



DURATECH

H-1000 Tub Grinder PARTS BOOK

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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 replace 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

H1000

Weight.....	5,100 lbs.
Width.....	10 feet
Height	8 feet, 6 inches
Length	21 feet with conveyor
Wheels.....	Drop center rims, Timken bearings
Bearings.....	All standard size, grease sealed
Recommended Tire Size	9.5 x 14 (2)
Recommended Power	80 to 175
Recommended Cylinder Speed.....	2000 rpm
Capacity.....	Hay - up to 35 tons/hr. Ear corn - up to 750 bu./hr. Grain and shelled corn - up to 3000 bu./hr. Will grind big round bale
HAMMERMILL - Std. No. of Hammers.....	64
Hammer Size	2-2/1 x 7-3/4 x 3/8
CYLINDER-Shaft diameter.....	3 in. stress proof steel
Cylinder Size.....	44-1/2 in. long, 26 in. diameter hammers extended
Screen Area.....	2,403 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.....	20 ft. folding rubber belt conveyor w/slats 18" wide
Tub Size.....	96" I.D.
Tub Depth	54 inches
Tub Drive	Electro-Hydraulic

AVAILABLE OPTIONS FOR HAYBUSTER TUB GRINDER MODEL H1000:

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-1000

1. Remove the two retaining bolts from mounts at rear of machine. Position conveyor in mounts and secure with retaining bolts.
 2. Loosen allen screws in sprocket on gear box. Align sprocket and square key with sprocket on discharge conveyor shaft. Tighten allen screws and install No. 50 drive chain.
 3. H-1000: Thread cable through sheave and clamp cable on machine. Unfold and raise conveyor into operating position .
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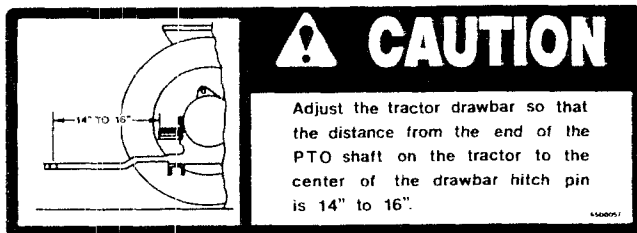
6 BEFORE OPERATING

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-1000 80 to 175 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 6 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 or 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 78.

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

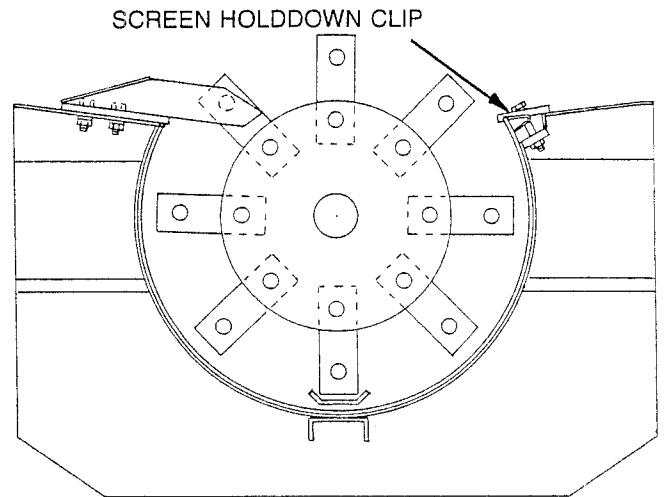
CAUTION: Keep all foreign objects out of the tub and away from the mill. Foreign objects may result in personal injury or damage to the machine.

8 BEFORE OPERATING

INSTALLING A SCREEN

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

1. Loosen and remove bolts on the screen hold-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 holddown clip and bolts. Tighten all bolts securely.



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.

2100

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 tractor's 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.

10 OPERATION

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 when 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: 12 gallons. Change hydraulic 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.

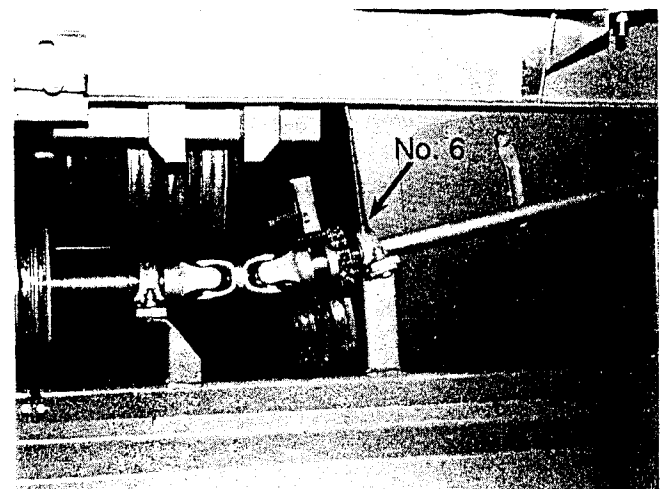
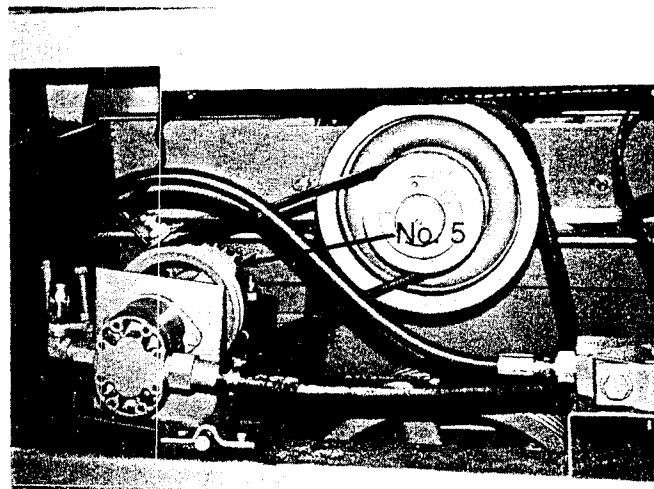
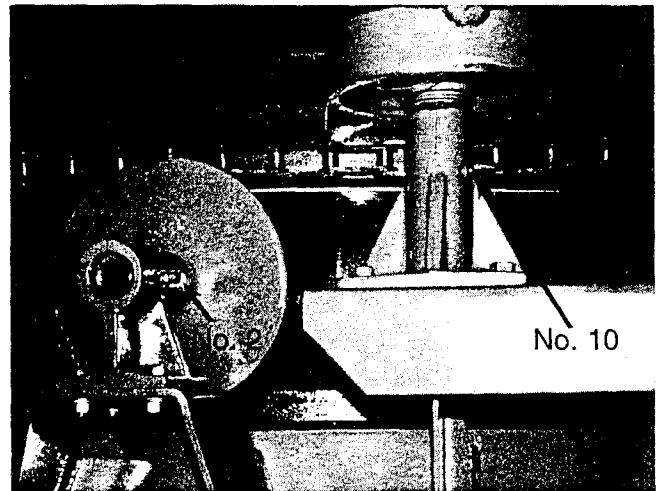
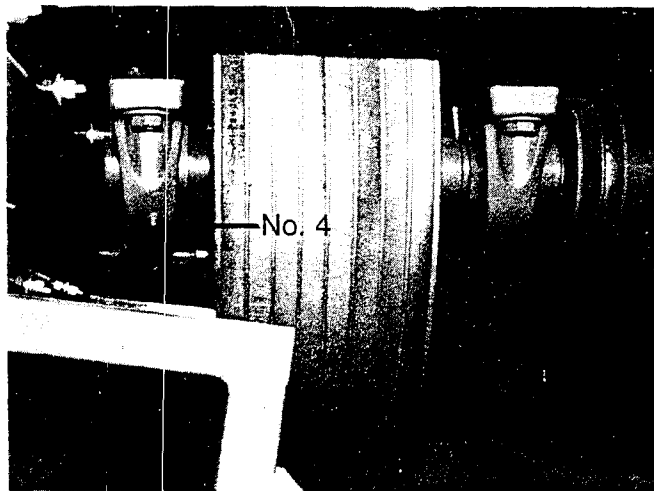
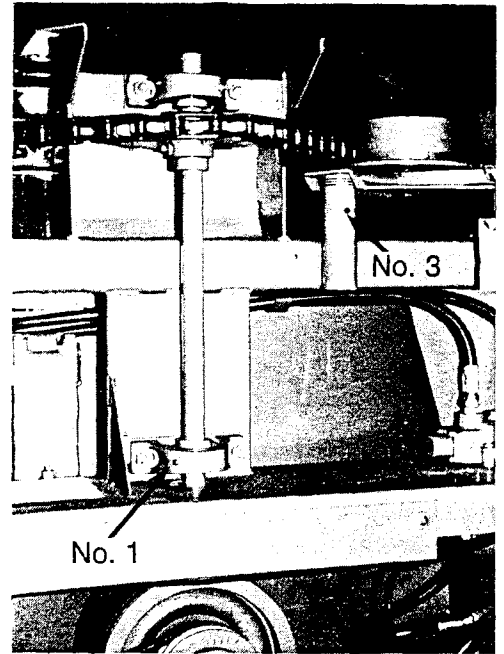
The following chart is a general guide for relubrication. Certain conditions may require a change of lubrication periods as dictated by experience.

LUBRICATION CHART

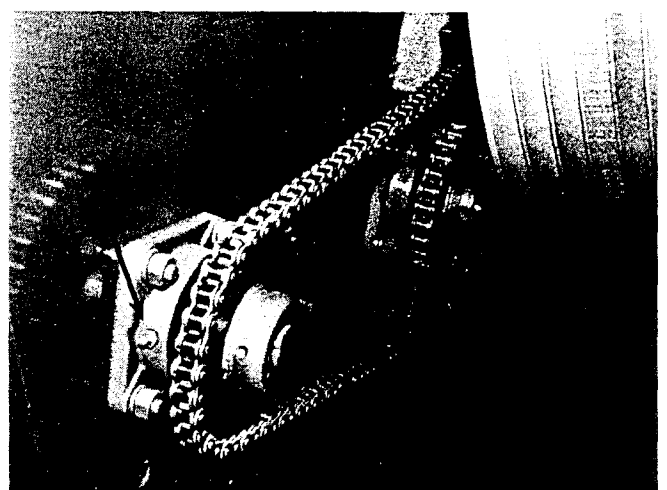
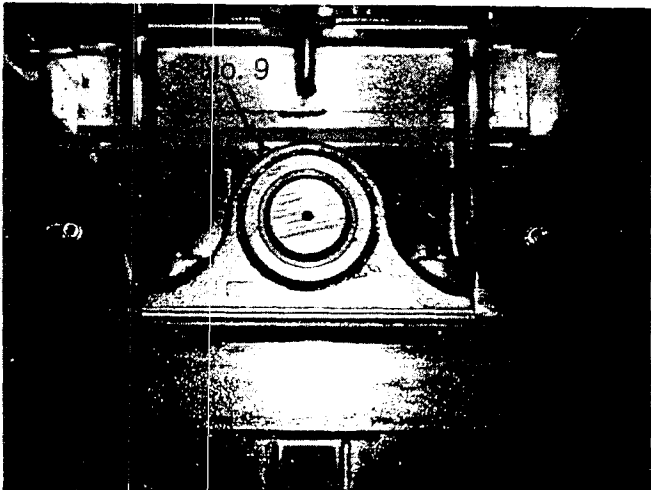
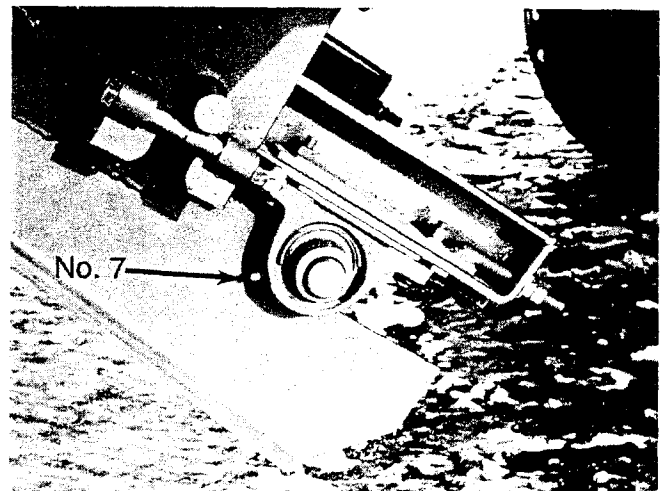
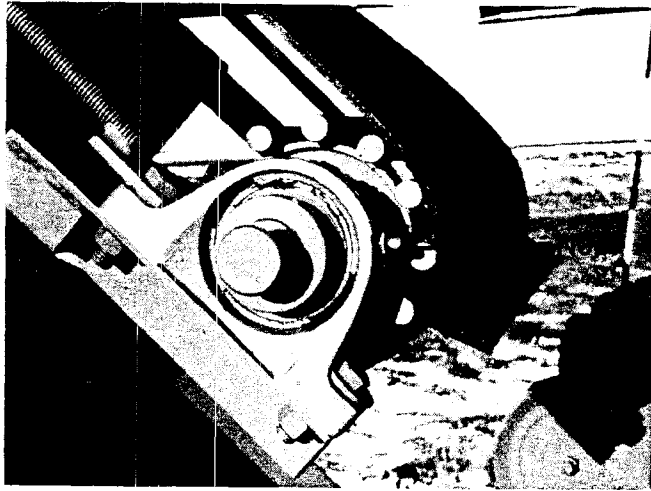
Ref. No.	Location	Number of Zerks	Frequency	
1	Tub Drive Shaft	2	40 hrs.	
2	Tub Rollers Cast	4	5 hrs.	
3	Tub Chain Idler Cast	1	5 hrs.	
4	Input Shaft	2	10 hrs.	*
5	Pump Shaft	2	40 hrs.	*
6	Discharge Conveyor Drive Shaft	4	40 hrs.	*
7	Discharge Conveyor	4	40 hrs.	*
8	Belly Pan Augers	2	10 hrs.	*
9	Cylinder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



14 LUBRICATION



**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 hammermill failure.

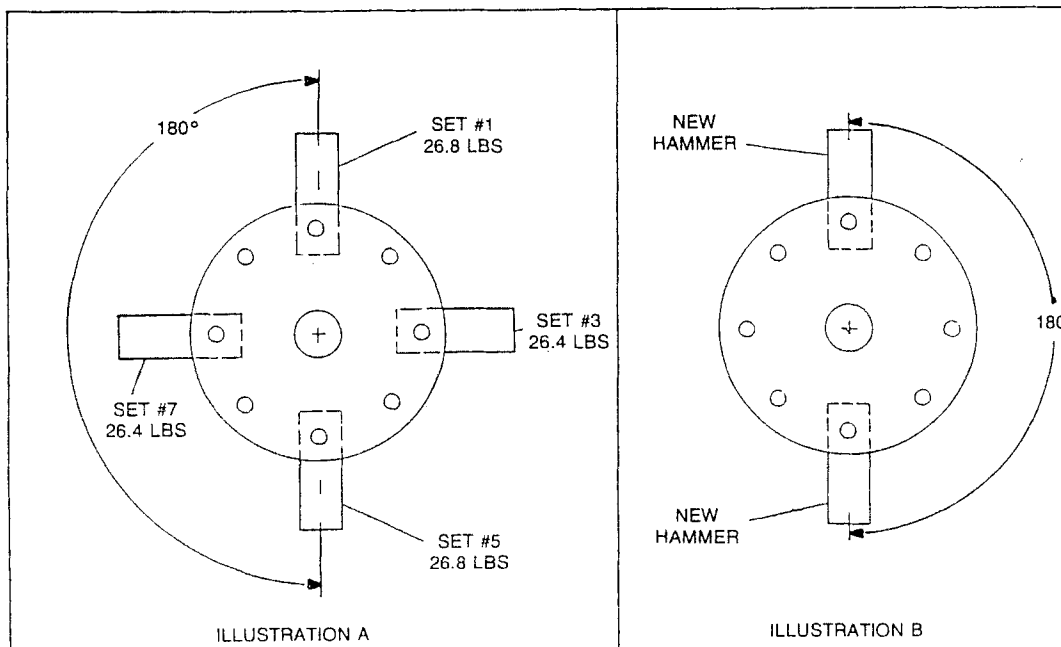
Keep all foreign objects out of the tub and away from the mill. Foreign objects may result in personal injury or cause severe damage to hammers, screens, rods, and other parts which will cause hammermill failure.

When installing or changing hammers, be sure to follow directions on the installation spacers diagram carefully. Misplacement could cause excessive vibration. We recommend that ham-

mers 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 A). When replacing a worn or broken hammer with a new hammer always install a second new hammer 180° away from the first (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.



16 MAINTENANCE

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 corner. 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!

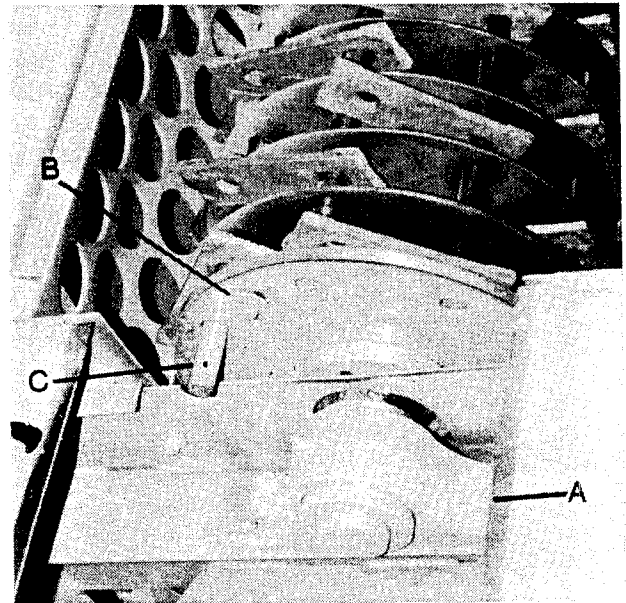
HAMMER RODS: Rods can be turned end for end exposing a new surface are for wear. This will extend service life although hammer rods must be considered expendable.

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: Discharge conveyor upper roller is 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 upper roller. Due to the discharge 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: Discharge conveyor drive roller is 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.

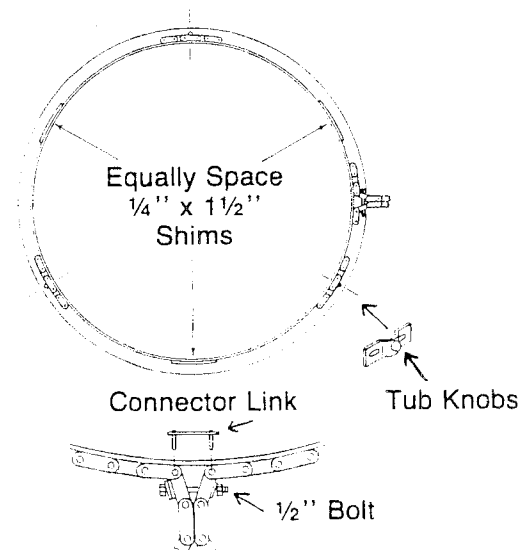
Be sure to tighten bolts after correction is made.

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 rap 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.



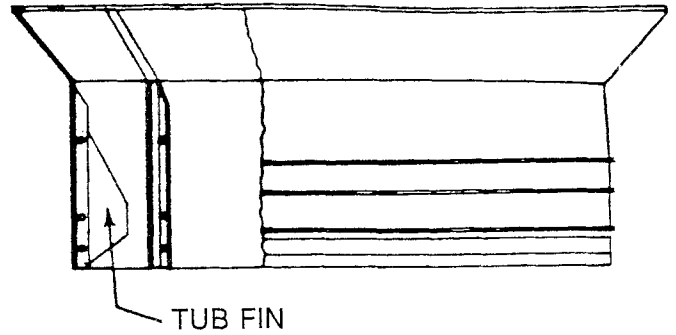
Tire Pressure: The proper tire pressure is 50 psi.

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

18 MAINTENANCE

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.

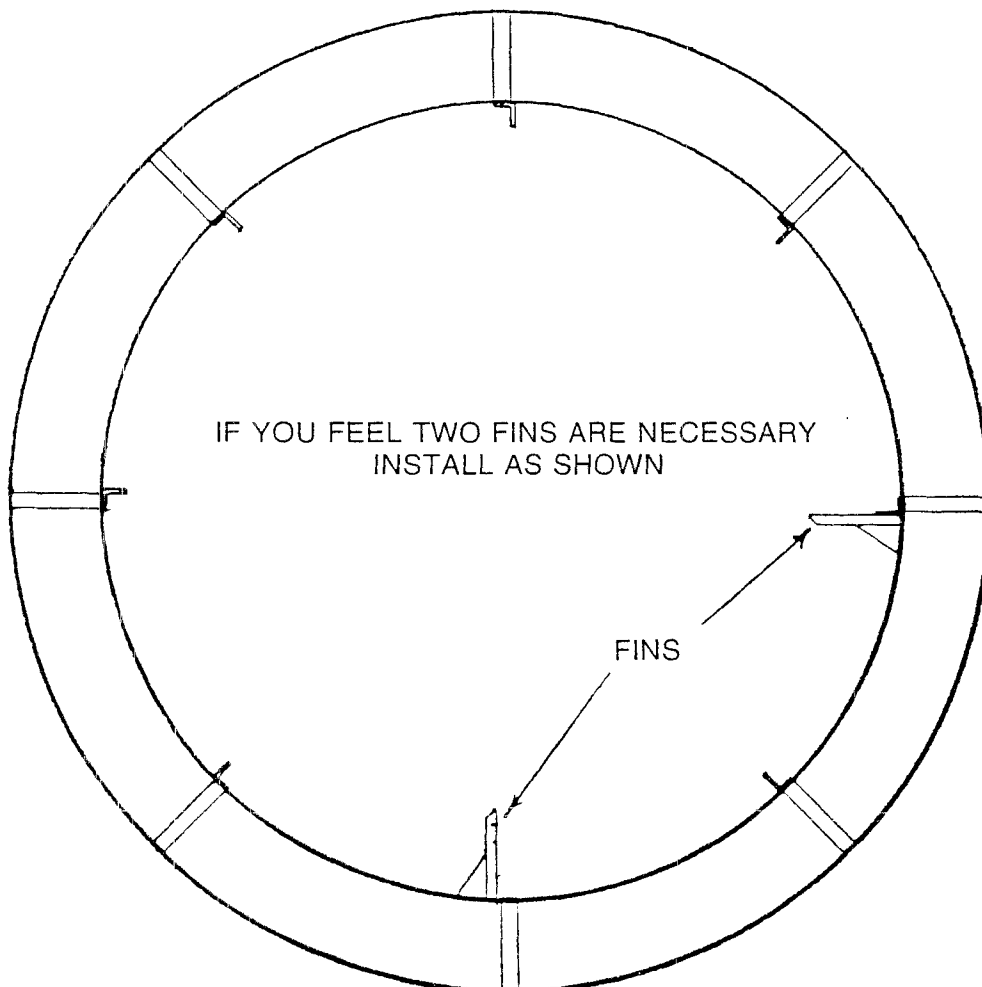


TUB

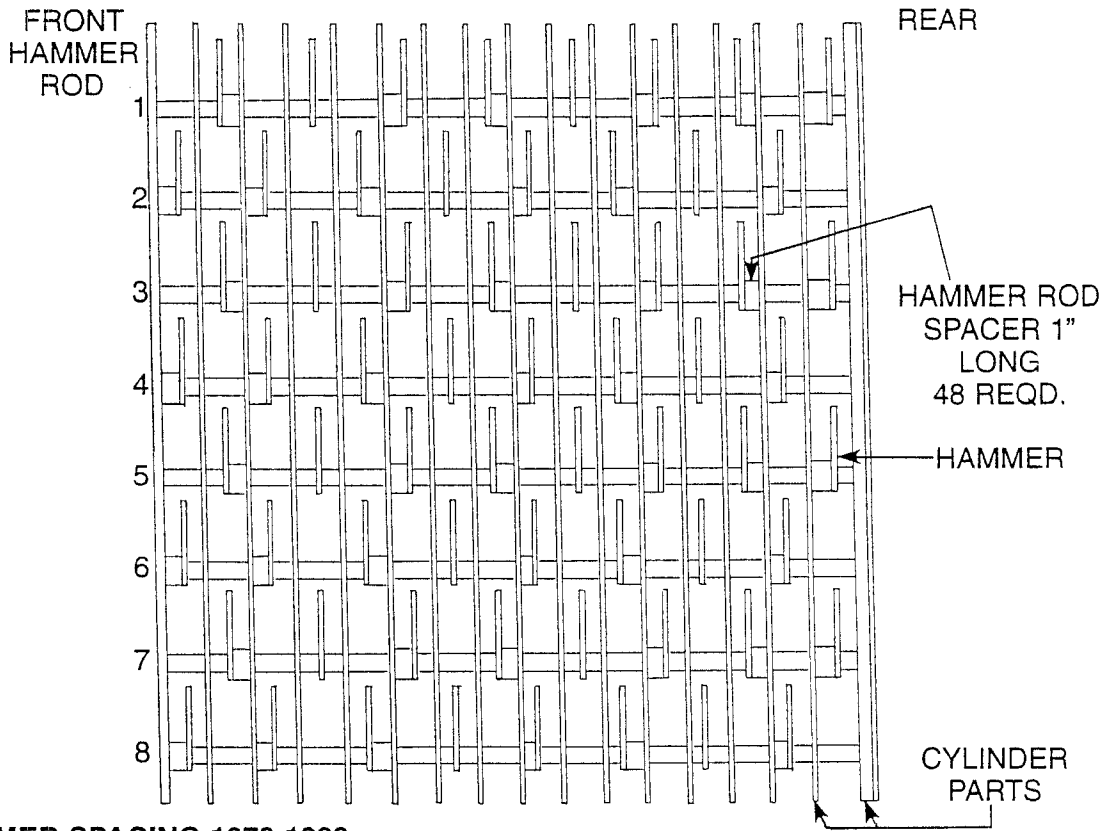
Two tub fins are furnished with the grinder.

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.

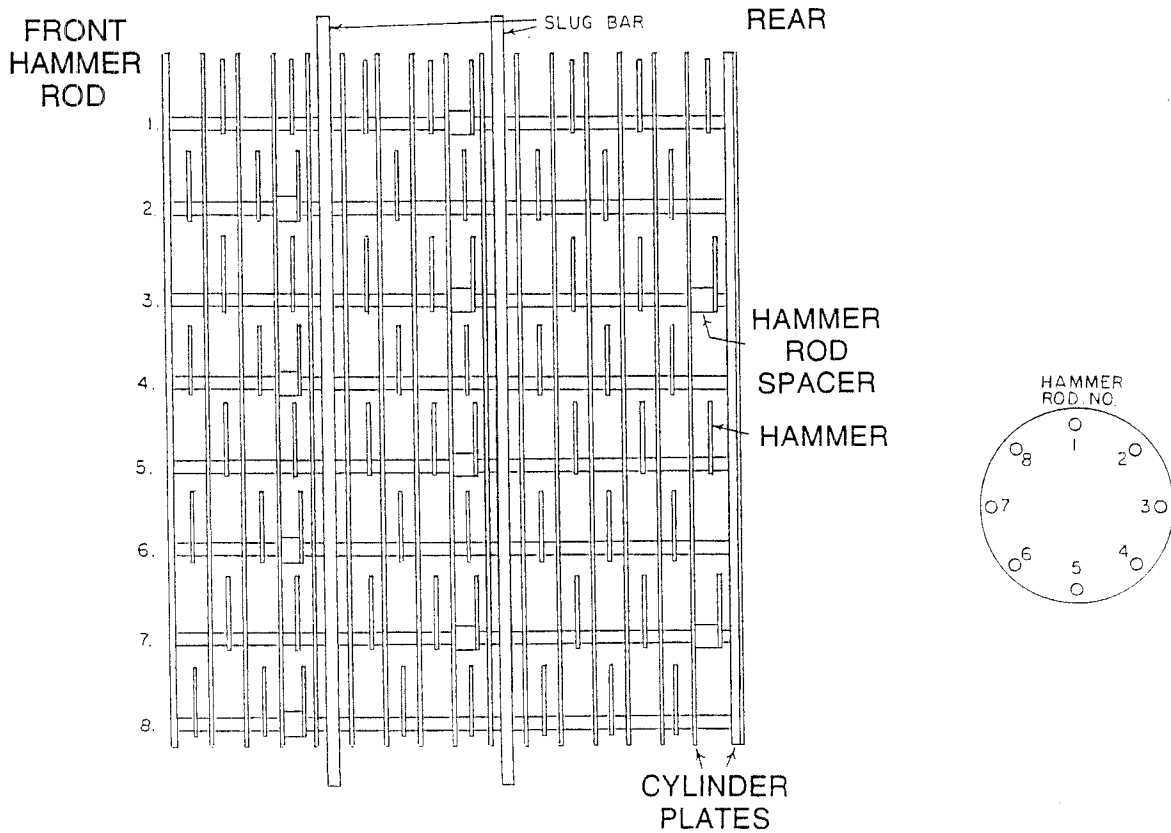
Two fins may be used for small round or square bales.



H-1000 HAMMER SPACING 1989 thru



H-1000 HAMMER SPACING 1978-1988

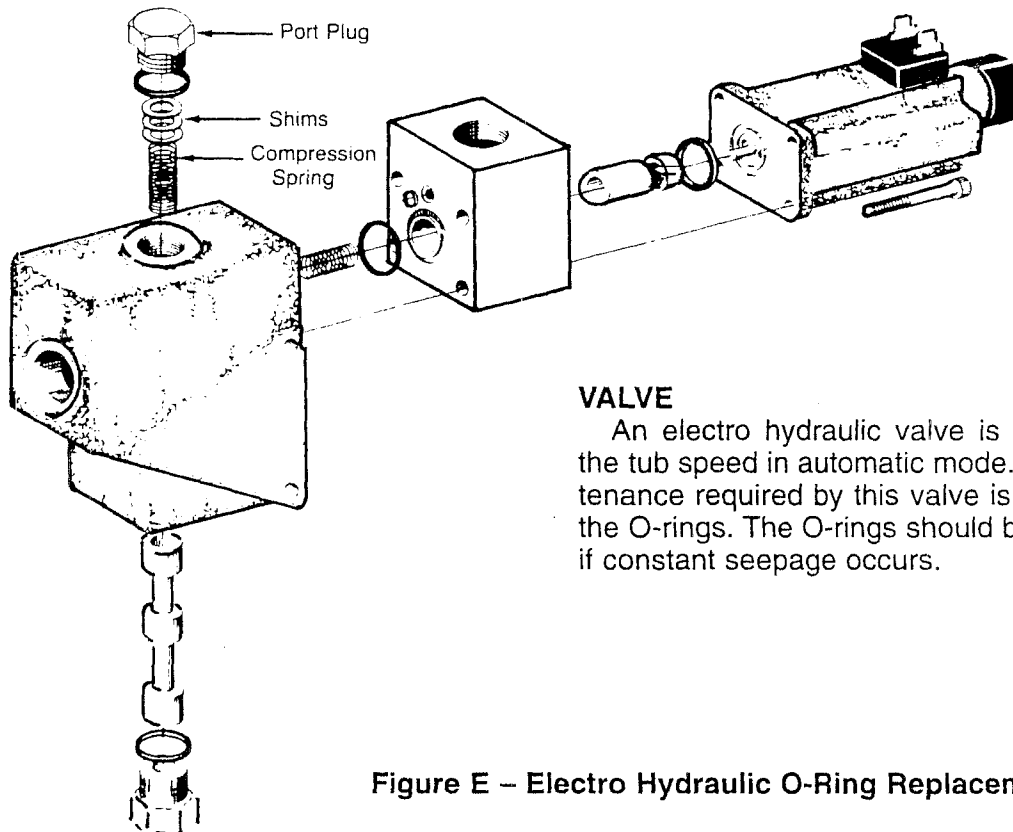


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MAINTENANCE INSTRUCTIONS

VALVE

Figure E below shows the O-ring replacement sequence. There may be some shims between the compression spring and the Port Plug (Ref. 1.) Do not add or subtract shims from this assembly.



VALVE

An electro hydraulic valve is used to control the tub speed in automatic mode. The only maintenance required by this valve is replacement of the O-rings. The O-rings should be changed only if constant seepage occurs.

Figure E – Electro Hydraulic O-Ring Replacement Sequence

HYDRAULIC SYSTEM

Follow Operator's Manual instructions for changing hydraulic oil and filter. Contamination

can cause the electro hydraulic valve to stick. Carefully clean all connections before replacing hoses or working on system.

ELECTRICAL CONNECTIONS

Periodically check electrical hookups for loose connections and tighten when needed. Check wiring for frayed spots or signs of being rubbed by moving parts.

switch is turned to ON, first try replacing fuse, then proceed to trouble shooting section.

FUSE

The Automatic Governor system is protected by a 34-amp AGC fuse located on rear of control box. If no lights come on when basic unit ignition

WARNING LIGHTS

The lights on the control box have replaceable bulbs inside red and amber lenses. To replace the bulb, proceed as follows:

1. Unscrew light from control box.
2. Pull old bulb out of lens.
3. Install new bulb into lens.
4. Screw light back into place.

Problem	Cause	Remedy
1. No grinding capacity	<ol style="list-style-type: none"> 1. Screen plugged 2. Badly worn screens and/or hammers 3. Material too light or fluffy 	<ol style="list-style-type: none"> 1. Clean holes in screen 2. Replace or turn worn parts 3. Mix with heavier material
2. Tub slows down or turns slowly	<ol style="list-style-type: none"> 1. Hydraulic speed control valve closed 2. Low hydraulic pressure 3. Governor not adjusted properly 	<ol style="list-style-type: none"> 1. Open valve 2. Tighten hydraulic pump drive belt 3. See (Governor adjustment)
3. Excessive vibration	<ol style="list-style-type: none"> 1. Broken hammer 2. Defective cylinder bearing 3. Misaligned or worn PTO 4. Wire or foreign material wrapped in cylinder 	<ol style="list-style-type: none"> 1. See (Hammer replacement) 2. Replace bearing 3. Replace worn part or complete PTO 4. Remove material
4. Engine loses excessive RPM's before tub stops	<ol style="list-style-type: none"> 1. Governor not adjusted properly 	<ol style="list-style-type: none"> 1. See (Governor adjustment)
5. Cylinder slugs	<ol style="list-style-type: none"> 1. Slugbuster removed 	<ol style="list-style-type: none"> 1. Replace slugbuster
6. If tub runs with control box switch off. Disconnect wires at valve.		
a. If tub stops	<ol style="list-style-type: none"> 1. Control box is out of adjustment 2. Control box is faulty 	<ol style="list-style-type: none"> 1. Readjust Control Box 2. Replace control box
b. If tub keeps turning	<ol style="list-style-type: none"> 1. Valve override screw is adjusted in too far 2. Valve is faulty 	<ol style="list-style-type: none"> 1. Readjust override screw 2. Replace valve
7. If tub stalls	<ol style="list-style-type: none"> 1. Pressure relief valve in control valve set to low 2. Tub overloaded due to wet, tough grinding material 3. Too much material in tub 4. Tub binding 	<ol style="list-style-type: none"> 1. Readjust to 2,000 PSI max. 2. Reduce amount of material in tub 3. Reduce amount of material in tub 4. Remove material causing problem
8. If oil overheats	<ol style="list-style-type: none"> 1. Pressure relief valve in control valve set to low 2. Tub overloaded 3. Worn pump, control valve, hyd. motors 	<ol style="list-style-type: none"> 1. Readjust to 2,000 PSI max. 2. Reduce amount of material in tub 3. Service hyd. components as necessary

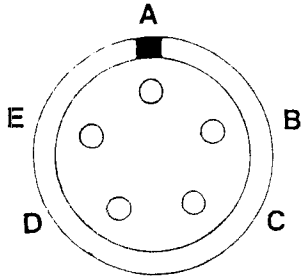
22 TROUBLE SHOOTING

TROUBLE SHOOTING INSTRUCTIONS

This guide is intended to help you eliminate trouble with your Electronic Governor System. If the problem remains after following these trouble shooting steps, follow the directions under "Manual Override", and see your local dealer as soon as possible.

WIRING CONNECTIONS

Certain instructions will refer to one or more wiring harness pins for voltage or resistance checks. To find the pins, remove the harness connector from the back of the control box. The drawing below identified the pin letters called out, the color of wire to each pin and each wire's connection and purpose.



- A – 13 volts DC, ignition
- B – Ground
- C – Digital sensor signal*
- D – (+) to valve
- E – (-) to valve

1. **To Check Sensor:** Disconnect wiring harness at control box. Locate pin B and C. With voltmeter set on A.C. place one lead on pin B and the other on pin C. Run Grinder at full RPM (2000 RPM at cylinder shaft. Voltmeter reading should be at least 2 volts A.C. A lower reading indicates an incorrect gap setting, it should be about 3/32" or (the thickness of a nickel). No reading indicates a damaged sensor, or wiring.

Check wiring and or replace sensor. Sensor has to be functional before the control box will work.

2. **To Check Control Box:** If sensor reading is correct, reconnect the wiring harness to the control box. Disconnect wires at the electronic valve with voltmeter set on D.C. Connect one lead on each wire leading from control box to the valve. Set control box on automatic and feed knob halfway (12 o'clock). At this setting with PTO engaged, engine idling, the voltage should be zero, as PTO speed is increased voltage should increase to about 10 volts at full throttle. If not, the calibration may need adjusting. Check wiring, check fuse, or box is faulty.
3. **To Check Coil On Solenoid Valve:** Disconnect wire at valve. Set voltmeter on ohms, put test leads on each wire of coil. Reading should be from 8 to 12 ohms. If the reading is not in that range, replace coil.

ELECTRONIC VALVE OVERRIDE

NOTE: If there is an electrical failure with your machine you may still grind, remove the rubber endcap from the valve and follow the instructions below.

WITH THE VALVE OVERRIDE, THE VALVE FUNCTIONS AS AN ADJUSTABLE FLOW CONTROL. With control box turned off, remove rubber end cap from the valve. Loosen lock nut and turn bolt in (clockwise) until desired tub rotation speed is found. Tighten lock nut and operate basic unit as if governor was not installed.

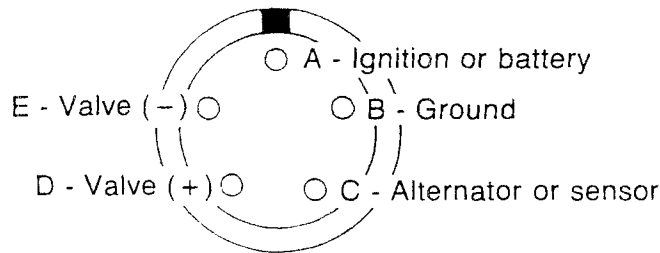
Contact your local dealer for further repairs or replacement. When problem is corrected, loosen lock nut and turn bolt out (counter clockwise) until tub stops. Retighten lock nut. If bolt comes all the way out and tub is still rotating, valve is faulty.



ELECTRONIC GOVERNOR VOLT-OHM READINGS

WIRE HARNESS CONNECTOR	ENGINE	IGNITION SWITCH	READING	INCORRECT READING INDICATES	CHECK IF INCORRECT READING
Valve terminals, system in Manual (Wires attached)	Not running	ON	13 volts DC	Defective wiring, control box.	Wires to valve.
Valve terminals, system in Auto (Wires attached)	Running 1500 to 2550 rpm	ON	1-10 volts DC varies with rpm ★	Defective wiring, control box.	Wires to valve.
Valve terminals, (Wires removed)	Not running	OFF	9.6 ohms	Defective valve.	
Pin A to pin B	Not running	ON	13 volts DC	13 volts not at control box, no ground	Wires to tractor.
Pin A to Ground	Not running	ON	13 volts DC	13 volts power not reaching box	Wires to tractor.
Pin B to Ground	Not running	OFF	Less than 5 ohms	Black wire not grounded	Ground wire
Pin D to Pin E	Not running	OFF	9.6 ohms	Valve wiring or valve defective	Wires to valve, valve
Pin D to Ground	Not running	OFF	Infinite ohms	Valve wiring or valve defective	White wire to valve, valve
Pin E to Ground	Not running	OFF	Infinite ohms	Valve wiring or valve defective	Blue or black wire to valve

★Typically 4.0 to 4.5 VDC at full engine rpm with the knob turned fully clockwise.





MODEL C

ELECTRONIC GOVERNOR

READ THIS FIRST: 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 sections, pages 20 through 24.

CONTROL BOX ADJUSTMENT

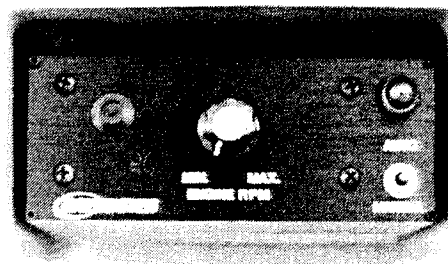
With engine running at PTO speed (2000 rpm), set control knob in the 3 o'clock position and set toggle switch in auto position.

Step 1. 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 through 24.

Call your dealer before attempting to recalibrate your control box. Before proceeding to Steps 2 and 3, read this message!

WARNING: The model B control box calibration screw should be adjusted with a small screw driver and a light touch. Due to its small size, this screw can be damaged if extreme caution is not used. Any damage to this screw IS NOT COVERED UNDER WARRANTY.

Step 2. IF TUB IS TURNING, slowly turn calibration screw, counter clockwise until tub creeps slowly.



MODEL B

The model B screw will turn both directions and is ratcheted at each end. There are 20 turns from one end to the other and it is possible for you to adjust the screw so that no tub movement is possible. Replace the plug when adjustment is complete.

Step 3. IF TUB IS NOT TURNING, slowly turn calibration screw, clockwise until tub creeps slowly.

The calibration screw will turn both directions. It is possible for you to adjust the screw so that no tub movement is possible. If you have been turning clockwise, reverse your direction and slowly attempt to find the range for your machine and rpm.

If the tub does not move in the automatic mode after you have attempted to calibrate the control box, refer to the trouble shooting section for further action.

OPERATION

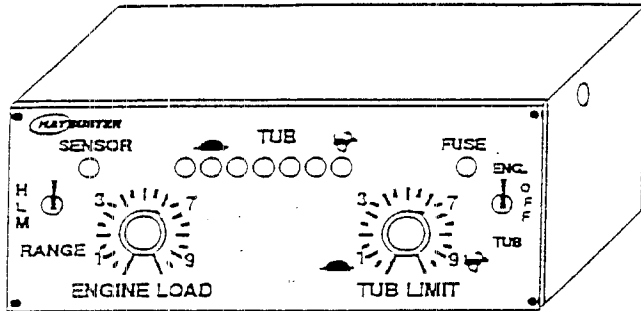
Turning control knob counter clockwise will increase load on engine by keeping tub rotation engaged at lower engine rpm.

Turning control knob clockwise will decrease load on engine by disengaging tub rotation at a higher rpm.

With Control Box switched to manual, tub will continue to rotate regardless of engine rpm.

12 VOLT SYSTEM NEGATIVE GROUND

MODEL RCB93 ELECTRONIC GOVERNOR INTRODUCTION

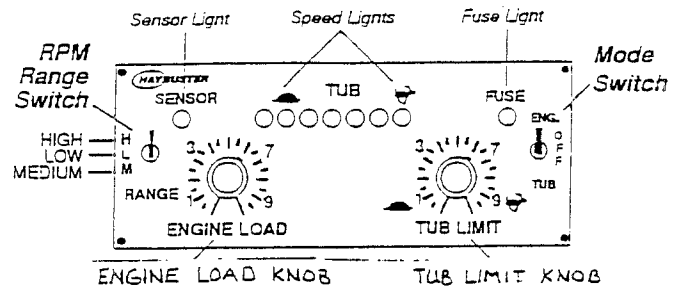
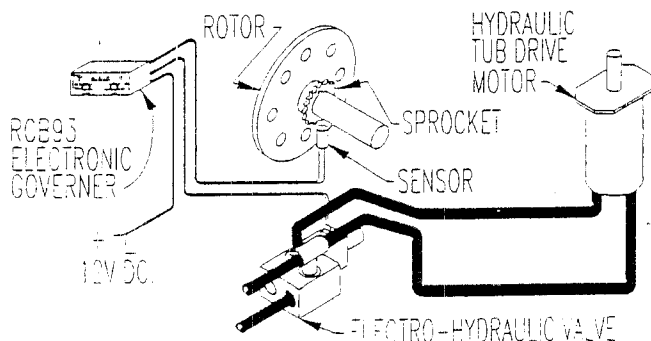


The MODEL RCB93 Electronic Governor automatically controls the feed rate to keep the engine operating in its' optimum power zone. ("ENGINE" mode). When the load on the grinding rotor begins to lug the engine, the Electronic Governor automatically reduces the tub rotation speed in proportion to the load.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

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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

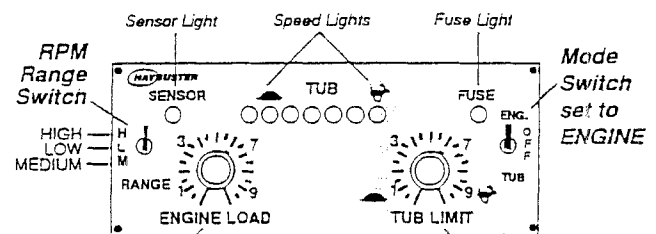
If you wish to limit the maximum rotating speed of the tub, the adjustment can be made at this time, or at any time during the grinding operation by following this procedure. This function is most useful when grinding in tough conditions when you don't want the tub to turn full speed if the load happens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

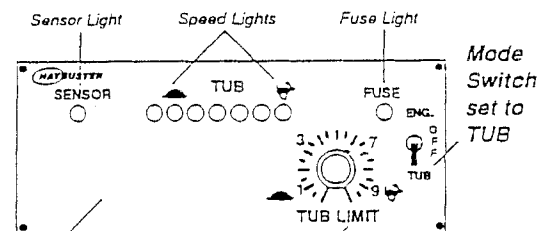


Use Engine Load dial as a fine adjustment for the RPM Range switch. Sets load desired on engine.

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 clock-wise (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.

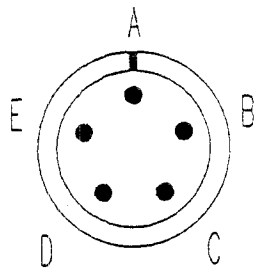
To test the output voltage to the electro-hydraulic valve, shut down entire machine including switching the "MODE" switch on the electronic governor to "OFF". Disconnect the wiring harness from the electro-hydraulic valve and route the leads so you can easily connect a voltmeter to them. Switch the voltmeter 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

28 OPERATION & TROUBLE SHOOTING - ELEC. GOVERNOR

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

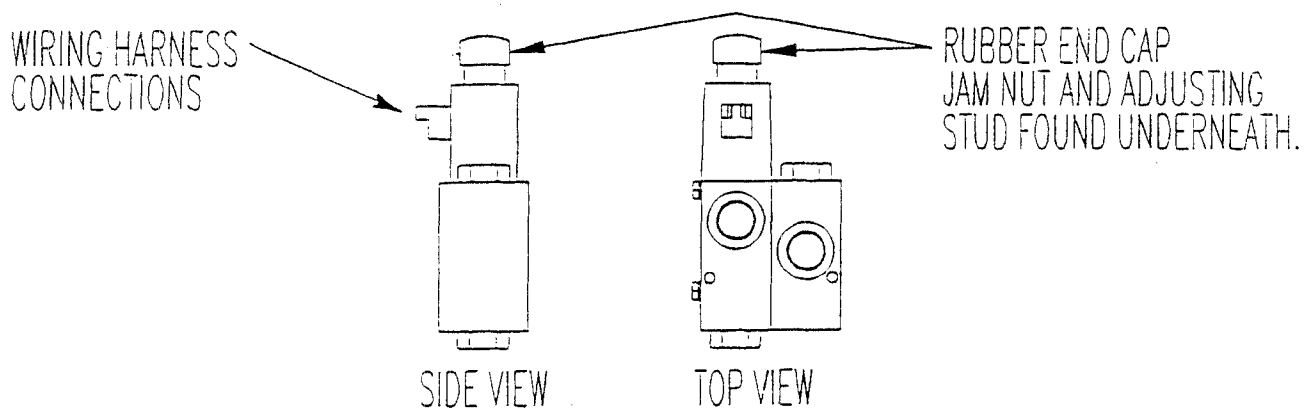
Begin the calibration procedure with entire grinder completely shut down. Place the **"MODE"** switch in the **"OFF"** position and the **"RANGE"** switch in the **"M"** position. Rotate the **"TUB LIMIT KNOB"** fully clockwise toward the **"rabbit"** position. Turn the **"ENGINE LOAD KNOB"** clockwise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





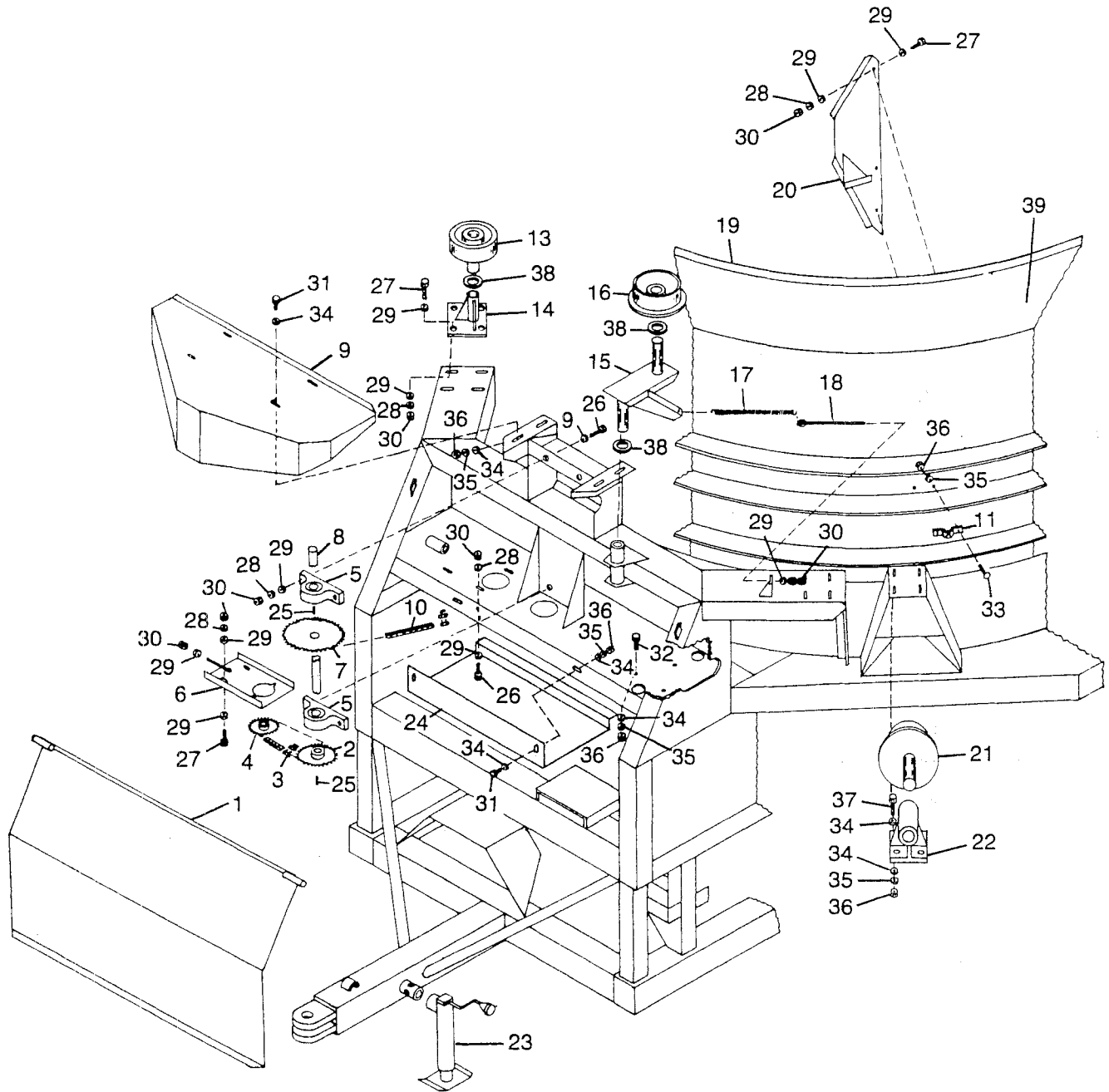
DURATECH

H-1000 Tub Grinder PARTS BOOK

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32 MAIN FRAME

Serial No. 0001 thru 303'



MAIN FRAME

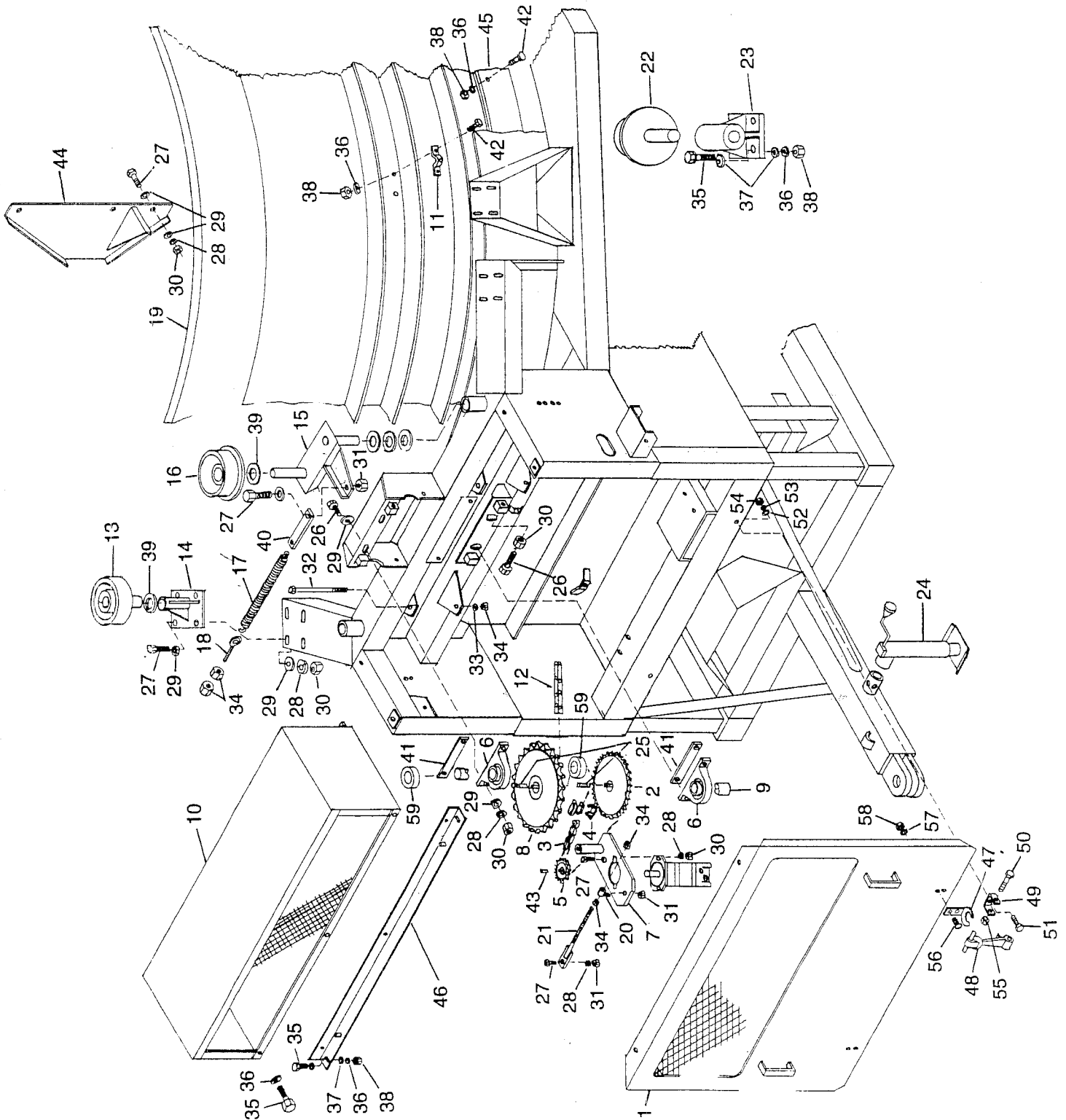
33

SERIAL NO. 0001 THRU 3031

ITEM	PART #	QTY	DESCRIPTION
1	4500036	1	FRONT SHIELD
2	1000033	1	SPKT\60\B\30\1-1/4\1/4KW
3	1100013	1	CHAIN\60\45
4	1000134	1	SPKT\60\B\12\1-1/4\5/16KW
5	2000502	2	BRG\PB\1-1/4
6	4500048	1	TGHTR\ORBIT\H-1100
7	1000077	1	SPKT\80\B\30\1-1/4\1/4KW
8	4500471	1	SHFT\27-1/2X114\H-1000
9	4500037	1	TUB\DRIVE\SHIELD
10	1100094	1	CHAIN\2080\157+CL
11	4700023	3	KNOBS\TUB\H-1000
13	1200008	2	RLLR\PRSS\#5
14	1200005	2	RLLR\STND\#44
15	4500337	1	BRKT\ARM\SWING\LH
16	1200007	1	RLLR\#6
17	6100001	1	SPRING.156OT 63/64OD13LIH
18	4500197	1	BOLT\TENSION\SPRING\>
19	4500035	1	TUB\WLDMT\H-1000
20	4500086	1	AGTTR\TUB\10
20A	4500250	1	AGTTR\TUB\14"
21	4500972	4	RLLR\TUB\#2
22	1200003	4	RLLR\STND\#3
23	5800601	1	JACK (2SM10) 12"
24	4500169	1	SHLD\DR\TUB\H-1000
25	6200014	2	KEY\SQ\1/4X1-1/4
26	4800114	6	BOLT\HEX\1/2X2
27	4800082	16	BOLT\HEX\1/2X1-1/2\NC\GR5
28	5000006	22	WASH\LOCK\1/2
29	5000004	38	WASH\FLAT\1/2
30	4900001	24	NUT\HEX\1/2\NC
31	4800003	6	BOLT\HEX\3/8X1
32	4800146	3	BOLT\HEX\3/8X2
33	4800012	6	BOLT\CRG\3/8X1-1/4\NC
34	5000001	45	WASH\FLAT\3/8
35	5000019	31	WASH\LOCK\3/8
36	4900002	31	NUT\HEX\3/8\NC
37	4800098	16	BOLT\HEX\3/8X1-1/4\NC
38	5000008	2	WASH\MACH\1-1/2IDX10GAINR
39	4500208	8	PETAL\TUB\H1000
	4500211	1	H-1000 TOP RING
	4500214	8	COVER\SEAM\PETAL\18"

34 MAIN FRAME

Serial No. 3032 thru



MAIN FRAME

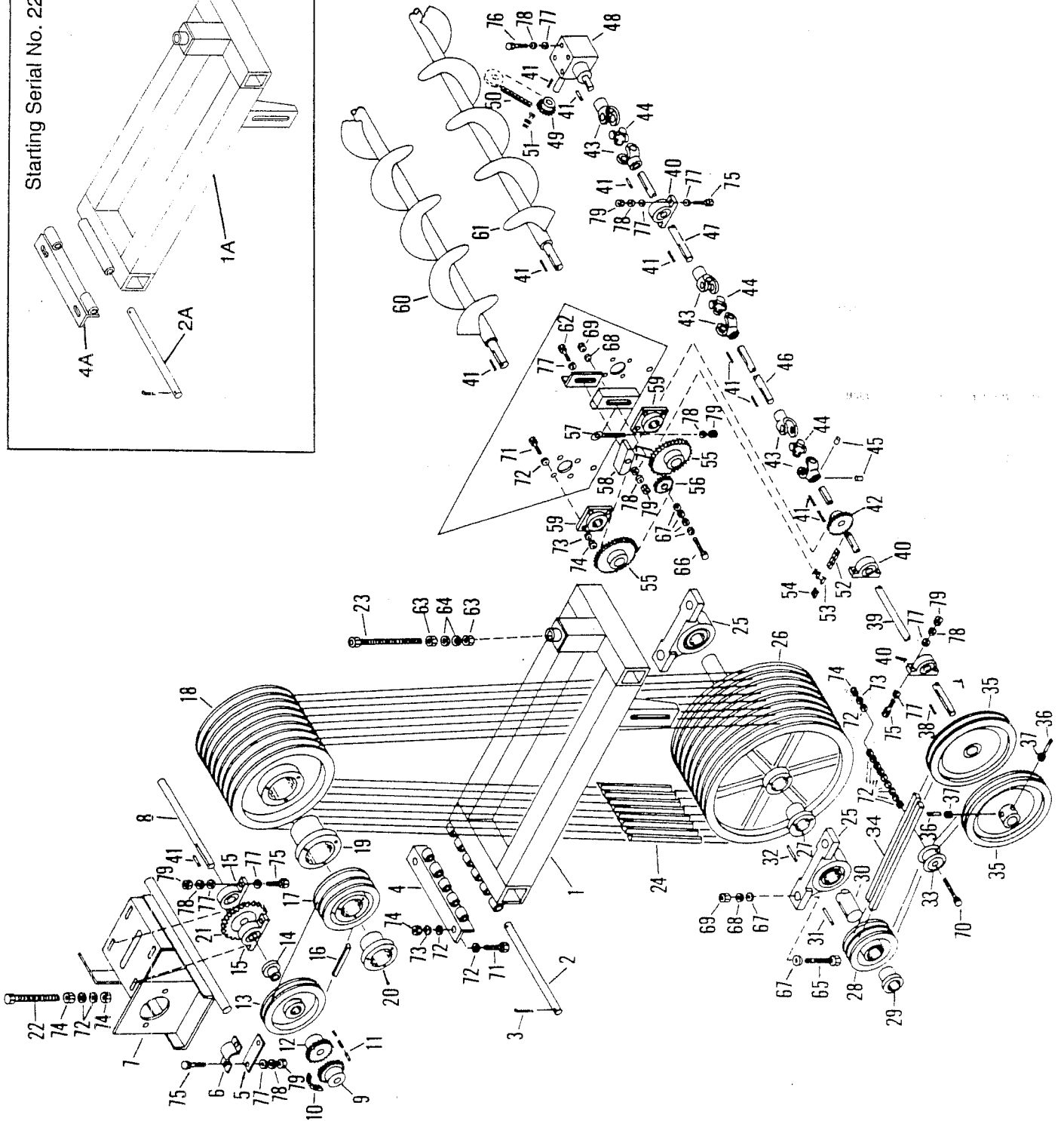
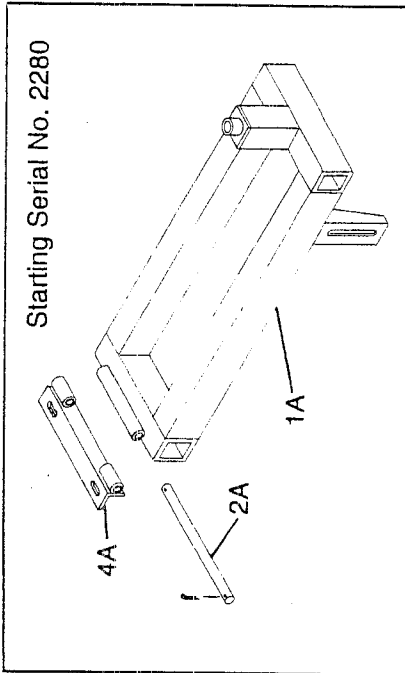
35

SERIAL NO. 3032 THRU F13631

ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	4500429	1	SHLD\DR\FRONT\H1000	51	4800013	2	BOLT\HEX\5\16X1
2	1000033	1	SPKT\60\B\30\1-1/4\1/4KW	52	5000023	2	WASH\FLAT\5\16
3	1100088	1	CHAIN\60\43	53	5000022	2	WASH\LOCK\5\16
4	1100062	1	CHAIN\60\CL	54	4900003	2	NUT\HEX\5\16\NC
	1100063		CHAIN\60\OL	55	4900071	2	NUT\NYLCK\5\16\NF
5	1000134	1	SPKT\60\B\12\1-1/4\5\16KW	56	4800282	4	SCRIPAN\SLOT\#10X3\4\NC
6	2000502	2	BRG\PB\1-1/4	57	5000071	4	WASH\LOCK:STAR\#10
7	4500333	1	BRKT\ARM\ORBIT MOTOR	58	4900072	4	NUT\HEX\#10\NC
8	1000077	1	SPKT\80\B\30\1-1/4\1/4KW				
9	4500491	1	SHFT\TUB-DR\1-1/4X20-3/4 SN 3031&up				
10	4500430	1	SHLD\DR\TUB\H1000				
11	4700023	3	KNBS\TUB\H1000	59	2000805	2	CLLR\SHFT\1-1/4\W\SET
12	1100094	1	CHAIN\2080\157+CL	60	3900005	1	MTR\HYD\14.9\2000\SAE;A\>
	1100070		CHAIN\2080\H\CL	61	4500755	4	MNT\RLLR\VERT\TUB\H1000
	1100071		CHAIN\2080\H\OL				
	1100072		CHAIN\2080\H\NL				
13	1200008	2	RLLR\PRSS\#5				
14	1200005	2	RLLR\STND\#44				
15	4500337	1	BRKT\ARM\SWING\LH				
16	1200007	1	RLLR\#6				
17	6100001	1	SPRING.156OT 63/64OD13LIH				
18	4500197	1	BOLT\TENSION\SPRING\>				
19	4500035	1	TUB\WLDMT\H-1000				
20	4500334	1	BRKT\BOLT\TIGTNER				
21	4500335	1	BOLT\TIGHTNER\ORBITMOTOR				
22	4500972	4	RLLR\TUB\#2				
23	1200003	4	RLLR\STND\#3				
24	5800601	1	JACK (2SM10) 12"				
25	6200005	2	KEY\SQ\1/4X1-1/2				
26	480014	6	BOLT\HEX\1/2X2				
27	4800082	19	BOLT\HEX\1/2X1-1/2\NC\GR5				
28	5000006	21	WASH\LOCK\1/2				
29	5000004	38	WASH\FLAT\1/2				
30	4900001	31	NUT\HEX\1/2\NC				
31	4900014	2	NUT\TPLCK\1/2\NC\.500"MAX				
32	4800261	1	BOLT\HEX\5\8X8-1/2				
33	5000003	1	WASH\LOCK\5/8				
34	4900005	3	NUT\HEX\5\8\NC				
35	4800098	21	BOLT\HEX\3\8X1-1/4\NC				
36	5000019	43	WASH\LOCK\3/8				
37	5000001	35	WASH\FLAT\3/8				
38	4900002	43	NUT\HEX\3\8\NC				
39	5000008	8	WASH\MACH\1-1/2IDX10GAINR				
40	4500331	1	LINK\SPG\1/4X6-1/4				
41	4500692	4	SHIM\BRG\TUB\DR\10GAX2X7>				
42	4800012	25	BOLT\CRG\3\8X1-1/4\NC				
43	6200022	1	KEY\SQ\5\16X1-1/2\HARDEND				
44	4500086	1	AGTTR\TUB\10				
44A	4500250	1	AGTTR\TUB\14"				
45	1700066	1	BELT\3\8X5\2-PLY				
46	4500441	1	MNT\SHIELD\DR\CNVYR\H1000				
47	7500190	2	LATCH\RBBR\CATCH\6				
48	7500166	2	LATCH\RBBR\6				
49	7500347	2	LATCH\RBBR\MNT\6				
50	4800281	2	BOLT\HEX\5\16X2\NF				

36 DRIVE SYSTEM

Serial No. 1880 to 2410

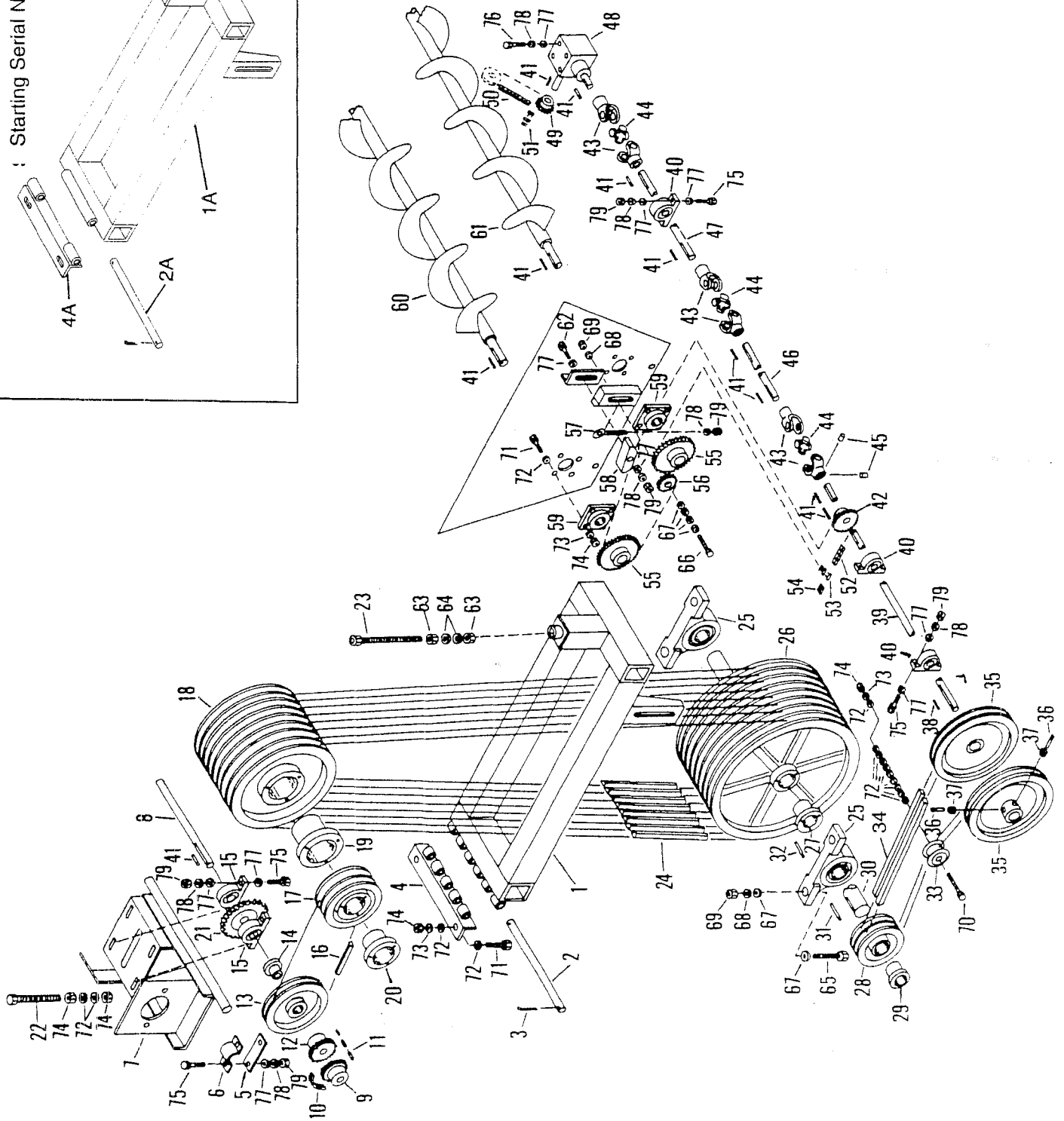
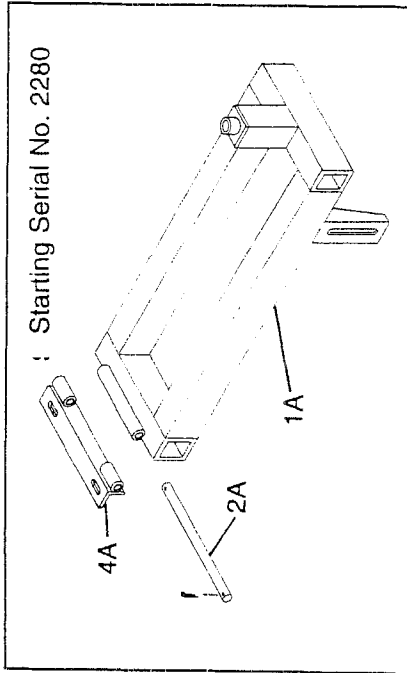


DRIVE SYSTEM

37

SERIAL NO. 1880 TO 2410

ITEM	PART #	QTY	DESCRIPTION
1	4500172	1	BULL WHEEL CRADLE H-1000
1A	4500230	1	FRM\BLLWHL
2	4800148	1	PIN\SUP\1X14
2A	4500223	1	PIN\RD\1 X 14 1/2
3	4800050	1	PIN\COT\3/16X1-1/2
4	4500232	1	HINGE\FRM\BULL_WHL\H1100 SN _2031
4A	4500224	1	HINGE\FRM\BLLWHL
5	4500071	1	FLAT\HR\1/4X1-1/2X4-3/4
6	4500070	1	CLAMP\IG-10\IG-11
7	4500069	1	BRKT\PUMP SN 1866 & -
8	4500466	1	SHFT\9-1/2X100\H-1000&>
9	1000028	1	SPKT\50\B\14\3/4\3/16KW
10	1100026	1	CHAIN\50DBL\13
11	1100099	1	CHAIN\50DBL\CL
12	1000029	1	SPKT\50\B\14\1\1/4KW\HRN
13	1400003	1	SHVE\B\7.2
14	1400503	1	BUSH\H\1
15	2000503	3	BRG\PB\1
16	1600006	1	V-BELT\B\46
17	1400006	1	SHVE\B-2\5.6\2B56Q-BORE
18	1400016	1	SHVE\B-8\11.0
19	1400516	1	BUSH\R2\2-7/16
20	1400503	1	BUSH\Q1\2-7/16
21	1000090	1	SPKT\50\B\24\1\1/4KW
22	4800191	1	BOLT\WLDD\1/2X6
23	4800150	1	ROD\THRDD\5/8X8
24	1600007	8	V-BELT\B\83
25	2000505	2	BRG\PB\1-3/4
26	1400017	1	SHVE\B-8\18.4
27	1400517	1	BUSH\R2\1-3/4
28	1400008	1	SHVE\B-2\5.0
29	1400504	1	BUSH\P1\1-3/4
30	4500475	1	SHFT\INPUT\1-3/4X22\>
31	6200008	1	KEY\SQ\3/8X2
32	6200016	1	KEY\SQ\3/8X4-1/2
33	1400204	1	PULY\IDLER\DBL\312
34	1600022	2	V-BELT\B\75
35	1400203	2	PULY\STL\12\1B
36	4800149	4	SCR\SET\SQ\5/16X1\NC
37	4900033	4	NUT\JAM\5/16\NC
38	6200017	1	KEY\SQ\1/4X3
39	4500474	1	SHFT\21X100\H-1000
40	2000503	3	BRG\PB\1
41	6200014	10	KEY\SQ\1/4X1-1/4
42	1000175	1	SPKT\50\B\18\1\1/4KW
43	3600103	6	#6 RW1" YOKE
44	3600008	3	#6 CROSS & BEARING KIT
45	4800143	12	SCR\SET\ALM\3/8X3/8\NC
46	4500472	1	SHFT\34-1/2X100\H-1000
47	4500473	1	SHFT\47X100\H-1000
48	3100187	1	GRBX\RTANGLE\1:1\OPPOSING



DRIVE SYSTEM

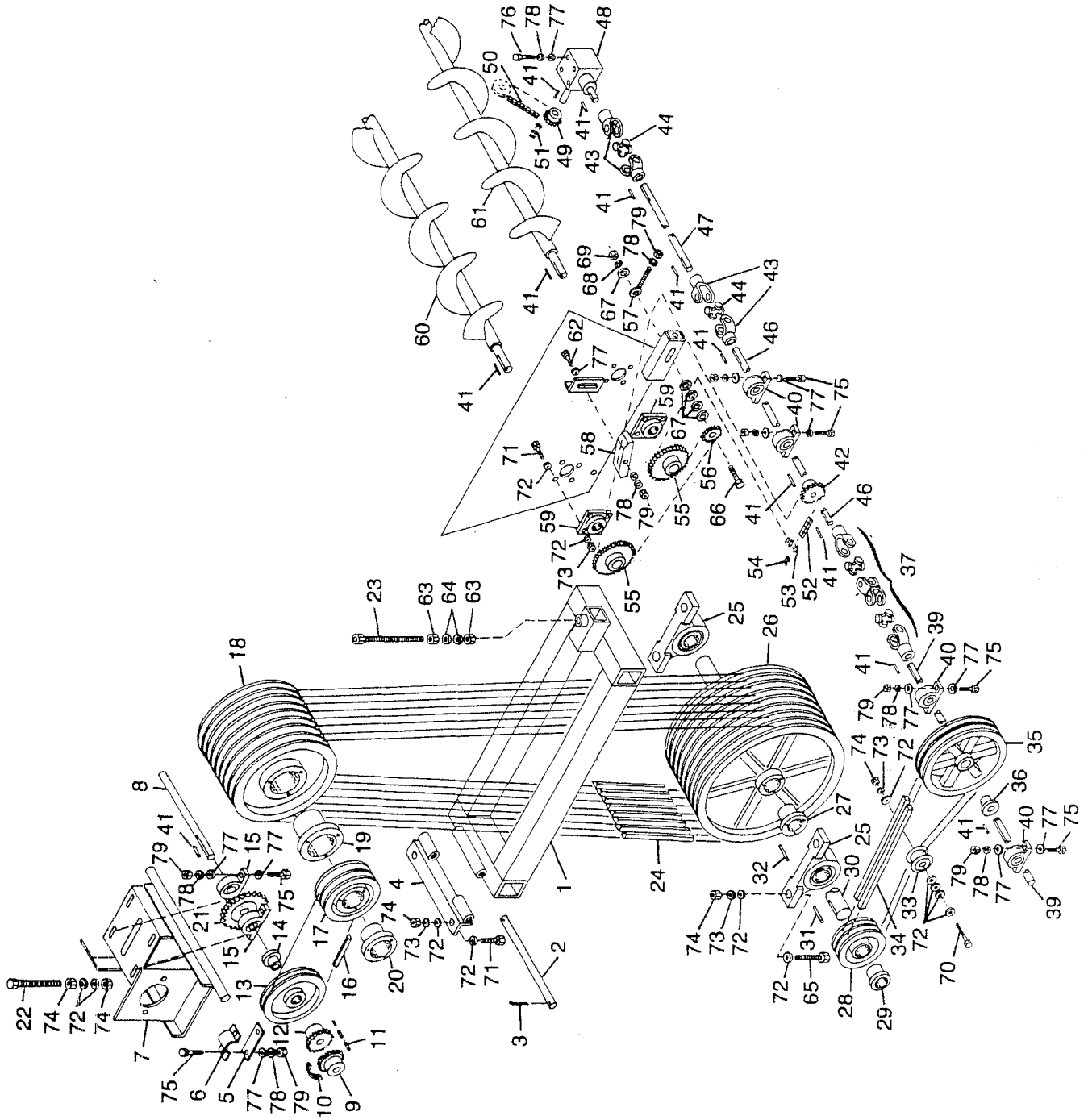
39

SERIAL NO. 1880 TO 2410

ITEM	PART #	QTY	DESCRIPTION
49	1000128	1	SPKT\60\B\15\1\1/4KW
50	1100105	1	CHAIN\60\35
51	1100062	1	CHAIN\60\CL
52	1100106	1	CHAIN\50\137
53	1100059	1	CHAIN\50\CL
54	1100060	1	CHAIN\50\OL
55	1000047	2	SPKT\50\B\30\1-1/4\1/4KW
56	1000038	1	SPKT\50\17\5/8\KWIDL
57	4500046	1	BRKT\DR\IDLER;ADJ\RD
58	2000016	1	BRKT\DR\IDLER;ADJ\RD
59	2000305	1	BRG\FLG\1-1/4\4BOLT
60	4500003	1	AUGER\RH\9X96
61	4500173	1	AUGER\LH\9X96
62	4800029	1	BOLT\HEX\3/8X2-1/2
63	4900005	2	NUT\HEX\5/8\NC
64	5000002	2	WASH\FLAT\5/8
65	4800144	4	BOLT\HEX\5/8X6-1/2
66	4800079	1	BOLT\HEX\5/8X2-1/2
67	5000002	12	WASH\FLAT\5/8
68	5000003	5	WASH\LOCK\5/8
69	4900005	5	NUT\HEX\5/8\NC
70	4800135	1	BOLT\HEX\1/2X3-1/2
71	4800082	10	BOLT\HEX\1/2X1-1/2\NC\GR5
72	5000004	24	WASH\FLAT\1/2
73	5000006	11	WASH\LOCK\1/2
74	4900001	13	NUT\HEX\1/2\NC
75	4800034	12	BOLT\HEX\3/8X1-1/2
76	4800003	4	BOLT\HEX\3/8X1
77	5000001	34	WASH\FLAT\3/8
78	5000019	17	WASH\LOCK\3/8
79	4900002	14	NUT\HEX\3/8\NC

40 DRIVE SYSTEM

Serial No. 2411 thru 3280



DRIVE SYSTEM

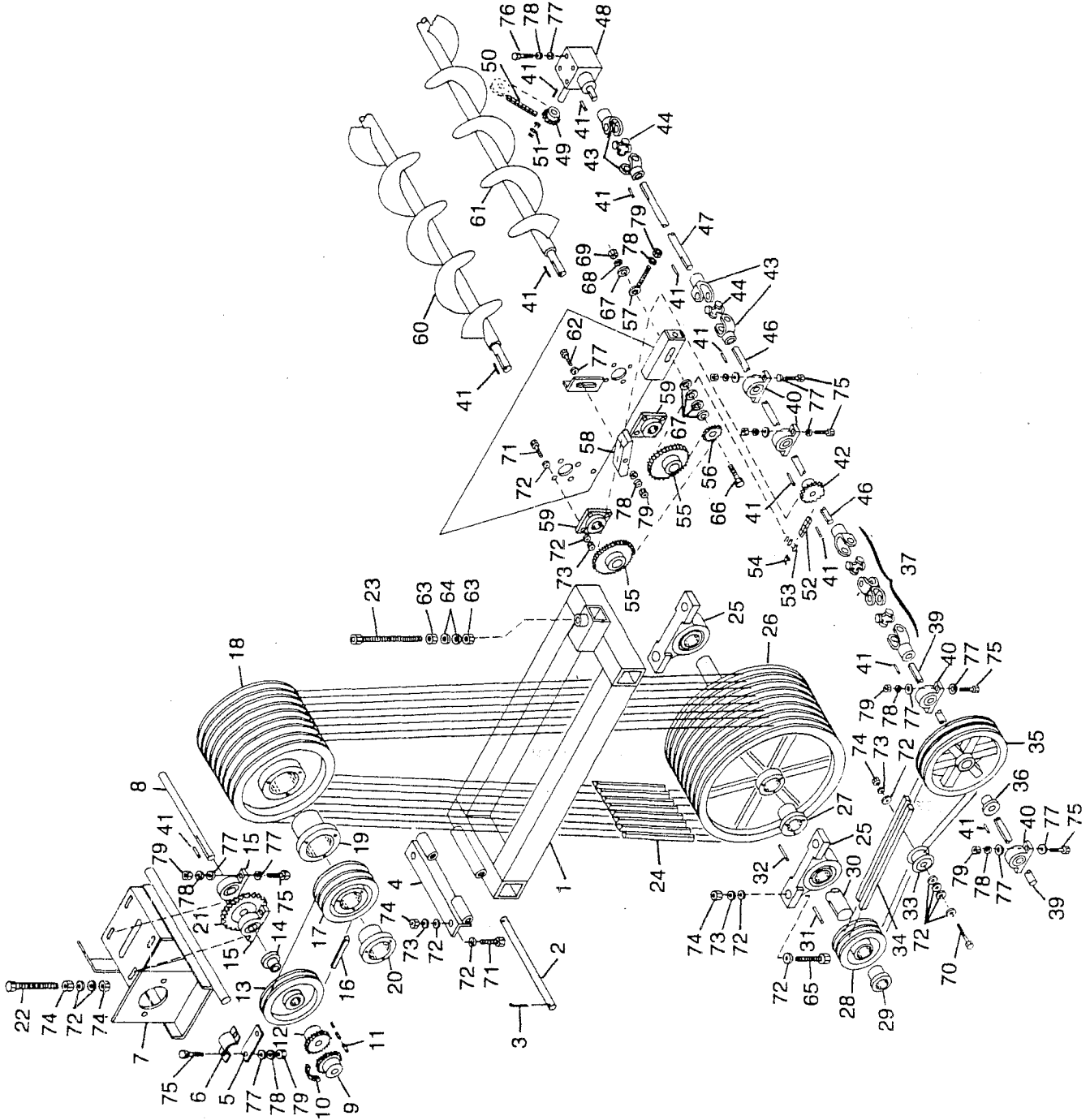
41

SERIAL NO. 2411 TO 3280

ITEM	PART #	QTY	DESCRIPTION
1	4500230	1	FRM\BLLWHL
2	4500223	1	PIN\RD\1 X 14 1/2
3	4800050	1	PIN\COT\3/16X1-1/2
4	4500224	1	HINGE\FRMBLLWHL
5	4500071	1	FLAT\HR\1/4X1-1/2X4-3/4
6	4500070	1	CLAMP\IG-10\IG-11
7	4500069	1	BRKT\PUMP SN 1866 7 ^
8	4500463	1	SHFT\1X11
9	1000028	1	SPKT\50\B\14\3/4\3/16KW
10	1100026	1	CHAIN\50DBL\13
11	1100099	1	CHAIN\50DBL\1CL
12	1000029	1	SPKT\50\B\14\1\1/4KW\HRN
13	1400003	1	SHVE\B\7.2
14	1400503	1	BUSH\H\1
15	2000503	3	BRG\PB\1
16	1600006	1	V-BELT\B\46
17	1400006	1	SHVE\B-2\5.6\2B56Q-BORE
18	1400016	1	SHVE\B-8\11.0
19	1400516	1	BUSH\R2\2-7/16
20	1400508	1	BUSH\Q1\2-7/16
21	1000090	1	SPKT\50\B\24\1\1/4KW
22	4800091	1	BOLT\WLDD\1/2X6
23	4500256	1	BOLT\WLDD\3/4X8
24	1600007	8	V-BELT\B\83
25	2000505	2	BRG\PB\1-3/4
26	1400017	1	SHVE\B-8\18.4
27	1400517	1	BUSH\R2\1-3/4
27A	1400518	1	BUSH\R2\2
28	1400008	1	SHVE\B-2\5.0
29	1400504	1	BUSH\P1\1-3/4
30	4500475	1	SHFT\INPUT\1-3/4X22\>
30A	4500489	1	SHFT\RD\2X22
31	6200008	1	KEY\SQ\3/8X2
32	6200016	1	KEY\SQ\3/8X4-1/2
33	1400204	1	PULY\IDLER\DBL\312
34	1600009	2	V-BELT\B\60
35	1400033	1	SHVE\B-2\9.0\2BK90H
36	1400503	1	BUSH\H\1
37	3600138	1	#6 DOUBLE U-JOINT COMPLET
38	3600091	2	SINGLE U-JOINT 1"TO1"RD#10
39	4500227	1	SHFT\1X14\H-1000
40	2000503	2	BRG\PB\1
41	6200014	10	KEY\SQ\1/4X1-1/4
42	1000031	1	SPKT\50\15\1\1/4KW\SOFT
43	3600103	6	#6 RW1" YOKE
44	3600008	4	#6 CROSS & BEARING KIT
45	4800243	12	BOLT\HEX\1/4X3
46	4500228	1	SHFT\1X26\H-1000&H-1100
47	4500229	1	SHFT\1X62-1/2\H-1000
48	3100187	1	GRBX\RTANGLE\1:1\OPPOSING (SEE PAGE 80-81)

42 DRIVE SYSTEM

Serial No. 2411 thru 3280



DRIVE SYSTEM

43

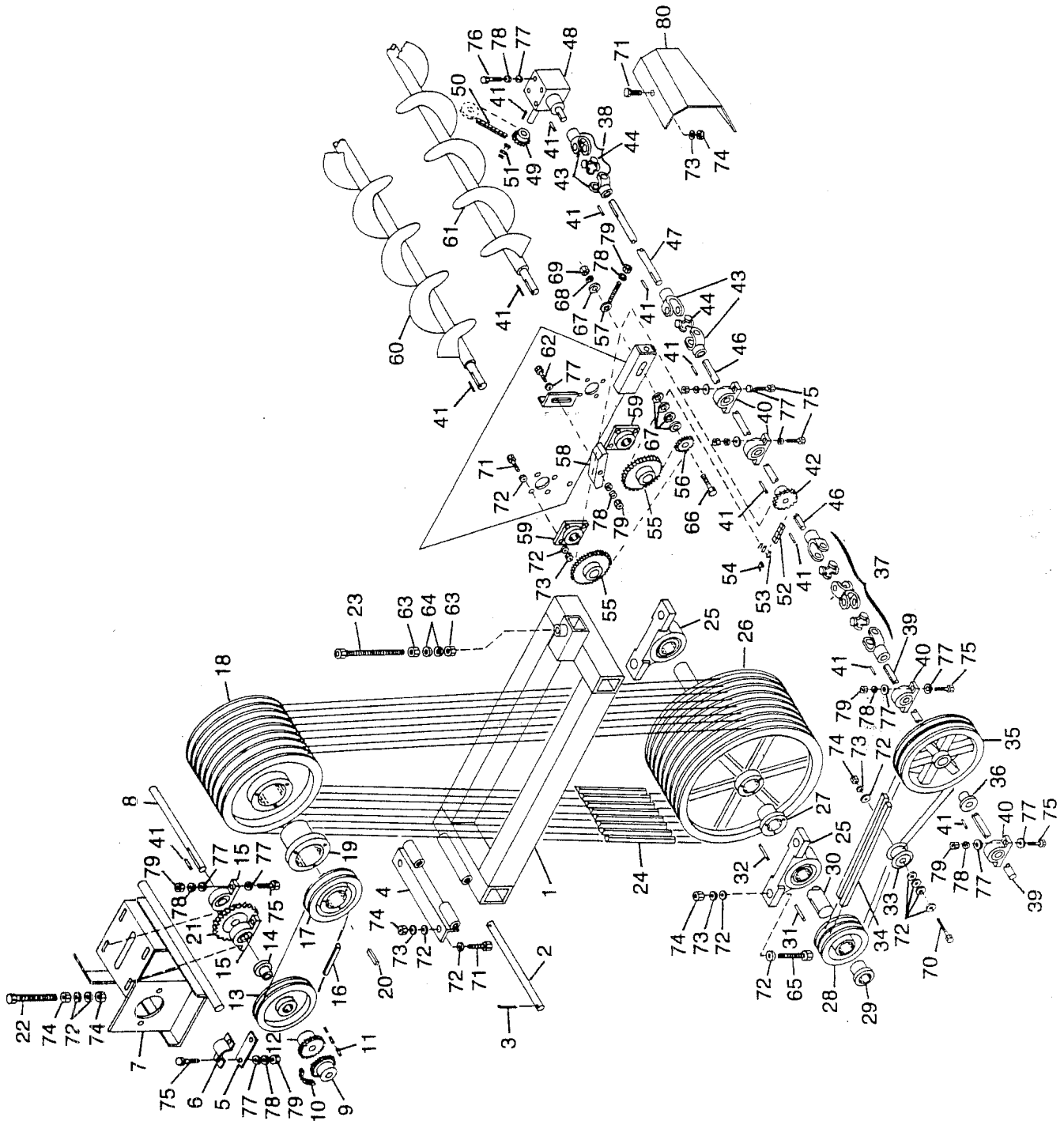
SERIAL NO. 2411 TO 3280

ITEM	PART #	QTY	DESCRIPTION
49	1000128	1	SPKT\60\B\15\1\1/4KW
50	1100105	1	CHAIN\60\35
51	1100062	1	CHAIN\60\CL
52	1100151	1	CHAIN\50\153
53	1100059	1	CHAIN\50\CL
54	1100060	1	CHAIN\50\OL
55	1000121	2	SPKT\50\B\30\1-1/4\1/4\>
56	1000038	1	SPKT\50\17\5/8\KW\IDL
57	4500046	1	BRKT\DR\IDLER;ADJ\RD
58	2000016	1	BLK\WOOD\IDLER
59	2000305	2	BRG\FLG\1-1/4\4BOLT
60	4500003	1	AUGER\RH\9X96
61	4500173	1	AUGER\LH\9X96
62	4800029	1	BOLT\HEX\3/8X2-1/2
63	4900004	2	NUT\HEX\3/4\NC
64	5000005	2	WASH\FLAT\3/4
65	4800041	4	BOLT\HEX\1/2X5
66	4800079	1	BOLT\HEX\5/8X2-1/2
67	5000002	5	WASH\FLAT\5/8
68	5000003	1	WASH\LOCK\5/8
69	4900005	1	NUT\HEX\5/8\NC
70	4800135	5	BOLT\HEX\1/2X3-1/2
71	4800082	10	BOLT\HEX\1/2X1-1/2\NC\GR5
72	5000004	32	WASH\FLAT\1/2
73	5000006	15	WASH\LOCK\1/2
74	4900001	17	NUT\HEX\1/2\NC
75	4800034	12	BOLT\HEX\3/8X1-1/2
76	4800003	4	BOLT\HEX\3/8X1
77	5000001	34	WASH\FLAT\3/8
78	5000019	17	WASH\LOCK\3/8
79	4900002	14	NUT\HEX\3/8\NC
80	4500422	1	X-PIPE CONV HANG CO BOX
	9900210		FLGHTG\AUGER\9\RH
	9900202		FLGHTG\AUGER\9\LH

81 4503101 1 BRKT\BLLY\CONV.
 82 3600151 1 DOUBLE YOKE - Page 48

44 DRIVE SYSTEM

Serial No. 3281 thru

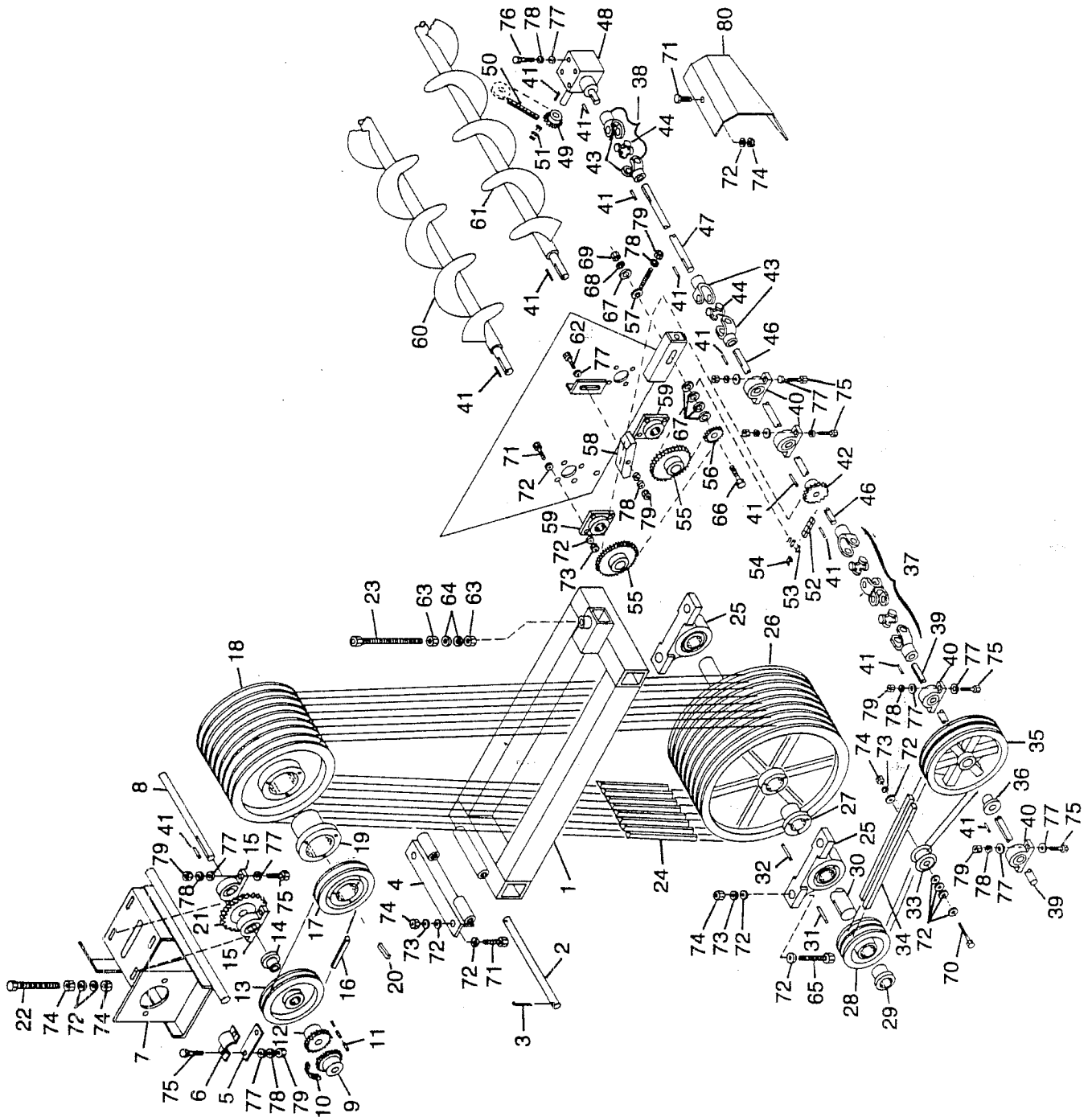


DRIVE SYSTEM

45

SERIAL NO. 3281 TO FI 3631

ITEM	PART #	QTY	DESCRIPTION
1	4500230	1	FRM\BLLWHL
2	4500223	1	PIN\RD\1 X 14 1/2
3	4800050	1	PIN\COT\3/16X1-1/2
4	4500224	1	HINGE\FRM\BLLWHL
5	4500071	1	FLAT\HR\1/4X1-1/2X4-3/4
6	4500070	1	CLAMP\IG-10\IG-11
7	4500069	1	BRKT\PUMP
8	4500463	1	SHFT\1X11
9	1000028	1	SPKT\50\B\14\3/4\3/16KW
10	1100026	1	CHAIN\50DBL\13
11	1100099	1	CHAIN\50DBL\13
12	1000029	1	SPKT\50\B\14\1\1/4KW\HRN
13	1400003	1	SHVE\B\7.2
14	1400503	1	BUSH\H\1
15	2000503	3	BRG\PB\1
16	1600006	1	V-BELT\B\46
17	1400050	NA	SHVE\B\5.6\2-3/4\B56
18	1400016	1	SHVE\B-8\11.0
19	1400519	1	BUSH\R2\2-3/4
20	6200029	1	KEY\SQ\5/8X2
21	1000090	1	SPKT\50\B\24\1\1/4KW
22	4800191	1	BOLT\WLDD\1/2X6
23	4500256	1	BOLT\WLDD\3/4X8
24	1600007	1	V-BELT\B\83
25	2000505	2	BRG\PB\1-3/4
26	1400017	1	SHVE\B-8\18.4
27	1400518	1	BUSH\R2\2
28	1400008	1	SHVE\B-2\5.0
29	1400504	1	BUSH\P1\1-3/4
30	4500489	1	SHFT\RD\2X22
31	6200008	1	KEY\SQ\3/8X2
32	6200016	1	KEY\SQ\3/8X4-1/2
33	1400204	1	PULY\IDLER\DBL\312
34	1600009	2	V-BELT\B\60
35	1400033	1	SHVE\B-2\9.0\2BK90H
36	1400503	1	BUSH\H\1
37	3600138	1	#6 DOUBLE U-JOINT COMPLET
38	3600091	2	SIGLE U-JOINT 1"TO1"RD#10
39	4500227	1	SHFT\1X14\H-1000
40	2000503	3	BRG\PB\1
41	6200014	10	KEY\SQ\1/4X1-1/4
42	1000031	1	SPKT\50\15\1\1/4KW\SOFT
43	3600103	6	#6 RW1" YOKE
44	3600008	4	#6 CROSS & BEARING KIT
45	4800143	12	SCR\SET\ALN\3/8X3/8\NC
46	4500228	1	SHFT\1X26\H-1000&H-1100
47	4500229	1	SHFT\1X62-1/2\H-1000
48	3100187	1	GRBX\RTANGLE\1:1\OPPOSING (SEE PAGES 80-81)



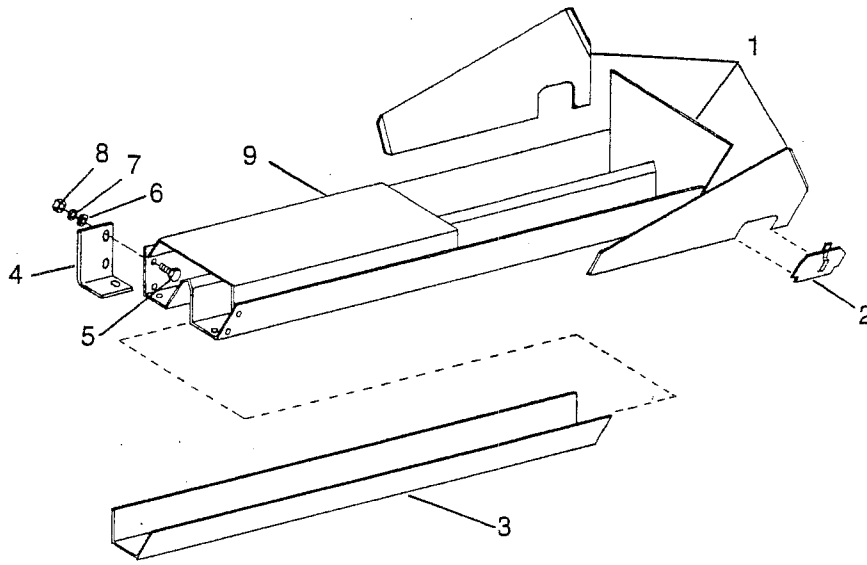
DRIVE SYSTEM

47

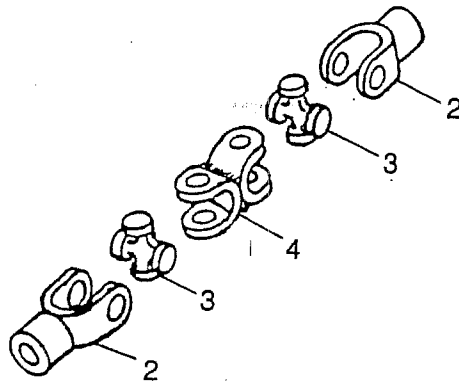
SERIAL NO. 3281 TO FI 3631

ITEM	PART #	QTY	DESCRIPTION
49	1000128	1	SPKT\60\B\15\1\1/4KW
50	1100105	1	CHAIN\60\35
51	1100062	1	CHAIN\60\CL
52	1100151	1	CHAIN\50\153
53	1100059	1	CHAIN\50\CL
54	1100060	1	CHAIN\50\OL
55	1000121	2	SPKT\50\B\30\1-1/4\1/4\>
56	1000038	1	SPKT\50\17\5/8\KW\IDL
57	4500046	1	BRKT\DR\IDLER;ADJ\RD
58	2000016	1	BLK\WOOD\IDLER
59	2000305	2	BRG\FLG\1-1/4\4BOLT
60	4500003	1	AUGER\RH\9X96
61	4500173	1	AUGER\LH\9X96
62	4800029	1	BOLT\HEX\3/8X2-1/2
63	4900004	2	NUT\HEX\3/4\NC
64	5000005	2	WASH\FLAT\3/4
65	4800041	4	BOLT\HEX\1/2X5
66	4800079	1	BOLT\HEX\5/8X2-1/2
67	5000002	5	WASH\FLAT\5/8
68	5000003	1	WASH\LOCK\5/8
69	4900005	1	NUT\HEX\5/8\NC
70	4800135	1	BOLT\HEX\1/2X3-1/2
71	4800082	11	BOLT\HEX\1/2X1-1/2\NC\GR5
72	5000004	32	WASH\FLAT\1/2
73	5000006	16	WASH\LOCK\1/2
74	4900001	18	NUT\HEX\1/2\NC
75	4800034	12	BOLT\HEX\3/8X1-1/2
76	4800003	4	BOLT\HEX\3/8X1
77	5000001	34	WASH\FLAT\3/8
78	5000019	17	WASH\LOCK\3/8
79	4900002	14	NUT\HEX\3/8\NC
80	4500464	1	SHLD\DR\SHFT
81	4500422	1	X-PIPE CONV HANG CO BOX
	9900210		FLGHTG\AUGER\9\RH
	9900202		FLGHTG\AUGER\9\LH

48 BELLY PAN HOUSING



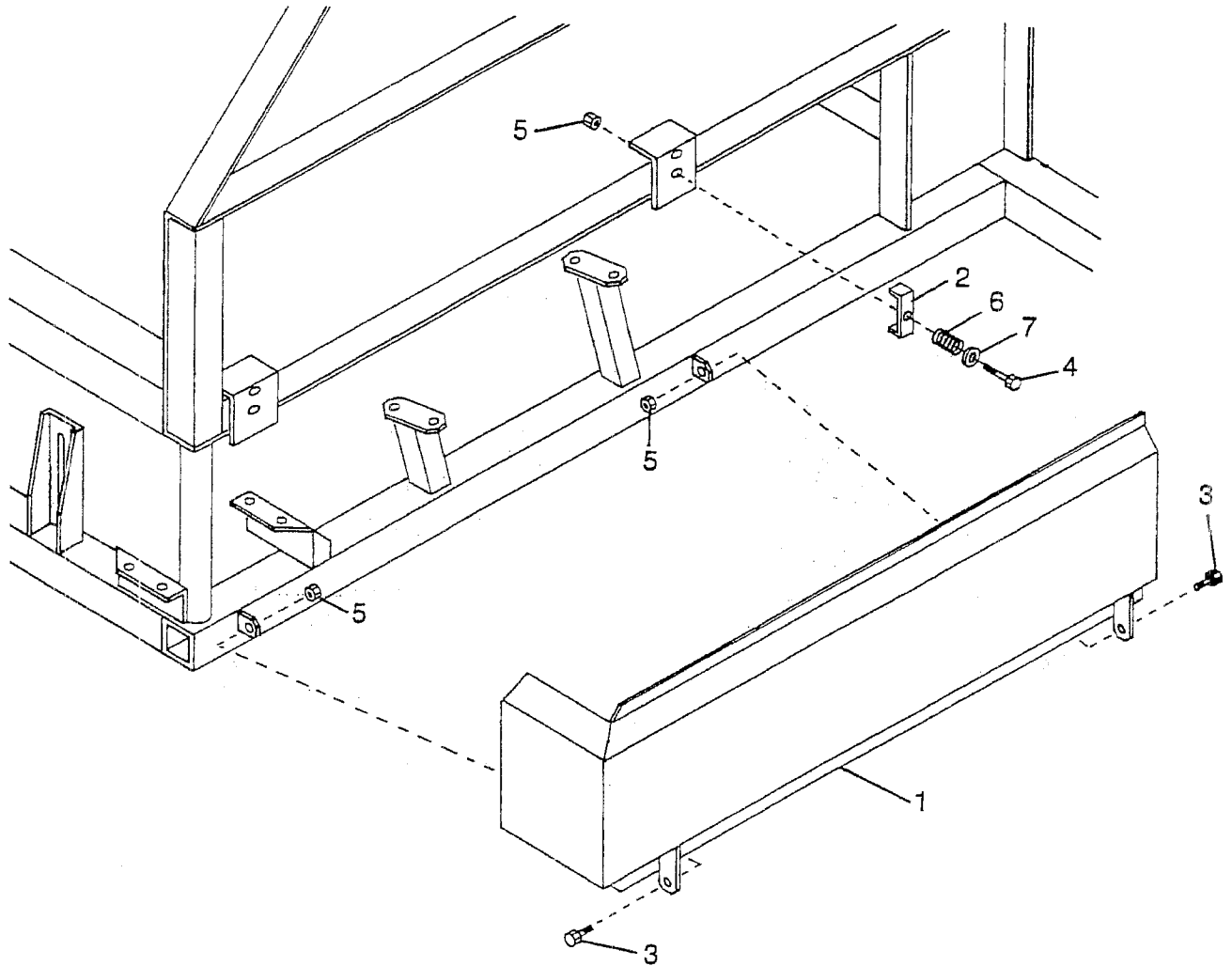
ITEM	PART NO.	QTY.	DESCRIPTION
1	4500216	1	Belly Pan Housing
2	4500049	2	Clean Out Door
3	4500257	2	Belly Pan Liner
4	4500495	2	Belly Pan Seal
5	4800071	2	5/16" x 1-1/4" Bolt
6	5000023	2	5/16" Flat Washer
7	5000022	2	5/16" Lock Washer
8	4900017	2	5/16" Nut
9	4500542	1	Belly Pan Cover



ITEM	PART NO.	QTY.	DESCRIPTION DOUBLE U-JOINT
1	3600138	1	Complete Double U-Joint, No. 6
2	3600103	1	Yoke, No. 6
3	3600008	1	Cross and Bearing, No. 6
4	3600151	1	Double Yoke, No. 6

CONVEYOR DRIVE SHIELD

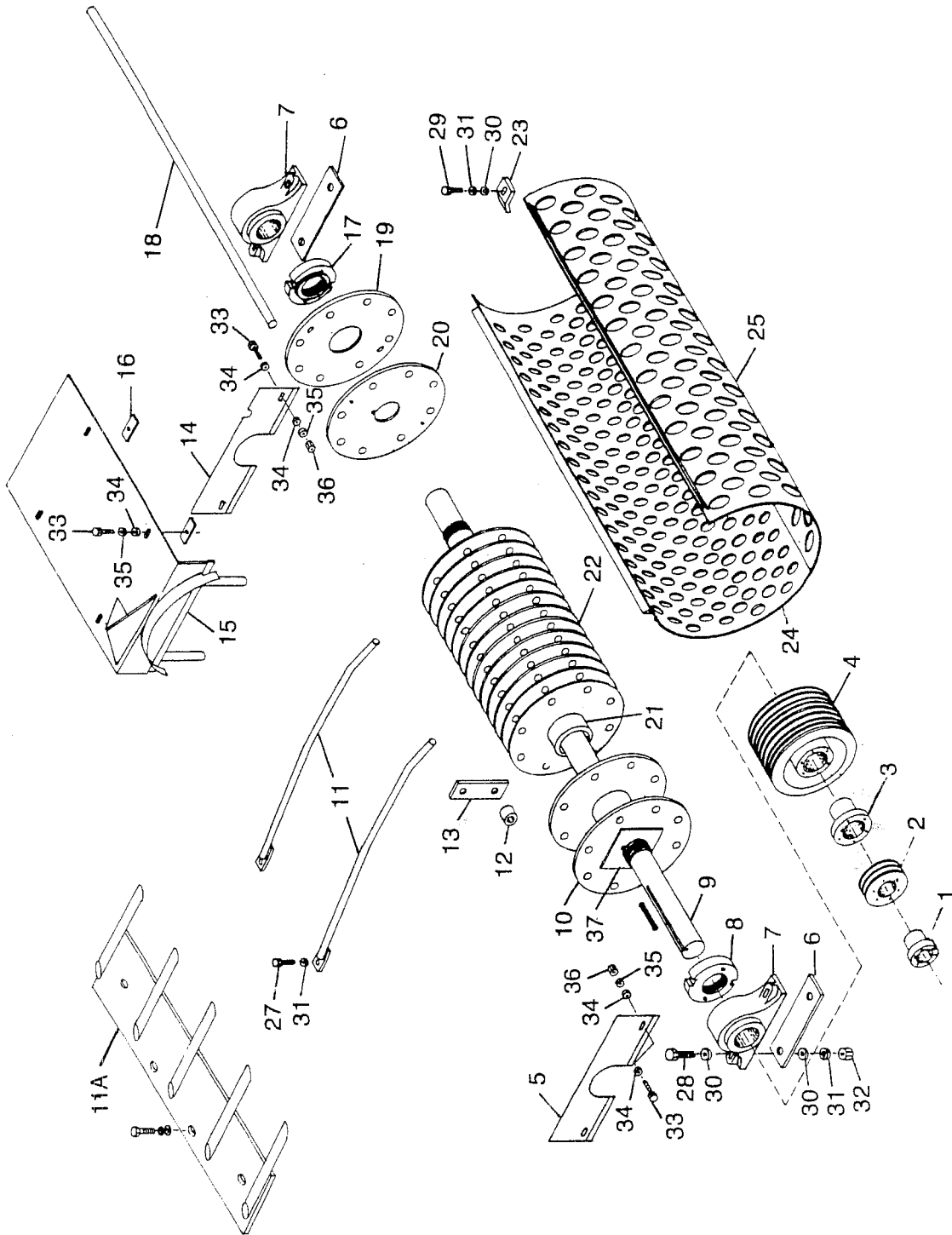
49



ITEM	PART #	QTY	DESCRIPTION
1	4500266	1	SHLD\DRICNVYR\H1000
2	4500258	2	LATCH\DOOR\SIDE
3	4800003	2	BOLT\HEX\3/8X1
4	4800156	2	BOLT\HEX\3/8X3
5	4900023	4	NUT\PLCK\3/8\NC
6	6100002	2	SPRING\COMP\.072W\11/16OD
7	5000001	2	WASH\FLAT\3/8

50 CYLINDER

Serial No. 0001 thru 3280



CYLINDER

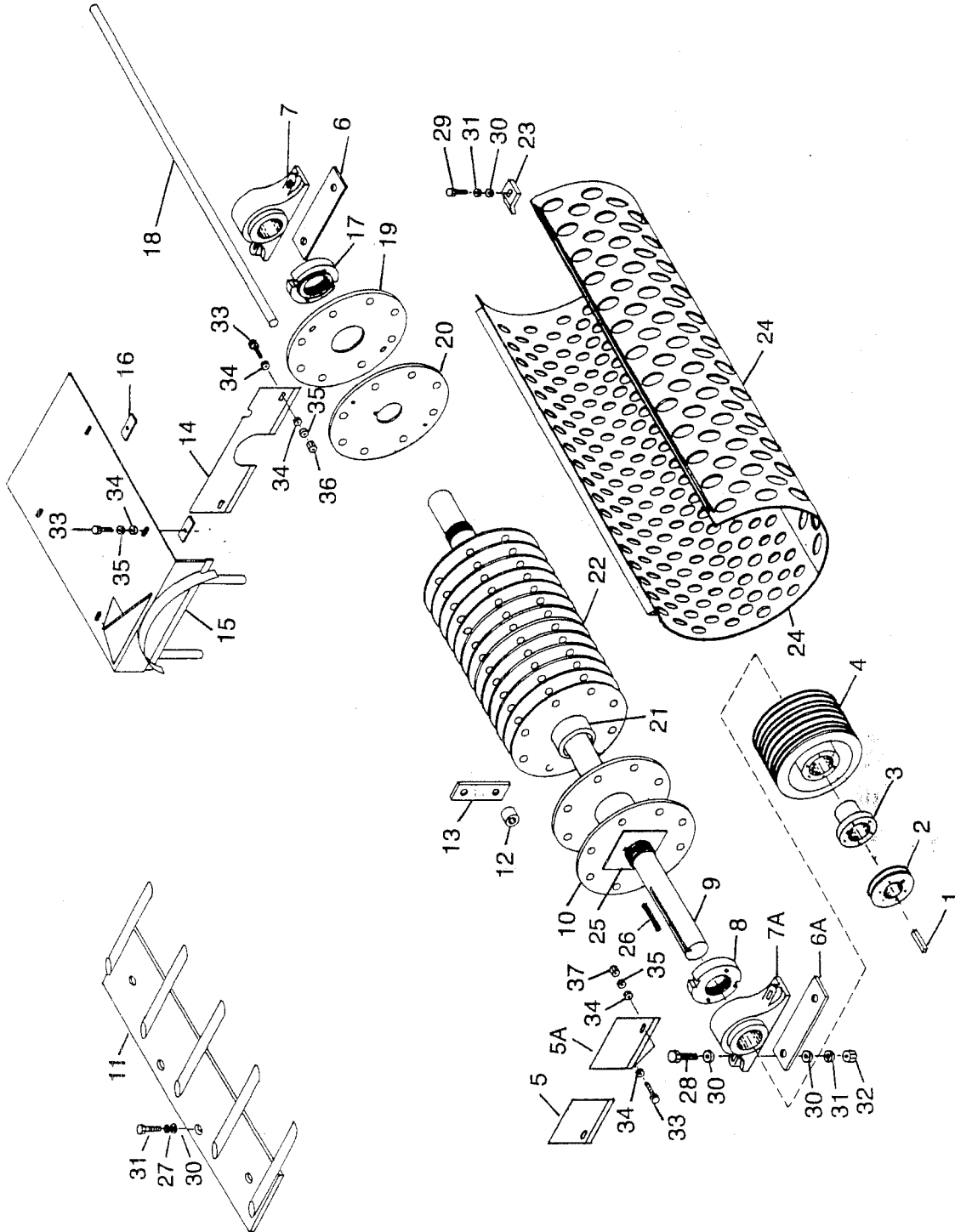
51

SERIAL NO. 0001 TO 3280

ITEM	PART #	QTY	DESCRIPTION	PART#	DESCRIPTION
1	1400508	1	BUSH\Q1\2-7/16		SCREENS
2	1400006	1	SHVE\B-2\5.6\2B56Q-BORE	5400094	SCRN\1/8HL\1/4\H1000
3	1400516	1	BUSH\R2\2-7/16	5400075	SCRN\3/16HL\1/4\H1000
4	1400016	1	BUSH\R2\2-7/16	5400009	SCRN\1/4HL\1/4\H1000
5	4500185	1	PL\BRG\CYL\FR\H-1000	5400010	SCRN\3/8HL\1/4\H1000
6	4500186	4	SHIM\7GA\2X7	5400011	SCRN\1/2HL\1/4\H1000
7	2000508	2	BRG\PB\2-7/16\E\DODGE	5400012	SCRN\5/8HL\1/4\H1000
8	4700267	1	NUT\RTR\3 W/O SHOULDER	5400013	SCRN\3/4HL\1/4\H1000
9	4500476	1	SHFT\RTR\3X65\H1000	5400067	SCRN\1-1/2HL\1/4\H1000
10	4500023	1	PL\RTR\END\SLUGS\3IDX1/2	5400014	SCRN\1HL\1/4\H1000
11	4500025	2	BAR\SLUG\H1000	5400015	SCRN\2HL\1/4\H1000
11A	4500527	1	SLUGBUSTER\RD	5400016	SCRN\3HL\1/4\H1000
12	4500017	12	SPCR\HMMR\1IDX1-1/4L	5400061	SCRN\4HL\1/4\H1000
13	5200002	64	3/8" AB SUPREME HAMMER	5400108	SCRN\5HL\1/4\H1000
14	4500182	1	DOOR\RTR\REAR BRG	5400089	SCRN\2HL\1/4\H1000\SLTD
15	4500259	1	COV\BRG\RTR\W/HAYGUIDE	5400087	SCRN\3HL\1/4\H1000\SLTD
16	4500094	4	CLIP\COVER\RTR\H1000	5400088	SCRN\4HL\1/4\H1000\SLTD
17	4700266	1	NUT\ROTOR\3 W/SHOULDER	5400079	SCRN\DUMMY\1/4\H1000
18	5300020	8	ROD\HMMR\15/16X43		
19	4500019	1	PL\RTR\MOVEABLE5.32IDX>		
20	4500021	1	PL\RTR\END\TPPD\3IDX1\2		
21	4500134	16	SPCR\SHAFT\5.56 OD		
21A	4500425	2	SPCR\CAST\6.25OD X 2.460		
22	4500020	15	PL\RTR\3IDX3/16		
23	4500251	2	HOLD DOWN\SCRN\NOTCHED		
24	5400015	1	SCRN\2HL\1/4\H1000		
25	5400016	1	SCRN\3HL\1/4\H1000		
26	6200013	1	KEY\SQ\5/8X4-1/2		
27	4800106	2	BOLT\HEX\5/8X1-1/2		
28	4800100	43	BOLT\HEX\5/8X4		
29	4800054	2	BOLT\HEX\5/8X3-1/2		
30	5000002	10	WASH\FLAT\5/8		
31	5000003	8	WASH\LOCK\5/8		
32	4900005	4	NUT\HEX\5/8\NC		
33	4800003	8	BOLT\HEX\3/8X1		
34	5000001	12	WASH\FLAT\3/8		
35	5000009	8	WASH\LOCK\3/8		
36	4900002	4	NUT\HEX\3/8\NC		
37	4500253	2	WASH\THRST\3-1/8IDX6SQ		
38	4500406		RTR\RBLT\43X15/16RD H1000		
39	4500047		RTR\NEW\43X15/16RD H1000		
	4500510		RTR\CORE\2-7/16_BRG\H1000		
	4500206		PL\CYL\WASH\REIN		
	4500543		SCRN\TRACK\H1000		

52 CYLINDER

Serial No. 3281 thru



CYLINDER

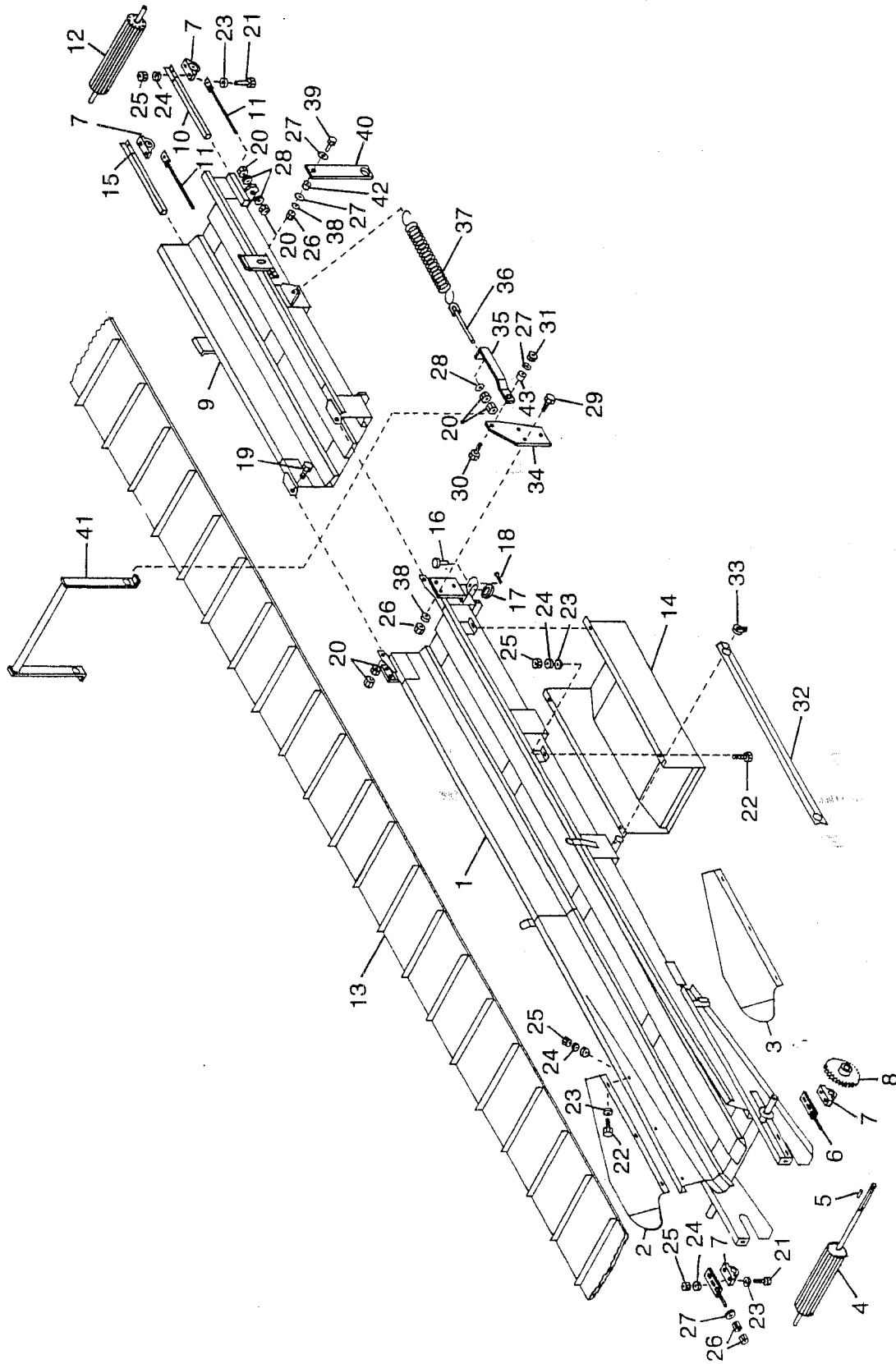
53

SERIAL NO. 3281 TO FI 3631

ITEM	PART #	QTY	DESCRIPTION	PART#	DESCRIPTION
1	6200029	1	KEY\SQ\5/8X2		SCREENS
2	1400050	NA	SHVE\B\5.6\2-3/4\B56	5400094	SCRN\1/8HL\1/4\H1000
3	1400519	1	BUSH\R2\2-3/4	5400075	SCRN\3/16HL\1/4\H1000
4	1400016	1	SHVE\B-8\11.0	5400009	SCRN\1/4HL\1/4\H1000
5	4500442	1	DOOR\RTR\FR\BRG\RH	5400010	SCRN\3/8HL\1/4\H1000
5A	4500443	1	DOOR\RTR\FR\BRG\LH	5400011	SCRN\1/2HL\1/4\H1000
6	4500444	2	SHIM\BRG\10 GA\3 X 10 1/4	5400012	SCRN\5/8HL\1/4\H1000
6A	4500445	2	SHIM\BRG\10 GA\3 X 11 1/4	5400013	SCRN\3/4HL\1/4\H1000
7	2000508	1	BRG\PB\2-7/16\E\DODGE	5400067	SCRN\1-1/2HL\1/4\H1000
7A	2000509	1	BRG\PB\2-3/4\E\DODGE	5400014	SCRN\1HL\1/4\H1000
8	4700267	1	NUT\RTR\3 W/O SHOULDER	5400015	SCRN\2HL\1/4\H1000
9	4500494	1	SHFT\RTR\3X65\H1000	5400016	SCRN\3HL\1/4\H1000
10	4500023	1	PL\RTR\END\SLUGS\3IDX1/2	5400061	SCRN\4HL\1/4\H1000
11	4500527	1	SLUGBUSTER\RD	5400108	SCRN\5HL\1/4\H1000
12	4500017	48	SPCR\HMMR\1IDX1-1/4L	5400089	SCRN\2HL\1/4\H1000\SLTD
13	5200002	64	3/8" AB SUPREME HAMMER	5400087	SCRN\3HL\1/4\H1000\SLTD
14	4500132	1	DOOR\RTR\REAR BRG	5400088	SCRN\4HL\1/4\H1000\SLTD
15	4500259	1	COV\BRG\RTR\W/HAYGUIDE	5400079	SCRN\DUMMY\1/4\H1000
16	4500094	4	CLIP\COVER\RTR\H1000		
17	4700266	1	NUT\ROTOR\3 W/SHOULDER		
18	5300020	8	ROD\HMMR\15/16X43		
19	4500019	1	PL\RTR\MOVEABLE5.32IDX>		
20	4500021	1	PL\RTR\END\TPPD\3IDX1\2		
21	4500134	14	SPCR\SHAFT\5.56 OD		
21A	4500425	2	SPCR\CAST\6.25OD X 2.460		
22	4500020	15	PL\RTR\3IDX3/16		
23	4500251	1	HOLD DOWN\SCRN\NOTCHED		
23A	4500459	1	HOLDDN\SCRN\NOTCHED&NIPED		
24			SCREENS		
25	4500253	1	WASH\THRST\3-1/8IDX6SQ		
26	6200013	1	KEY\SQ\5/8X4-1/2		
27	4800010	4	BOLT\HEX\5/8X2		
28	4800100	4	BOLT\HEX\5/8X4		
29	4800054	2	BOLT\HEX\5/8X3-1/2		
30	5000002	14	WASH\FLAT\5/8		
31	5000003	12	WASH\LOCK\5/8		
32	4900005	4	NUT\HEX\5/8\NC		
33	4800003	8	BOLT\HEX\3/8X1		
34	5000001	12	WASH\FLAT\3/8		
35	5000019	8	WASH\LOCK\3/8		
36	4900002	4	NUT\HEX\3/8\NC		
37	4500446		RTR\NEW\43X15/16RD\H1000		
38	4500554		RTR\RBLT\43X15/16RD H1000		
	4500570		ROTOR CORE		

54 DISCHARGE CONVEYOR

Serial No. 2080 thru 3031



DISCHARGE CONVEYOR

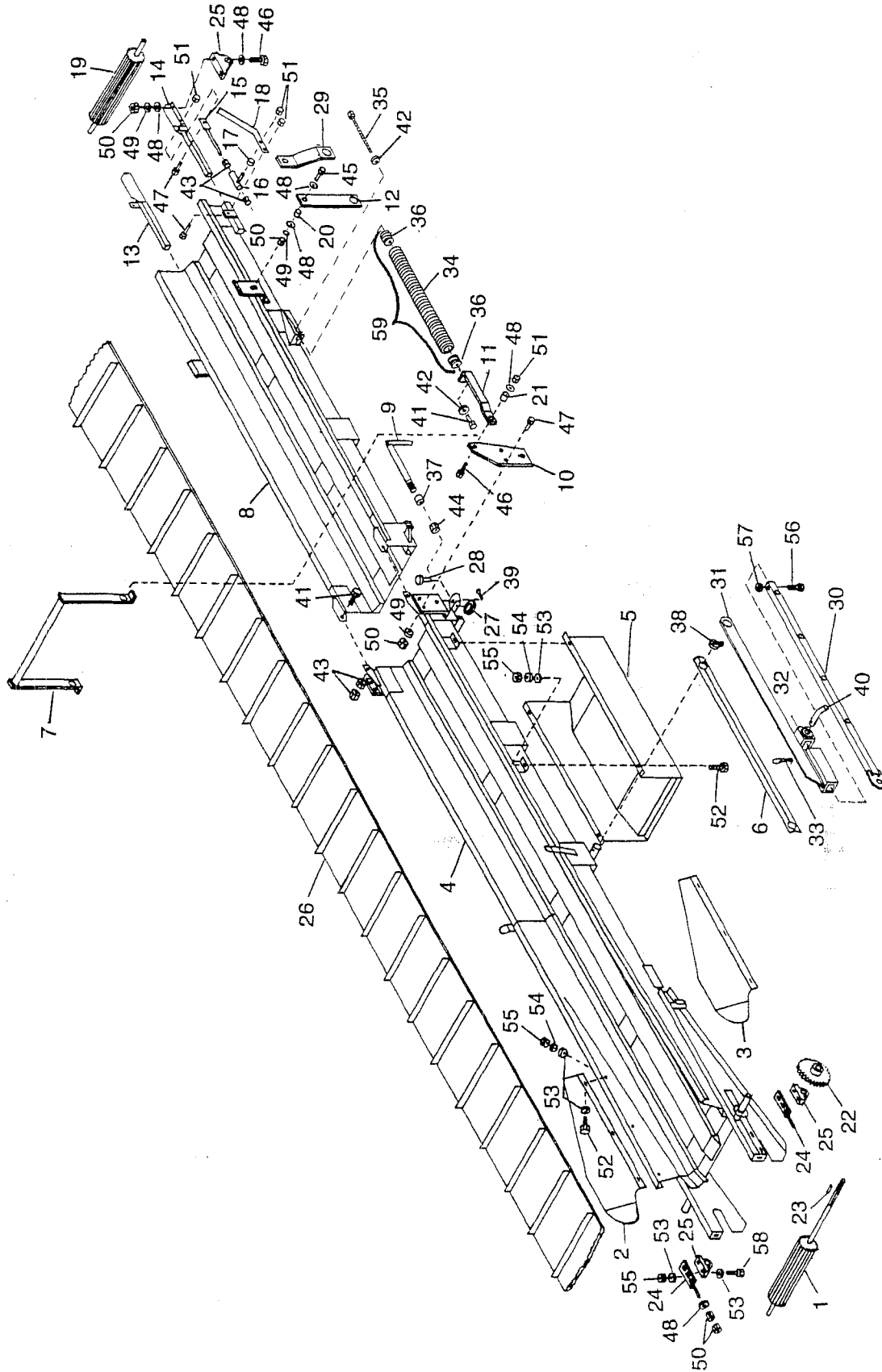
55

SERIAL NO. 2080 TO 3031

ITEM	PART #	QTY	DESCRIPTION
1	4500174	1	FRM\CNVYR\LWR\H1000
2	4500176	1	DFLCTR RH
3	4500177	1	DFLCTR LH
4	4500064	1	DRIVE ROLLER 1 1/8 SHAFT
5	6200014	1	KEY\SQ\1/4X1-1/4
6	4500180	2	BOLT\CNVYR\LWR\H1000
7	2000507	4	BRG\PB\1-1/8
8	1000092	1	SPKT\60\B\20\1\1/4KW
9	4500175	1	FRM\CNVYR\UPPER\H1000
10	4500178	1	BEARING BRACKET L H
11	4500375	2	BOLT\CNVYR\TENSION ADJ
12	4500059	1	RLLR\IDLER\CNVYR\1-1/8X24
13	1700017	1	BELT\CNVYR\18\39'4W/>
	1700052		LCNG\CBL\1/8X18\NYL
	1700055		LCNG\#125\18W\STPLS
14	4500159	1	GUIDE\CNVYR\BELT\BOTTOM
15	4500179	1	BEARING BRACKET R H
16	4800026	2	PIN\SLV\5/8X2W\KEY
17	1400082	2	SHVE\CBLW\BRG
18	4800123	1	PIN\COT\1/8X1-1/2
19	4800010	2	BOLT\HEX\5/8X2
20	4900005	8	NUT\HEX\5/8\NC
21	4800142	8	BOLT\HEX\3/8X1-3/4
22	4800003	10	BOLT\HEX\3/8X1
23	5000001	24	WASH\FLAT\3/8
24	5000019	18	WASH\LOCK\3/8
25	4900002	18	NUT\HEX\3/8\NC
26	4900001	10	NUT\HEX\1/2\NC
27	5000004	8	WASH\FLAT\1/2
28	5000002	6	WASH\FLAT\5/8
29	4800018	6	BOLT\HEX\1/2X1-1/4
30	4800178	2	BOLT\HEX\1/2X1-3/4
31	4900014	2	NUT\TPLCK\1/2\NC\.500"MAX
32	4500194	2	BRKT\CNVYR\TRAN\HANGER
33	4800076	2	PIN\KLIK\5/16
34	4500536	2	BRKT\CNVYR\SPRING ARM
35	4500196	2	ARM\CNVYR\SPG
36	4500197	2	BOLT\TENSION\SPRING\>
37	6100013	2	SPG\BGGR/TENS
38	5000006	6	WASH\LOCK\1/2
39	4800114	2	BOLT\HEX\1/2X2
40	4500198	2	TRANSPORT LOCK
41	4500199	1	GUIDE\CNVYR\BELT
42	4500200	1	TUBE\CNVYR\3/4X1/2X3/8
43	4500201	1	TUBE\CNVYR\3/4X1/2X3/4
	1700052		LCNG\CBL\1/8X18\NYL
	1700055		LCNG\#125\18W\STPLS

56 DISCHARGE CONVEYOR

Serial No. 3032 Thru



DISCHARGE CONVEYOR

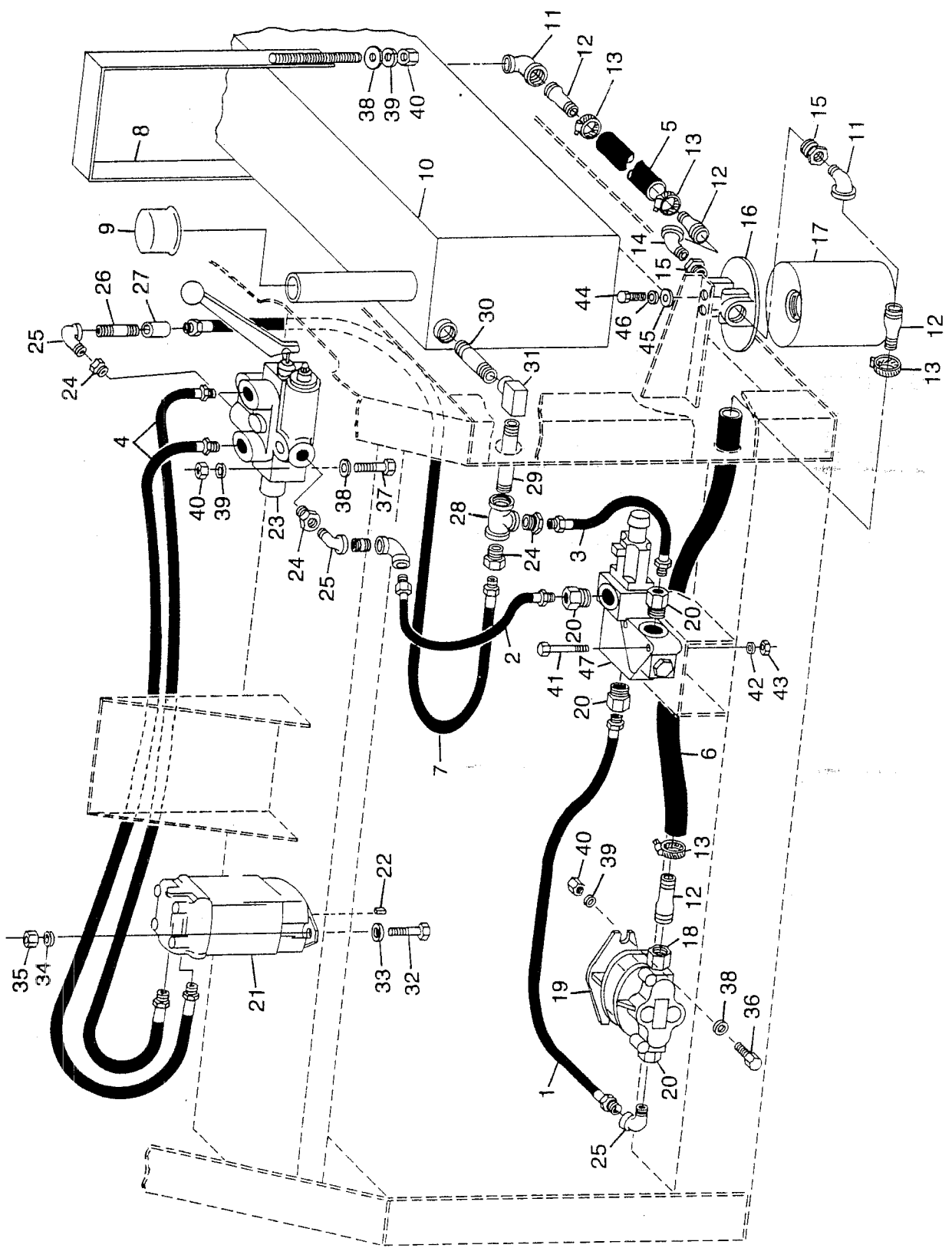
57

SERIAL NO. 3032 TO FI 3631

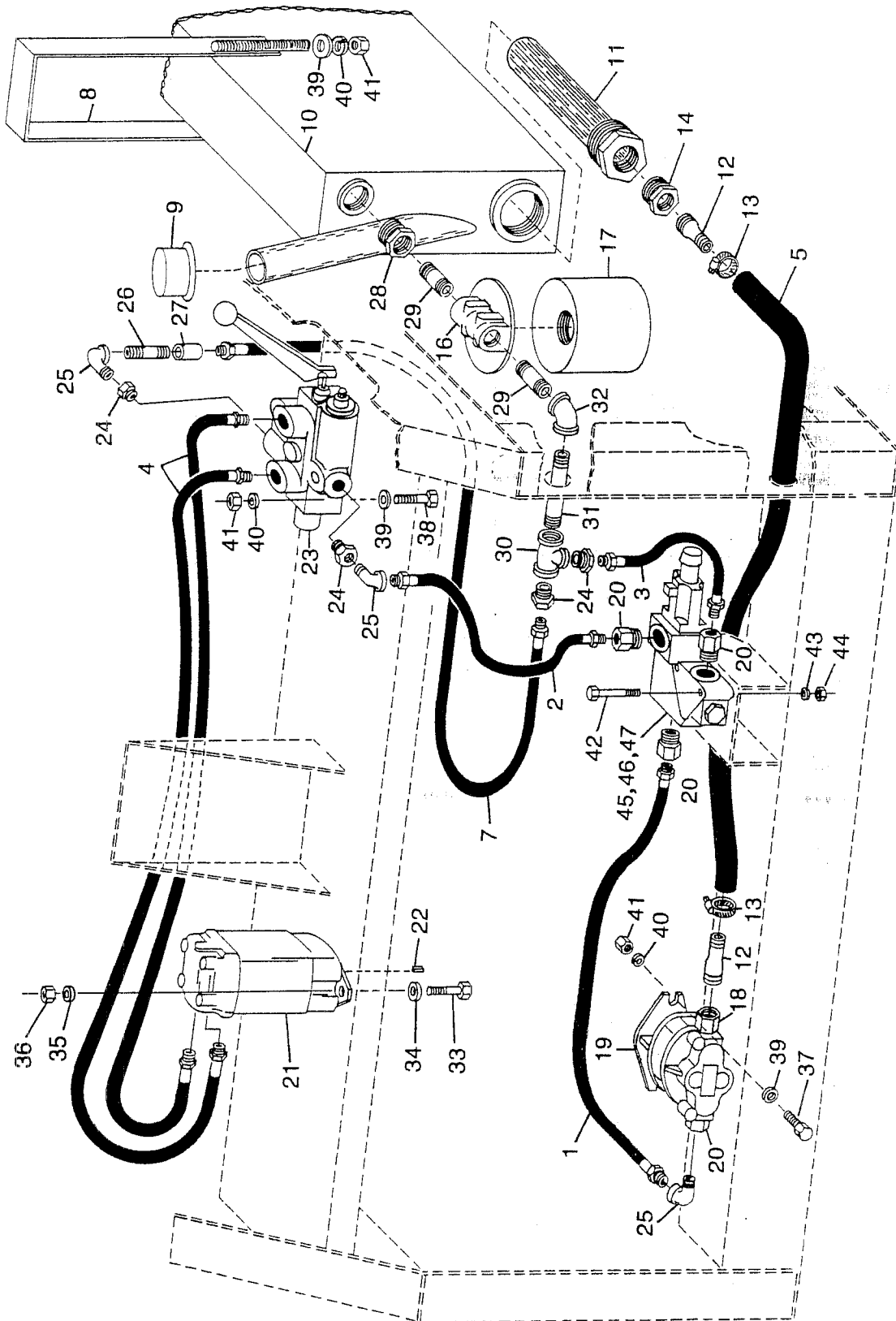
ITEM	PART #	QTY	DESCRIPTION	ITEM	PART #	QTY	DESCRIPTION
1	4500064	1	DRIVE ROLLER 1 1/8 SHAFT	52	4800003	10	BOLT\HEX\3/8X1
2	4500176	1	DFLCTR RH	53	5000001	24	WASH\FLAT\3/8
3	4500177	1	DFLCTR LH	54	5000019	14	WASH\LOCK\3/8
4	4500431	1	FRM\CNVYR\LWR\H1000	55	4900002	14	NUT\HEX\3/8\NC
5	4500159	1	GUIDE\CNVYR\BELT\BOTTOM	56	4800146	2	BOLT\HEX\3/8X2
6	4500194	2	BRKT\CNVYR\TRAN\HANGER	57	4900023	2	NUT\TPLCK\3/8\NC
7	4500199	1	GUIDE\CNVYR\BELT	58	4800142	4	BOLT\HEX\3/8X1-3/4
8	4500432	1	FRM\CNVYR\UPPER\H1000	59	6100066	2	SPRING W\PLUG H1000
9	4500372	1	HANDLE\CNVYR\LATCH	60	4500455		CNVYR\COMPL\H1000
10	4500536	2	BRKT\CNVYR\SPRING ARM	61	4500725		MNT\SPG\CNVYR\DISCH
11	4500196	2	ARM\CNVYR\SPG		4500727		LATCH\CNVYR\H-1000
12	4500198	2	TRANSPORT LOCK		4500728		LATCH\STOP\CONV;DISC
13	4500373	1	BRKT\CNVYR\BRG\RH		4500415		FOLDING CONV LESS/BELT
14	4500374	1	BRKT\CNVYR\BRG\LH		4500455		CNVYR\COMPL\H1000
15	4500375	2	BOLT\CNVYR\TENSION ADJ		4500535		KIT\CNVYR\FOLD\H1000
16	4500376	2	HINGE\CNVYR\TENS\ADJ				
17	4500377	2	TUBE\CNVYR\TENSION ADJ				
18	4500378	1	HANDLE\CNVYR\TNSN ADJ\LH				
18A	4500678	1	HANDLE\CNVYR\TNSN ADJ\RH				
19	4500059	1	RLLR\IDLER\CNVYR\1-1/8X24				
20	4500200	2	TUBE\CNVYR\3/4X1/2X3/8				
21	4500201	2	TUBE\CNVYR\3/4X1/2X3/4				
22	1000092	1	SPKT\60\B\20\1\1/4KW				
23	6200005	1	KEY\SQ\1/4X1-1/2				
24	4500180	2	BOLT\CNVYR\LWR\H1000				
25	2000507	4	BRG\PB\1-1/8				
26	1700017	1	BELT\CNVYR\18\39'4\"W/>				
27	1400082	2	SHVE\CBL\W/BRG				
28	4800026	2	PIN\SLV\5/8X2\"W/KEY				
29	4500399	2	LATCH\CNVYR\H1000-95				
30	4500381	2	BRKT\CNVYR\SAFETY BAR				
31	4500382	2	GUIDE\CNVYR\46-1/2"				
32	4500383	2	TUBE\STOP\SAFETY\H1000				
33	4800056	2	PIN\HAIR\3/16X3 (#6)				
34	6100047	2	SPRNG\1-1/2IDX33-1/2\1/2				
35	4500380	2	BOLT\ADJ\SPG\5/8X11				
36	7500113	4	SCR\PLUG				
37	2000809	1	CLLR\SHFT\1\"(SET)				
38	4800076	2	PIN\KLIK\5/16				
39	4800123	2	PIN\COT\1/8X1-1/2				
40	4500384	2	PIN\CNVYR\SAFETY\BAR\H11E				
41	4800010	4	BOLT\HEX\5/8X2				
42	5000002	4	WASH\FLAT\5/8				
43	4900005	10	NUT\HEX\5/8\NC				
44	4900015	1	NUT\NYLCK\1\NC				
45	4800114	2	BOLT\HEX\1/2X2				
46	4800178	6	BOLT\HEX\1/2X1-3/4				
47	4800018	10	BOLT\HEX\1/2X1-1/4				
48	5000004	14	WASH\FLAT\1/2				
49	5000006	10	WASH\LOCK\1/2				
50	4900001	16	NUT\HEX\1/2\NC				
51	4900014	8	NUT\TPLCK\1/2\NC\500"MAX				

4563100

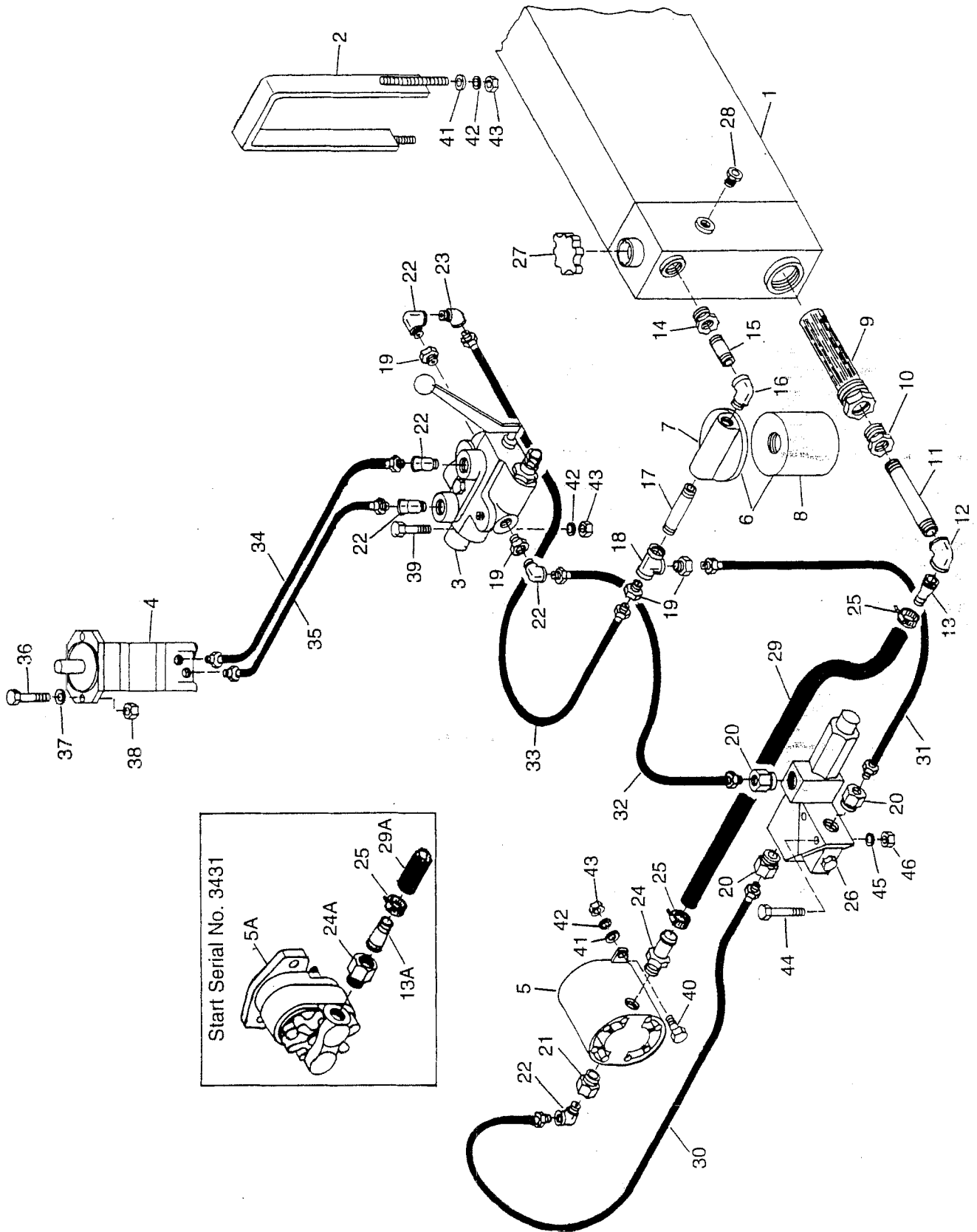
KIT\EBLD\BCH\PRE 9432
H/1000(CONV)



ITEM	PART #	QTY.	DESCRIPTION
1	3700109	1	HOSE\HYD\1\2X32\SW-SW
2	3700110	1	HOSE\HYD\1\2X20\SW-SO
3	3700018	1	HOSE\HYD\1\2X18\SW-SO
4	3700073	2	HOSE\HYD\1\2X50\SW-SO
4B	3800171	2	FTG\3\4MORX1\2FP\ADPT
5	3700109	1	HOSE\HYD\1\2X32\SW-SW
6	3700074	1	HOSE\HYD\1X35-1\2\SW-SO
7	3700017	1	HOSE\HYD\1\2X24\SW-SW
8	4500082	2	BRKT\TANK\OIL
9	3800027	1	VENT\CAP\1-1\4\BREATHER
10	4500081	1	TANK\OIL\H1100
11	3800021	2	FTG\1MPX1FP\90D\ST;ELL
12	3800056	4	FTG\1MPX1BARB\ADPT\LW
13	3800024	4	CLAMP\HOSE\1
14	3800006	1	FTG\1MPX1FP\45D\ST;ELL
15	3800046	2	FTG\1-3\16\MORX1FP\ADPT
16	4400001	1	FLTR\BASE\1-1\4FP\5.1D\>
17	4400002	1	FLTR\ELMT\25MICRON\5.1D\>
18	3800046	1	FTG\1-3\16\MORX1FP\ADPT
19	4200025	1	EATON PUMP RH 15 GALLON
20	3800119	4	FTG\1-1\16MORX1\2FP\ADPT
21	3900005	1	MTR\HYD\14.9\2000\SAE;A\>
22	6200004	1	KEY\SQ\5\16X1-1\2
23	4000035	NA	VALVE\HYD\1-SPL\W\DETENT PIPE THREAD
23B	4000095	1	VALVE\HYD\1-SPL\W\DETENT O-RING
24	3800010	4	FTG\3\4MPX1\2FP\BUSH
24B	3800119	2	FTG\1-1\16MORX1\2FP\ADPT
25	3800008	3	FTG\1\2MPX1\2FP\90D\ST;EL
26	3800032	1	FTG\1\2MPX3\NPL\LW
27	3800051	1	FTG\1\2FP\CPLG
28	3800017	1	FTG\3\4FP\TEEL\LW
29	3800008	1	FTG\1\2MPX1\2FP\90D\ST;EL
30	3800015	1	FTG\3\4MPX2\NPL\LW
31	3800035	1	FTG\3\4FP\90D\ELL
32	4800114	2	BOLT\HEX\1\2X2
33	5000004	2	WASH\FLAT\1\2
34	5000006	2	WASH\LOCK\1\2
35	4900001	2	NUT\HEX\1\2\NC
36	4800003	2	BOLT\HEX\3\8X1
37	4800146	3	BOLT\HEX\3\8X2
38	5000001	9	WASH\FLAT\3\8
39	5000019	9	WASH\LOCK\3\8
40	4900002	9	NUT\HEX\3\8\NC
41	4800193	2	BOLT\HEX\1\4X2-3\4
42	5000024	2	WASH\LOCK\1\4
43	4900009	2	NUT\HEX\1\4\NC
44	4800393	2	BOLT\HEX\5\16X7\8\GR8
45	5000023	2	WASH\FLAT\5\16
46	5000022	2	WASH\LOCK\5\16
47	4300065	1	VALVE\SERVO\15GPM\12VDC>
	4300010		VALVE\SOLENOID\12V\JEMM
	7501018		SERVICE KIT O-RING K1002



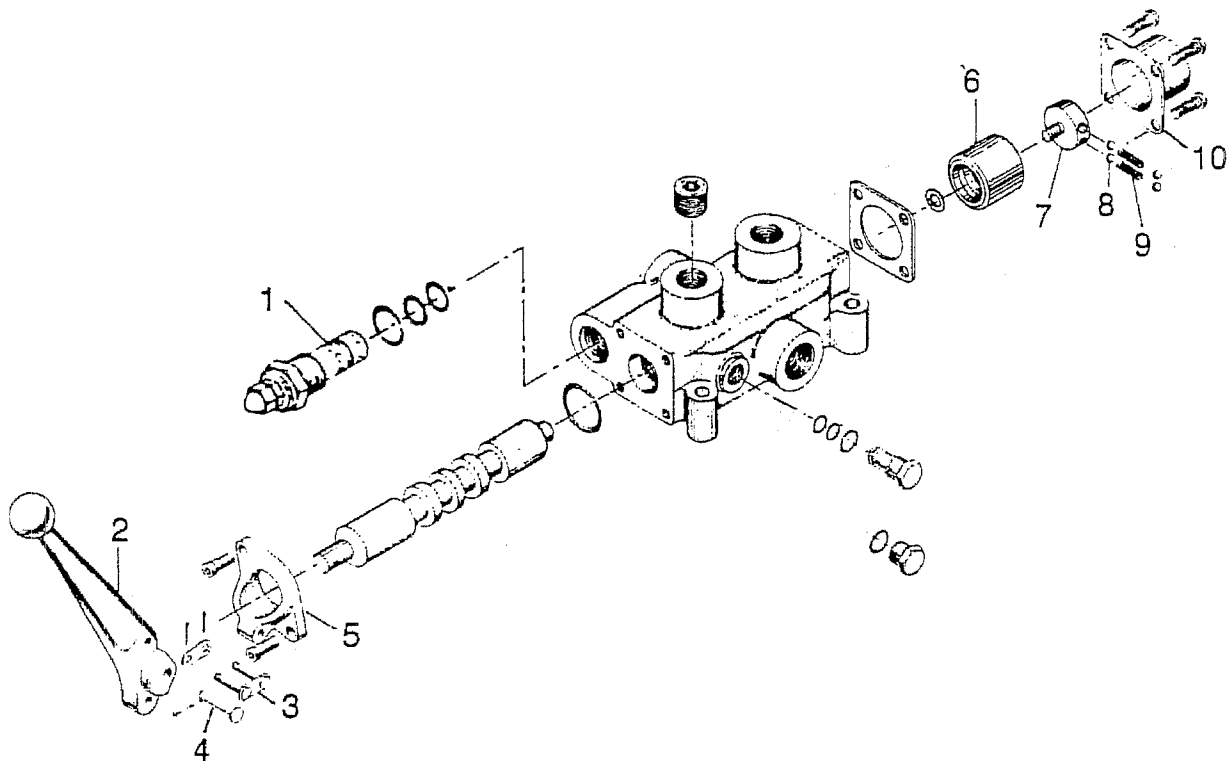
ITEM	PART #	QTY.	DESCRIPTION
1	3700109	1	HOSE\HYD\1\2X32\SW-SW
2	3700110	1	HOSE\HYD\1\2X20\SW-SO
3	3700111	1	HOSE\HYD\1\2X14\SW-SO
4	3700176	2	HOSE\HYD\1\2X53\SW-SW
4B	3800171	2	FTG\3\4MORX1\2FP\ADPT
5	3700177	1	HOSE\SCTN\1X48
7	3700017	1	HOSE\HYD\1\2X24\SW-SW
8	4500082	2	BRKT\TANK\OIL
9	3800027	1	VENT\CAP\1-1\4\BREATH
9A	7500275	1	CAP\VENTED\TANK\OIL
10	4500255	1	OIL TANK (NEW)
10A	4500433	1	OIL TANK W/SITE GLASS
11	4400007	1	FLTR\SCRN\2MPX1-1\4FP\25>
12	3800056	2	FTG\1MPX1BARB\ADPT\LW
13	3800024	2	CLAMP\HOSE\1
14	3800046	1	FTG\1-3\16\MORX1FP\ADPT
15	4400006	1	FLTR\COMP\10MICRON\3.7D\>
16	4400004	1	FLTR\BASE\1-1\4FP\5.1D\>
17	4400005	1	FLTR\ELMT\10MICRON\3.7D>
18	3800046	1	FTG\1-3\16\MORX1FP\ADPT
19	4200025	1	EATON PUMP RH 15 GALLON
20	3800119	4	FTG\1-1\16MORX1\2FP\ADPT
21	3900005	1	MTR\HYD\14.9\2000\SAE;A>
21A	3900010	1	MTR\HYD\24\2000\SAE;A;>
22	6200004	1	KEY\SQ\5\16X1-1\2
23	4000035	NA	VALVE\HYD\1-SPL\W\DETENT PIPE THREAD
23B	4000095	1	VALVE\HYD\1-SPL\W\DETENT O-RING
24	3800010	4	FTG\3\4MPX1\2FP\BUSH
24B	3800119	2	FTG\1-1\16MORX1\2FP\ADPT
25	3800008	2	FTG\1\2MPX1\2FP\90D\ST;EL
26	3800032	1	FTG\1\2MPX3\NPL\LW
27	3800051	1	FTG\1\2FP\CPLG
28	3800131	1	FTG\1MPX3\4FP\BUSH\LW
29	3800015	2	FTG\3\4MPX2\NPL\LW
30	3800017	1	FTG\3\4FP\TEE\LW
31	3800008	2	FTG\1\2MPX1\2FP\90D\ST;EL
32	3800035	1	FTG\3\4FP\90D\ELL
33	4800114	2	BOLT\HEX\1\2X2
34	5000004	2	WASH\FLAT\1\2
35	5000006	2	WASH\LOCK\1\2
36	4900001	2	NUT\HEX\1\2\NC
37	4800003	2	BOLT\HEX\3\8X1
38	4800146	3	BOLT\HEX\3\8X2
39	5000001	9	WASH\FLAT\3\8
40	5000019	9	WASH\LOCK\3\8
41	4900002	9	NUT\HEX\3\8\NC
42	4800193	2	BOLT\HEX\1\4X2-3\4
43	5000024	2	WASH\LOCK\1\4
44	4900009	2	NUT\HEX\1\4\NC
45	4300065	1	VALVE\SERVO\15GPM\12VDC>
46	7501018	1	SERVICE KIT O-RING K1002
47	4300010	1	VALVE\SOLENOID\12V\JEMM



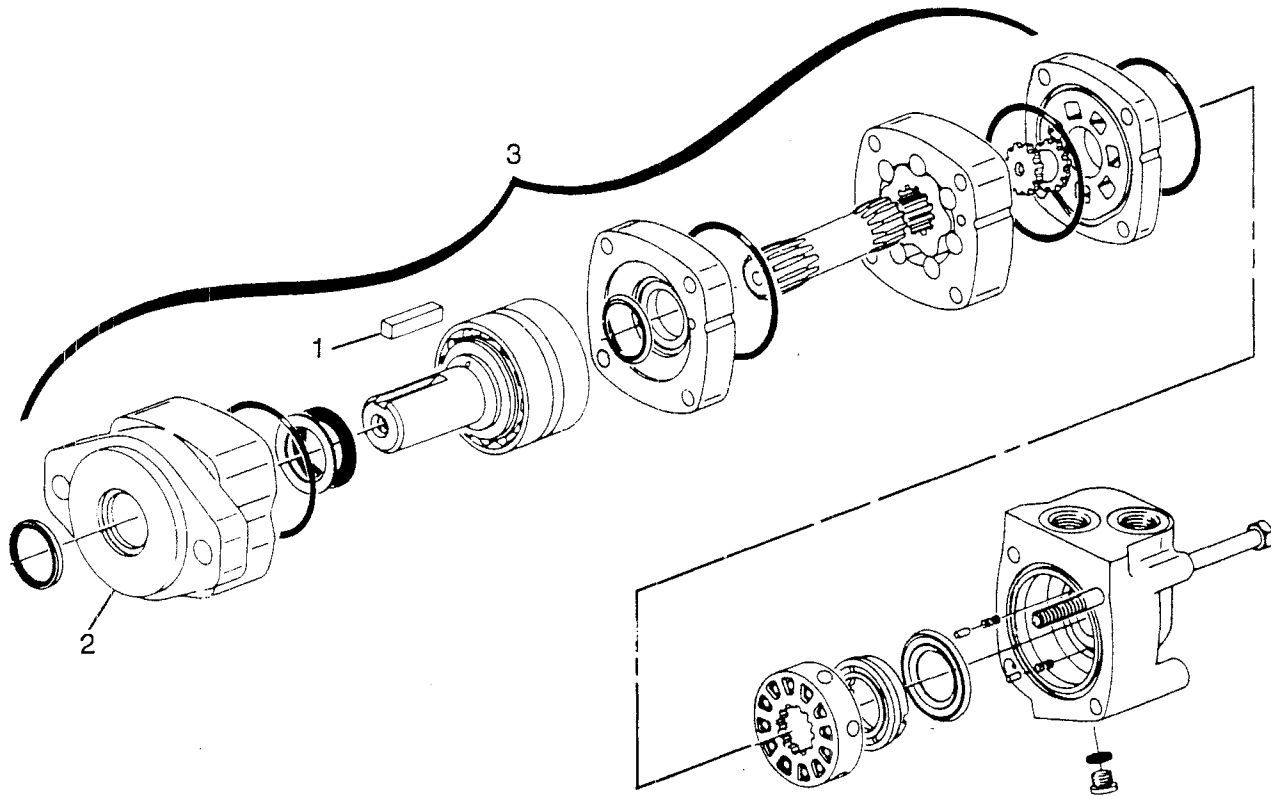
ITEM	PART #	QTY.	DESCRIPTION	SERIAL NO. 3032 - FI 3630
1	4500433	1	OIL TANK W/SITE GLASS	
2	4500082	2	BRKT\TANK\OIL	
3	4000035	NA	VALVE\HYD\1-SPLW\DETENT PIPE THREAD	
3B	4000095	1	VALVE\HYD\1-SPLW\DETENT O-RING	
4	3900005	1	MTR\HYD\14.9\2000\SAE;A\>	
4A	3900010	1	MTR\HYD\24\2000\SAE;A;>	
5	4200025	1	EATON PUMP RH 15 GALLON	
6	4400006	1	FLTR\COMP\10MICRON\3.7D\>	
7	4400004	1	FLTR\BASE\3/4FP\3.7D\>	
8	4400005	1	FLTR\ELMT\10MICRON\3.7D\>	
9	4400007	1	FLTR\SCRN\2MPX1-1/4FP\25>	
10	3800022	1	FTG\1-1/4MPX1FP\BUSH\1W	
11	3800182	1	FTG\1MPX5-1/2\NPL\1W	
12	3800153	1	FTG\1FP\90D\ELL	
13	3800056	1	FTG\1MPX1BARB\ADPT\1W	
13A	3800056	1	FTG\1MPX1BARB\ADPT\1W	
14	3800131	1	FTG\1MPX3/4FP\BUSH\1W	
15	3800015	1	FTG\3/4MPX2\NPL\1W	
16	3800129	1	FTG\3/4MPX3/4FP\90D\ST;EL	
17	3800157	1	FTG\3/4MPX4\NPL\1W	
18	3800017	1	FTG\3/4FP\TEE\1W	
19	3800010	4	FTG\3/4MPX1/2FP\BUSH	
19B	3800119	2	FTG\1-1/16MORX1/2FP\ADPT	
20	3800119	3	FTG\1-1/16MORX1/2FP\ADPT	
21	3800087	1	FTG\7/8MORX1/2FP\ADPT	
22	3800008	5	FTG\1/2MPX1/2FP\90D\ST;EL	
22B	3800048	2	FTG\3/4MORX1/2FP\90D\ST;EL	
23	3800028	1	FTG\1/2MPX1/2FP\45D\ST;EL	
24	3800120	1	FTG\1-3/16MORX1BARB\ADPT>	
24A	3800012	1	FTG\1-5/16MORX1FP\ADPT	
25	3800143	2	CLAMP\HOSE\1-1/2\T-BOLT\>	
26	4300065	1	VALVE\SERVO\15GPM\12VDC>	
27	7500275	1	CAP\VENTED\TANK\OIL	
28	3800137	1	FTG\3/4MP\SIGHT;GLASS	
29	3700313	1	HOSE\SCTN\1X36	
29A	3700310	1	HOSE\SCTN\1X34	
30	3700203	1	HOSE\HYD\1/2X32\SW-SO	
31	3700110	1	HOSE\HYD\1/2X20\SW-SO	
32	3700018	1	HOSE\HYD\1/2X18\SW-SO	
33	3700311	1	HOSE\HYD\1/2X24\SW-SO	
34	3700312	1	HOSE\HYD\1/2X34\SW\ORING	
35	3700230	1	HOSE\HYD\1/2X32\SW\ORING	
36	4800114	2	BOLT\HEX\1/2X2	
37	5000004	2	WASH\FLAT\1/2	
38	4900014	2	NUT\TPLCK\1/2\INC\.500"MAX	
39	4800034	3	BOLT\HEX\3/8X1-1/2	
40	4800098	2	BOLT\HEX\3/8X1-1/4\NC	
41	5000001	2	WASH\FLAT\3/8	
42	5000019	5	WASH\LOCK\3/8	
43	4900002	5	NUT\HEX\3/8\NC	
44	4800101	2	BOLT\HEX\1/4X2-1/2	
45	5000024	2	WASH\LOCK\1/4	
46	4900009	2	NUT\HEX\1/4\NC	
47	7501018		SERVICE KIT O-RING K1002	
48	4300010		VALVE\SOLENOID\12V\JEMM	

64 HYDRAULICS

SERIAL NO. 1880 THRU



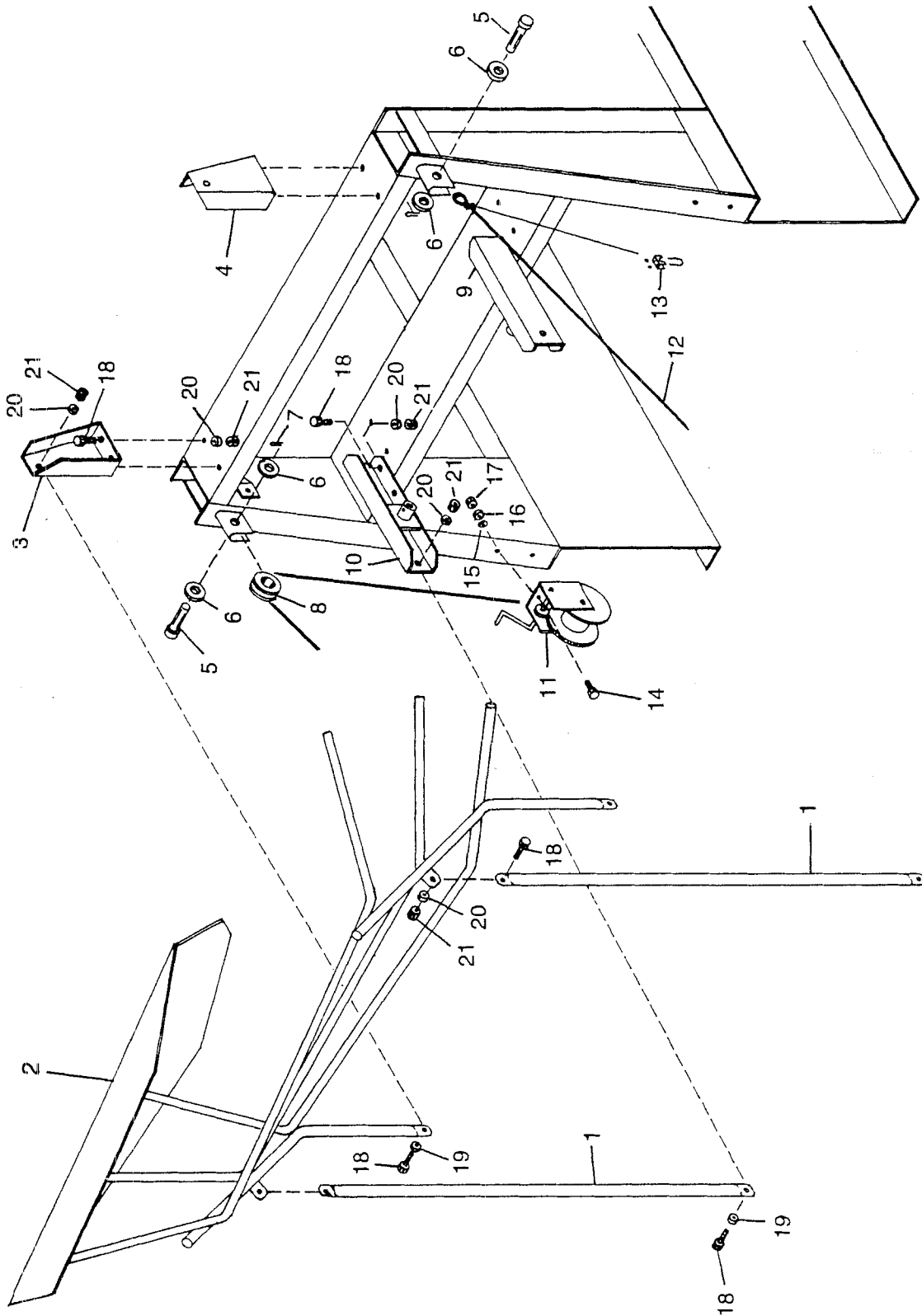
ITEM	PART NO.	QTY	DESCRIPTION
1	4000006	1	VALVE\ADJ\RELIEF
2	4000001	1	HANDLE\HYD\VALVE BANK
3	4000002	1	CONNECTOR LINK W\PIN
4	4000003	1	ORDER 4000002
5	4000004	1	BRKT\HYD\VALVE BANK
6	4000025	1	DETENT SLEEVE-HYD VALVE
7	4000026	1	DETENT RETAINER (SCREW)
8	4000027	2	DETENT SPRING-HYD VALVE
9	4000028	4	BALL 1/4"STEEL-HYD VALVE
10	4000029	1	BALL 1/4"STEEL-HYD VALVE
11	7501013	1	SEAL KIT SINGLE SPOOL VLV
	4000095		VALVE\HYD\1-SPL\W\DETENT



ITEM	PART NO.	QTY.	DESCRIPTION
1	6200004	1	5/16" X 1-1/2" KEY
2	3900011	1	Flange Mount
3	3900005	1	Complete Orbit Motor - 2000 Series 18 C.I.
4	7501005	1	Seal Kit Complete
5	3900010		Complete Orbit Motor - 2000 Series 24 C.I. (Optional)

66 MAIN FRAME - HAY GUIDE

Serial No. 2080 thru 3031



MAIN FRAME-HAY GUIDE

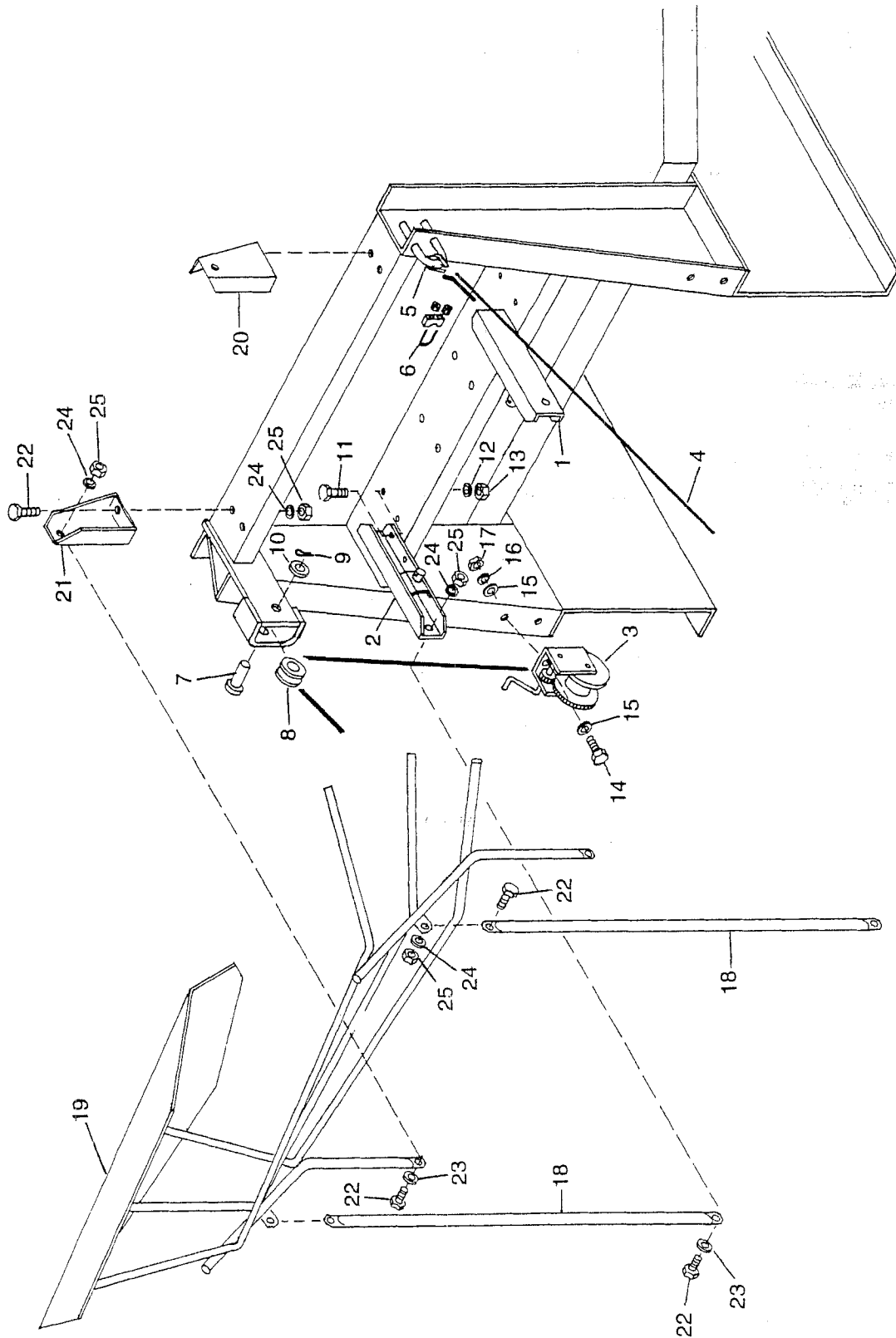
67

SERIAL NO. 2080-3031

ITEM	PART #	QTY	DESCRIPTION
1	4500181	2	BRACE\HAYGUIDE\43"
2	4500098	1	GUIDE\HAY\H1000-H1100
3	4500183	2	LH. & R.H TOP BRKT H1000
5	4800026	2	PIN\SLV\5/8X2W/KEY
6	5000002	4	WASH\FLAT\5/8
7	4800123	2	PIN\COT\1/8X1-1/2
8	1400082	1	SHVE\CBLW/BRG
9 & 10	4500545	2	BRKT\SUP\LWR\CNVYR\H1000
11	5800001	NA	WINCH
	5800008	NA	WINCH
	5800021		WINCH\ELEC\4500\SA12000
12	5800309	1	CABLE\1/4"X32'
13	4800027	2	CLAMP\CBL\1/4
14	4800003	2	BOLT\HEX\3/8X1
15	5000001	2	WASH\FLAT\3/8
16	5000019	2	WASH\LOCK\3/8
17	4900002	2	NUT\HEX\3/8\NC
18	4800114	14	BOLT\HEX\1/2X2
19	5000004	14	WASH\FLAT\1/2
20	5000006	14	WASH\LOCK\1/2
21	4900001	14	NUT\HEX\1/2\NC
22	5800320		CLAMP\WINCH\CBL\1/4
	4500427		OPTN\HAY GUIDE\H1000

68 MAIN FRAME - HAY GUIDE

Serial No. 3032 thru



MAIN FRAME-HAY GUIDE

69

SERIAL NO. 3032 - FI 3630

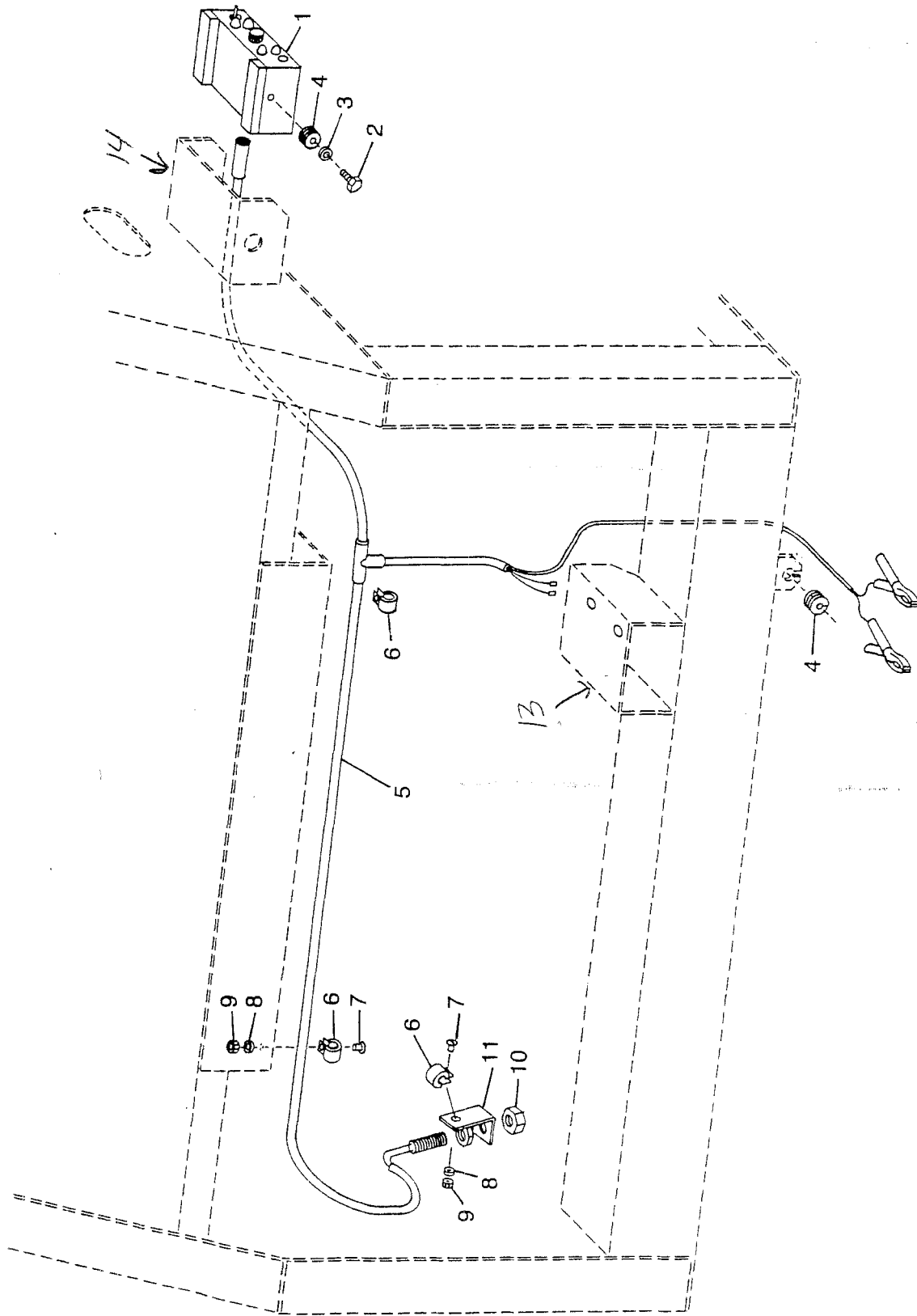
ITEM	PART #	QTY	DESCRIPTION
1	4500545	1	BRKT\SUP\LWR\CNVYR\H1000
2	4500545	1	BRKT\SUP\LWR\CNVYR\H1000
3	5800008	NA	WINCH
	5800021	1	WINCH\ELEC\4500\SA12000
4	5800309	1	CABLE\1/4"X32'
5	7500121	1	1/4" CABLE THIMBLE
6	4800027	2	CLAMP\CBL\1/4
7	4800026	1	PIN\SLV\5/8X2W/KEY
8	1400082	1	SHVE\CBLW/BRG
9	4800123	1	PIN\COT\1/8X1-1/2
10	5000002	1	WASH\FLAT\5/8
11	4800114	4	BOLT\HEX\1/2X2
12	5000006	4	WASH\LOCK\1/2
13	4900001	4	NUT\HEX\1/2\NC
14	4800003	2	BOLT\HEX\3/8X1
15	5000001	4	WASH\FLAT\3/8
16	5000019	2	WASH\LOCK\3/8
17	4900002	2	NUT\HEX\3/8\NC
HAY GUIDE OPTION			
18	4500181	2	BRACE\HAYGUIDE\43"
19	4500098	1	GUIDE\HAY\H1000-H1100
20 & 21	4500183	2	LH. & R.H TOP BRKT H1000
22	4800114	10	BOLT\HEX\1/2X2
23	5000004	4	WASH\FLAT\1/2
24	5000006	10	WASH\LOCK\1/2
25	4900001	10	NUT\HEX\1/2\NC
26	4500427		OPTN\HAY GUIDE\H1000
HYD. LIFT			
	1400067	1	SHVE\30DX1-1/4IDX1
	4500746	1	TUBE\SHEAVE\PIVOT
	2000806	2	CLLR\LOCK\1-1/8
	4500747	2	TUBE\SPCR\SHEEVE\CHNGOVR>

See also
Hydraulic
LIFT
CHANGES
- LAST PAGE

4500688 1 SLEEVE CABLE HYD LIFT
4500746 1 TUBE SLEEVE PIVOT
2000806 2 1/8" SET COLLARS
4500747 2 SPACERS

70 ELECTRONIC GOVERNOR

Serial No. 8301880 thru



ELECTRONIC GOVERNOR

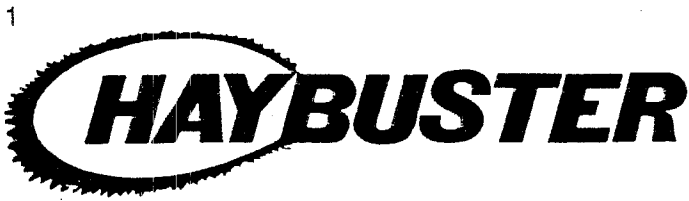
71

SERIAL NO. 1880 - FI 3630

ITEM	PART #	QTY	DESCRIPTION
1	4300034	1	NEW STYLE CNTRL BOX RCB93
2	4800194	2	SCR\FLG\1/4X3/4
3	5000035	2	WASH\FLAT\1/4
4	7500124	3	GROMMET\RUBBER\1ODX9/32ID
5	4300007	1	WIRING HARNESS 1000 1100
6	5700058	3	CLAMP\CUSHION\NO.8
7	4800466	3	SCR\PAN\SLOT\1/4X1/2\ST
8	5000024	3	WASH\LOCK\1/4
9	4900009	3	NUT\HEX\1/4\NC
10	4300009	1	SENSOR\MAGW/HARDWARE
11	4500205	1	BRKT\SNSRH-1000
12	4300038		REBUILT CONTROL BOX RCB93

13 4501323

14 4501322



3 **H-1000**

6

⚠ DANGER	⚠ PELIGRO
ROTATING PARTS WITHIN CAN KILL OR DISMEMBER	LAS PARTES GIRATORIAS INTERNAS PUEDEN MATAR O DESMEMBRAR
WAIT FOR ALL MOVEMENT TO STOP BEFORE SERVICING, UNBLOCKING OR INSPECTING MACHINE.	ANTES DE SERVIR, DESTABRAR O INSPECCIONAR LA MAQUINA, ESPERE A QUE CESE TODO EL MOVIMIENTO.

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. It is 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-tossed.

5500146

7

⚠ WARNING	⚠ ADVERTENCIA
FOR YOUR PROTECTION KEEP ALL SHIELDS IN PLACE AND SECURED WHILE MACHINE IS OPERATING. MOVING PARTS WITHIN CAN CAUSE SEVERE PERSONAL INJURY.	PARA ASEGURAR SU PROTECCION MANTENGA TODOS LOS PROTECTORES EN SU LUGAR Y ASEGURADOS MIENTRAS LA MAQUINA ESTE OPERANDO. LAS PIEZAS MOVILES INTERNAS PUEDEN CAUSAR LESIONES PERSONALES GRAVES.

9

KEEP WHEEL BOLTS TIGHT

MANTENER AJUSTADOS LOS PERNOS DE LA RUEDA

5500042



13

	⚠ CAUTION
	ADJUST 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".
	⚠ PRECAUCIÓN
	AJUSTE LA BARRA DE TRACCION DE EL TRACTOR A LA DISTANCIA DE 14 A 16 PULGADAS DE LA PUNTA DEL ARBOL MOTOR (PTO) EN EL TRACTOR AL CENTRO DE LA CLAVIJA DE ENGANCHO EN LA BARRA DE TRACCION.

10

	ROTATION
	ROTATION
	ROTACION
	ROTACION

11

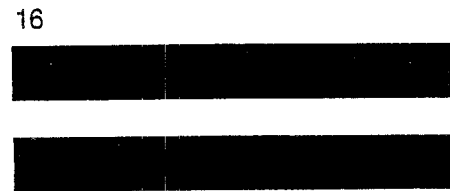
⚠ WARNING	⚠ ADVERTENCIA
NO RIDERS	
SERIOUS PERSONAL INJURY COULD RESULT FROM RIDING ON THE MACHINE	PASAJEROS PROHIBIDOS
	PODRIAN RESULTAR LESIONES PERSONALES GRAVES AL VIAJAR EN LA MAQUINA

12

OIL LEVEL

NIVEL DE ACEITE

5500052



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

13-10021-00

15

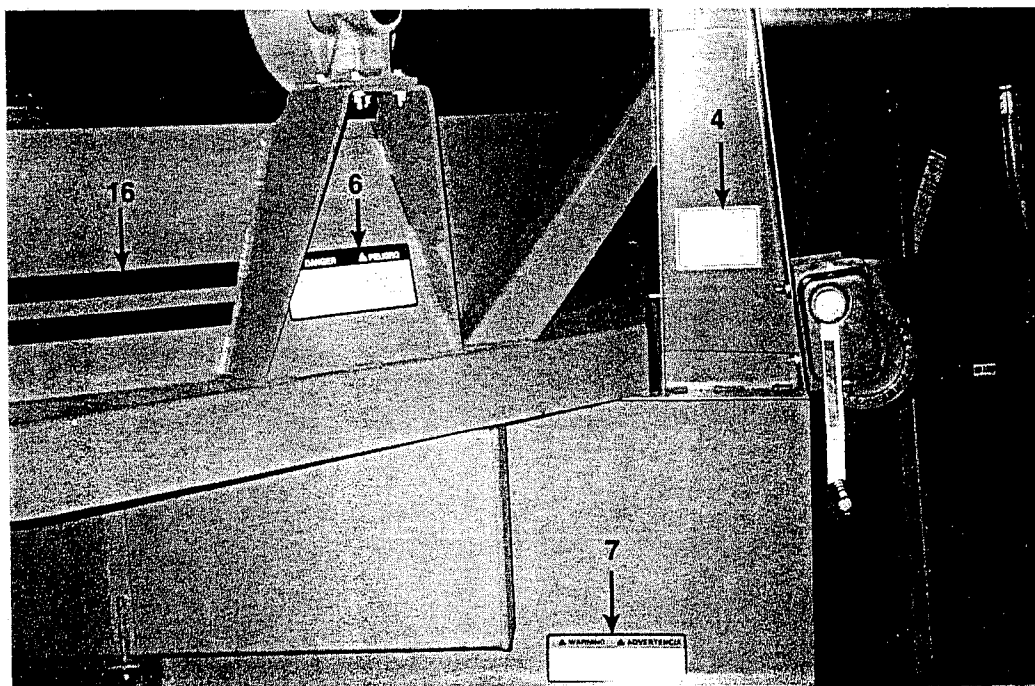
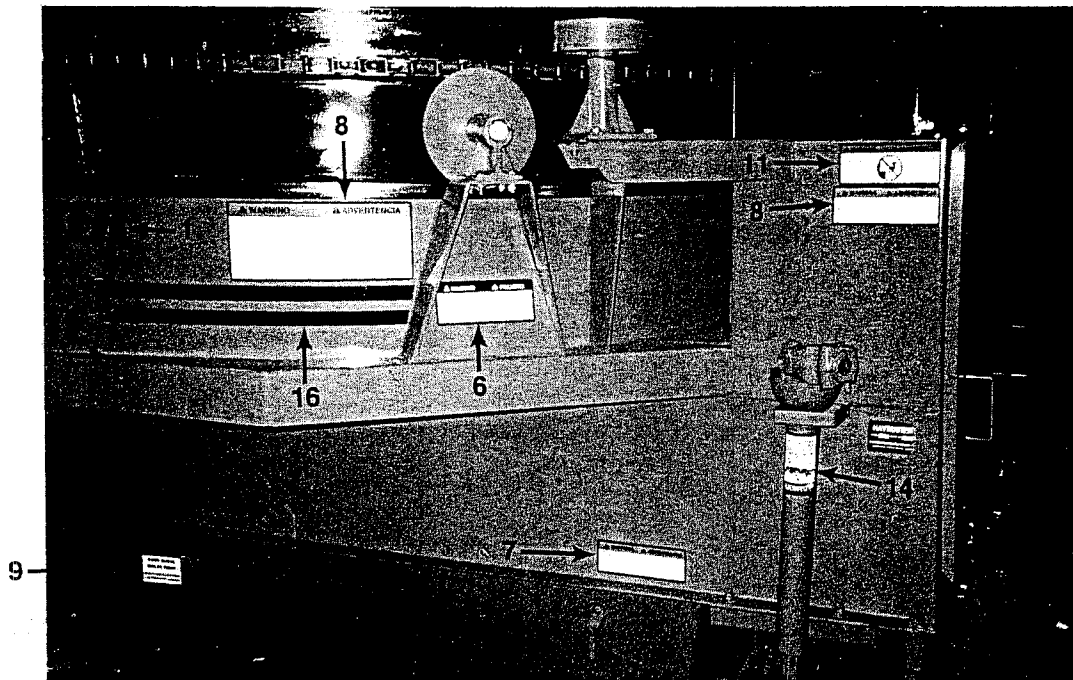
	⚠ WARNING
	Failure to use caution while Folding the conveyor could result in Serious Injury.
	⚠ ADVERTENCIA
	El no tener cuidado al doblar la transportadora podría resultar en una lesión grave.

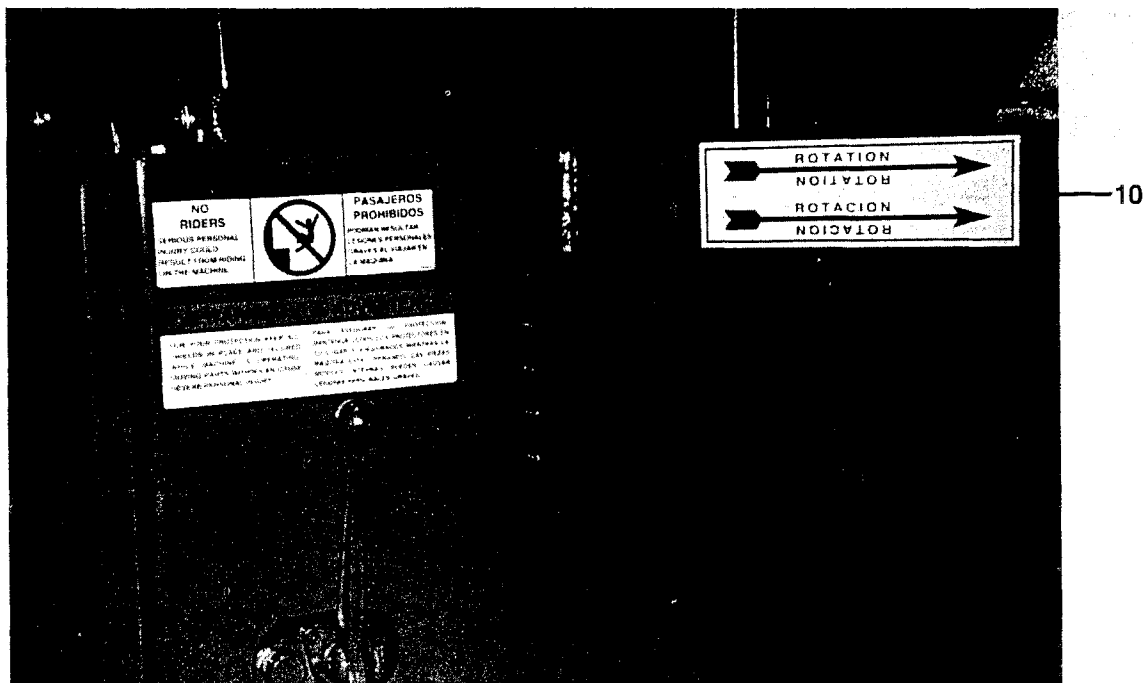
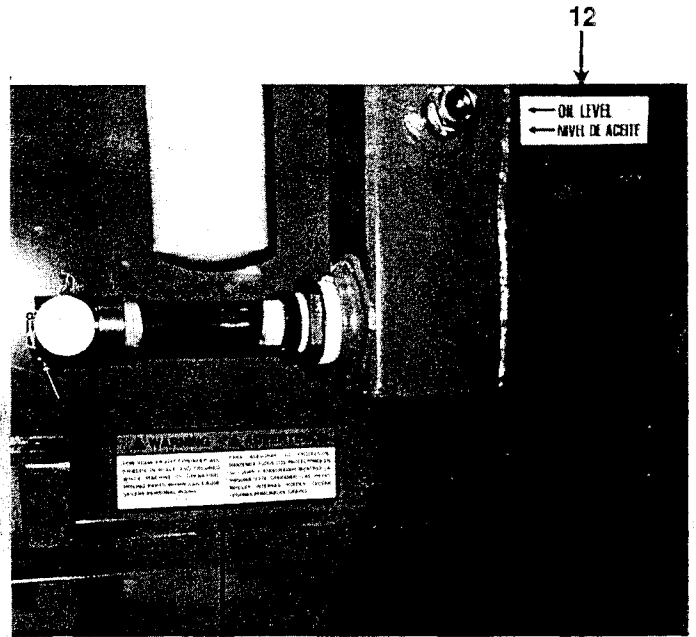
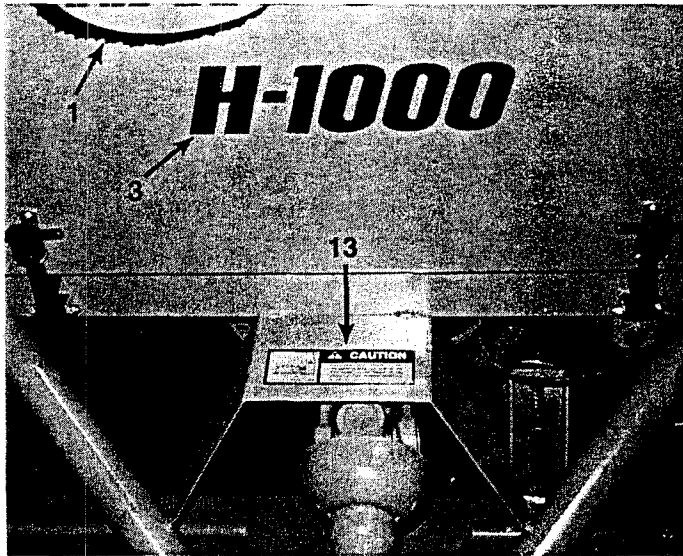
8

⚠ WARNING	⚠ ADVERTENCIA
FOR YOUR PROTECTION KEEP ALL SHIELDS IN PLACE AND SECURED WHILE MACHINE IS OPERATING. MOVING PARTS WITHIN CAN CAUSE SEVERE PERSONAL INJURY.	PARA ASEGURAR SU PROTECCION MANTENGA TODOS LOS PROTECTORES EN SU LUGAR Y ASEGURADOS MIENTRAS LA MAQUINA ESTE OPERANDO. LAS PIEZAS MOVILES INTERNAS PUEDEN CAUSAR LESIONES PERSONALES GRAVES.

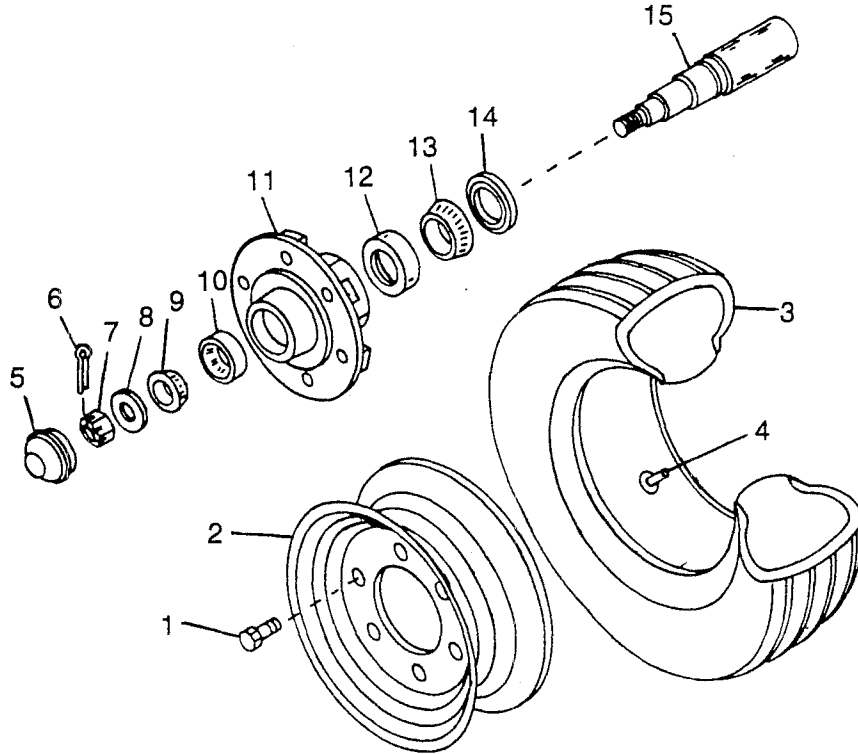
ITEM	PART #	QTY	DESCRIPTION
1	6500020	1	DECAL\LOGO\HYBSTR\SNBRS\3
2	6500096	2	DECAL\LOGO\HYBSTR\3\W/O;>
3	6500054	1	DECAL\LOGO\H-1000
4	6500149	1	DECAL\INFO\WINCH;SAFETY
5	6500044	2	DECAL\LOGO\BIG BITE
6	6500082	4	DECAL\WARN\ROTATN;PART;>
7	6500040	4	DECAL\WARN\SHIELD;PROT
8	6500041	2	DECAL\WARN\PROTECTION
9	6500042	2	DECAL\WARN\KEEP;WHL;BLTS>
10	6500056	1	DECAL\INFO\ROTATION\STR
11	6500043	2	DECAL\WARN\NO;RIDERS
12	6500052	1	DECAL\INFO\OIL;LEVEL
13	6500057	1	DECAL\CAUT\ADJ.DRAW BAR
14	6500085	1	DECAL\DNGR\ROTATNG;DR-LNE
15	6500139	2	DECAL\INFO\FOLDING;CNVYR
16	6500102	8.5'	DECAL\LOGO\STRIPE\RED\FT
	6500002		DECAL\KIT\H-1000

74 DECALS

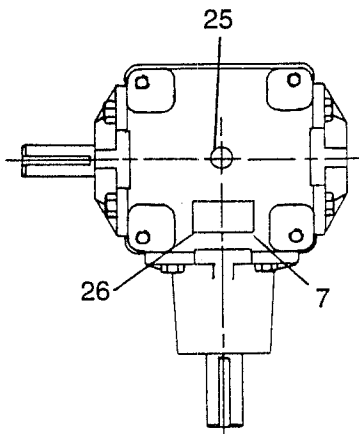
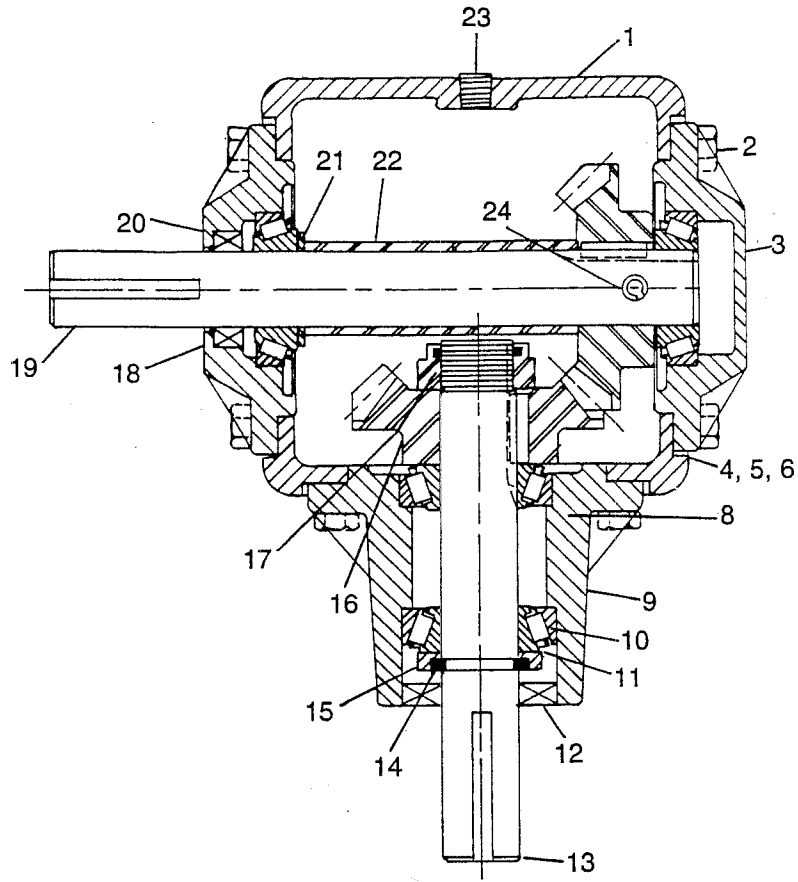




76 AXLES and WHEELS



ITEM	PART NO.	QTY.	DESCRIPTION
1	2900010	6	Wheel Bolts, Per Hub
2	2600601	1	Wheel, 14 x 8
3	2600013	1	Tire, 9.5L x 14
4	2600406	1	Tube, 9.5L x 14
5	2900013	1	Cap
6	4800044	1	Cotter Pin 5/32" x 1-1/2"
7	4900054	1	7/8" Nut NF/Spindle
8	5000055	1	Washer, 7/8" Flat
9	2900018	1	Cone, Outer
10	2900004	1	Cup, Outer
11	2900068	1	Hub <i>NA. ORDER 2900069</i>
12	2900006	1	Cup, Inner
13	2900007	1	Cone, Inner
14	2900008	1	Grease Seal
15	3000002	1	Spindle, Less Nut and Key
16	2900069	1	Hub Complete



GEAR BOX

79

SERIAL NO. --- - 3352

ITEM	PART #	QTY	DESCRIPTION
1	3100300	1	HSG CURTIS
2	3100301	12	BOLT\5/16X7/8\CURTIS
3	3100302	1	BLANK CAP CURTIS
4	3100162	VAR.	SHIMS .015
5	3100161	VAR.	SHIMS .005
6	3100160	VAR.	SHIMS .003
7	3100306	1	I.D.TAG COVER CURTIS
8	3100307	2	KEY CURTIS
9	3100308	1	INPUT CAP CURTIS
10	3100023	4	CUP\BRG
11	3100024	4	CONE\BRG
12	3100309	1	SEAL CURTIS
13	3100180	1	SHFT\INPUT - CURTIS
14	3100310	1	RETAINING RING CURTIS
15	3100311	1	CLLR\THRUST\ CURTIS
16	3100312	2	GEAR CURTIS
17	3100183	1	NUT\LOCK\1"(410415)
18	3100114	1	SEAL #300004
19	3100314	1	SHFT\OUTPUT - CURTIS
20	3100315	1	CAP CURTIS
21	3100316	1	WASHER CURTIS
22	3100317	1	SPACER CURTIS
23	3100318	2	PIPE PLUG-SOLID CURTIS
24	3100041	1	PIN\ROLL\5/16X2
25	3100319	1	PIPE PLUG-VENTED CURTIS
26	3100320	1	I.D. TAG CURTIS
27	3100321	1	SHFT\TO REVRS GB\CURTIS
	3100166	NA	GEAR BOX - CURTIC
28	3100187	1	GRBX\RTANGLE\1:1\OPPOSING PRAIRIE GEAR BOX

3100187

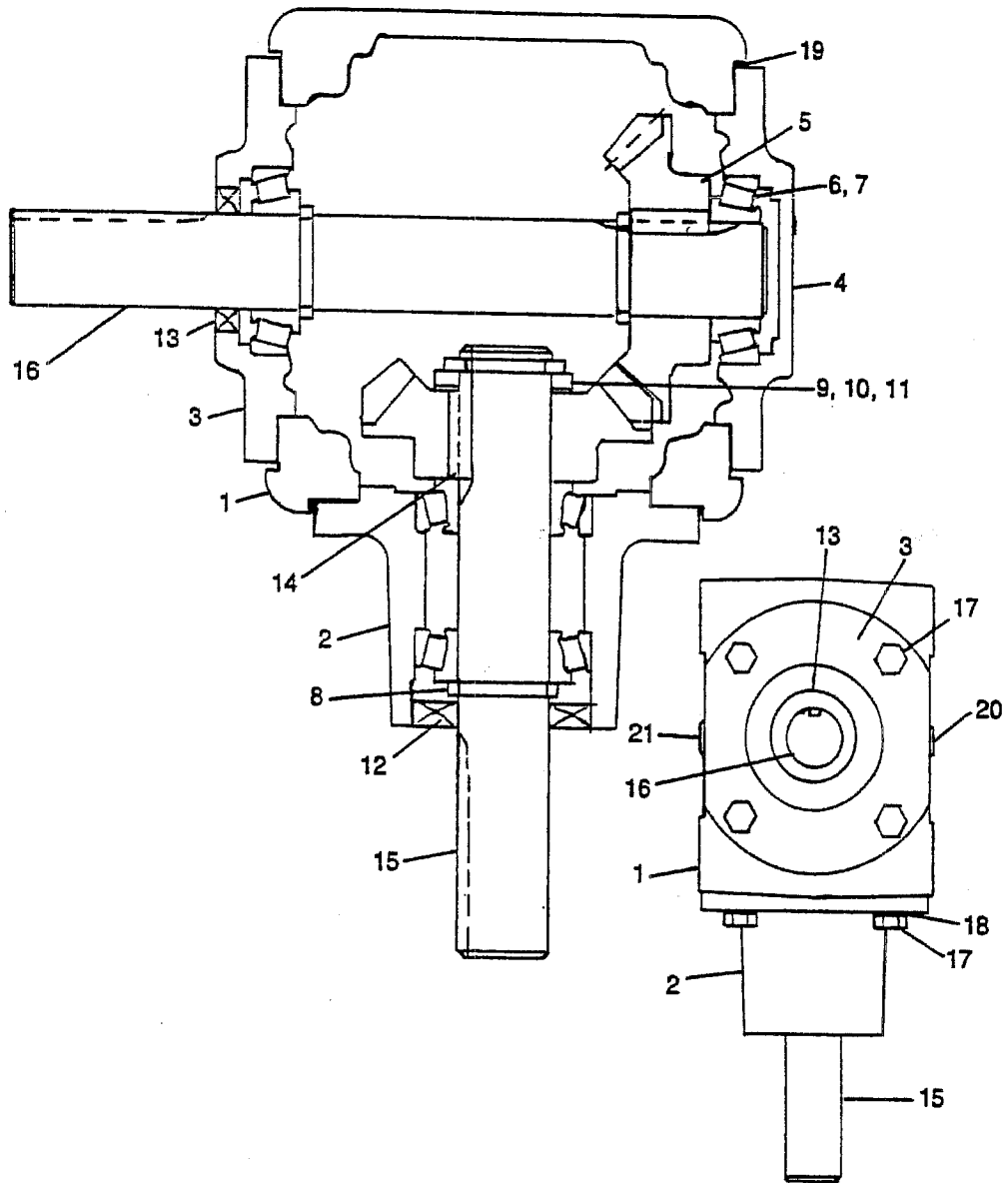
REVERSED GEAR BOX
 (ONLY IF MACHINE HAS BEEN MODIFIED
 FROM PFD)

BEFORE CURTIS-VANRUDEN GEAR BOX

SHAFT 7 3/4" KEYWAY ONE END HALFMOON OTHER END 2 SNAP RINGS 3" APART

80 GEAR BOX

Serial No. 3353 and up

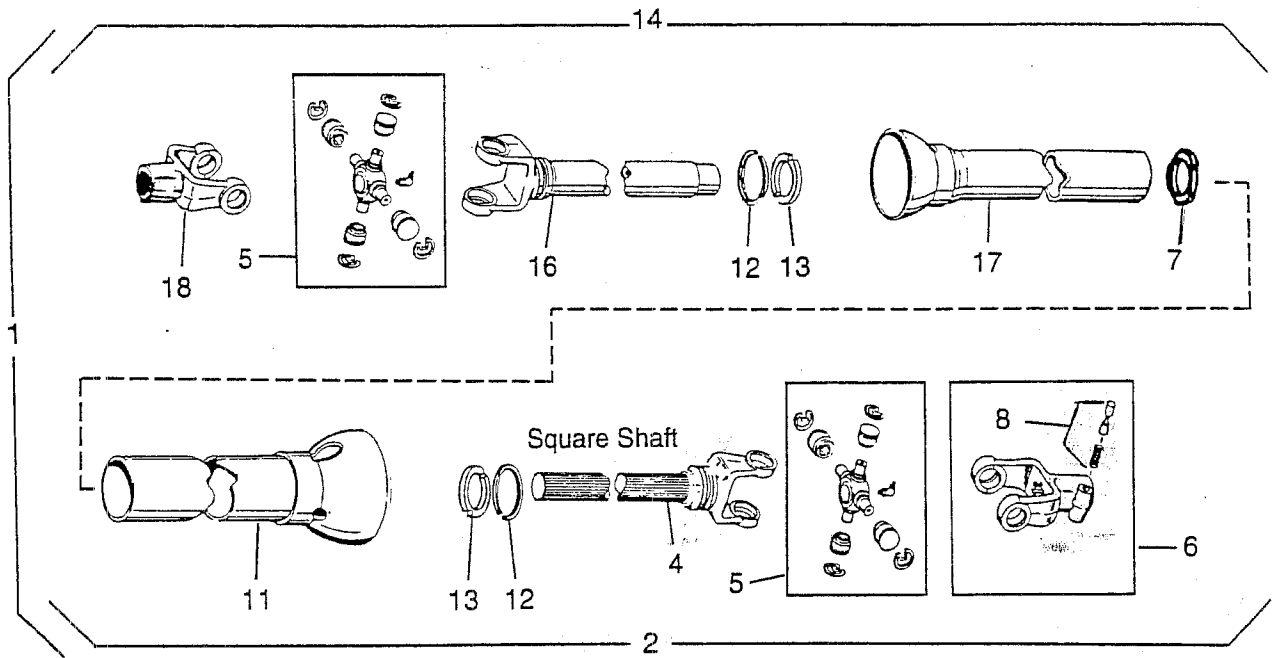


GEAR BOX

81

SERIAL NO.3353 & ^

ITEM	PART #	QTY	DESCRIPTION
1	3100322	1	OPEN CENTER CASE PRAIRIE
2	3100323	1	QUILL 1.98DIA.SEALPRAIRIE
3	3100324	1	OPEN COVER PRAIRIE
4	3100325	1	CLOSED COVER PRAIRIE
5	3100326	2	19 TOOTH GEAR PRAIRIE
6	3100024	4	CONE\BRG
7	3100023	4	CUP\BRG
8	3100327	3	SNAP RING PRAIRIE
9	3100335	VAR.	SHIM .0075 PRAIRIE
10	3100328	1	1"IDX1 1/2"ODX.130 WSHR P
11	3100329	1	SNAP RING PRAIRIE
12	3100309	1	SEAL CURTIS
13	3100114	1	SEAL #300004
14	3100330	2	1/4"X1/4"X.93 KEY PRAIRIE
15	3100331	1	PINION SHAFT PRAIRIE
16	3100332	1	CROSS SHAFT PRAIRIE
17	3100301	12	CROSS SHAFT PRAIRIE
18	3100333	12	5/16" LOCK WASHR PRAIRIE
	3100336	VAR.	SHIMS .020 PRAIRIE
19	3100335	VAR.	SHIM .0075 PRAIRIE
	3100338	VAR.	SHIMS .005 PRAIRIE
20	3100318	1	PIPE PLUG-SOLID CURTIS
21	3100319	1	PIPE PLUG-VENTED CURTIS
22	3100334	1	SHFT(TO REVRS GB)PRAIRIE
23	3100187	1	GRBX\RTANGLE\1:1\OPPOSING

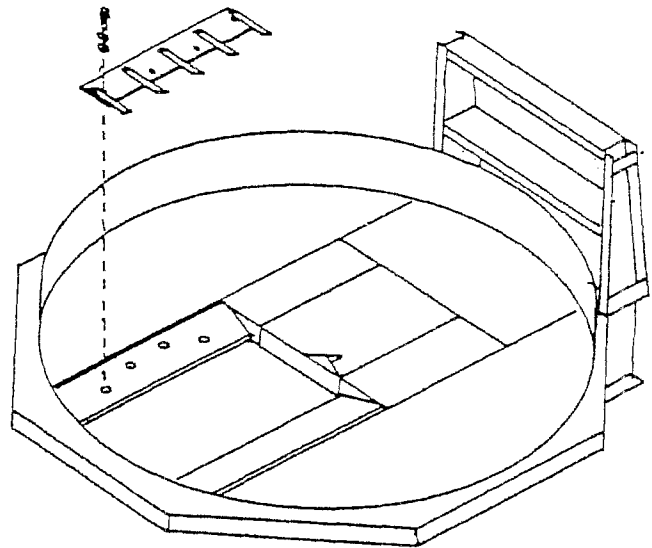
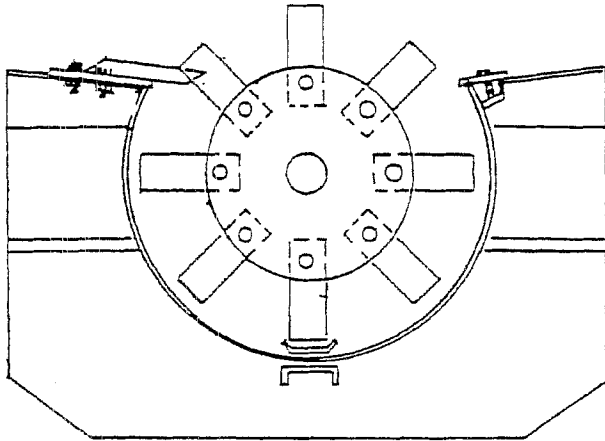


ITEM	PART #	QTY	DESCRIPTION
1	3600101	1	PTO\COMPLETE\L55\H1000 1-3/8" 21 SPLINE
1A	3600141		PTO\L55\1-3/4"X20SPLN
2	3600017	1	PTO\HALF\TRACTOR\1-3/8"
2A	3600100	1	TRAC HALFW/1-3/4 20 SPLINE
4	3600095	1	YOKE & SHAFT L55 REG
5	3600013	2	CROSS & BEARING KIT 55W
6	3600016	1	YOKE ASSY 1 3/8" 21 SPLINE
6A	3600064	1	YOKE 1-3/4" 20 SPLINE 55
7	3600096	1	NYLON CENTRALIZER
8	3600094	1	SAF-T-PIN & SPRING KIT for 1-3/4" 20 Spline Yoke
8A	3600056		LOCK PIN & SPRING for 1-3/8" 21 Spline Yoke
11	3600076	1	OUTER SHIELD
12	3600097	2	BEARING RETAINER
13	3600098	2	NYLON BEARING
14	3600014	1	MACHINE HALF
16	3600099	1	YOKE & TUBE
17	3600015	1	INNER SHIELD
18	3600012	1	MACHINE YOKE 1-3/4" L55

SLUGBUSTER

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.

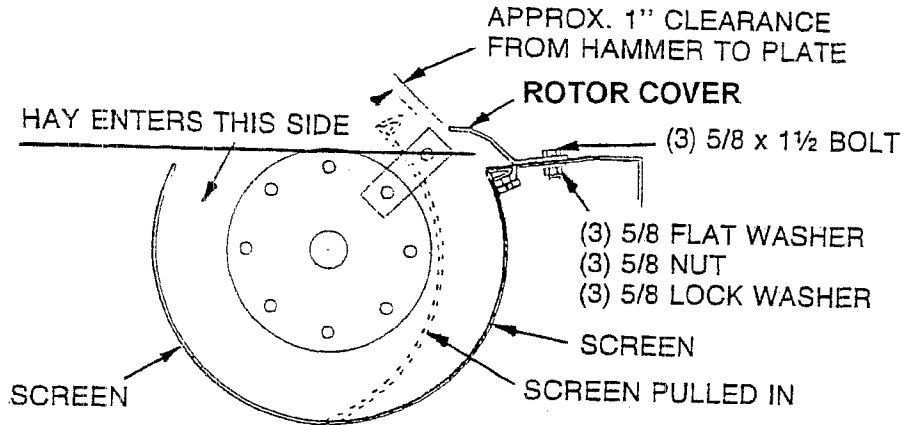


ITEM	PART NO.	QTY	DESCRIPTION
	4500531	1	SLUGBUSTER\KIT\H1000
1	4500248	48	SPCR\HMMR\1-1/2X1X1
2	4500527	1	SLUGBUSTER\RD
3	4800483	4	BOLT\CRG\5/8X2\NC
4	4900005	4	NUT\HEX\5/8\NC
5	5000002	4	WASH\FLAT\5/8
6	5000003	4	WASH\LOCK\5/8

ROTOR PLATE

The purpose of the Rotor Cover 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 Rotor Cover deflects this material to prevent spillage.

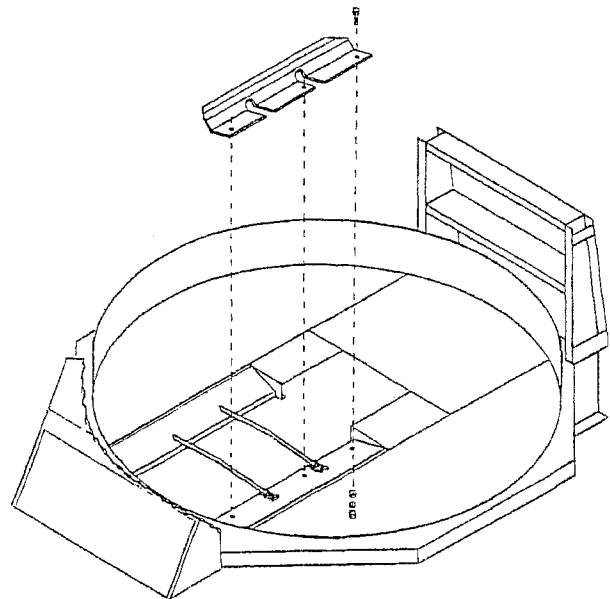
HAYBUSTER TUB GRINDERS ROTOR COVER



FRONT VIEW OF CYLINDER

Locate Rotor Cover as show 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.

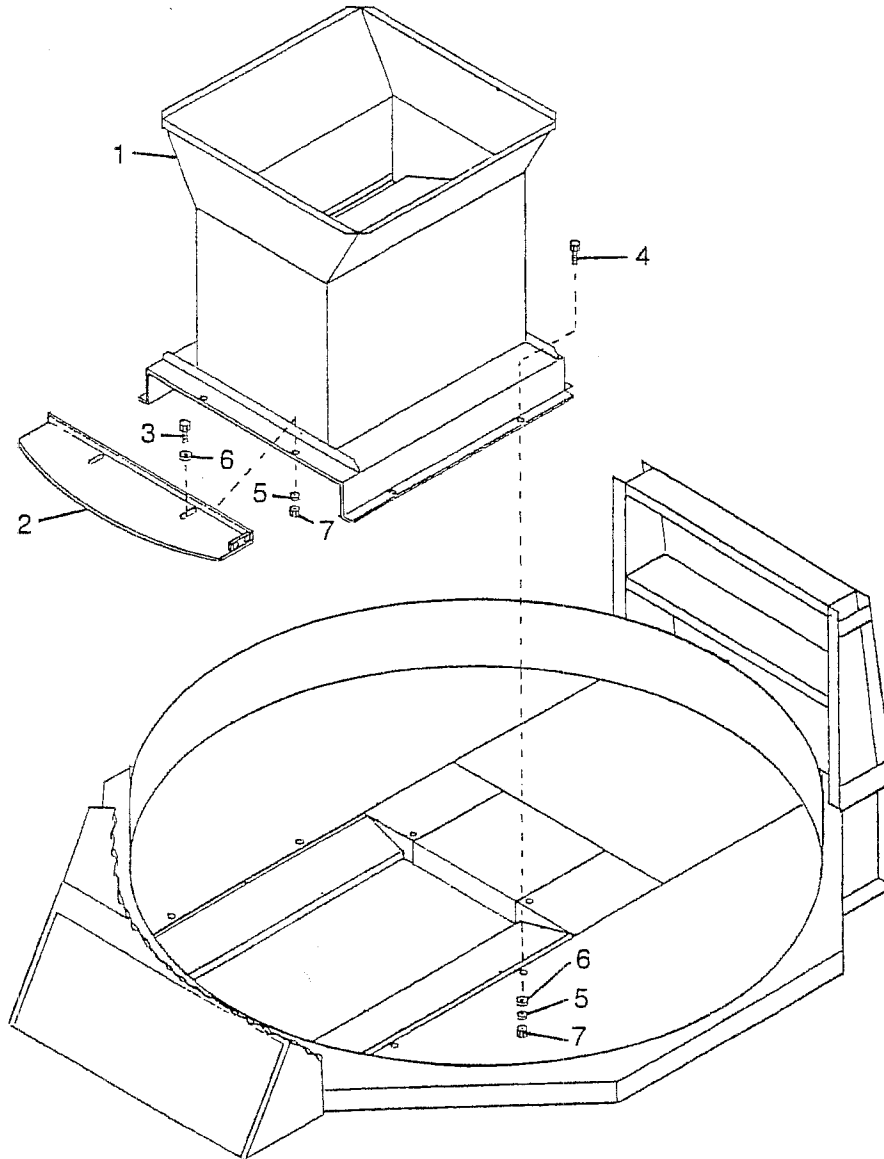
H-1000 Plate is 35-1/2" Long.



ITEM	PART #	QTY	DESCRIPTION
	4500613		COVER\RTR\KITH1000
1	4500202	1	COVER\RTR\35-1/2\H1000>
2	4800106	3	BOLT\HEX\5/8X1-1/2
3	5000002	3	WASH\FLAT\5/8
4	5000003	3	WASH\LOCK\5/8
5	4900005	3	NUT\HEX\5/16NC

H-1000 GRAIN GRINDING HOPPER

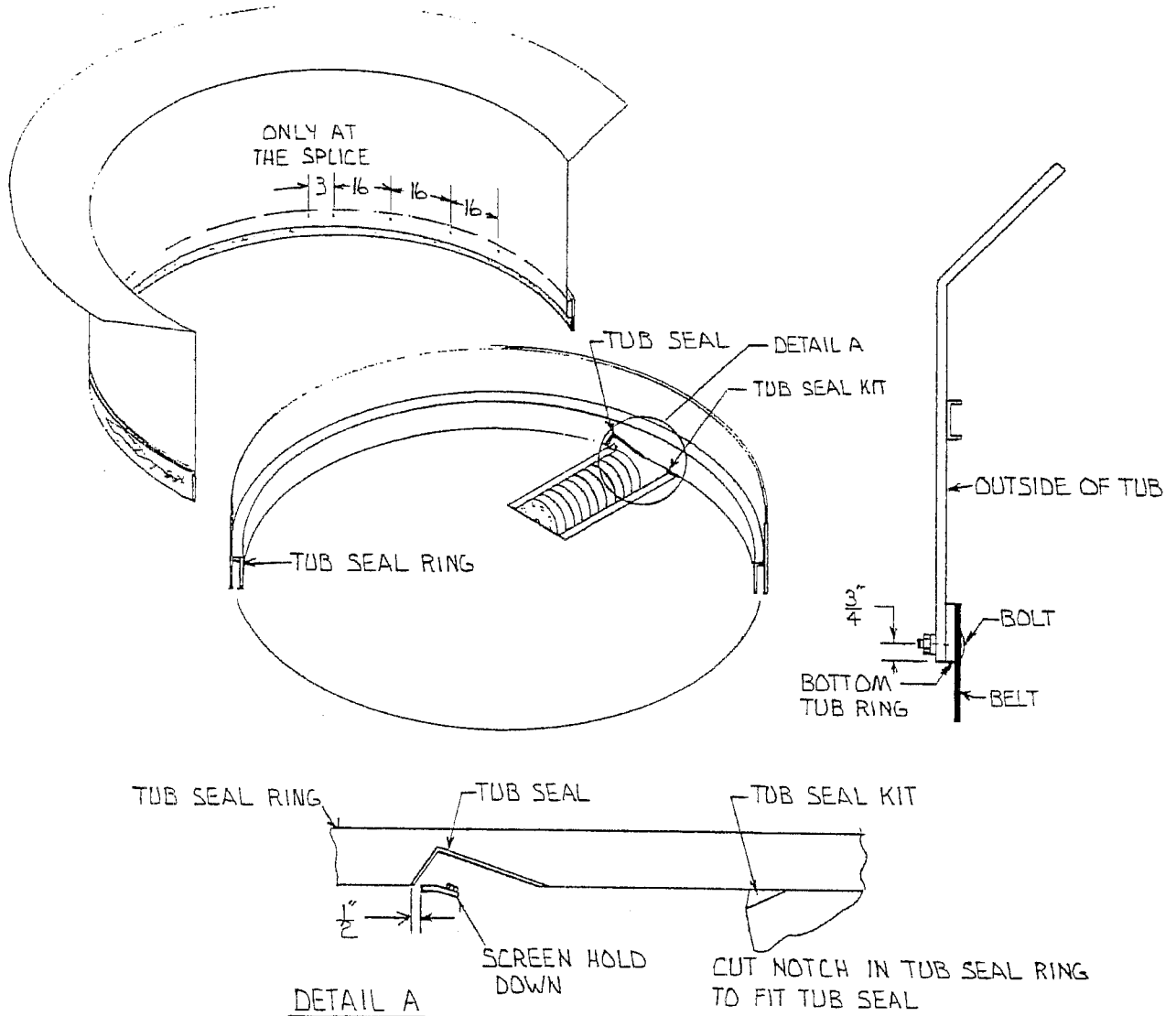
The Feed Hopper Attachment is specially designed for grinding small grains when they are infed with an auger. It should not be used when grinding hay.



ITEM	PART #	QTY	DESCRIPTION
	4500610	1	HPPR\GRAIN\H1000\OPTN
1	4500114	1	HPPR\GRAIN\
2	4500141	1	PL\HPPR\H1000
3	4800003	2	BOLT\HEX\3/8X1
4	4800098	6	BOLT\HEX\3/8X1-1/4\NC
5	5000019	8	WASH\LOCK\3/8
6	5000001	8	WASH\FLAT\3/8
7	4900002	8	NUT\HEX\3/8\NC

TUB SEAL KIT

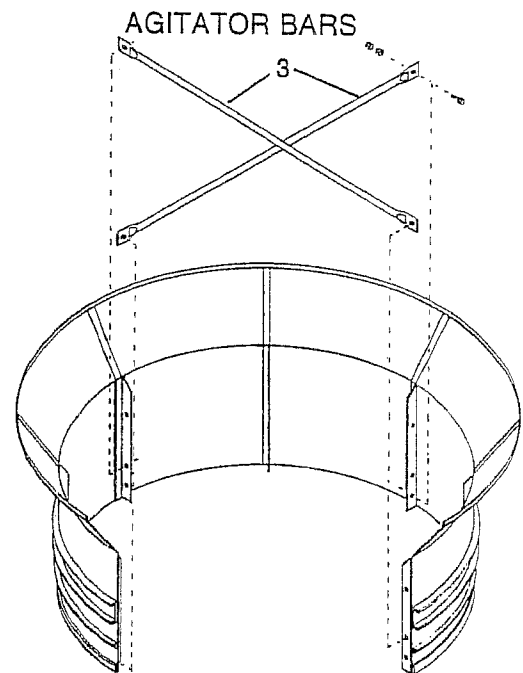
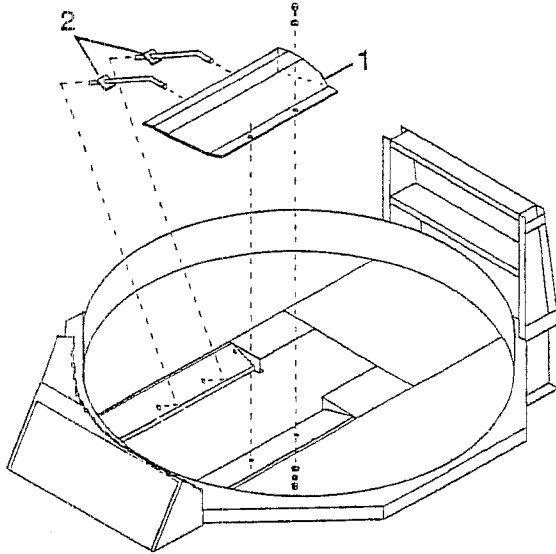
The optional tub seal kit is available through your Haybuster dealer. It is an efficient way to seal the tub while grinding ear corn, small grains and hay.



ITEM	PART #	QTY	DESCRIPTION
	4500273	1	KIT\TUB\SEAL\1993
1	4500130	1	BELTING
3	4800098	30	BOLT\HEX\3/8X1-1/4\NC
4	5000001	30	WASH\FLAT\3/8
5	5000019	30	WASH\LOCK\3/8
6	4900002	30	NUT\HEX\3/8\NC
7	4500411	1	RING\TUB\SEAL\H1000 10 GA

EAR CORN ATTACHMENT

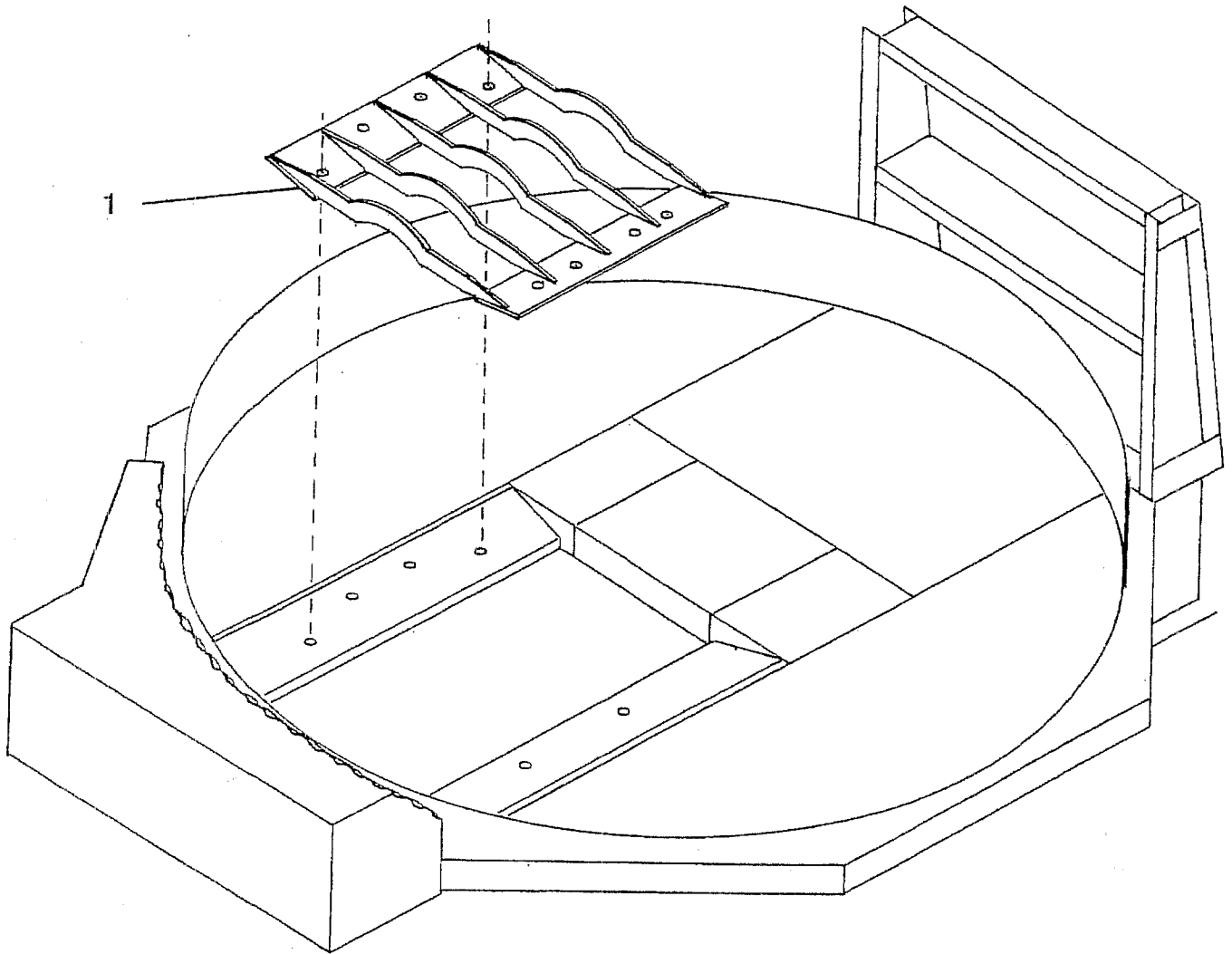
The Ear Corn Attachment is designed specially for grinding ear corn. It should not be used when grinding hay, other bulk materials or small grains. This attachment fits directly over the rotor and bolts to the screen hold down side of the rotor. An agitator bar inside the tub moves ear corn to the rotor.



ITEMS	PART #	QTY	DESCRIPTION
1	4500129	1	COVERTR\45-1/4
2	4500260	2	ROD\ANCHOR\ROTOR COVER
3	4500122	2	PIPE\CROSS\1-1/2X95
4	4500132	1	EAR CORN KIT H1000

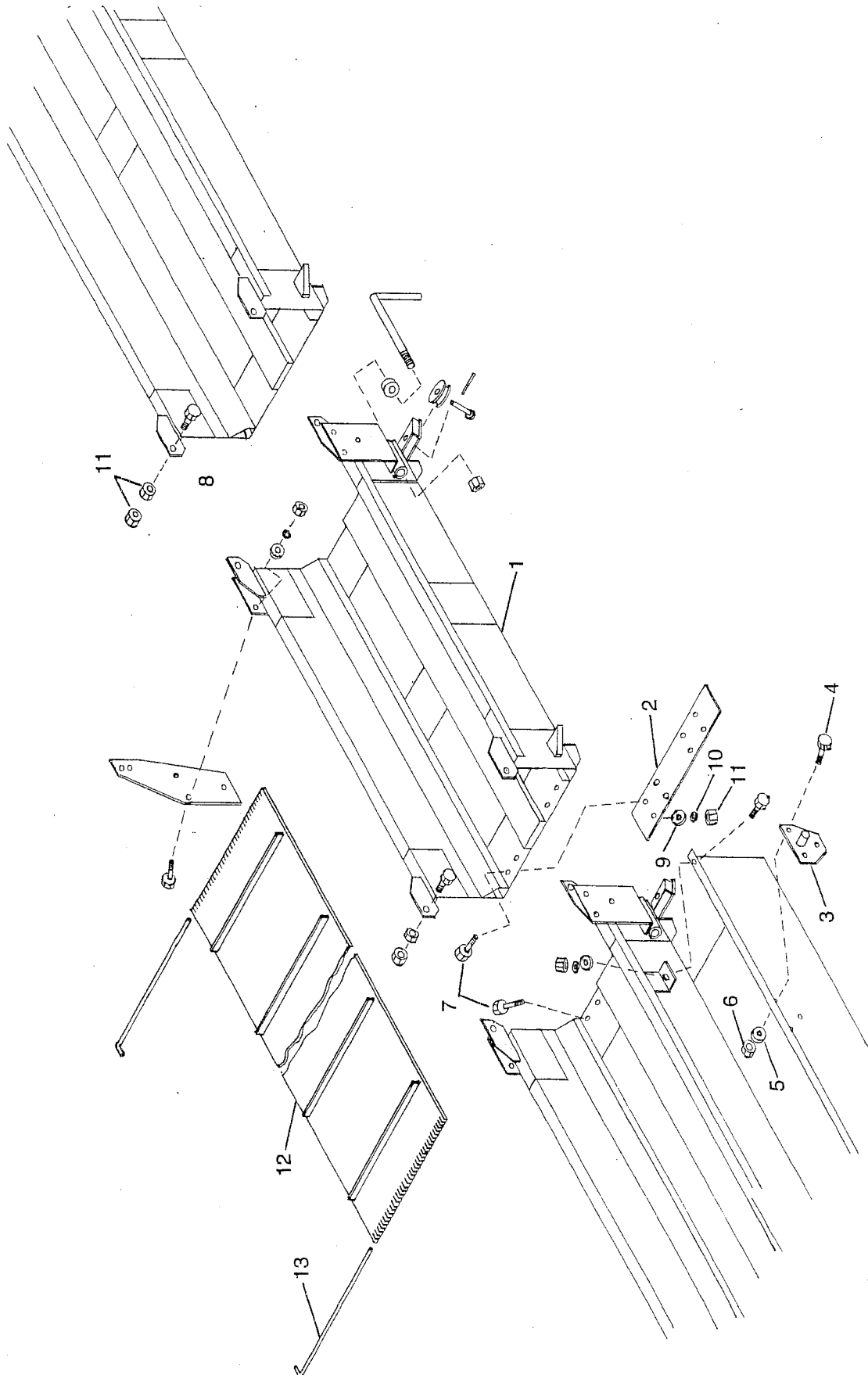
MILL GRATE

89



ITEM	PART #	QTY	DESCRIPTION
	4500607		TUB\MILL\KIT H1000
1	4500269	1	GRATE\MILL\H1000
2	4800010	6	BOLT\HEX\5/8X2
3	5000003	6	WASH\LOCK\5/8
4	5000002	6	WASH\FLAT\5/8

90 OPTION - 4 FT. CONVEYOR EXTENSION



4' CONVEYOR EXTENSION

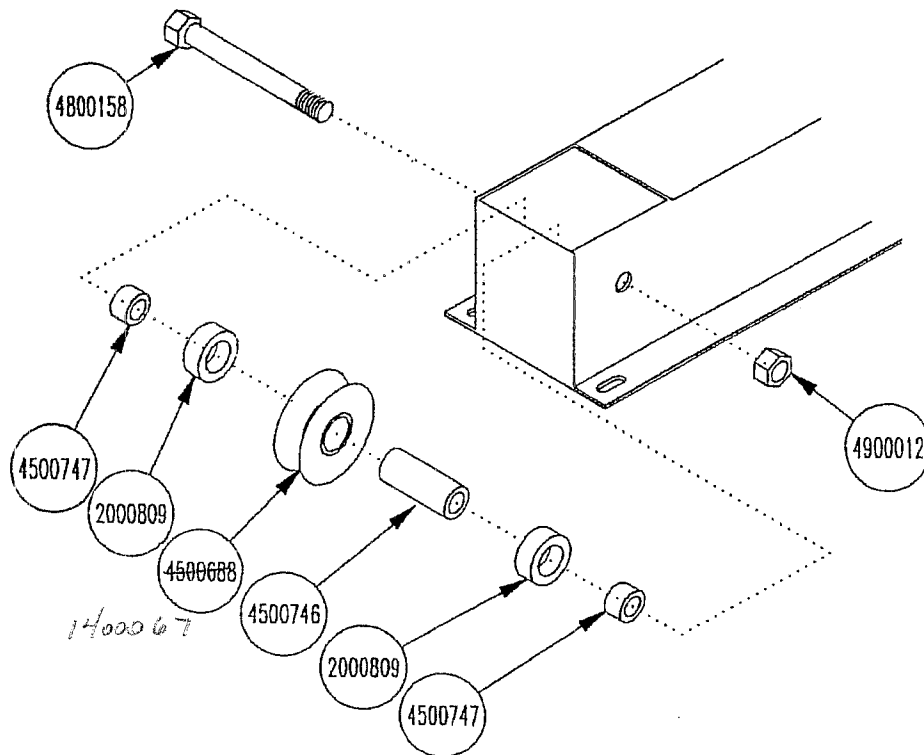
91

SERIAL NO. -----FI 3630

ITEM	PART #	QTY	DESCRIPTION
1	4500396	1	FRM\CNVYR\4FT-XTN
2	4500397	1	PL\CONN\CNVYR
3	4500398	2	LOCK\CNVYR
4	4800003	6	BOLT\HEX\3/8X1
5	5000019	6	WASH\LOCK\3/8
6	4900002	6	NUT\HEX\3/8\NC
7	4800018	8	BOLT\HEX\1/2X1-1/4
8	4800114	2	BOLT\HEX\1/2X2
9	5000004	8	WASH\FLAT\1/2
10	5000006	8	WASH\LOCK\1/2
11	4900001	12	NUT\HEX\1/2\NC
12	1700039	1	BELT\CNVYR\18X8'-0"
13	1700052	2	LCNG\CBL\1/8X18\NYL
14	4500604	1	XTN\CNVYR\4FT\KIT

4500535 CONVEYOR SPRING FOLD KIT H-1000\H1100

ITEM	PART #	QTY	DESCRIPTION
1	4500199	1	GUIDE\CNVYR\BELT
2	4500196	2	ARM\CNVYR\SPG
3	4500536	2	BRKT\CNVYR\SPRING ARM
3A	4500536	2	BRKT\CNVYR\SPRING ARM
4	6100066	2	SPRING W/PLUG H1000-1100
5	4500372	1	HANDLE\CNVYR\LATCH
6	4500378	1	HANDLE\CNVYR\TNSN ADJ\LH
6A	4500678	1	HANDLE\CNVYR\TNSN ADJ\RH
7	4500377	2	TUBE\CNVYR\TENSION ADJ
8	4500375	2	BOLT\CNVYR\TENSION ADJ
9	4500376	2	HINGE\CNVYR\TENS\ADJ
10	4500373	1	BRKT\CNVYR\BRG\RH
11	4500374	1	BRKT\CNVYR\BRG\LH
12	4500380	2	BOLT\ADJ\SPG\5/8X11
13	4500201	2	TUBE\CNVYR\3/4X1/2X3/4
14	4500725	2	MNT\SPG\CNVYR\DISCH
15	WELD ON	1	LATCH TUBE
16	WELD ON	1	LATCH RETAINER
17	WELD ON	2	BELT TIGHTENER SPACER
18	WELD ON	2	BELT TIGHTENER EAR
19	2000809	1	CLLR\SHFT\1\SET
20	4900015	1	NUT\NYLCK\1\NC
21	4800010	2	BOLT\HEX\5/8X2
22	5000002	4	WASH\FLAT\5/8
23	4800018	10	BOLT\HEX\1/2X1-1/4
24	4800178	2	BOLT\HEX\1/2X1-3/4
25	5000004	2	WASH\FLAT\1/2
26	5000006	6	WASH\LOCK\1/2
27	4900001	6	NUT\HEX\1/2\NC
28	4900014	8	NUT\TPLCK\1/2\NC\.500"MAX
29	4900014	4	NUT\TPLCK\1/2\NC



H1000 HYDRAULIC LIFT CHANGEOVER

PART #	QYT	DESCRIPTION
4800158	1	BOLT\HEX\5/8X4-1/2
4900012	1	NUT\TPLCK\5/8\NC
1400067	1	SHVE\30DX1-1/4IDX1
4500747	2	TUBE\SPCR\SHEEVE\CHNGOVR>
4500746	1	TUBE\SHEAVE\PIVOT
2000809	2	CLLR\SHFT\1\SET

INSTALLTION

1. LOWER CONVEYOR DOWN AND SET ON BARREL OR CLOCK TO REMOVE TENSION FROM CABLE.
2. REMOVE 5/8" LOCK NUT AND PULL OUT 5/8" X 4-1/2" BOLT
3. REMOVE OLD SHEAVE AND SPACER BUSHINGS.
4. INSTALL NEW SHEAVE AND SPACER BUSHINGS BY FIRST SLIDING SPACER BUSHINGS INSIDE OF 1/4" DOUBLERS ON INSIDE OF LIFT FRAME. WITH SPACERS IN PLACE SLIDE NEW SHEAVE, PIVOT TUBE, AND 1" COLLAR ASSEMBLY BETWEEN SPACERS SECURING THEM WITH 5/8" X 4-1/2" BOLT AND LOCK NUT REMOVED IN STEP 2.