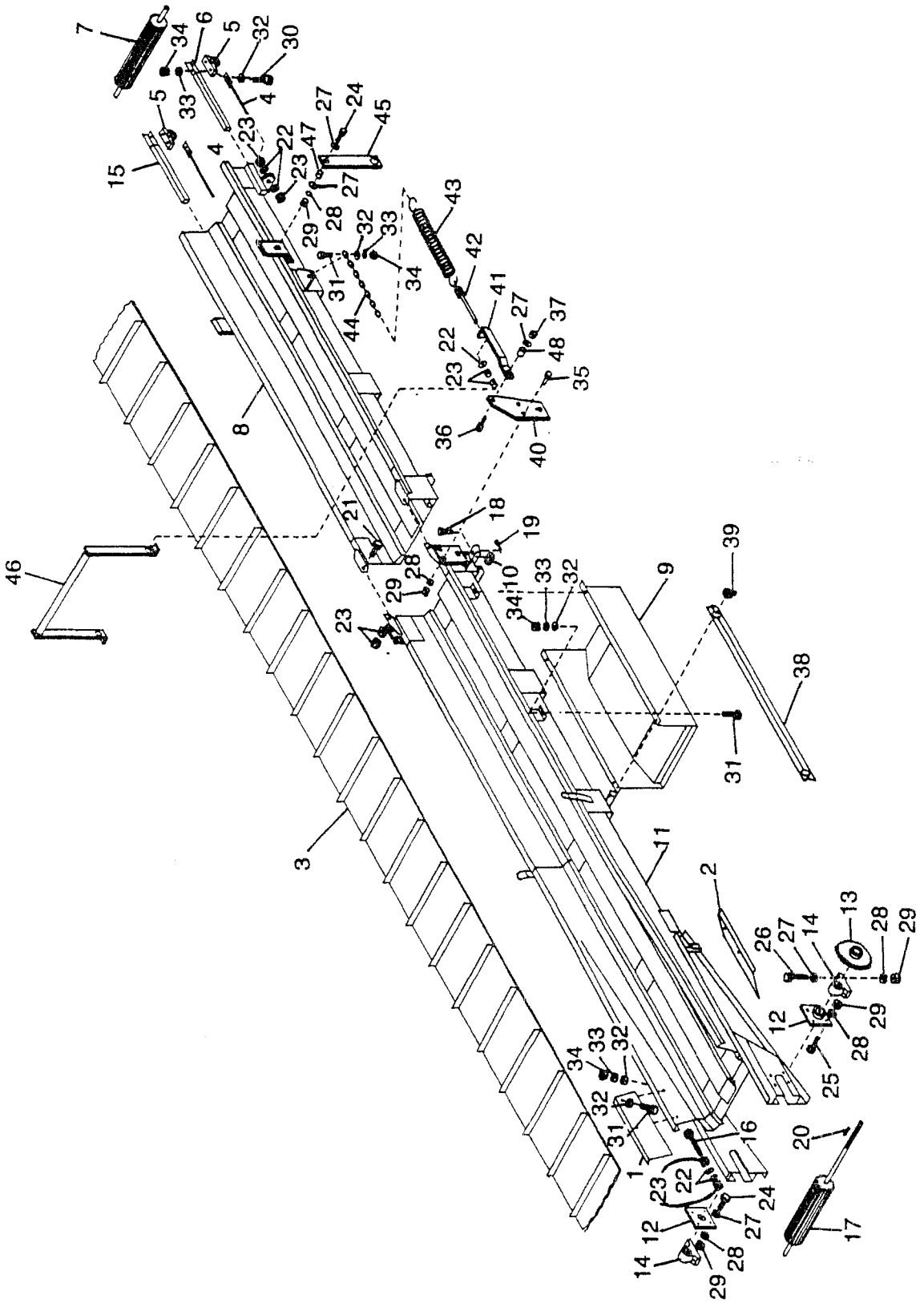


Serial No. 2371 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500449	1	Belly Pan Frame
2	4500091	1	Idler Roller 1-1/4' Shaft
3	4500154	1	Drive Roller 1-1/2" Shaft
4	4500361	2	Bearing Bracket
5	4500364	2	1" O.D. x 1/2" I.D. x 1-13/16" Bushing
6	4500363	2	1" O.D. x 1/2" I.D. x 5/16" Bushing
7	4500362	2	Adjustment Rod
8	4500254	1	Shield
9	4500155	1	Deflector L.H.
10	4500156	1	Deflector R.H.
11	4500090	1	Support Bracket L.H.
12	4500089	1	Support Bracket R.H.
13	4500395	6	Bearing Shim 7" x 2" x 7 Ga.
14	1700031	1	Belly Pan Belt 30" x 18'
15	2000501	2	Pillow Block Bearing 1-1/2"
16	2000301	2	Flange Bearing 1-1/4" - 2 Hole
17	1000084	1	60B-15 Sprocket 1" Bore
18	1000085	2	60B-20 Sprocket 1-1/2" Bore
19	1000007	2	60-15 Idler Sprocket 5/8"
20	1100005	1	60 Chain 61 Links & Conn.
21	1100045	1	60 Chain 47 Links & Conn.
22	6200008	2	3/8" SQ x 2" Key
23	6100027	2	Spring
24	4800096	2	5/8" x 6" Adjustable Bolt
25	4800079	2	5/8" x 2-1/2" Bolt
26	5000002	4	5/8" Flat Washer
27	5000003	2	5/8" Lock Washer
28	4900005	4	5/8" Nut
29	4800068	2	1/2" x 3" Bolt
30	4800070	6	1/2" x 2-1/2" Bolt
31	4800082	12	1/2" x 1-1/2" Bolt
32	4800018	6	1/2" x 1-1/4" Bolt
33	5000004	46	1/2" Flat Washer
34	5000006	26	1/2" Lock Washer
35	4900001	30	1/2" Nut
36	4800003	6	3/8" x 1" Bolt
37	5000001	12	3/8" Flat Washer
38	5000019	6	3/8" Lock Washer
39	4900002	6	3/8" Nut
40	4500450	4	Belly Conveyor Mount Shim
	4500456	1	Complete Belly Conveyor with Rollers and Belt

40 DISCHARGE CONVEYOR

Serial No. 1916 Thru 2370

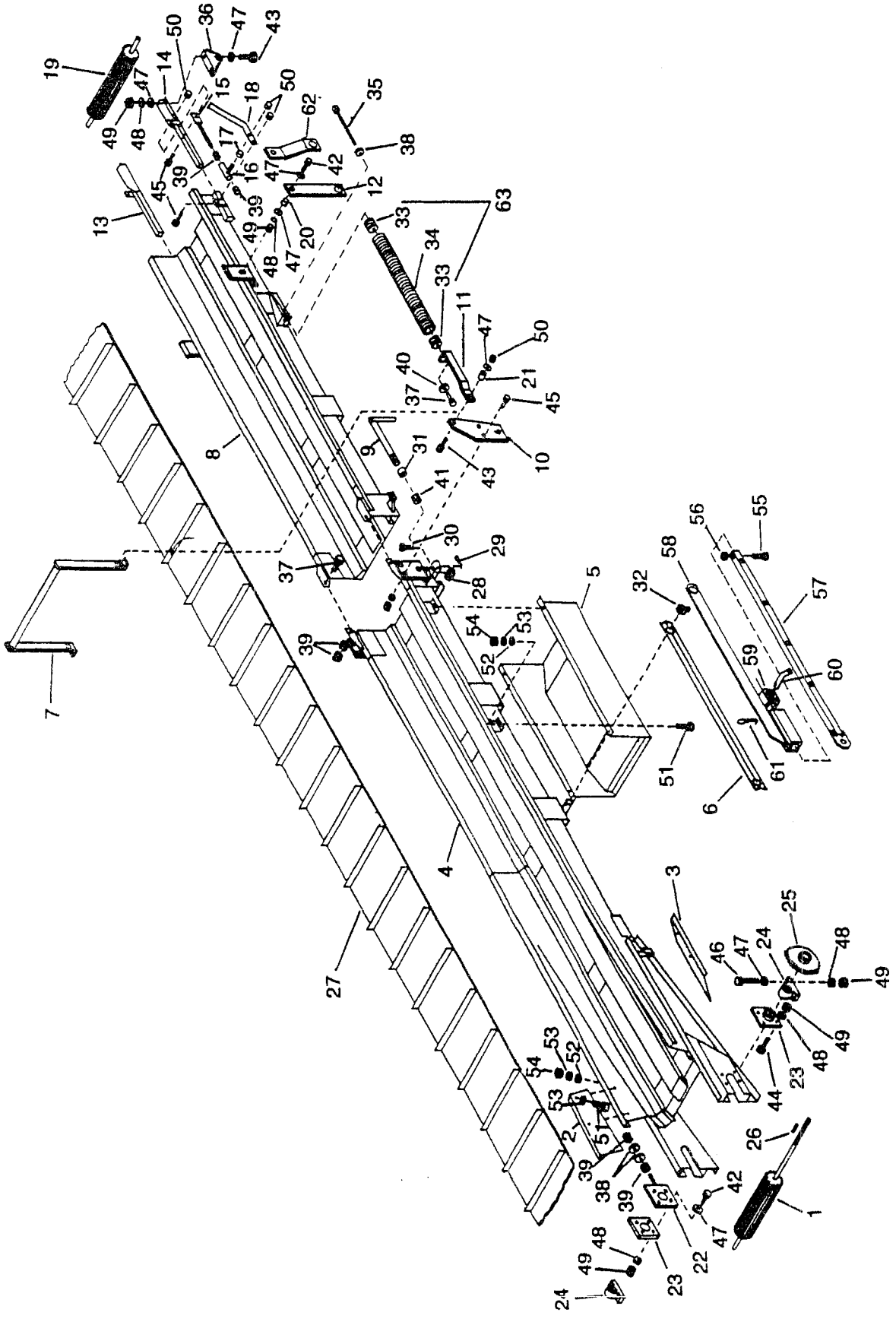


Serial No. 1916 Thru 2370

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500157	1	Deflector, R.H.
2	4500158	1	Deflector, L.H.
3	1700006	1	Belt, 18" Wide x 43-6" Long
4	4500058	2	Tightening Bolt
5	2000502	2	Bearing, 1-1/4" Pillow Block
6	4500167	2	Bearing Bracket, L.H.
7	4500050	1	Idler Roller
8	4500164	1	Top Conveyor Frame
9	4500159	1	Belt Guide
10	1400082	1	Cable Sheave
11	4500165	1	Bottom Conveyor Frame
12	2000303	2	Bearing
13	1000017	1	Sprocket, 60B-24 x 1-1/2" Bore
14	2000501	2	Bearing
15	4500168	2	Bearing Bracket, R.H.
16	4500055	1	Adjusting Bolt
17	4500054	1	Drive Roller
18	4800026	2	Cable Sheave Pin
19	4800123	2	1/8" x 1-1/2" Cotter Key
20	6200008	1	Key, 3/8" SQ x 2"
21	4800010	2	5/8" x 2" Hex Head Bolt
22	5000002	2	5/8" Flat Washer
23	4900005	8	5/8" Hex Nut
24	4800114	6	1/2" x 2" Hex Head Bolt
25	4800082	4	1/2" x 1-1/2" Hex Head Bolt
26	4800141	4	1/2" x 4-1/2" Hex Head Bolt
27	5000004	14	1/2" Flat Washer
28	5000006	20	1/2" Lock Washer
29	4900001	20	1/2" Hex Nut
30	4800142	4	3/8" x 1-3/4" Hex Head Bolt
31	4800003	10	3/8" x 1" Hex Head Bolt
32	5000001	18	3/8" Flat Washer
33	5000019	14	3/8" Lock Washer
34	4900002	14	3/8" Hex Nut
35	4800018	6	1/2" x 1-1/4" Hex Head Bolt
36	4800178	2	1/2" x 1-3/4" Hex Head Bolt
37	4900014	2	1/2" Lock Nut
38	4500194	2	Conveyor Transport Hanger
39	4800076	2	Klik Pin
40	4500195	2	Spring Arm Mount
41	4500196	2	Spring Arm
42	4500197	2	Spring Adjusting Bolt
43	6100040	2	Spring, .343 x 2-15/64" x 17-1/4"
44	1100122	2	Chain, 19 Link 3/16 Coil Proof
45	4500198	2	Transport Lock
46	4500199	1	Belt Retainer
47	4500200	2	3/4" OD x 1/2" ID, 3/8" Long Bushing
48	4500201	2	3/4" OD x 1/2" ID, 3/4" Long Bushing

42 DISCHARGE CONVEYOR

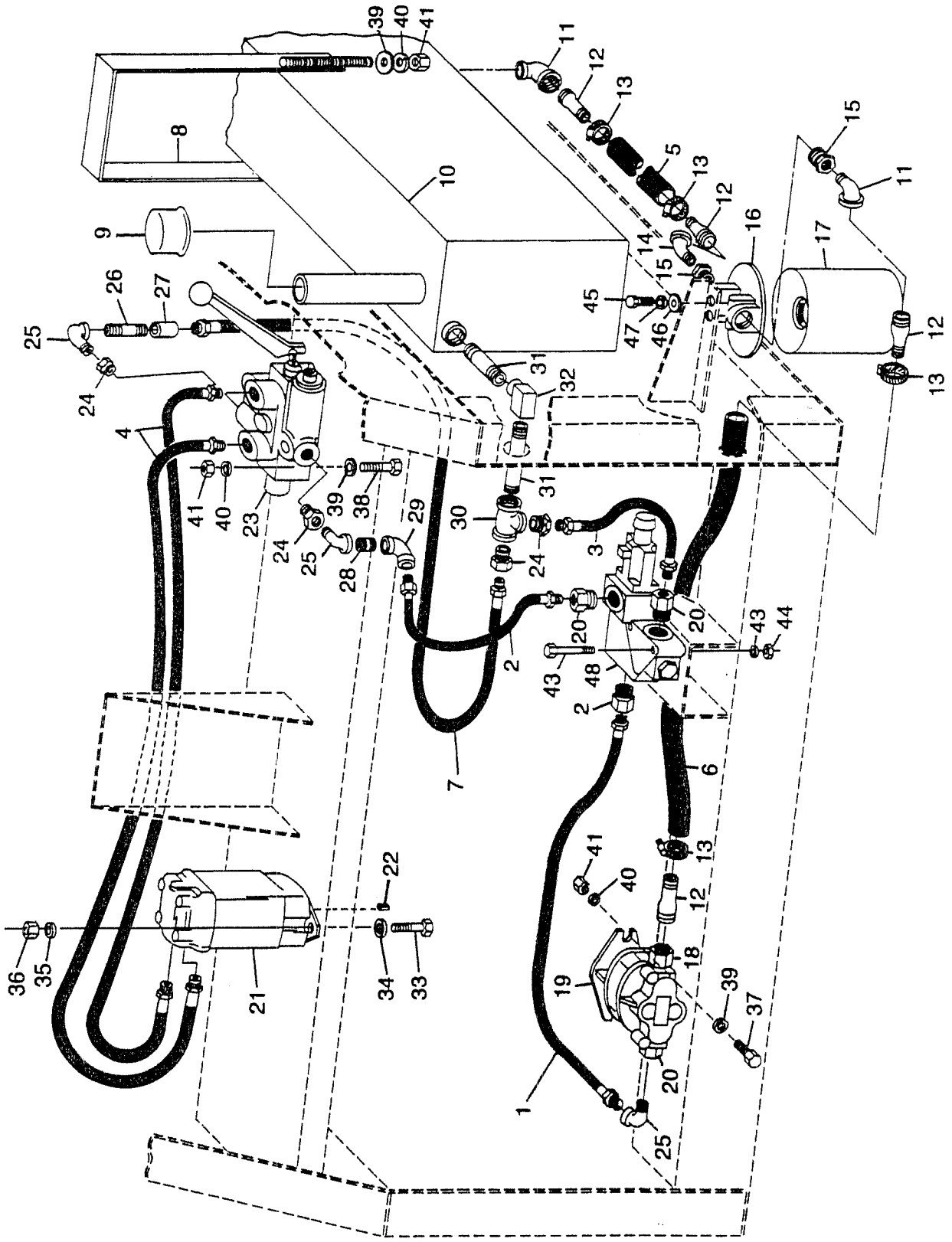
Serial No. 2371 Thru



Serial No. 2371 Thru

ITEM	PART NO.	QTY.	DESCRIPTION	ITEM	PART NO.	QTY.	DESCRIPTION
1	4500054	1	Drive Roller	53	5000019	8	3/8" Lock Washer
2	4500157	1	Deflector Right Hand	54	4900002	8	3/8" Nut
3	4500158	1	Deflector Left Hand				
4	4500165	1	Bottom Conveyor Frame				
5	4500159	1	Belt Guide				
6	4500194	2	Conveyor Transport Hanger Serial No. 1916 thru 2445				
7	4500199	1	Belt Retainer				
8	4500164	1	Top Conveyor Frame				
9	4500372	1	Latch Handle				
10	4500195	2	Spring Arm Mount				
11	4500196	2	Spring Arm				
12	4500198	2	Transport Lock Serial No. 1916 thru 2445				
13	4500373	1	Bearing Bracket Right Hand				
14	4500374	1	Bearing Bracket Left Hand				
15	4500375	2	Tension Adjusting Rod				
16	4500376	2	Tension Adjusting Pivot				
17	4590377	2	Tension Adjusting Bushing				
18	4500378	1	Tension Adjusting Handle, LH				
18A	4500678	1	Tension Adjusting Handle, RH				
19	4500050	1	Idler Roller				
20	4500200	2	3/4" O.D. x 1/2" I.D. 3/8" Long Bushing				
21	4500201	2	3/4" O.D. x 1/2" I.D. 3/4" Long Bushing				
22	4500379	1	Adjusting Bracket				
23	2000303	2	Bearing 4 Hole 1-1/2" Cast Flange				
24	2000501	2	Bearing 1-1/2" Pillow Block				
25	1000132	1	Sprocket 60B-24H x 1-1/2" Bore				
26	6200007	1	3/8" SQ x 1-1/2" Key				
27	1700006	1	Belt, 18" x 43'6" Long w/Clets				
28	1400082	2	Cable Sheave 3"				
29	4800123	2	1/8" x 1-1/2" Cotter Key				
30	4800026	2	Cable Sheave Pin				
31	2000809	1	1" Shaft Collar Set				
32	4800076	2	Klik Pin 5/16"				
33	7500113	4	Screw Plug				
34	6100047	2	Spring 1-1/2" I.D. x 33-1/2" Long .5 Wire				
35	4500380	2	Spring Adjusting Bolt 5/8" x 11"				
36	2000502	2	Bearing 1-1/4" Pillow Block				
37	4800010	4	5/8" x 2" Bolt	55	4800146	2	3/8" x 2" Bolt
38	5000002	4	5/8" Flat Washer	56	4900023	2	3/8" Lock Nut
39	4900005	4	5/8" Nut	57	4500381	2	Conveyor Safety Bar Slide
40	5000003	2	5/8" Lock Washer	58	4500382	2	Conveyor Safety Bar
41	4900015	1	1" Lock Nut	59	4500383	2	Conveyor Safety Bar Stop
42	4800114	6	1/2" x 2" Bolt	60	4500384	2	Pin
43	4800178	4	1/2" x 1-3/4" Bolt	61	4800056	2	Hair Pin
44	4800082	4	1/2" x 1-1/2" Bolt	62	4500399	2	Transport Lock
45	4800018	10	1/2" x 1-1/4" Bolt	63	6100066	2	Spring With Plugs
46	4800141	4	1/2" x 4-1/2" Bolt	64	4500421	1	Spring Fold Conversion Kit,
47	5000004	22	1/2" Flat Washer				SN 2371-3031
48	5000006	20	1/2" Lock Washer	64A	4500535	1	Spring Fold Conversion Kit,
49	4900001	20	1/2" Nut				SN3032 Thru
50	4900014	8	1/2" Lock Nut		4500416	1	Complete Conveyor with
51	4800003	8	3/8" x 1" Bolt				Rollers and Belt
52	5000001	12	3/8" Flat Washer		4500417	1	Conveyor Without Belt

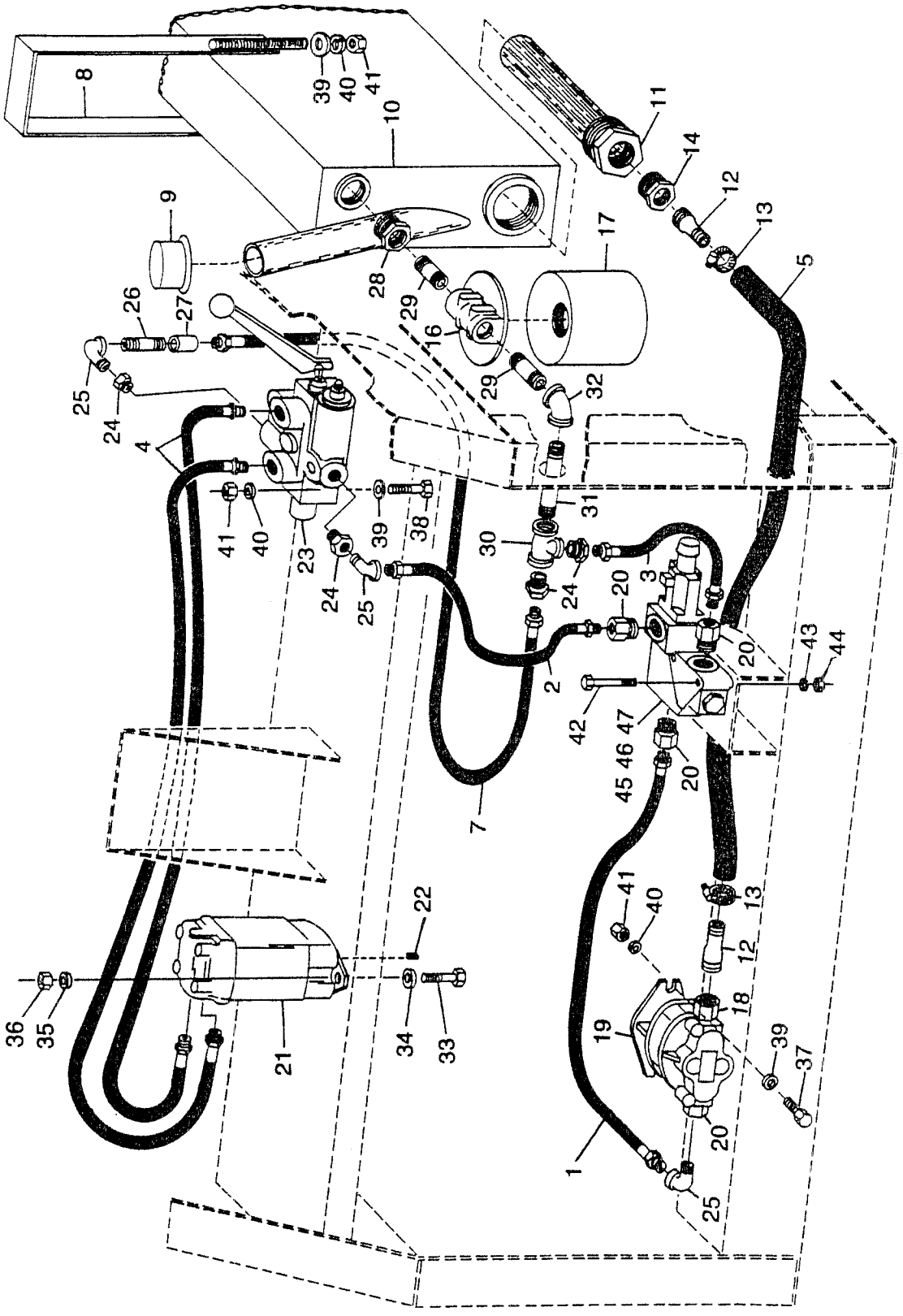
Serial No. 1866 Thru 2095



Serial No. 1866 Thru 2095

ITEM	PART NO.	QTY.	DESCRIPTION
1	3700109	1	Hose, 1/2" x 32"
2	3700110	1	Hose, 1/2" x 20"
3	3700111	1	Hose, 1/2" x 14"
4	3700073	2	Hose, 1/2" x 50"
5	3700021	1	Hose, 1" x 31"
6	3700074	1	Hose, 1" x 35-1/2"
7	3700013	1	Hose, 1/2" x 24"
8	4500082	2	Oil Tank Strap
9	3800027	1	Oil Tank Cap
10	4500081	1	Oil Tank
11	3800021	2	90° St. Elbow 1"
12	3800056	4	King Nipple, 1"
13	3800024	4	Hose Clamp
14	3800006	1	45° St. Elbow, 1"
15	3800046	2	1-1/4" to 1" Bushing
16	4400001	1	Filter Base
17	4400002	1	Filter Element
18	3800046	1	1-1/4" Straight to 1" Pipe with O-Ring Boss
19	4200001	1	Pump
20	3800047	4	1" Straight to 1/2" Pipe Bushing with O-Ring Boss
21	3900005	1	Orbit Motor
22	6200004	1	5/16" SQ x 1-1/2" Key
23	4000035	1	Control Valve
24	3800010	4	3/4" x 1/2" Bushing
25	3800008	3	90° St. Elbow, 1/2"
26	3800032	1	1/2" x 3" Nipple
27	3800051	1	1/2" Pipe Coupling
28	3800005	1	1/2" Close Nipple
29	3800088	1	90° Reg. Elbow, 1/2"
30	3800017	1	3/4" Tee
31	3800063	2	3/4" x 7-1/2" Nipple
32	3800035	1	90° Reg. Elbow, 3/4"
33	4800114	2	1/2" x 2" Bolt
34	5000004	2	1/2" Flat Washer
35	5000006	2	1/2" Lock Washer
36	4900001	2	1/2" Hex Nut
37	4800003	2	3/8" x 1" Bolt
38	4800146	3	3/8" x 2" Bolt
39	5000001	9	3/8" Flat Washer
40	5000019	9	3/8" Lock Washer
41	4900002	9	3/8" Hex Nut
42	4800193	2	1/4" x 2-3/4" Bolt
43	5000024	2	1/4' Lock Washer
44	4900009	2	1/4' Hex Nut
45	4800008	2	5/16" x 3/4" Bolt
46	5000023	2	5/16" Flat Washer
47	5000022	2	5/16" Hex Nut
48	4300008	1	Control Block

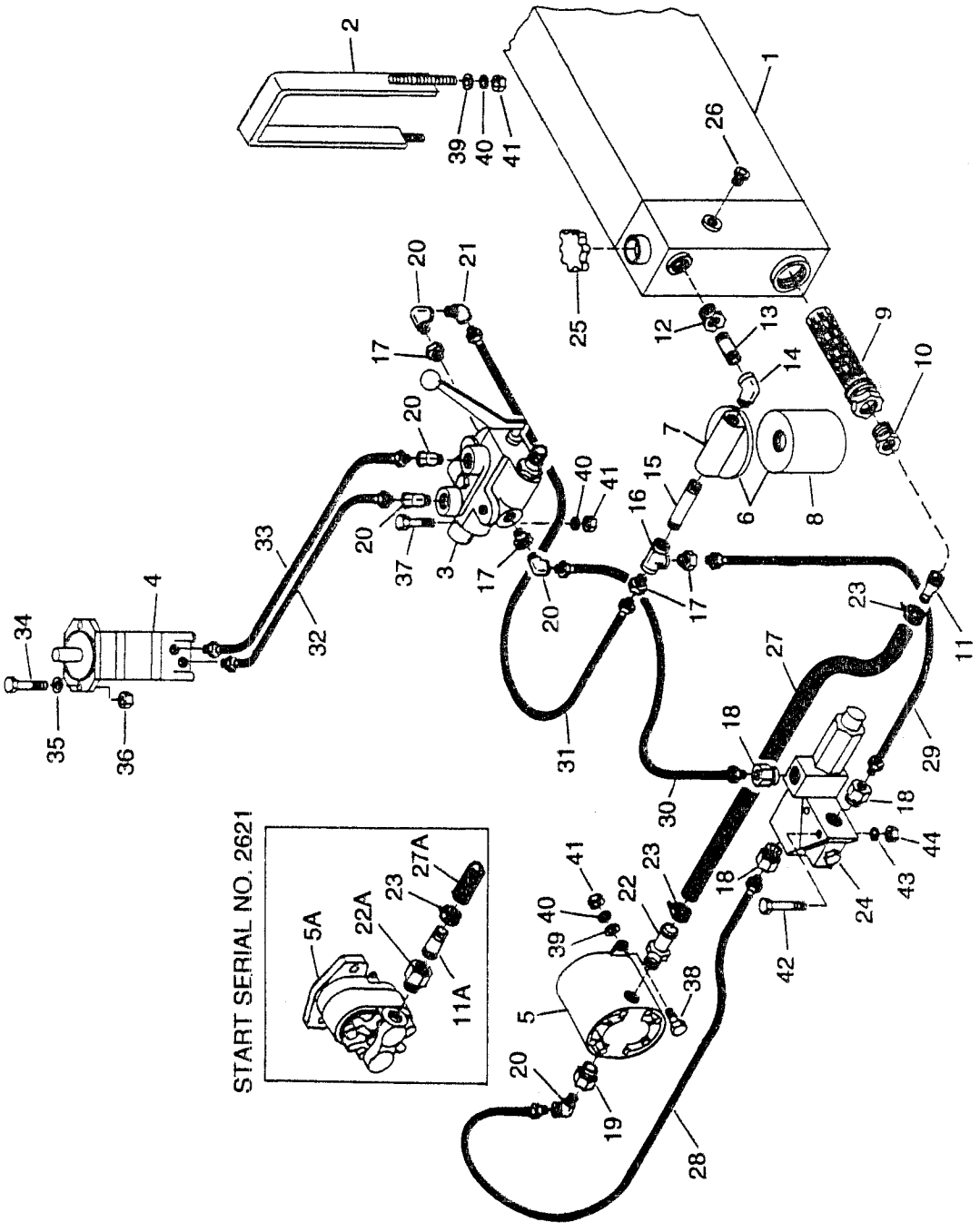
Serial No. 2096 Thru 2370



Serial No. 2096 Thru 2370

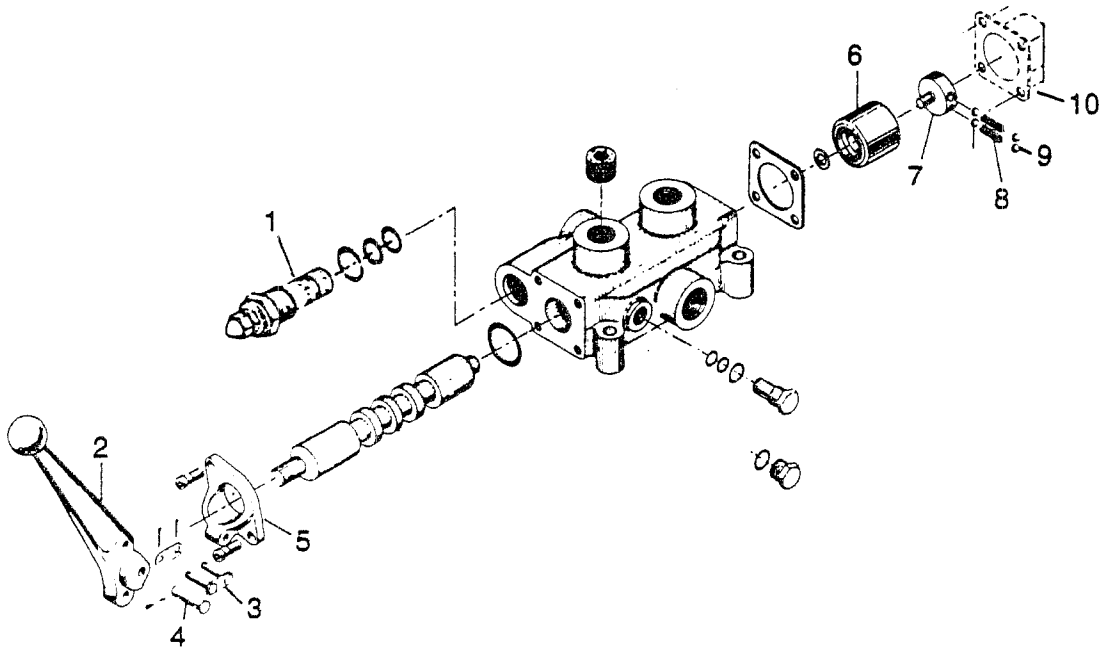
ITEM	PART NO.	QTY.	DESCRIPTION
1	3700109	1	Hose, 1/2" x 32"
2	3700110	1	Hose, 1/2" x 20"
3	3700111	1	Hose, 1/2" x 14"
4	3700176	2	Hose, 1/2" x 53"
5	3700177	1	Hose, 1" x 48"
6			
7	3700013	1	Hose, 1/2" x 24"
8	4500385	2	Oil Tank Strap
9	3800027	1	Oil Tank Cap
10	4500264	1	Oil Tank
11	4400007	1	Strainer S25
12	3800056	2	King Nipple, 1"
13	3800024	2	Hose Clamp
14	3800046	2	1-1/4" to 1" Bushing
15	4400006	1	Filter Complete F4E
16	4400004	1	Filter Base F4E
17	4400005	1	Filter Element F4E
18	3800046	1	1-1/4" Straight to 1" Pipe with O-Ring Boss
19	4200001	1	Pump
20	3800047	4	1" Straight to 1/2" Pipe Bushing with O-Ring Boss
21	3900005	1	Orbit Motor 18 C.I.
21A	3900010	1	Orbit Motor 24 C.I. (Optional)
22	6200004	1	5/16" SQ x 1-1/2" Key
23	4000035	1	Control Valve
24	3800010	4	3/4" to 1/2" Bushing
25	3800008	2	90° St. Elbow, 1/2"
26	3800032	1	1/2" x 3" Nipple
27	3800051	1	1/2" Pipe Coupling
28	3800131	1	1" to 3/4" Bushing
29	3800015	2	3/4" x 2" Nipple
30	3800017	1	3/4" Tee
31	3800063	2	3/4" x 7-1/2" Nipple
32	3800035	1	90° Reg. Elbow, 3/4"
33	4800114	2	1/2" x 2" Bolt
34	5000004	2	1/2" Flat Washer
35	5000006	2	1/2" Lock Washer
36	4900001	2	1/2" Hex Nut
37	4800003	2	3/8" x 1" Bolt
38	4800146	3	3/8" x 2" Bolt
39	5000001	9	3/8" Flat Washer
40	5000019	9	3/8" Lock Washer
41	4900002	9	3/8" Hex Nut
42	4800193	2	1/4" x 2-3/4" Bolt
43	5000024	2	1/4" Lock Washer
44	4900009	2	1/4" Hex Nut
45	4300008	1	Control Block
46	7501018	1	Seal Kit
47	4300010	1	Control Block (Solenoid)
10A	4500386	1	Oil Tank w/Site Glass Serial No. 2271 thru
9A	7500275	1	Oil Tank Cap Serial No. 2271 thru
48	3800137	1	3/4" Sight Glass Serial No. 2271 thru

Serial No. 2371 Thru

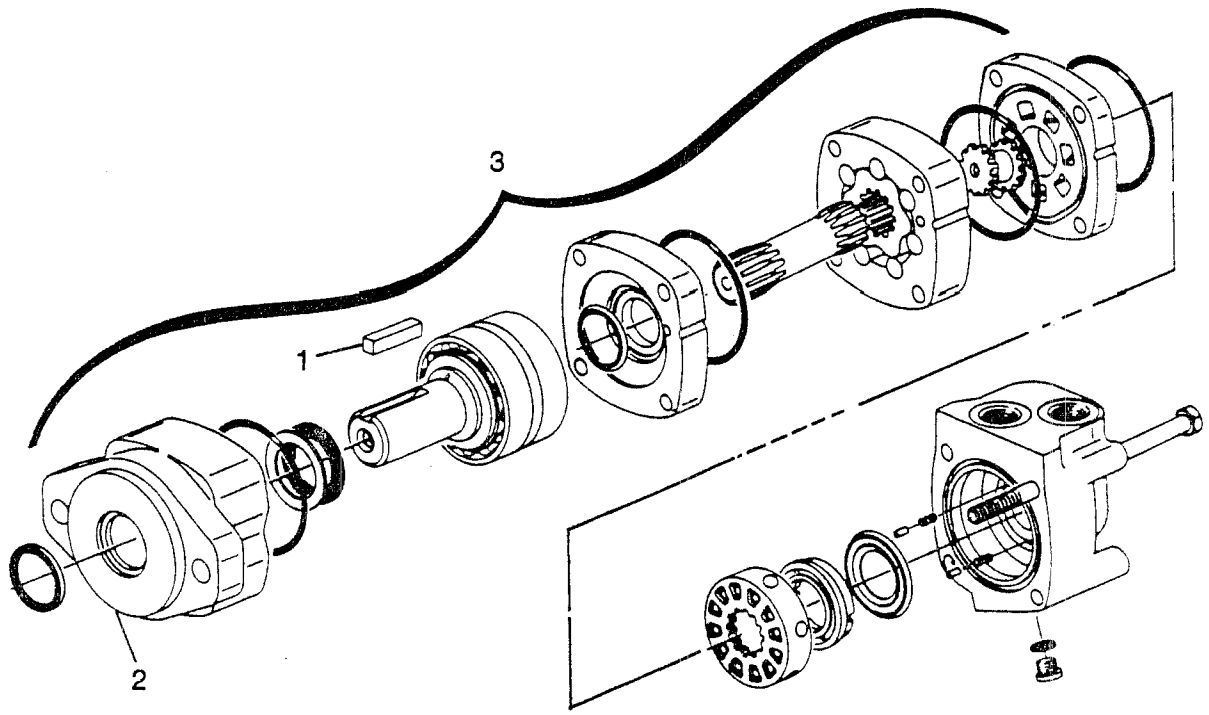


Serial No. 2371 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500386	1	Oil Tank
2	4500385	2	Oil Tank Strap
3	4000035	1	Control Valve
4	3900005	1	Orbit Motor 18 C.I.
	3900010	1	Orbit Motor 24 C.I. (Optional)
5	4200001	1	Pump
6	4400006	1	Filter Complete F4E
7	4400004	1	Filter Base F4E
8	4400005	1	Filter Element F4E
9	4400007	1	Strainer S25
10	3800022	1	1-1/4"x1" Bushing
11	3800056	1	1' King Nipple
12	3800131	1	1"x3/4" Bushing
13	3800157	1	3/4"x4" Nipple
14	3800129	1	3/4" 90° St. Elbow
15	3800039	1	3/4"x4-1/2" Nipple
16	3800017	1	3/4" Tee
17	3800010	4	3/4"x1/2" Bushing
18	3800119	3	1-1/16" Straight to 1/2" Pipe w/O-Ring
19	3800087	1	7/8" Straight to 1/2" Pipe w/O-Ring
20	3800008	5	1/2" 90° St. Elbow
21	3800028	1	1/2" 45° St. Elbow
22	3800204	1	1-3/16" Straight To 1" Hose
23	3800143	2	1-1/2" Hose Clamp T-Bolt
24	4300008	1	Control Block
25	7500275	1	Oil Tank Cap
26	3800137	1	3/4" Sight Glass
27	3700314	1	1"x45" Suction Hose
28	3700203	1	1/2"x32" Hose SW, SO
29	3700111	1	1/2"x14" Hose SW, SO
30	3700110	1	1/2"x20" Hose SW, SO
31	3700311	1	1/2"x24" Hose SW, SO
32	3700230	1	1/2"x32" Hose, SW, O-Ring
33	3700312	1	1/2"x34" Hose SW, O-Ring
34	4800114	2	1/2"x2" Bolt
35	5000004	2	1/2" Flat Washer
36	4900014	2	1/2" Lock Nut
37	4800034	3	3/8"x1-1/2" Bolt
38	4800098	2	3/8"x1-1/4" Bolt
39	5000001	10	3/8" Flat Washer
40	5000019	13	3/8" Lock Washer
41	4900002	13	3/8" Nut
42	4800101	2	1/4"x2-1/2" Bolt
43	5000024	2	1/4" Lock Washer
44	4900009	2	1/4" Nut
45	3200018		Control Box (Seal Kit)
46	4300010		Control Box (Solenoid)
5A	4200025	1	Hyd. Pump R.H. (Eation)
11A	3800056	1	1" King Nipple
22A	3800012	1	1-5/16" Straight To 1" Pipe w/O-Ring
27A	3700317	1	1"x43" Suction Hose



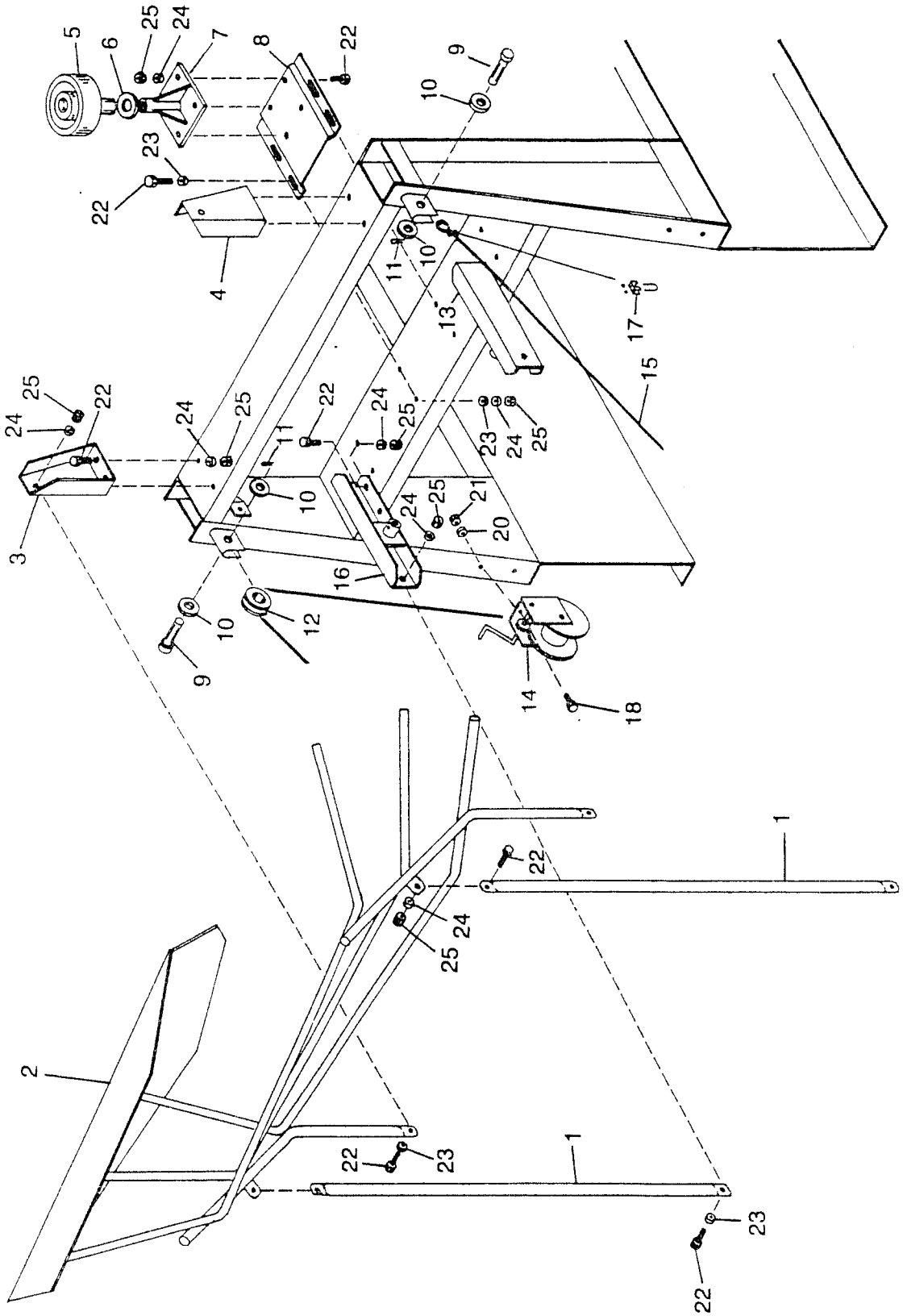
ITEM	PART NO.	QTY.	DESCRIPTION
1	4000006	1	Adj. Relief Valve
2	4000001	1	Valve Handle
3	4000002	1	Connector Links Handle
4	4000003	1	Pin Handle w/Key
5	4000004	1	Handle Bracket
6	4000025	1	Detent Sleeve
7	4000026	1	Detent Retainer (Screw)
8	4000027	2	Detent Spring
9	4000028	4	Ball (1/4" Steel)
10	4000029	1	End Cap
11	3200013	1	Seal Kit (Not Shown)
	4000035		Valve Complete



ITEM	PART NO.	QTY.	DESCRIPTION
1	6200004	1	5/16"x1-1/2" Key
2	3900011	1	Flange Mount
3	3900005	1	Complete Orbit Motor - 2000 Series 18 C.I.
4	3200005	1	Seal Kit
5	3900010		Complete Orbit Motor - 2000 Series 24 C.I. (Optional)

52 MAIN FRAME - HAY GUIDE

Serial No. 1886 Thru 2370

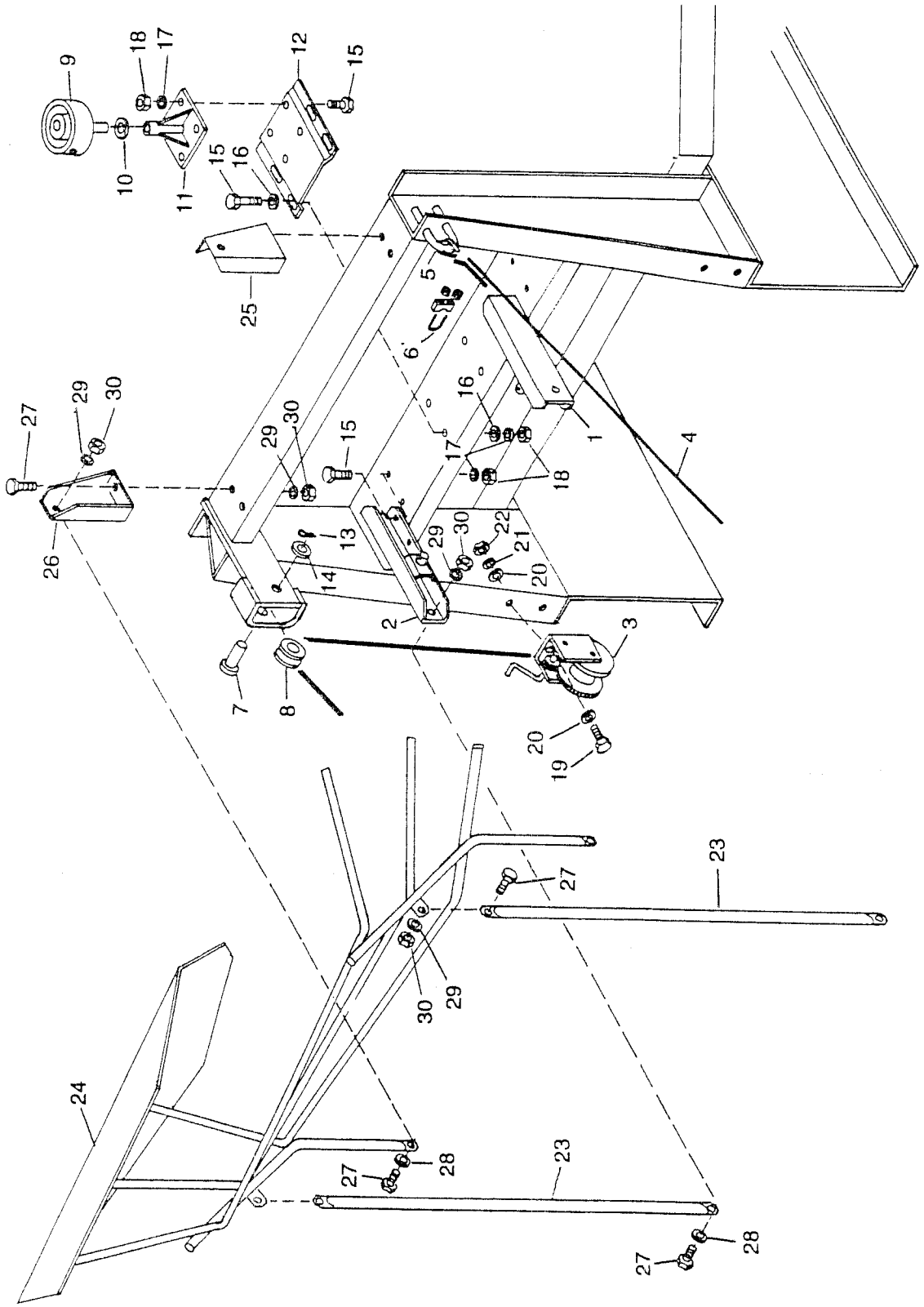


Serial No. 1886 Thru 2370

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500099	2	Support Pipes
2	4500098	1	Hay Rack
3	4500100	1	Left Hand Top Bracket
4	4500101	1	Right Hand Top Bracket
5	1200008	1	No. 5 Roller
6	5000008	1	Narrow Rim Machine Bushing
7	1200005	1	No. 44 Stand
8	4500104	1	Pressure Roller Plate
9	4800026	2	Pin, 5/8" x 2"
10	5000002	4	5/8" Flat Washer
11	4800123	2	1/8" x 1-1/2" Cotter Key
12	1400082	1	Cable Sheave
13	4500102	1	Right Hand Lower Support
14	5800003	1	Winch
15	5800308	1	34 Foot 1/4" Cable
16	4500117	1	Left Hand Lower Support
17	4800027	1	1/4" Cable Clamp
18	4800003	2	3/8" x 1" Hex Head Bolt
19	5000001	2	3/8" Flat Washer
20	5000019	2	3/8" Lock Washer
21	4900002	2	3/8" Hex Nut
22	4800114	20	1/2" x 2" Hex Head Bolt
23	5000004	12	1/2" Flat Washer
24	5000006	20	1/2" Lock Washer
25	4900001	20	1/2" Hex Nut
26	5800320	1	Winch Cable Clamp (Not Shown)
	4500428		Hay Guide Kit

54 MAIN FRAME - HAY GUIDE

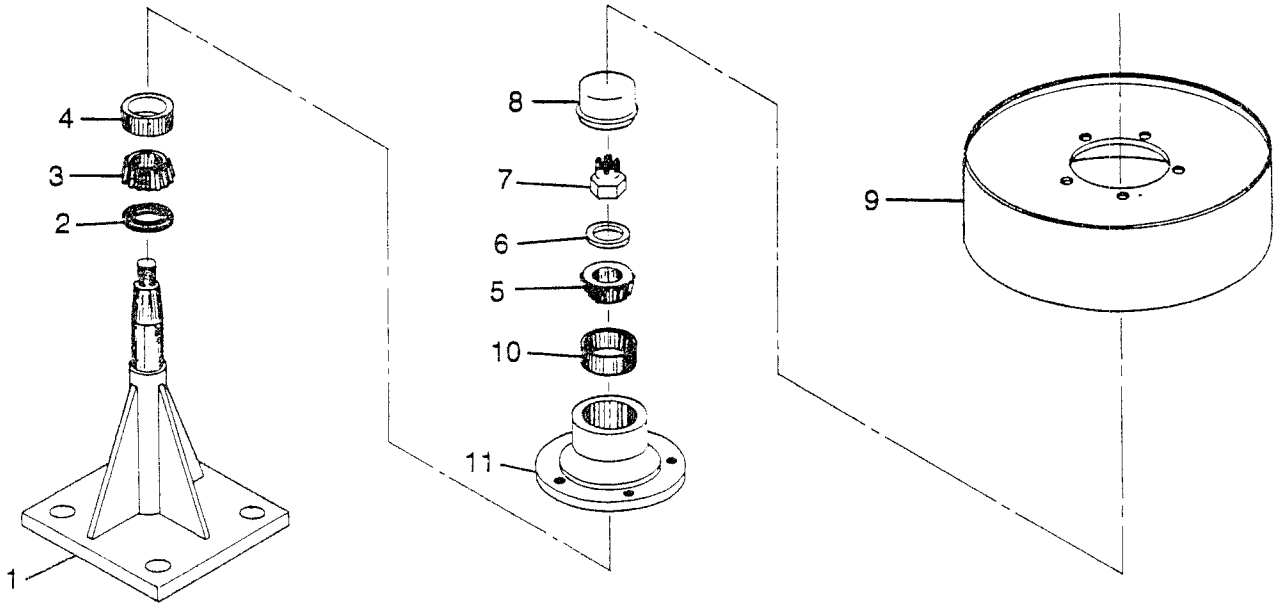
Serial No. 2371 Thru



Serial No. 2371 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500102	1	Lower Support Bracket R.H. Serial No. 2371 thru 2445
1A	4500501	1	Lower Support Bracket R.H. Serial No. 2446 thru
2	4500117	1	Lower Support Bracket L.H. Serial No. 2371 thru 2445
2A	4500502	1	Lower Support Bracket L.H. Serial No. 2446 thru
3	5800008	1	Winch 1500 D & L
4	5800308	1	1/4"x34' Cable
5	7500121	1	5/16" Cable Thimble
6	4800027	2	1/4" Cable Clamp
7	4800026	1	5/8" x 2" Clevis Pin
8	1400082	1	Cable Sheave 3"
9	1200008	1	No. 5 Pressure Roller
10	5000008	1	1-1/2" Machine Bushing (Narrow Rim)
11	1200005	1	No. 44 Stand
12	4500104	1	Pressure Roller Plate
13	4800123	1	1/8" x 1-1/2" Cotter Key
14	5000002	1	5/8" Flat Washer
15	4800007	12	1/2" x 2" Bolt
16	5000004	8	1/2" Flat Washer
17	5000006	12	1/2" Lock Washer
18	4900001	12	1/2" Nut
19	4800003	2	3/8" x 1" Bolt
20	5000001	4	3/8" Flat Washer
21	5000019	2	3/8" Lock Washer
22	4900002	2	3/8" Nut
	HAY GUIDE OPTION		
23	4500099	2	Support Pipe
24	4500098	1	Hay Guide
25	4500101	1	Bracket R.H.
26	4500100	1	Bracket L.H.
27	4800007	10	1/2" x 2" Bolt
28	5000004	4	1/2" Flat Washer
29	5000006	10	1/2" Lock Washer
30	4900001	10	1/2" Nut
31	4500428		H-1100 Hay Guide Kit

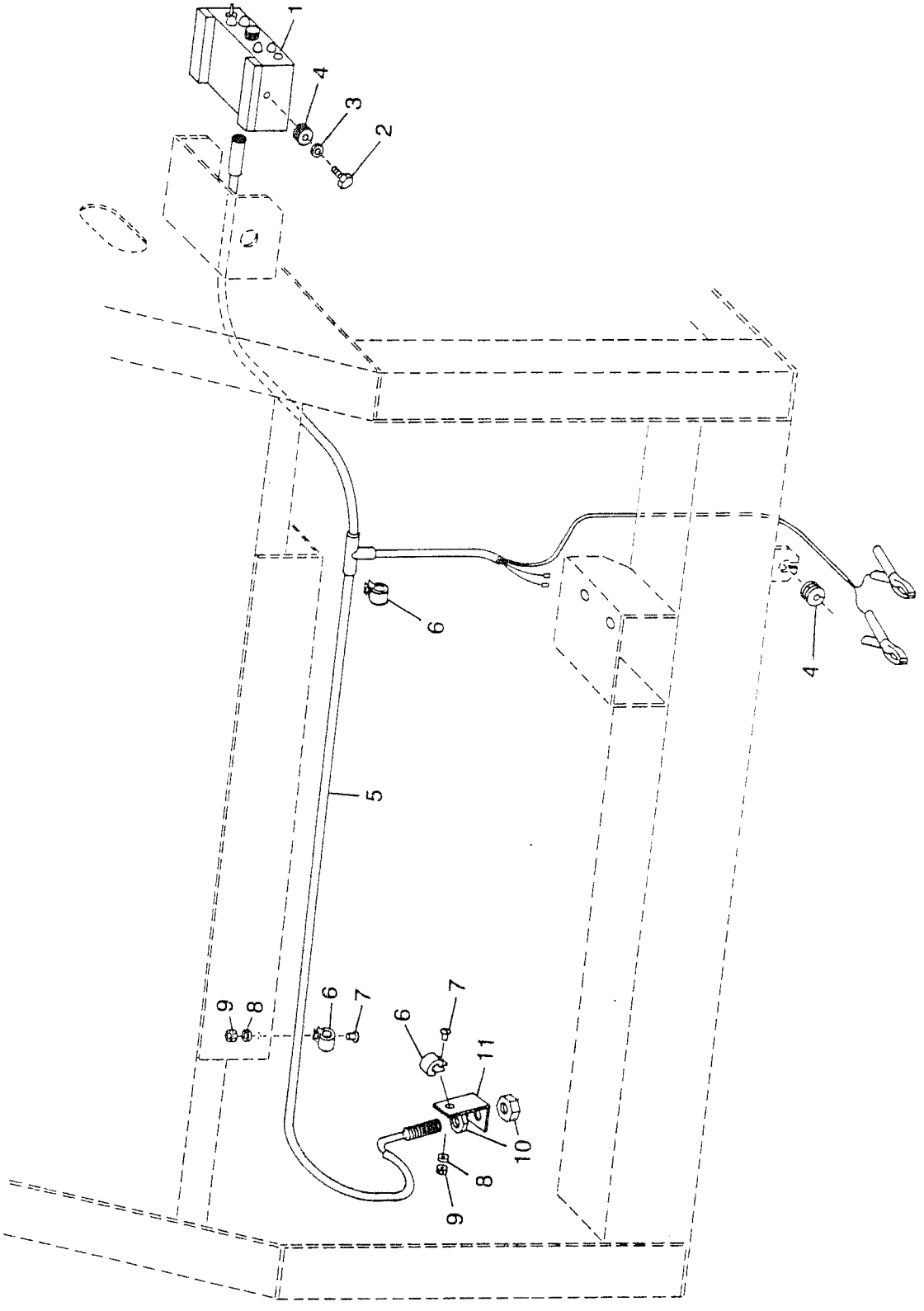
56 PRESSURE ROLLER



ITEM	PART NO.	QTY.	DESCRIPTION
1	1200010	1	Single Stand
2	2900055	1	Seal
3	2900054	1	Inner Cone
4	2900004	1	Inner Cup
5	2900061	1	Outer Cone
6	5000057	1	Washer
7	4900056	1	Nut
8	2900064	1	Dust Cap
9	4500088	1	Pressure Drum
10	2900056	1	Outer Cup
11	2900138	1	Hub
12	3000025	1	Pressure Roller Spindle
13	4500247	1	Pressure Roller Complete
	4800172	1	1/8"x2" Cotter Pin
	2900057	1	Complete Hub With Bearings

58 ELECTRONIC GOVERNOR

Serial No. 1866 Thru



Serial No. 1866 Thru

ITEM	PART NO.	QTY.	DESCRIPTION
1	4300034	1	Control Box
1A	4300034		Control Box SN Thru
2	4800194	2	1/4"x3/4" Flange Bolt
3	5000035	2	1/4" Flat Washer
4	7500124	3	Grommet
5	4300007	1	Wiring Harness
6	7500125	3	Wire Clamps
7	4800154	3	1/4"x1/2" Screw
8	5000024	3	1/4" Lock Washer
9	4900009	3	1/4" Hex Nut
10	4300009	1	Sensor with Hardware
11	4500205	1	Sensor Bracket
12	4300038	1	Rebuilt Control Box

1

HAYBUSTER

2

HAYBUSTER

3

H-1100

16

KEEP WHEEL BOLTS TIGHT

7

⚠ WARNING

FOR YOUR PROTECTION KEEP ALL SHIELDS IN PLACE AND SECURED WHILE MACHINE IS OPERATING. MOVING PARTS WITHIN CAN CAUSE SEVERE PERSONAL INJURY.

4

IMPORTANT SAFETY INFORMATION

- This brake winch is built for multipurpose hauling and lifting operations. It is not to be used as a hoist for lifting, supporting or transporting people, or for loads over areas where people could be present.
- Respect this winch. High forces are created when using a winch creating potential safety hazards. It should be operated and maintained in accordance with instructions. Never allow children or anyone who is not familiar with the operation of the winch to use it. A winch accident could result in personal injury.
- Check winch for proper operation on each use. Do not use if damaged. Seek immediate repairs.
- Never exceed rated capacity. Excess load may cause premature failure and could result in serious personal injury.
- Never apply load on winch with cable fully extended. Keep at least three full turns of cable on the reel.
- Secure load properly. When winching operation is complete, do not depend on winch to support load.
- Operate with hand power only. This winch should not be operated with a motor of any kind. If the winch cannot be cranked easily with one hand, it is probably over-loaded.

10

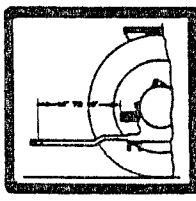
ROTATION

ROTATION

12

OIL LEVEL

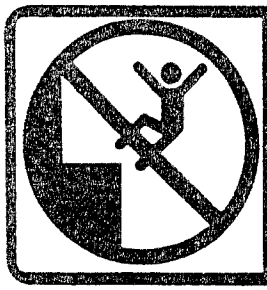
13



⚠ CAUTION

Adjust the tractor drawbar so that the distance from the end of the PTO shaft on the tractor to the center of the drawbar hitch pin is 14" to 16".

11



⚠ WARNING

NO RIDERS

SERIOUS PERSONAL INJURY COULD RESULT FROM RIDING ON THE MACHINE

14

⚠ DANGER

ROTATING DRIVELINE

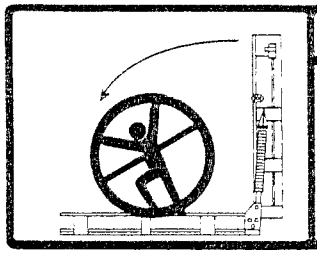
CONTACT CAN CAUSE DEATH

KEEP AWAY!

DO NOT OPERATE WITHOUT –

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

15



⚠ WARNING

Failure to use caution while Folding the conveyor could result in Serious Injury

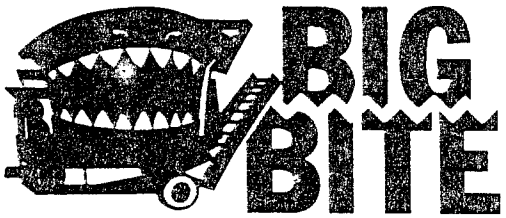
8

⚠ WARNING

FOR YOUR PROTECTION AND PROTECTION OF OTHERS, PRACTICE THE FOLLOWING SAFETY RULES

1. BEFORE OPERATING THIS MACHINE, READ THE OPERATOR'S MANUALS SUPPLIED WITH THIS MACHINE AND YOUR TRACTOR.
2. CHECK OPERATORS MANUALS TO BE SURE YOUR TRACTOR MEETS THE MINIMUM REQUIREMENTS FOR THIS MACHINE.
3. READ ALL DECALS PLACED ON THIS MACHINE FOR YOUR SAFETY AND CONVENIENCE.
4. NEVER ALLOW RIDERS ON THIS IMPLEMENT OR THE TRACTOR.
5. KEEP OTHERS AWAY FORM THIS MACHINE WHILE IN OPERATION.
6. KEEP ALL SHIELDS IN PLACE WHILE MACHINE IS OPERATING.
7. KEEP HANDS, FEET, LOOSE CLOTHING, ETC. AWAY FROM POWER DRIVEN PARTS.
8. ALWAYS SHUT OFF MACHINE AND ENGINE BEFORE SERVICING, UNCLOGGING, INSPECTING, OR WORKING NEAR THIS MACHINE FOR ANY REASON. ALWAYS PLACE TRANSMISSION IN PARK OR SET PARK BRAKE AND WAIT FOR ALL MOVEMENT TO STOP BEFORE APPROACHING THIS MACHINE.

5



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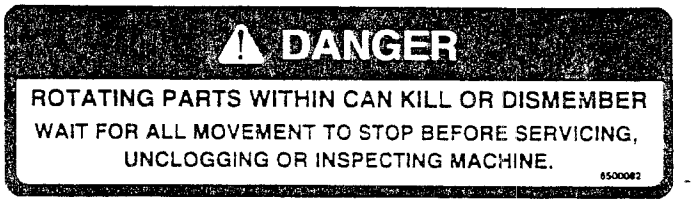
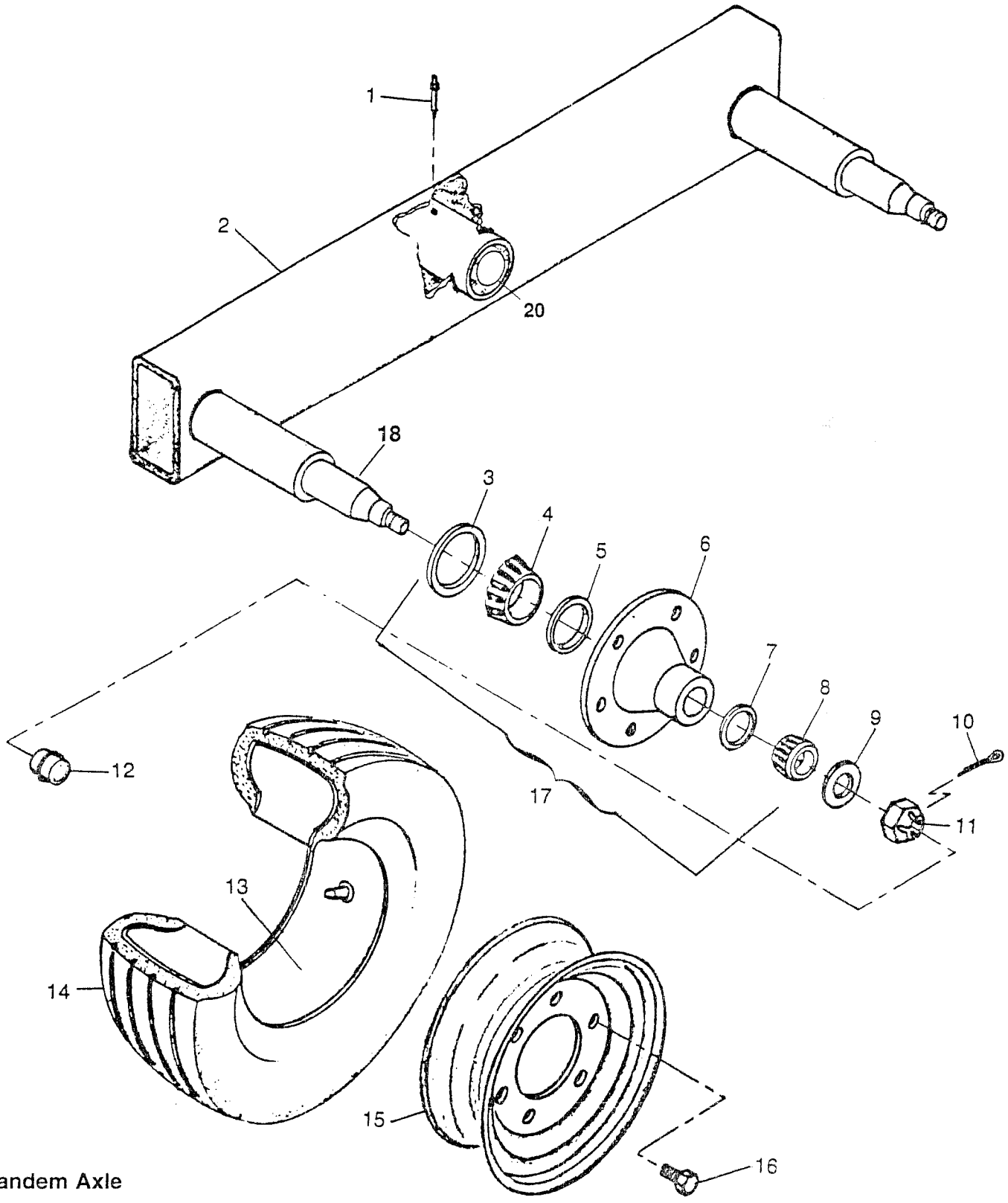


ITEM	PART NO.	QTY.	DESCRIPTION
1	6500020	1	Haybuster w/Sunburst
2	6500096	2	Haybuster w/o Sunburst
3	6500053	1	H-1100 Decal
4	6500149	1	Winch Safety
5	6500044	2	Big Bite Decal
6	6500082	4	Danger, Rotating Parts Within
7	6500040	4	Warning, Keep All Shields In Place
8	6500041	2	Warning, For Your Protection
9	6500042	2	Keep Wheel Bolts Tight
10	6500056	1	Rotation
11	6500043	2	Warning, No Riders
12	6500052	1	Oil Level
13	6500057	1	Caution, Adjust Drawbar
14	6500085	1	Danger, Rotating Driveline
15	6500139	2	Warning, Folding Conveyor
16	6500102	1	124" Stripe (Red)

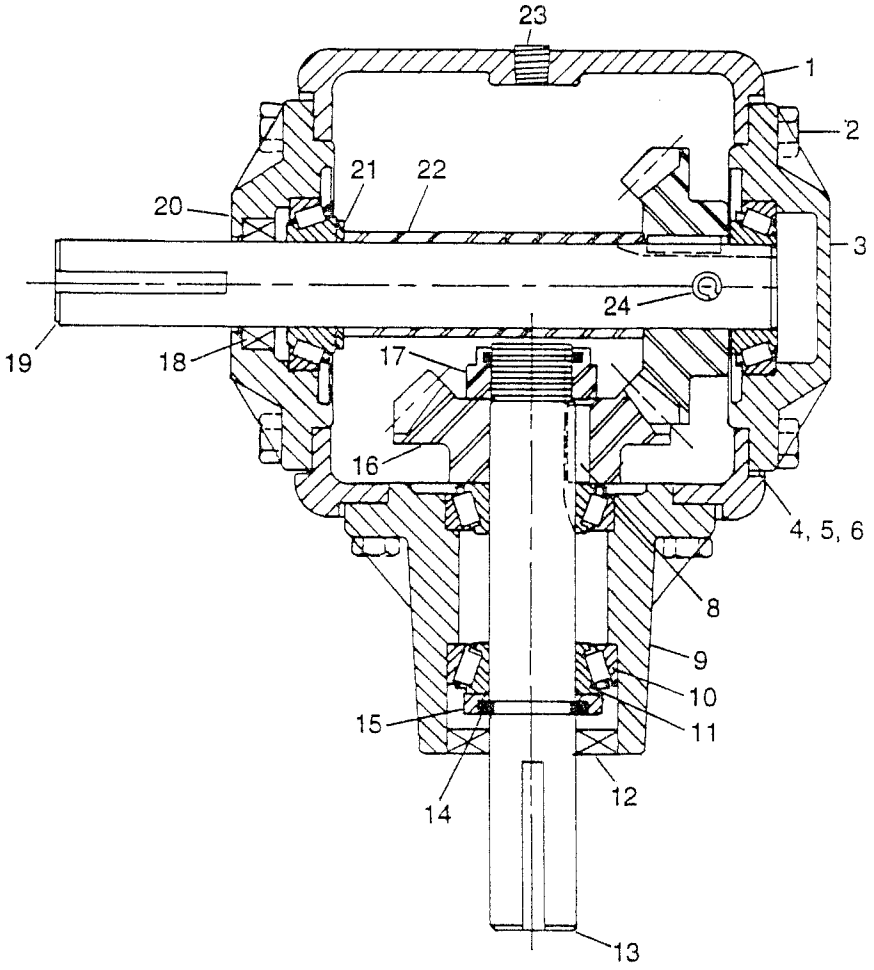


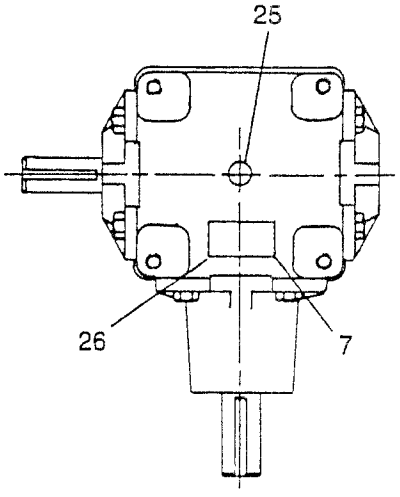
Tandem Axle

Serial No. 1709 & Up

ITEM	PART NO.	QTY.	DESCRIPTION
1	3800067	2	Grease Fitting
2	4500140	1	Walking Beam w/Spindles RH
2A	4500674	1	Walking Beam w/Spindles LH
3	2900008	4	Seal
4	2900007	4	Inner Cone
5	2900006	4	Inner Cup
6	2900068	4	Hub
7	2900004	4	Outer Cup
8	2900018	4	Outer Cone
9	5000055	4	Washer, 7/8" Flat
10	4800044	4	Cotter Pin 5/32"x1-1/2"
11	4900054	4	7/8" Nut NF/Spindle
12	2900013	4	Dust Cap
13	2600406	4	9.5L - 15 Tube
14	2600009	4	9.5L - 15 - 8 Ply Tire
15	2800612	4	Wheel, 15 x 8, 6 Bolt
16	2900010	24	Wheel Bolts
17	2900069	4	Hub, Complete w/Dust Cap
18	3000026	4	Wheel Spindles
19	4500262	2	Walking Beam Spindle (Not Shown)
20	4500552	2	Walking Beam Bushing

Serial No. Thru 2570

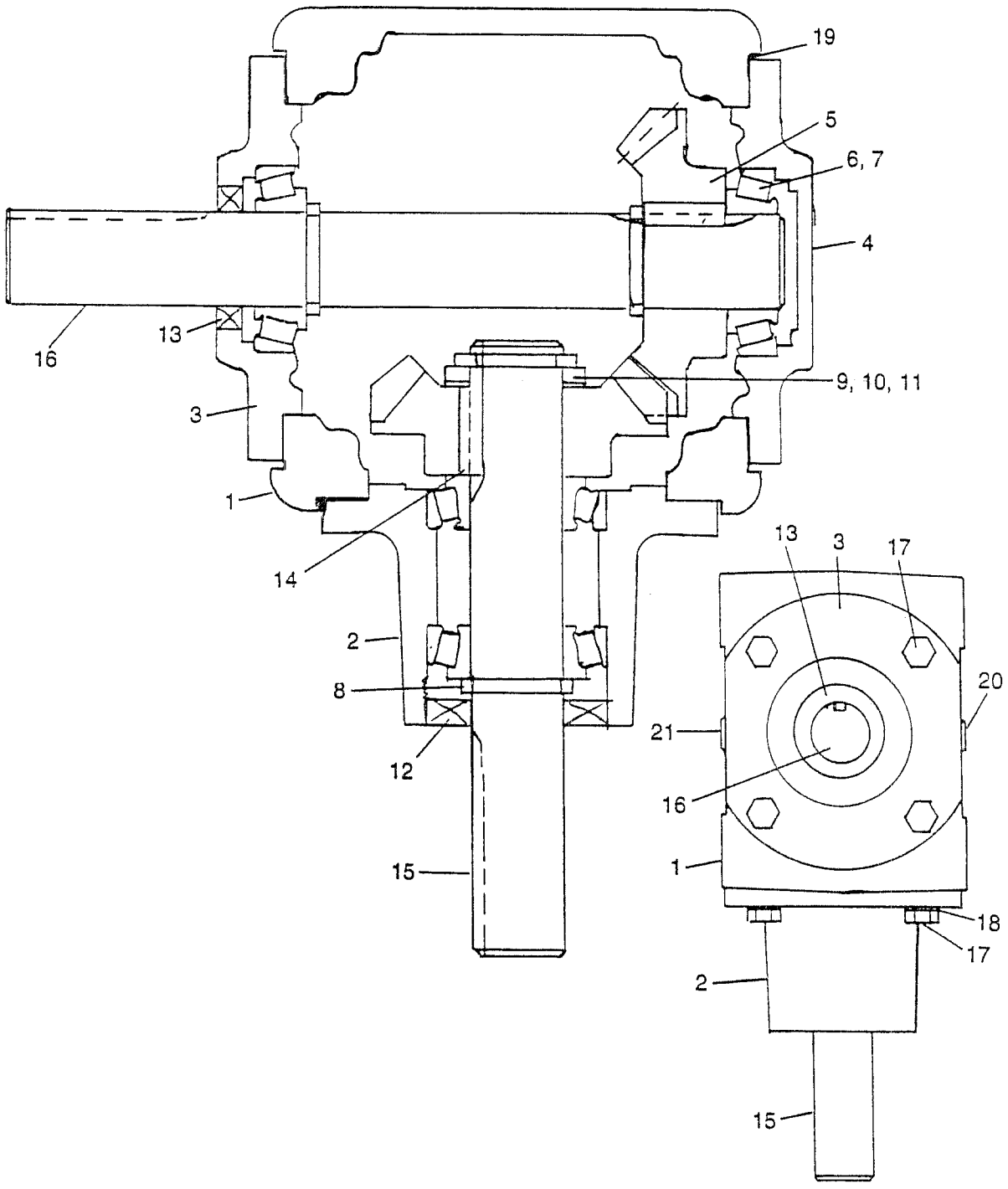




Serial No. Thru 2570

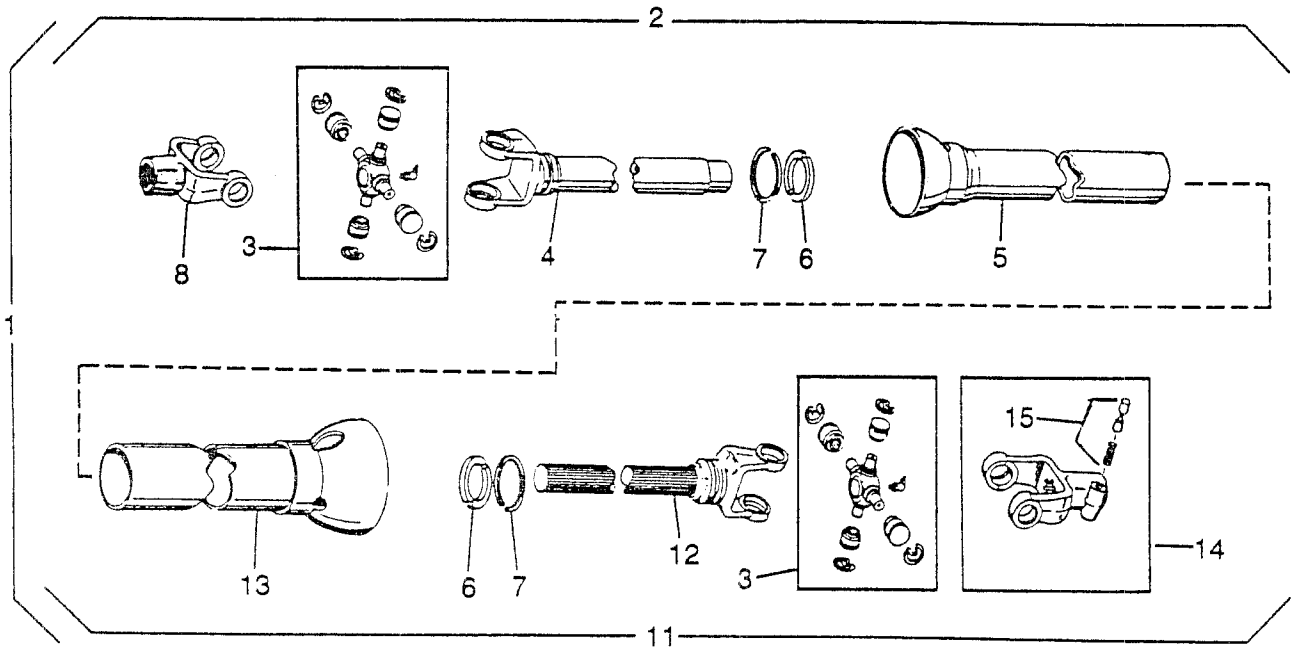
ITEM	PART NO.	QTY.	DESCRIPTION
1	3100300	1	Housing
2	3100301	12	5/16"x7/8" Bolt
3	3100302	1	Blank Cap
4	3100303	Var.	Gasket (.015)
5	3100304	Var.	Gasket (.005)
6	3100305	Var.	Gasket (.003)
7	3100306	1	I.D. Tag Cover
8	3100307	2	Key
9	3100308	1	Cap
10	3100023	4	Bearing Cup
11	3100024	4	Bearing Cone
12	3100309	1	Seal
13	3100180	1	Shaft
14	3100310	1	Retaining Ring
15	3100311	1	Thrust Collar
16	3100312	2	Gear
17	3100183	1	Lock Nut
18	3100313	1	Seal
19	3100314	1	Shaft
20	3100315	1	Cap
21	3100316	1	Washer
22	3100317	1	Spacer
23	3100318	2	Pipe Plug (Solid)
24	3100081	1	Roll Pin
25	3100319	1	Pipe Plug (Vented)
26	3100320	1	I.D. Tag
27	3100321	1	Shaft (To Reverse Gear Box) Not Shown
28	3100166	1	Gear Box Complete - Curtis

Serial No. 2571 Thru



Serial No. 2571 Thru

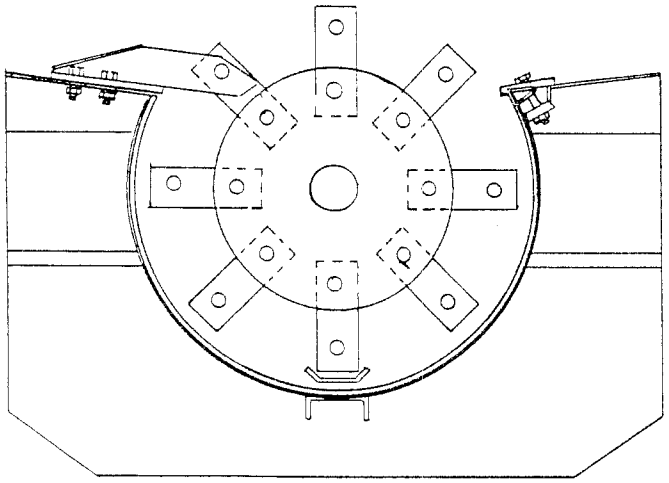
ITEM	PART NO.	QTY.	DESCRIPTION
1	3100322	1	Open Center Case
2	3100323	1	Quill 1.98 Dia. Seal
3	3100324	1	Open Cover
4	3100325	1	Closed Cover
5	3100326	2	19T Gear
6	3100024	4	Cone
7	3100023	4	Cup
8	3100327	3	Snap Ring
9	3100335	Var.	Shim .007 1809 .00
10	3100328	1	1" I.D.x1-1/2" O.D.x.130 Washer
11	3100329	1	Snap Ring
12	3100309	1	1"x1.98" Seal
13	3100313	1	1"x1-1/2" Seal
14	3100330	2	1/4"x1/4"x.93 Key
15	3100331	1	Pinion Shaft
16	3100332	1	Cross Shaft
17	3100301	12	5/16"x7/8" Bolt
18	3100333	12	5/16" Lock Washer
	3100336		Shim .020
19	3100337	Var.	Shim .007
	3100338		Shim .005
20	3100318	1	1/4" NPT Plug
21	3100319	1	1/4" NPT Vent
22	3100334	1	Shaft (To Reverse Gear Box) Not Shown
23	3100187	1	Gear Box Complete - Prairie Gear

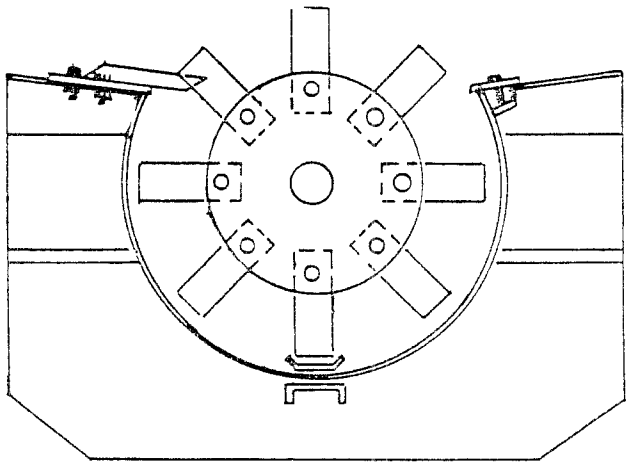


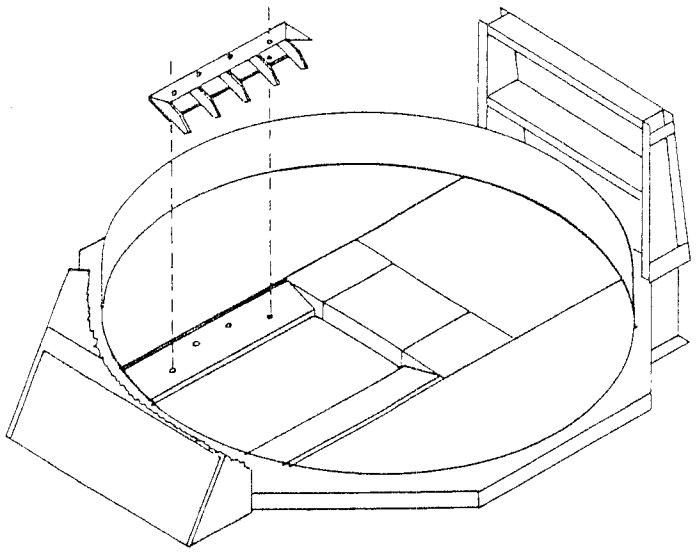
ITEM	PART NO.	QTY.	DESCRIPTION
1	3600067	1	L55 Universal Joint & Telescoping Shaft Complete
2	3600065	1	Joint & Tube Guard Machine 1/2 Complete
3	3600013	2	Repair Kit, L55
4	3600063	1	Yoke & Tube
5	3600062	1	Male Guard Tube Inner
6	3600092	2	Nylon Bearing
7	3600093	2	Bearing Retainer
8	3600012	1	1-3/4" Machine Yoke
11	3600066	1	Joint & Shaft Half w/Guard Tractor 1/2 Complete
11A	3600249	1	HD Tractor Half PTO 1-3/8" 6 Spline
12	3600061	1	Yoke & Shaft
13	3600060	1	Female Guard Tube Outer
14	3600016	1	O.D. Yoke Assembly 1-3/8" - 21 Spline
14A	3600064		O.D. Yoke Assembly 1-3/4" - 20 Spline (Not Shown)
15	3600094	1	Safe-T-Pin & Spring Kit
16	3600068		Joint & Shaft Half w/Guard Tractor 1/2" Complete w/1-3/4" - 20 Spline (Not Shown)
17	3600140		P.T.O. Complete L55 1-3/4 - 20 Spline (Not Shown)

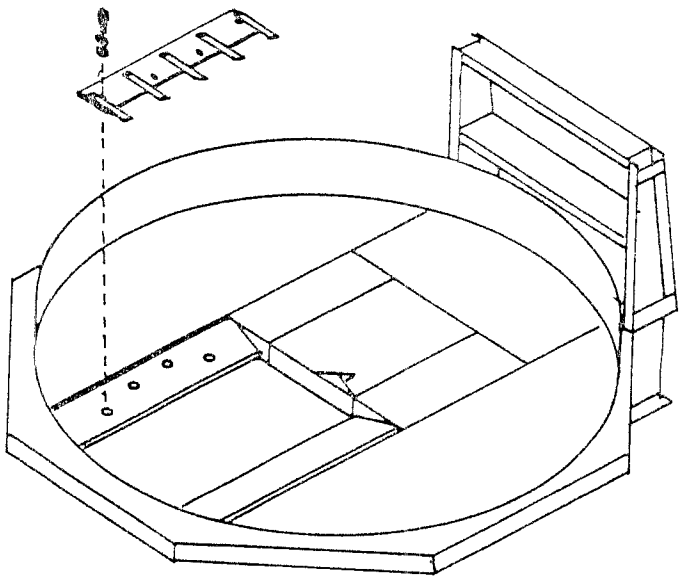
SLUGBUSTER OPERATION

The Slugbuster is a one-piece metal bar with steel fingers that protrude over the infeed side of the cylinder. Hammers pass between the "fingers" to create a slicing action that prevents slugs of materials from being drawn into the mill. The slicing action also acts as an initial grinding of long material before it passes through the screen.









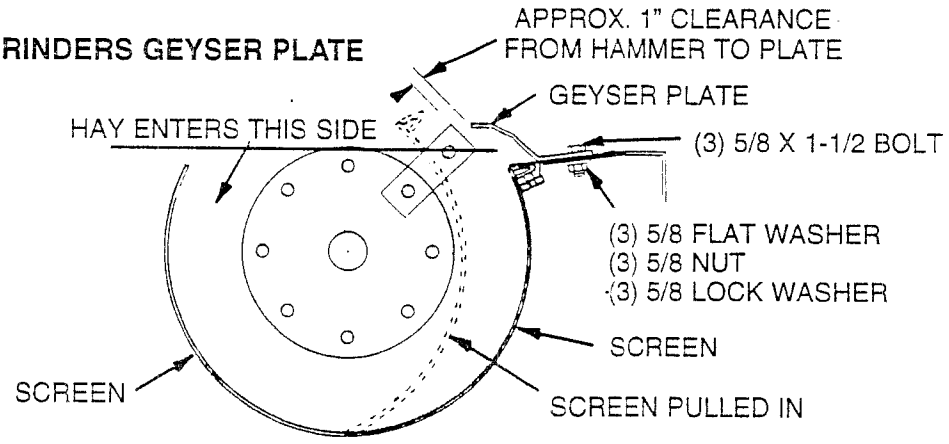
ITEM	PART NO.	QTY.	DESCRIPTION
1	4500528	1	Slugbuster 8912221 to 9412695
1A	4500528	1	Slug Buster 9412696 thru - Will Fit 8912221
2	4500532	1	H-1100 Slug Buster w/Hardware
3	4800010	4	5/8"x2" Bolt
4	5000003	4	5/8" Lock Washer
5	5000002	4	5/8" Flat Washer

70 OPTION - GEYSER PLATE

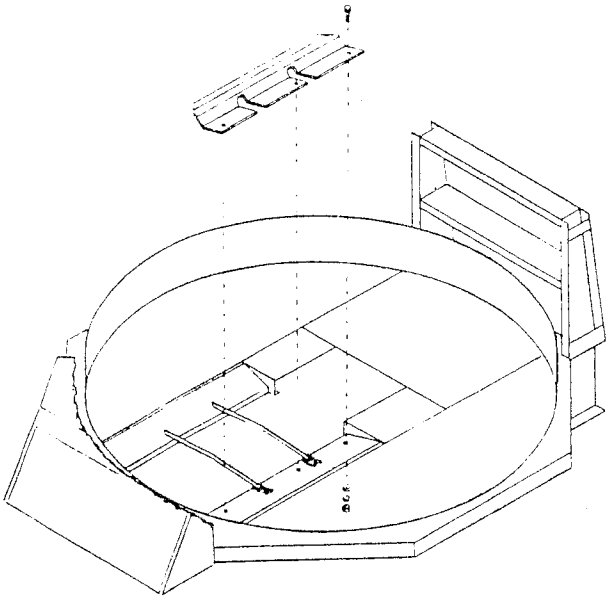
GEYSER PLATE

The purpose of the Geyser Plate is to prevent hay spillage. When the tub runs out of material to be ground, the hammer tends to throw material into the air. The Geyser Plate deflects this material preventing spillage.

HAYBUSTER TUB GRINDERS GEYSER PLATE



FRONT VIEW OF CYLINDER



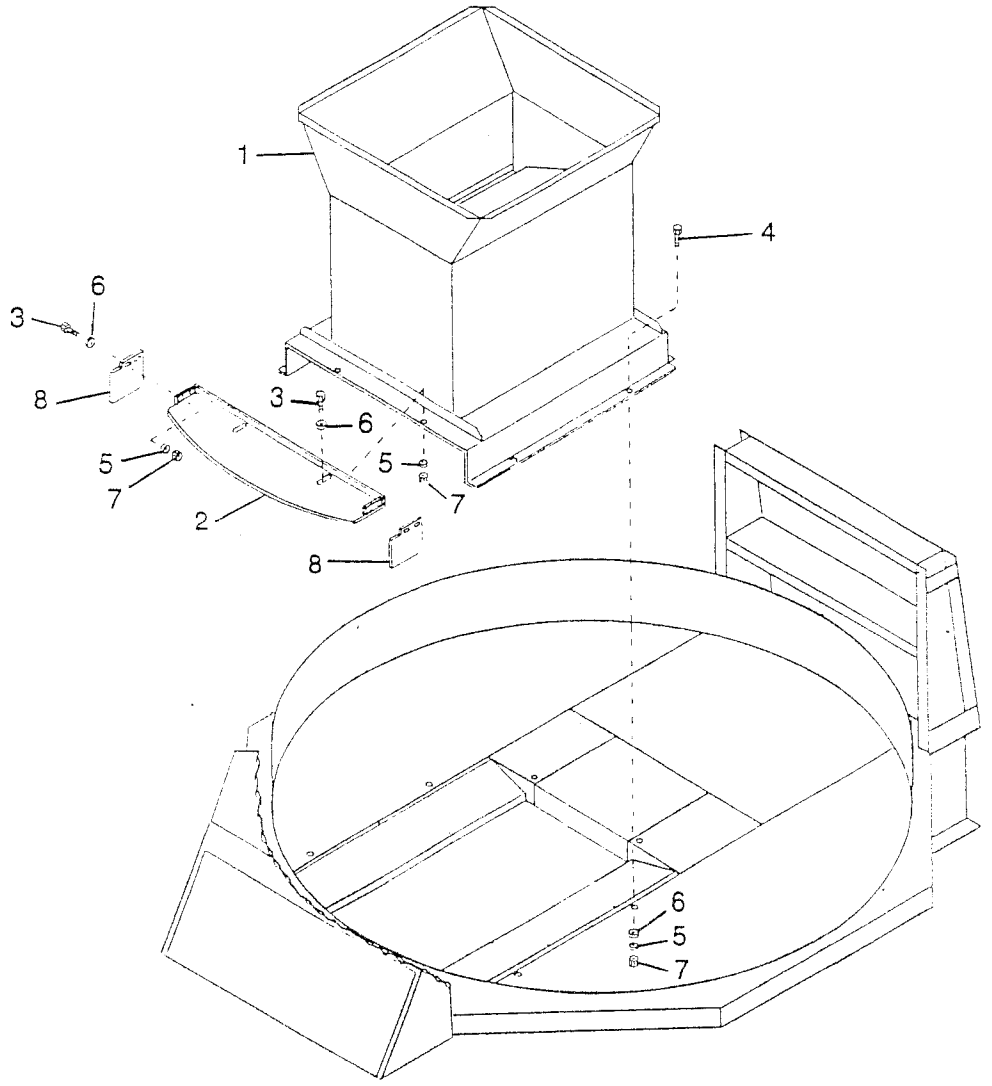
Locate Geyser Plate as shown with about 1" clearance to hammer tip.
Drill (3) 11/16" holes through Floor Plate.
Pull Screen in to install 5/8" nuts.
Relocate Screen.

H-1100 Plate is 45-1/2" Long.

ITEM	PART NO.	QTY.	DESCRIPTION
1	4500203	1	Geyser Plate
2	4800106	3	5/8"x1-1/2" Bolt
3	5000002	3	5/8" Flat Washer
4	5000003	3	5/8" Lock Washer
5	4900005	3	5/8" Nut
	4500612	1	Geyser Plate Kit

H-1100 GRAIN GRINDING HOPPER

The Feed Hopper Attachment is specially designed for grinding small grains when they are infed with an auger. It should not be used when grinding hay.

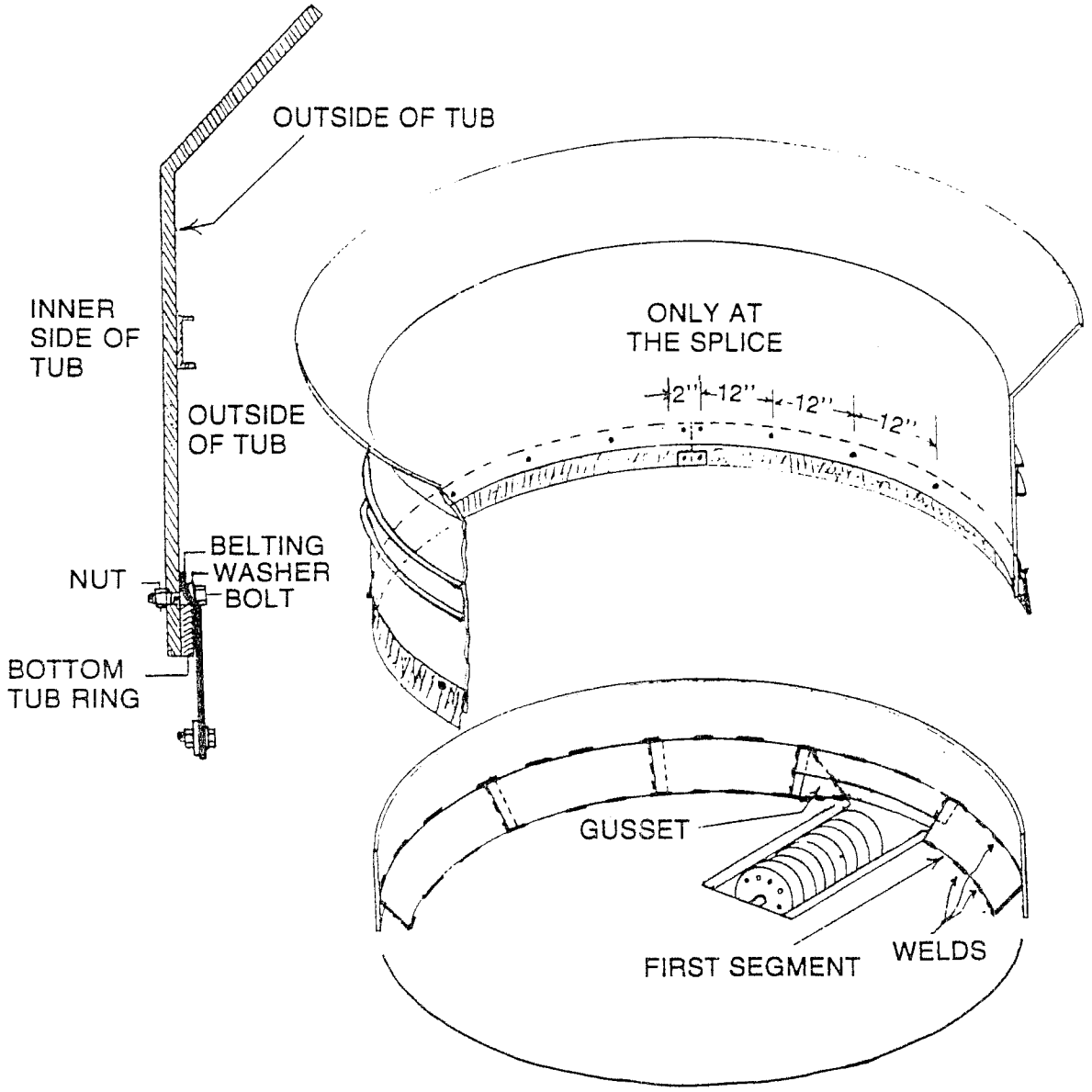


ITEM	PART NO.	QTY.	DESCRIPTION
1	4500114	1	Grain Hopper
2	4500115	1	Hopper Plate
3	4800003	6	3/8"x1" Bolts
4	4800098	6	3/8" x 1-1/4" Bolts
5	5000019	12	3/8" Lock Washer
6	5000001	12	3/8" Flat Washer
7	4900002	12	3/8" Nuts
8	4500261	2	Filler Plate
9	4500451	1	Grain Hopper Complete

72 OPTION - TUB SEAL KIT

TUB SEAL KIT

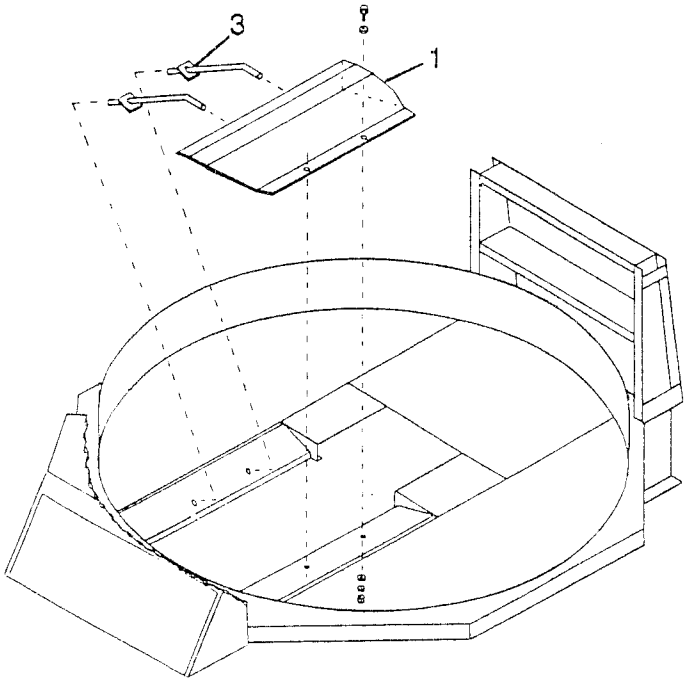
The optional tub seal kit is available through your Haybuster dealer. It is an efficient way to seal the tub while grinding ear corn, small grains and hay.

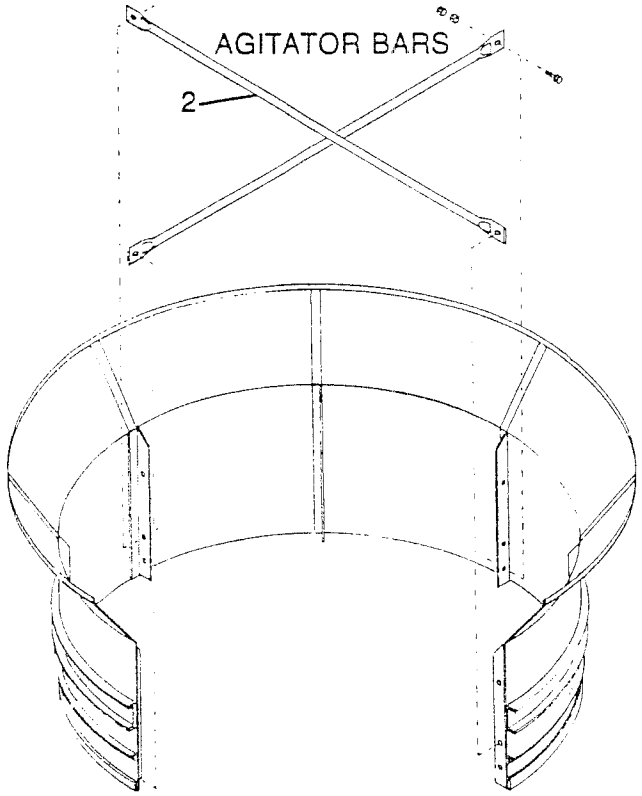


ITEM	PART NO.	QTY.	DESCRIPTION
1	4500116	1	6" Belting
2	4500120	1	Segmented Ring
3	4800098	30	3/8"x1-1/4" Bolt
4	5000001	30	3/8" Flat Washer
5	5000019	30	3/8" Lock Washer
6	4900002	30	3/8" Nut
7	4500410	1	Tub Seal Ring
8	4500274	1	Tub Seal Kit

EAR CORN ATTACHMENT

The Ear Corn Attachment is designed specially for grinding ear corn. It should not be used when grinding hay, other bulk materials or small grains. This attachment fits directly over the rotor and bolts to the screen hold down side of the rotor. An agitator bar inside the tub moves ear corn to the rotor.

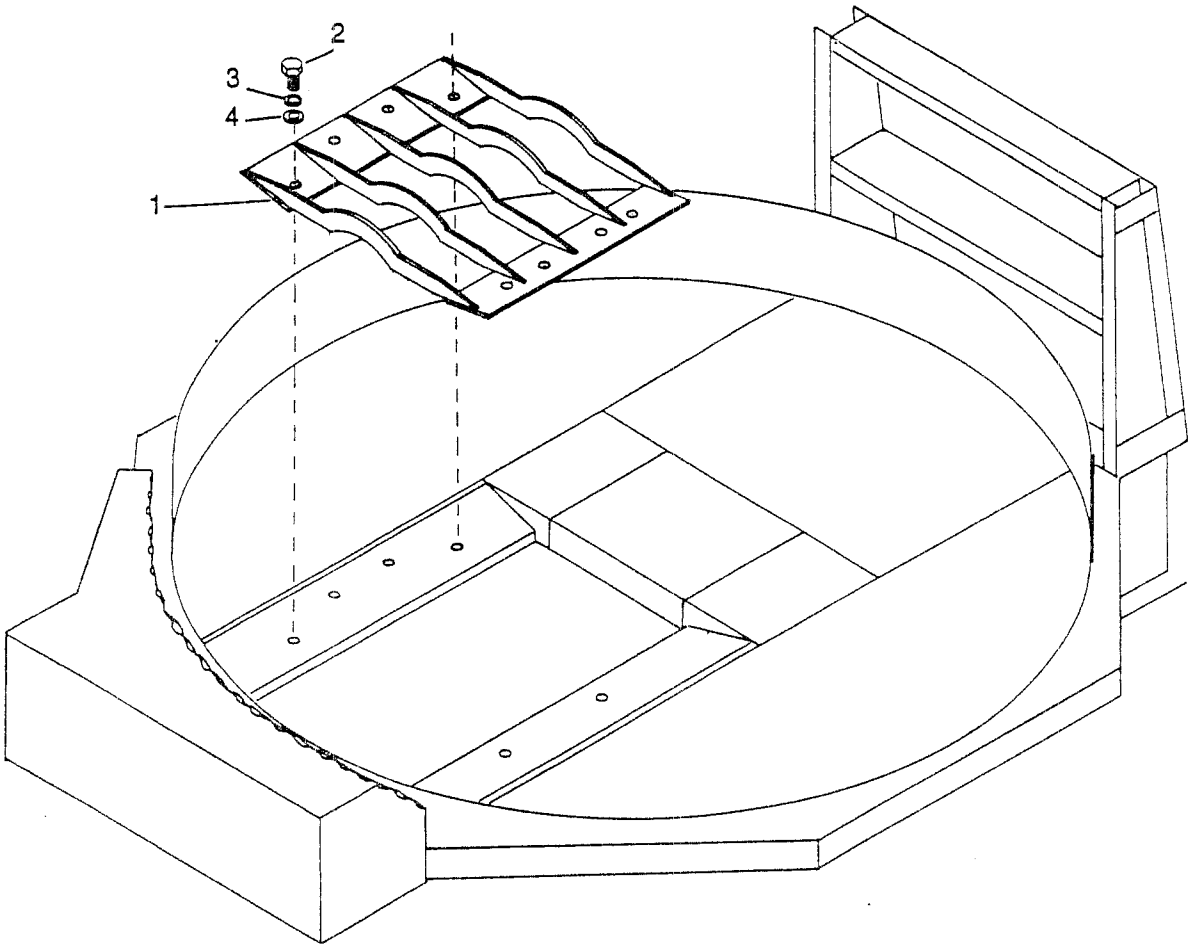




ITEM	PART NO.	QTY.	DESCRIPTION
1	4500113	1	Cylinder Cover
2	4500128	2	Cross Pipe
3	4500260	2	Cylinder Cover Anchor Rods
4	4500121	1	Ear Corn Kit Complete

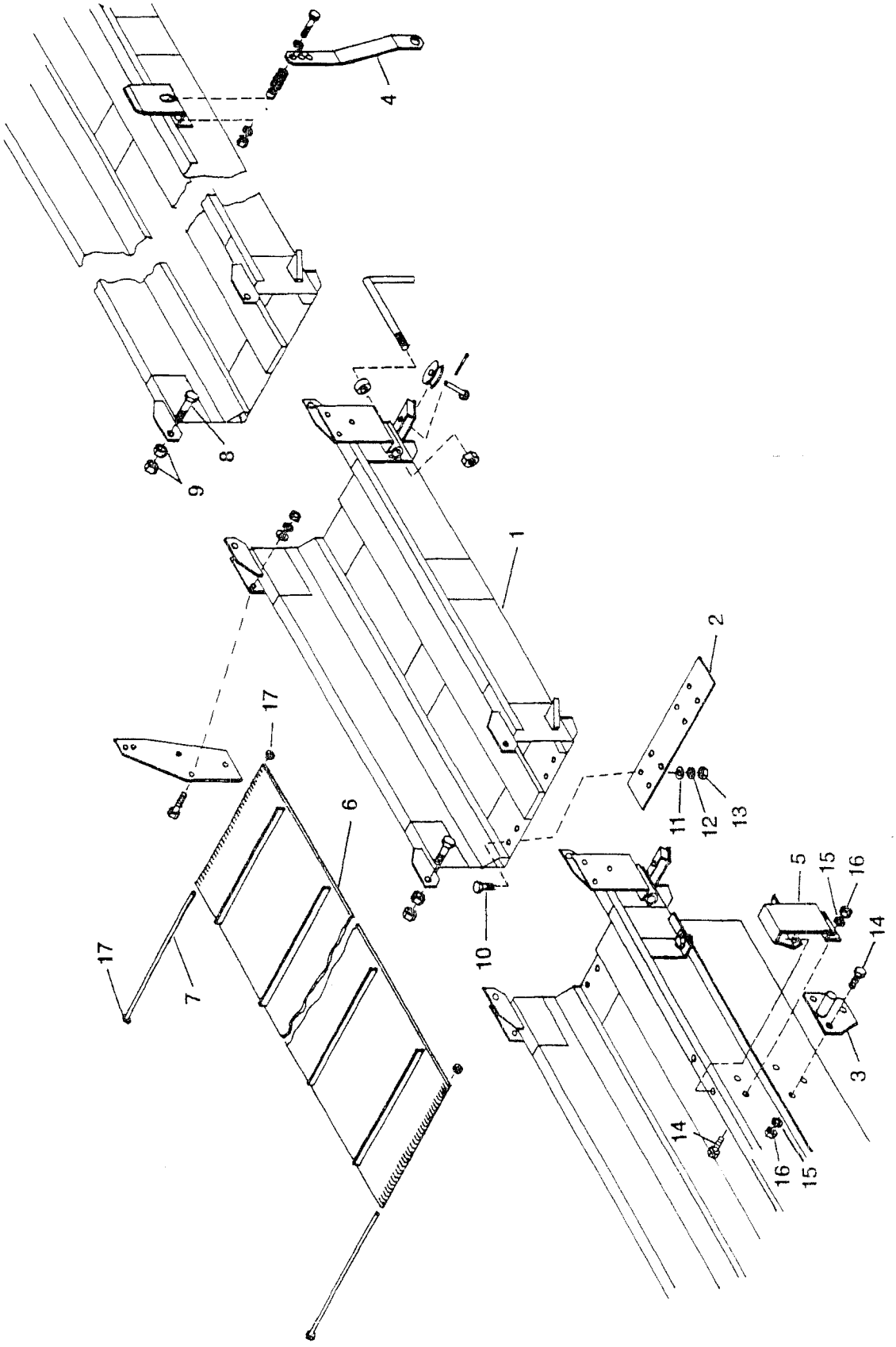
NOTE: If ordering replacement parts, check Cylinder Cover. Do Anchor Rods mount above or below cover plate?

74 OPTION - PAPER GRATE



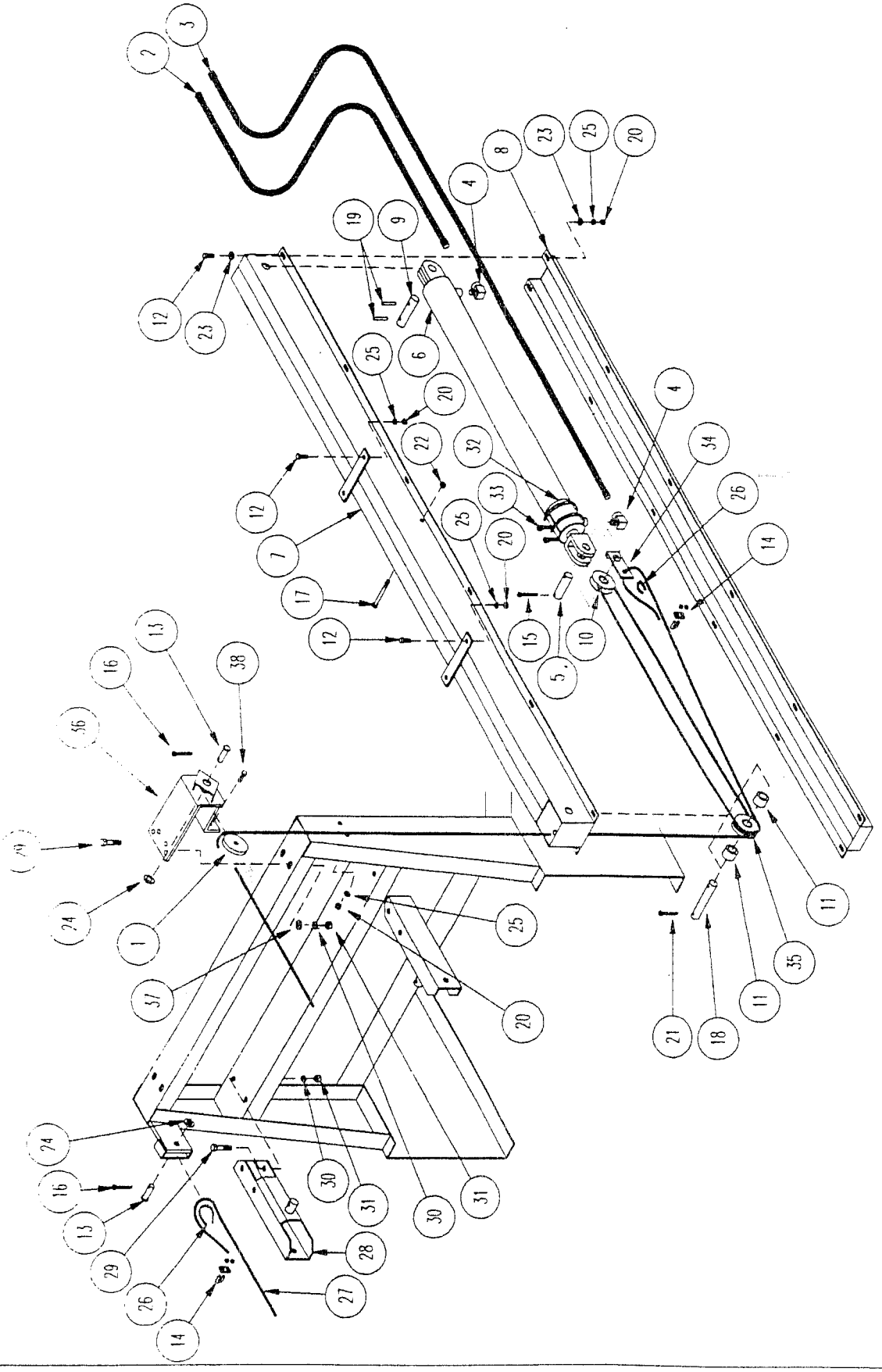
ITEM	PART NO.	QTY.	DESCRIPTION
1	4500270	1	Paper Grate H-1100
2	4800010	6	5/8"x2" Bolt
3	5000003	6	5/8" Lock Washer
4	5000002	6	5/8" Flat Washer
	4500606	1	Paper Grate Kit

76 OPTION - 4 FT. CONVEYOR EXTENSION



ITEM	PART NO.	QTY.	DESCRIPTION
1	4500396	1	4' Conveyor Extension
2	4500397	1	Conveyor Connector Plate
3	4500398	2	Conveyor Lock
4	4500539	2	Transport Lock
5	4500540	2	Conveyor Support
6	1700039	1	Belt 8'x18"
7	1700052	2	Lacing Cable 1/8" x 18"
8	4800010	2	5/8" x 2" Bolt
9	4900005	4	5/8" Nut
10	4800018	8	1/2" x 1-1/4" Bolt
11	5000004	8	1/2" Flat Washer
12	5000006	8	1/2" Lock Washer
13	4900001	8	1/2" Nut
14	4800003	14	3/8" x 1" Bolt
15	5000019	14	3/8" Lock Washer
16	4900002	14	3/8" Nut
17	4900072	4	#10 Hex Nut
18	5800317	1	1/4" x 46' Cable

78 HYDRAULIC LIFT CONVEYOR



ITEM	PART NO.	QTY.	DESCRIPTION
1	1400082	1	Cable Sheave w/Bearings
2	3700026	1	Hose / Hyd / 1/2x84
3	3700300	1	Hose / Hyd / 1/2x120 / SW-SO
4	3800008	2	1/2 / 90 Deg Street Elbow
5	4100087	1	Pin / Cyl / Std / 1x3-1/2
6	4100111	1	Cylinder / 3x36 / Hyd
7	4500675	1	Brkt / Hyd Lift / Cnvyr
8	4500686	1	Cover / Hyd Lift / Cnvyr
9	4500687	1	Pin / Cyl / Cnvyr Lift / Hyd
10	4500858	2	Sheeve / Cable / Hyd Lift
11	4500743	2	Spcer / Cnvyr Lift / Hyd
12	4800003	16	Bolt / Hex / 3/8x1
13	4800026	2	Pin / Sleeve / 5/8x2 / w/Key
14	4800027	4	Clamp / Cable / 1/4
15	4800120	2	Pin / Cotter / 3/16x1-3/4
16	4800123	2	Key / Cotter / 1/8-1-1/2
17	4800152	1	Bolt / Hex / 3/8x4-1/2
18	4500745	1	Pin / Sheeve/Rear / Hyd Lift
19	4800221	2	Pin / Roller / 1/4x2
20	4900002	18	Nut / Hex / 3/8
21	4800103	2	Pin / Cotter / 1/4x2
22	4900023	1	Nut / Top Lock / 3/8
23	5000001	24	Washer / Flat / 3/8
24	5000002	2	Washer / Flat / 5/8
25	5000019	18	Washer / Lock / 3/8
26	7500121	2	Cable / Timble / 1/4
27	5800309	1	Cable / 1/4x32'
28	4500545	2	Brkt / Support / Lower
29	4800007	6	Bolt / Hex / 1/2x2
30	5000006	6	Washer / Lock / 1/2
31	4900001	6	Nut / Hex / 1/2
32	4500748	1	Wrap / Cyl / Lift / Hyd
33	7500616	2	Strap / Tie / Plstc / 5/16x14
34	4500859	1	Bracket / Mount / Cable
35	4500857	1	Sheeve / Cable / 2
36	4500744	1	Bracket / Cable / Lift / Hyd Conveyor
37	5000004	2	Washer / Flat / 1/2
38	4800034	2	Bolt / Hex / 3/8x1-1/2