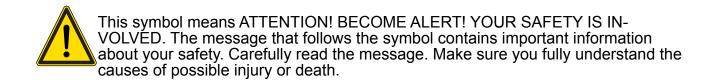


# Art's-Way Manufacturing Co., Inc.

Model PHM26 26" Portable Hammermil

Operator's Manual & Illustrated Parts List 616800

Issued May 2017



IF THIS MACHINE IS USED BY AN EMPLOYEE, IS LOANED, OR IS RENTED, MAKE SURE THAT THE OPERATOR UNDERSTANDS THE TWO INSTRUCTIONS BELOW.

## **BEFORE THE OPERATOR STARTS THE ENGINE:**

GIVE INSTRUCTIONS TO THE OPERATOR ON SAFE AND CORRECT USE OF THE MACHINE. MAKE SURE THE OPERATOR READS AND UNDERSTANDS THE OPERATOR'S MANU-AL FOR THIS MACHINE.

# **A**WARNING

## IMPROPER OPERATION OF THIS MACHINE CAN CAUSE INJURY OR DEATH.

## BEFORE STARTING THE ENGINE, DO THE FOLLOWING:

- 1. READ THE OPERATOR'S MANUAL.
- 2. READ ALL SAFETY DECALS ON THE MACHINE.
- 3. CLEAR THE AREA OF OTHER PERSONS.

# 4. LEARN AND PRACTICE SAFE USE OF MACHINE CONTROLS IN A SAFE AND CLEAR AREA BEFORE YOU OPERATE THIS MACHINE ON A JOB SITE.

It is your responsibility to observe pertinent laws and regulations and to follow manufacturer's instructions on machine operation and maintenance.

See your Authorized Art's-Way Manufacturing Co., Inc. dealer or Art's-Way Manufacturing Co., Inc. for additional operator's manuals, illustrated parts catalogs, and service manuals.

## TO THE OWNER

Congratulations on the purchase of your new Art's-Way 26" Portable Hammermil. You have selected a top quality machine that is designed and built with pride to ensure you have many years of efficient and reliable service.

Many people have worked on the design, production, and delivery of this 26" Portable Hammermil. The information in this manual is based on the knowledge, study, and experience through years of specializing in the manufacturing of farm machinery. This manual is designed to provide you with important information regarding safety, maintenance, and machine operation so you can and will get the best possible performance from your 26" Portable Hammermil.

Even if you are an experienced operator of this or similar equipment, we ask that you read this manual before operating this 26" Portable Hammermil. The way you operate, adjust, and maintain this unit will have much to do with its successful performance. Any further questions you may have about this product of Art's-Way equipment should be directed to your local Art's-Way dealer or to Art's-Way Manufacturing Co., Inc. Armstrong, Iowa, 50514, (712) 864-3131.

#### SPECIFICATIONS AND DESIGN ARE SUBJECT TO CHANGE WITHOUT NOTICE

Art's-Way Manufacturing Co., Inc. is continually making product improvements. In doing so, we reserve the right to make changes and/or add improvements to our products without obligation for the equipment previously sold.

Modifications to this 26" Portable Hammermil may affect the performance, function, and safety of its operation. Therefore, no modifications are to be made without the written permission of Art's-Way Manufacturing Co., Inc. Any modification made without the written permission of Art's-Way Mfg. Co. Inc. shall void the warranty of this product.

In the interest of continued safe operation of this 26" Portable Hammermil, pay particular attention to the safety alert symbol(s) throughout this manual.

#### Art's-Way Manufacturing Co., Inc. STATEMENT OF PRODUCT LIABILITY

Art's-Way Manufacturing Co., Inc. recognizes its responsibility to provide customers with a safe and efficient product. Art's-Way Manufacturing Co., attempts to design and manufacture its products in accordance with all accepted engineering practices effective at the date of design. This statement should not be interpreted to mean that our products will protect against the user's own carelessness or failure to follow common safety practices nor will Art's-Way Manufacturing Co., be liable for any such act. In addition, Art's-Way Manufacturing Co., assumes no liability for any altered product or any modified product by users or anyone other than an authorized dealer.

#### **IMPORTANT WARRANTY INFORMATION**

The warranty for this 26" Portable Hammermil appears on page 6 of this manual. In order to establish proper warranty registration, the Warranty Registration must be completed and returned to the factory. Failure to comply with this requirement will result in invalidating the warranty!

#### LIMITATIONS OF THIS MANUAL

This manual contains operating instructions for your PHM26 26" Portable Hammermil only. Any mention of other machinery in this manual other than the PHM26 26" Portable Hammermil is for reference only. This manual does not replace nor is it to be used for any machinery that may be attached to or used in conjunction with the PHM26 26" Portable Hammermil.

# PARTS & SERVICE

As the purchaser of your new hammermill, it is very important to consider the following factors:

## A. Original Quality

## **B. Availability of Service Parts**

## C. Availability of Adequate Service Facilities

Art's-Way Manufacturing Co., Inc. has an excellent dealership network ready to answer any questions you may have about your hammermill. Parts for your machine may be ordered through our dealers. When placing a parts order, please have the **model** and **serial number** ready. This will allow the dealer to fill your order as quickly as possible.

For your convenience, we have provided this space for you to record your model number, serial number, and the date of purchase, as well as your dealer's name and address.

o o Art's Way Since 1956	Location of Serial & Model Number Placard on unit
SERIAL NO. MODEL NO. Manufactured by Art's Way Manufacturing Co., Inc. Armstrong IA USA	

Serial and Model Number Placard

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## LIMITED WARRANTY FOR NEW ART'S WAY MANUFACTURING CO. FARM MACHINERY (U.S. ONLY)

- A. GENERAL PROVISIONS: Art's Way Manufacturing Co., Inc. (Art's Way Mfg.) warrants the products it sells to be free from defects in material and workmanship for the periods of time set forth in the Warranty Table below. Art's Way Mfg. obligation and liability under this limited warranty, is to repair or replace (at Art's Way Mfg. option) any part(s) that upon manufacture were defective in material or workmanship. Warranty service shall be performed by an authorized Art's Way Mfg. dealer or authorized service center and will be completed using Art's Way Mfg. supplied parts. Parts supplied by Art's Way Mfg. are shipped F.O.B. Art's Way. The original purchaser shall be responsible for service calls and transportation of the farm machinery to and from their dealer or service center. The original purchaser is also responsible for any repair service, parts, and labor on repairs made to the farm machinery at the time the warranty service was being performed.
- B. SECURING WARRANTY SERVICE: The original purchaser must (1) contact their authorized dealer and report the break-down. (2) The authorized dealer shall provide objective evidence of the farm machinery's warranty status to Art's Way Mfg. (3) The authorized dealer shall provide all documentation to Art's Way Mfg. which supports that the farm machinery was thoroughly inspected prior to set-up and delivery to the original purchaser. (4) The original purchaser shall make the farm machinery available to their Art's Way Mfg. authorized dealer and/or Art's Way Mfg. authorized service center within 30 days of the reported break-down. All parts or assemblies replaced under the limited warranty must be held for inspection for ninety (90) days, or until credit has been issued, or a claim has been returned to a dealer. When a claim is returned to a dealer with instructions to return and/or hold the part(s) for inspection, parts must be handled as instructed or the claim may be denied.
- C. SPARE PARTS WARRANTY: Art's Way Mfg. warrants that it will replace or repair (excluding labor) as Art's Way Mfg. elects, without charge, any genuine spare part purchased from Art's Way Mfg. which is defective in material or workmanship within ninety (90) days of the date of installation. This warranty applies to parts that, in Art's Way Mfg. judgement, prove to be defective in either material or workmanship. All parts to be shipped F.O.B. Art's Way Mfg. All spare parts replaced under the spare parts warranty must be held for inspection for ninety (90) days or until credit has been issued, or a claim has been returned to a dealer. When a claim is returned to a dealer with instructions to return and/or hold the part(s) for inspection, parts must be handled as instructed or the claim may be denied.
- D. LIMITATIONS: Art's Way Mfg. Limited Warranty does not extend coverage to product being used in a commercial application (i.e. rented equipment). Art's Way Mfg. Limited Warranty does not extend to parts and elements not manufactured by Art's Way Mfg., and which carry the warranty of another manufacturer. Art's Way Mfg. makes no other warranty expressed or implied and makes no warranty of merchantability or fitness for any particular purpose beyond that expressly stated in this warranty. Art's Way Mfg. liability is limited to the terms set forth in this warranty and does not include any liability for direct, indirect, incidental or consequential damages or expenses of delay and Art's Way Mfg. liability is limited to the repair and replacement of defective parts as set forth herein. Any improper use and/or maintenance, including operation after the discovery of defective or worn parts, operation beyond the rated capacity, substitution of parts not approved by Art's Way Mfg. or any alteration or repair by others than the authorized Art's Way Mfg. dealer or authorized service center which affect the product materially and adversely, shall void the warranty. No dealer, employee or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of Art's Way Mfg. Some states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you the specific legal rights, and you may have other rights that vary from state to state.

NOTE: As of April 1, 2015, all previously distributed information concerning the limited warranty coverage of any Art's Way Manufacturing Company, Inc. manufactured product is to be considered null and void and replaced by this document.

Art's Way Mfg. Farm Machinery	Warranty Coverage
Grinder / Mixer – Model 6520, 6530, 6140, 6105, and Portable and Stationary	1 (one) Year from Date of Delivery to Original Purchaser
equipment	
Manure Spreader	1 (one) Year from Date of Delivery to Original Purchaser
Graders and Land Planes	1 (one) Year from Date of Delivery to Original Purchaser
Beet Harvesting Machinery	1 (one) Harvest Season from Date of Delivery to Original
	Purchaser
Shredders – Model 180C and 240C	1 (one) Year from Date of Delivery to Original Purchaser
Plows	1 (one) Year from Date of Delivery to Original Purchaser
Forage Blowers – Model 1060 and 2060	1 (one) Year from Date of Delivery to Original Purchaser
Forage Boxes/Receivers – Model 5300 and 1250	1 (one) Year from Date of Delivery to Original Purchaser
Rakes	1 (one) Year from Date of Delivery to Original Purchaser
Dump Boxes	1 (one) Year from Date of Delivery to Original Purchaser
Augers	1 (one) Year from Date of Delivery to Original Purchaser
Running Gear	1 (one) Year from Date of Delivery to Original Purchaser
Snow Blowers	1 (one) Year from Date of Delivery to Original Purchaser
Harvester Reel	1 (one) Year from Date of Delivery to Original Purchaser

Effective 1 April 2015

## SAFETY FIRST

#### SAFETY INSTRUCTIONS

"A careful operator is the best insurance against an accident." Quote from the National Safety Council.

Most accidents can be prevented if the operator:

- 1. Fully understands how the machine functions.
- 2. Can anticipate situations which may produce problems.
- 3. Can make necessary corrections before problems develop.

THIS SYMBOL MEANS ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!



- Universal Safety Alert Symbol

The American Society of Agricultural Engineers has adopted the Universal Safety Alert Symbol as a way to identify areas of potential danger if the equipment is not operated correctly. Please be alert whenever you see this symbol in the manuals or on your hammermill.

Art's-Way Manufacturing Co., Inc. strives to make our equipment as safe as possible. The Art's-Way PHM26 26" Portable Hammermil conforms to applicable safety standards at the time of manufacturing. A safety conscious equipment operator makes an effective accident-prevention program complete. Safety features and instructions for the hammermill are detailed in the Safety Guidelines section of this Operator's Manual. It is the responsibility of the owner to ensure that all operators read and understand the manual before they are allowed to operate the portable hammermill. (Occupational Safety and Health Administration (OSHA) regulations 1928.57).

#### NOTICES OF DANGER, WARNING, AND CAUTION

Signal Words: Note the use of signal words **DANGER**, **WARNING**, and **CAUTION** on the hammermill and in this manual. The appropriate signal word for each has been selected using the following guidelines:

# A DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

# 

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

# **A**CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

## NOTICE

NOTICE is used to address practices not related to physical injury.

#### SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

**Note**: Contains additional information important to a procedure and will be found within the regular text body of this manual.

# **SAFETY INSTRUCTIONS**

## GENERAL

Most work related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you operate and maintain the portable hammermill you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly procedure.

Improper operation and/or maintenance of this unit could cause a dangerous situation that results in injury or death.

Do not use this unit until you read and understand the information contained in this manual. Do not use this equipment for anything other than its intended purpose.



Safety precautions and warnings are provided in this manual and on the unit. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

Art's-Way Manufacturing Co., Inc. cannot anticipate every possible might circumstance that involve a potential hazard. The warnings in this manual and on the product are, therefore, not all-inclusive. lf a method of operation not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and can change at any time.

### **Safety Alert Symbols**

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, WARNINGS, CAUTIONS, NOTICES, SAFETY INSTRUCTIONS, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".

#### SAFETY INSTRUCTIONS

Remember:

"The Best Operator is a Safe Operator"

# **A**CAUTION

Read and understand the operator's manual and all the safety decals before operating the hammermill. Review all safety instructions with all operators annually.

#### **BEFORE OPERATING**

SAFETY INSTRUCTIONS



Do not wear loose fitting clothing as it may catch in moving parts.



Make sure all guards and shields are installed, including the tractor power takeoff (PTO) master shield, before starting or operating the hammermill.



Be sure that the correct implement driveline parts are used and that they are properly secured.

Lower the lifter wheels when the hammermill is not in use.

Install safety chain when attaching the hammermill to the tractor.



Clear the area of bystanders, especially children, when making repairs, adjustments, or performing maintenance on the hammermill.



Do not allow riders.

Put all tractor and machine controls in "neutral" and disengage the PTO before starting. Follow the starting instructions according to the OEM tractor manual.



Operate the hammermill only while seated on the tractor seat.



Make sure the unit is adequately supported with safety blocks or safety stands when changing tires or performing maintenance.

#### **DURING OPERATION**





Entanglement Hazard Keep hands, feet, hair, and clothing away from moving parts. Wait for all movement to

stop before approaching equipment. Before making adjustments:

- 1. Shut off the tractor,
- 2. Set parking brake,
- 3. Put machine in neutral, and
- 4. Remove key while making adjustments.



Keep all shields and guards in place and in good working condition.

Keep all bystanders, especially children, away from the hammermill while in operation.



Do not allow riders while the hammermill is in operation.



Do not attempt to unclog, clean, or adjust the hammermill while it is running.



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



Keep all hydraulic lines, fittings, and couplers tight and free of leaks. (Refer to Safety Guidelines – Hydraulic Safety).



Use caution when ascending or descending on the hammermill. Wet shoes or boots are slippery.

#### MAINTENANCE SAFETY

#### SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this Manual.



Before servicing, adjusting, repairing, or unclogging the machine, always make sure the tractor engine is stopped,

key in your pocket, the machine is lowered to the ground, all controls are placed in neutral, the parking brake is set, and all the moving parts have stopped.



Use sufficient tools, jacks, and hoists that have the capacity for the job.



Use support blocks or safety stands when changing tires or performing maintenance.



Follow good shop practices of keeping the service area clean and dry, and use adequate light for the job at hand.



Before applying pressure to the hydraulic system, make sure all lines, fittings, and couplers are tightly secured and in good condition.



Make sure all shields/guards are in place and properly secured when performing maintenance.

## HYDRAULIC SAFETY

#### SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this Manual.

Make	sure	compo	nents	in
the	hydraulic	system	are	kept
clean and in good working condition.				



Relieve pressure from the hydraulic system before servicing or disconnecting from the tractor.



Keep all hydraulic lines, fittings, and couplers tightly secured and free of leaks.



Replace any worn, cut, abraded, flattened, or crimped hoses.



Do not make any temporary repairs to the hydraulic lines, fittings, or hoses using tape, clamps, or cement. The hydraulic system operates under extremely high

pressure and temporary repairs may fail suddenly and create a hazardous/dangerous situation.



Wear proper hand and eye protection when searching for high-pressure а hydraulic leak. Use a piece

of wood or cardboard as a backstop instead of hands to identify and isolate a leak. If injured by a concentrated high-pressure stream of hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop if hydraulic fluid penetrates the surface of the skin.



Before applying pressure to the system, make sure all components are tight and that the hydraulic lines, hoses, and couplings are not damaged.

#### TRANSPORTATION SAFETY

SAFETY INSTRUCTIONS

Follow all operating and safety instructions found in this manual when transporting this equipment.

Make sure the hammermill complies with all local regulations regarding transporting equipment on public roads and highways.



Make sure the Slow Moving Vehicle (SMV) emblem and all lights and reflectors required by local highway and transportation authorities are properly in place, clean, and clearly visible to traffic.



Do not allow riders on any machinery during transport.

Make sure the hammermill is securely attached to the tractor and install a safety chain to the hammermill.

Make sure the tractor brake pedals are latched together.

Do not exceed 20 mph (32 km/h) when transporting the hammermill. Always reduce speed on rough roads and surfaces, or when going down inclines.

Use caution when turning and always use the turn signals on the tractor to indicate your turning intentions to the other traffic.

The weight of the trailed machine should NEVER exceed the weight of the towing vehicle.

Check all clearances carefully whenever the machine is towed.

Lower the elevator into the transport position before transporting the hammermill on the highway



Stay away from overhead obstructions and power lines during transport. Electrocution can occur even without direct contact.

#### STORAGE SAFETY

SAFETY INSTRUCTIONS

Follow all operating and safety instructions found in this manual when storing this equipment.



Store the hammermill in an area away from human activity.



Do not permit children to play on or around the stored machine at any time.

Make sure that the hammermill is stored in an area with a firm and level base to prevent the machine from tipping or sinking into the ground.



Block the wheels to prevent the machine from rolling.

### TIRE SAFETY

#### SAFETY INSTRUCTIO<u>NS</u>

Follow all operating and safety instructions found in this manual when working around tires.

Have only a qualified tire dealer or tire repair service perform tire repairs.

Do not attempt to install a tire on a wheel or rim unless you have the proper equipment and experience to do the job.

Do not substitute tires with a lesser road rating and/or capacity for the original equipment tires.

# **A**WARNING

Explosive Force Hazard Tire replacement, repair, and/or maintenance should be done by a qualified tire dealer or qualified repair service.

Failure to follow proper procedures when installing a tire on a wheel or rim can produce an explosive force that will result in serious injury or death.

Do not attempt to install a tire without proper equipment and experience to perform the job.

## ASSEMBLY SAFETY

SAFETY INSTRUCTIONS

Follow all assembly, operating, and safety instructions found in this manual when assembly this equipment.



Use adequate manpower to perform assembly procedures safely.

Assemble the hammermill in an area with sufficient space to maneuver the largest components and allow easy access to all sides of the machine.



Use only forklifts, lift cranes, jacks, and tools with sufficient capacity for the loads.



Do not allow spectators, especially children, in the working area.

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# **SECTION 1: OPERATOR'S MANUAL**

13

## OPERATION OF THE PORTABLE HAMMERMILL TRACTOR PTO ENGAGEMENT

The PHM26 may be operated by engaging the PTO. Always engage the tractor PTO with the tractor engine at idle speed. After the PTO is engaged, increase the engine speed gradually until the desired operating speed is obtained. Reverse the PTO engagement steps to disengage the PTO.

Before processing, position the tractor straight with the frame of PHM26. This will allow smoother PTO operation and prolong PTO driveline life.

### HAMMERMILL CLUTCH PIN



#### BEFORE CHANGING POSITIONS OF THE CLUTCH PIN, MAKE SURE THE TRACTOR IS SHUT OFF AND PLACE THE KEY IN YOUR POCKET.

The hammer mill clutch pin is located on the front of the flywheel (see Figure 1). Make sure the grinder mixer has come to a complete stop and shut off the tractor before proceeding with the next step. To engage the hammer mill, turn the flywheel by hand to align one of the six slots in the fly-wheel with the pin. Push in the pin and turn 1/4 turn in either direction to lock it in place. To disengage the hammer mill, push in the pin, turn 1/4 turn, and release.



#### ALWAYS OPERATE PTO AT THE SAME SPEED FOR WHICH THE GRINDER MIXER IS EQUIPPED; 540 OR 1000 RPM. NOTE THE SPEED DECAL ON THE FRONT SHIELD OF GRINDER MIXER.

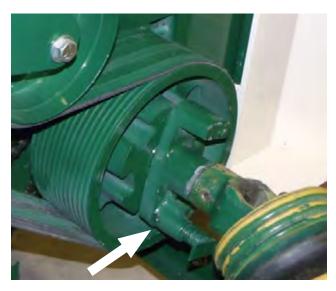


Figure 1 - Hammermill Clutch Pin

### FEED GATE

A feed gate is provided in the mill throat with a rubber baffle (removed for roll feed installation) behind it (see Figure 2). The feed gate should be set to the lowest possible position to allow material to flow into the hammer mill evenly.

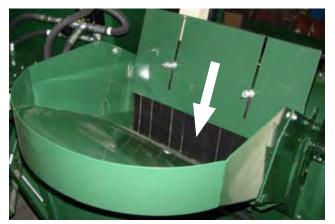


Figure 2 - Feed Gate at Throat of the Hammermill

## WEAR PLATES

# 

#### HAMMERS MAKE A LOUD BANGING NOISE WHEN CONTACTING THE WEAR PLATES. IM-MEDIATELY SHUT THE TRACTOR IGNITION OFF AND DETERMINE THE CAUSE OF THE BANGING BEFORE RESTARTING.

There are two replaceable wear plates in the 26" hammer mill. The position of the upper wear plate is fixed. The lower wear plate (see Figure 3) is adjustable, but should not need to be moved. Moving the lower wear plate in or out will only change the clearance to the hammers by approximately 1/16" (see Figure 4). Having the lower wear plate should improve the desired particle size of the feed and reduce the horse power required for processing.

Note: The lower wear plate is reversible.

Note: For coarser grind the lower wear plate could be removed completely.

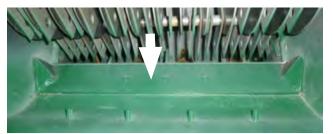


Figure 3 - Lower Wear Plate at Throat of the Hammermill

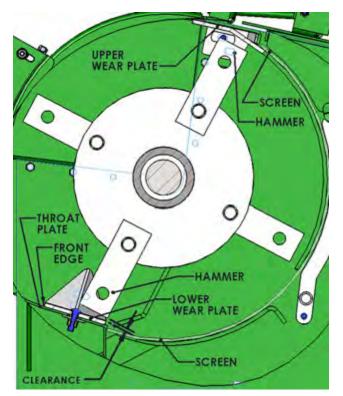
# 🛕 DANGER

#### TO PREVENT DAMAGE TO HAMMER MILL:

1. KEEP MATERIAL FROM BUILDING UP UNDER WEAR PLATE AND FORGING IT UP INTO HAM-MERS BY MAKING SURE THAT THE FRONT EDGE OF LOWER WEAR PLATE IS TIGHT UP AGAINST THE THROAT PLATE.

2. KIEEP WEAR PLATE BOLTS TICHT AND/OR PLACE TACK WELDS ALONG THE FRONT EDGE TO HOLD LOWER WEAR PLATE TICHT TO THE THROAT PLATE.

8. IF THE LOWIER WIEAR PLATE IS EVER MOVED OR REPLACED, MAKE SURE THERE IS NO CAP BEIWEEN IT AND THE THROAT PLATE. BOLT THELOWERWEARPLATETICHTOR TACKWELD THE FRONT EDGE DOWN TO THROAT PLATE TO KEEP MATERIAL FROM CENTING BEIWEEN THEM.



#### Figure 4 - Wear Plate Detail

#### HAY RETARD BOLTS

The hay retard bolts will help maintain uniform feeding while grinding hay (see Figure 5). The degree of the retard is adjusted by loosening the lock nuts on each of the retard bolts, turning the bolts in (increase) or out (decrease) to the desired position. Secure the bolts by tightening the lock nuts.

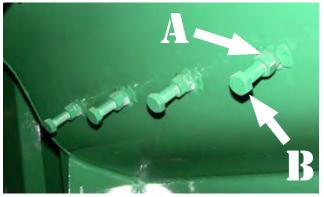


Figure 5 - Hay Retard Bolts (A - Lock Nut; B - Adjustable Retard Bolt, 26 Inch Hammer mill Shown)

#### HAMMERMILL SCREENS

Hammer mill screens are available in sizes ranging from 1/8 inch up to 2 inch openings. The screen size needed will be determined by the material and degree of fineness desired.

The Table showing the screen sizes may be used as a guide for grinding different types of food. (SEE NEXT PAGE)

Do not use a finer screen than needed as this will require more power and reduce mill capacity. Never grind wet corn or hay. This can cause auger problems during loading and unloading

#### CHANGING SCREENS



DISENGAGE ALL THE DRIVES. SHUT OFF THE TRACTOR ENGINE AND PLACE THE KEY IN YOUR POCKET BEFORE INSTALLING OR CHANGING HAMMERMILL SCREENS. NEVER OPEN THE HAMMERMILL COVER UNTIL THE HAMMERMILL HAS COME TO A COMPLETE STOP.

To install or change the screen, open the hammer mill door and remove the screen with the hook provided.

(see Figure 6).

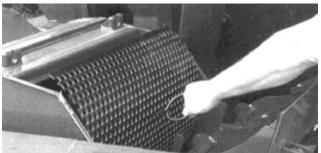
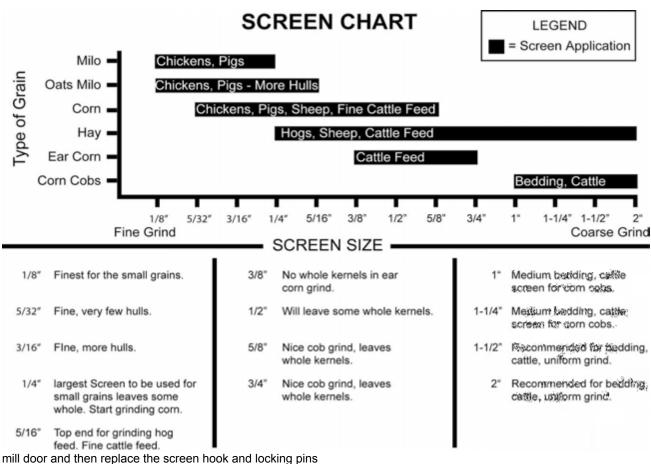


Figure 6 - Changing screens

The screen support rack will drop down to make the screen removal easier. Install the new screen. Close the hammer-

Art's-Way Manufacturing Co., Inc..



mill door and then replace the screen hook and locking pins (see Figure 7).



Figure 7 - Locking Pin and Latch on Hammer mill Door

### PROCESSING HAY

Be careful when running hay through the discharge as it can become tangled in the transition u-joint (see Figure 8). Check u-joint after operation.



Figure 8 - Discharge Joint Location

### **UNLOADING AUGER HOOD**

When the unloading auger tube becomes overloaded, a spring loaded door opens on the end to prevent damage to the drive (see Figure 9).

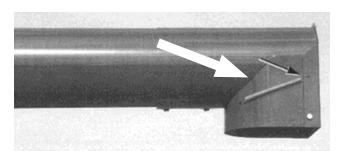


Figure 9 - Unloading Auger Hood

#### **AUGER FEED OPERATION**

NOTE: The Portable Hammer Mill may be equipped with a hydraulic auger feeder.



Figure 10 - Auger Feeder Latch Handle (Shown Locked)

To position the Auger Feeder, pull Latch Handle (see Figure 10) toward you and turn to right to

Unlock Auger Feeder and lift the bottom of the auger feeder slightly so the latch can clear the fender mount. Swing the auger feeder outward, away from the tank to ensure it will clear the fender when it is lowered. Lift the auger feeder slightly and pull the rope on the right hand side to disengage the height adjustment ratchet bar. Raise or lower to the desired height and release the rope. Remove the clip pin holding the auger feeder folding hopper up and then swing the hopper down (see Figure 11).

To place Auger Feeder back in transport position do the reverse of above, and be sure to lock the Auger Feeder down by pulling the Latch Handle (see Figure 10) toward you and turn to left until it is secured in one of the four Locking positions.



Figure 11 - Auger Feeder Operation

When processing material such as ear corn, the grate must be left in the up position. If you must grind with the grate up, use extreme care and make sure to stay clear of the auger.

# A DANGER

### TO PREVENT PERSONAL INJURY:

1. USE THE GRATE OVER THE AUGER WHENEX-ER POSSIBLE

2. KEEP HANDS AND FEET OUT OF THE HOPPER AREA AND DO NOT GLIMB ON OR OVER THE HOPPERATANY TIME.

8. KIEEP CHILDREN AND BYSTANDERS AWAM FROM THE MACHINE WHILE THE MACHINE IS IN OPERATION

Make sure the auger feeder emergency shutoff handle (see Figure 16) will stop the auger feeder.

Loosen the cable clamps to re-adjust if it does not. The auger feeder swing brake prevents the auger from swinging. Tighten or loosen as desired (see Figure 12).



Figure 12 - Auger Feeder Swing Brake

The auger feeder is counter balanced by a spring (see Figure 13). If the spring needs adjusted; loosen the nut on the lower bolt, turn the bolt in to increase the spring tension, tighten the nut.

#### **AUGER FEED POSITIONER**



Figure 13 - Auger Feeder Positioner And Spring Adjustment

The auger feeder is equipped with a unique patented feature called a positioner (see Figure 13). This positioner allows the hopper to be repositioned approximately 6 inches (see Figure 14) in or out (if the Transport Locking Plate is removed, see Figure 15) without having to move the tractor. To operate the positioner; hold the positioner long handle securely, release the short handle, re-position the auger feeder hopper under a spout or against a building, and then release the handles.

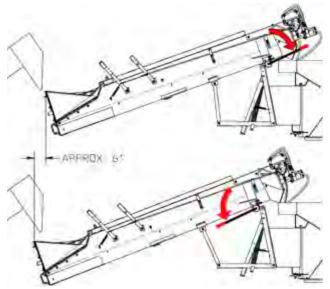


Figure 14 - Auger Feeder Positioner operation AUGER FEED POSITIONER LOCKING PLATE

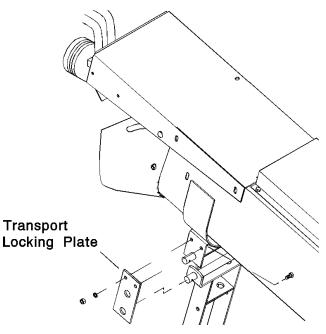


Figure 15 - Transport Locking Plate

IMPORTANT: The auger feeder is shipped with a transport locking plate (see Figure 15) that locks the positioner (see Figure 13) in one position. If the positioner is to be used, this plate needs to be removed. But if the positioner is not needed, this plate can be kept in place to keep positioner from moving during transport of the grinder mixer.

#### **AUGER FEED CONTROLS**

Shut-Off handles are provided at the auger feeder hopper and at the flow control valve at the top of the auger feeder housing. To shut off the auger feeder, pull the handle at the hopper area or move the flow control valve to off (see Figures 16 and 17).



Figure 16 - Hydraulic Auger Feeder controls (shown in off position): Throttle controls (white arrows) and Emergency Shutoff (red arrows)



Figure 17 - Hydraulic Auger Feeder Control - shown in full on position (See Arrow)

To start the auger feeder, the flow control handle is moved forward (clockwise, see Figure 17) or the handles (see Figure 16) located near the hopper until the desired speed is reached. If the hydraulic auger feeder is operated by tractor hydraulics, there must be a minimum of 8 GPM flow and 1500 psi pressure available.

### PORTABLE HAMMERMILL ADJUSTMENTS

**ACAUTION** 

#### DO NOT MAKE ANY ADJUSTMENTS WHILE THE MACHINE IS IN OPERATION AUGER/SUPPLE-MENT.

#### **DRIVE CHAIN ADJUSTMENTS**

The mill to mixer auger/supplement hopper drive chain and the discharge auger drive chain are tensioned with an idler sprocket (see Figure 18). Adjust the chain tension to 1/2 inch total deflection by positioning the idler sprocket.

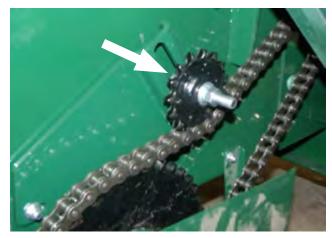


Figure 18 - Mill to Auger Drive Chain

### MAIN DRIVE BELTS

Belts on new machines have been properly tensioned at the factory. To re-tension the belts on a machine which has been in operation, do the steps that follow:

- Loosen locking nut "A" (see Figure 19).
- $\bullet$  Adjust nut "B" on bolt "C" to compress spring "D" increasing the tension of roller "E" on belt.

• Place a scale at the midway point of the double V-belts on the pulleys.

• Adjust bolt "A" (Figure 19, Detail A) until 15 pounds of pull on the scale raises the top of one double V-belt approximately 1/4 inch above the top of the remaining belts (see Figure 21).

• All six pairs of belts should have the average of 1/4 inch deflection at 15 pounds.

• Retighten locking nut "A".

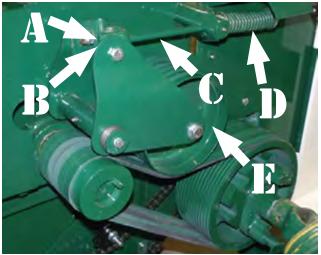


Figure 19 - Belt Tension Adjustment Idler - 1000 RPM Drive Shown

If the proper tension cannot be attained in the procedure above, the position of the Front Jack Shaft Bearing will need to be adjusted. Loosen the tension on the belt from the idler as above. Then do the following (see Figure 20):

· Loosen bolts "B" and locking nut "C".

• Adjust bolt "A" to tighten the belt making sure that the jack shaft stays parallel to hammer mill.

· Retighten locking nut "C" and bolts "B"

• Re-tension belts with Idler as above (see Adjustments - Main Drive Belts).

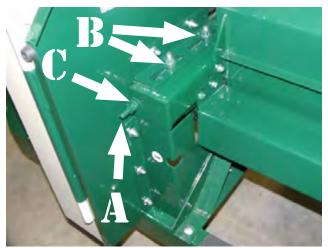
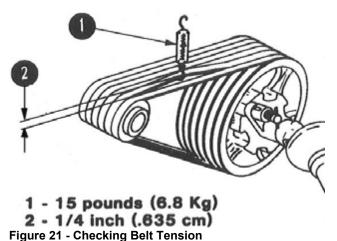
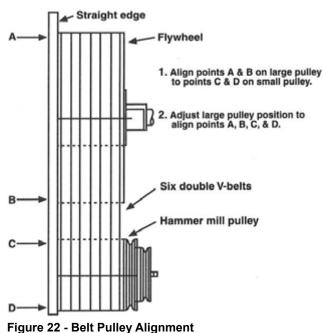


Figure 20 - Belt Tension Adjustment Bearing Mount



IMPORTANT: Proper alignment of the pulleys must be maintained when adjusting belt tension.

Belts should be checked periodically for proper tension and alignment, especially when the machine is new or when a new set of belts are installed (see Figure 22). During operation, if the drive belts are very hot or are smoking due to being loose, do not shut off the machine, but stop grinding and allow the mill to continue to run for several minutes until the belts have cooled. After the belts have cooled, stop the machine to re-tension the belts.



#### 5 , 5

### HAMMERMILL DOOR

To increase the hammer mill door pressure on the screen, adjust the length of the T-handle threaded end. Check the adjustment and tighten the locking nuts in place against the pivot block (see Figure 23).



Figure 23 - Hammermill Door Pressure

21

### PORTABLE HAMMERMILL LUBRICATION



#### BEFORE LUBRICATING THE MACHINE, MAKE SURE THE ENGINE IS SHUT OFF, PLACE THE KEY IN YOUR POCKET AND DISCONNECT THE IMPLE-MENT INPUT DRIVELINE

The grinder mixer is designed to require a minimum amount of lubrication. The points that are to be lubricated should be serviced regularly at the specified intervals listed in this manual.

Keep your supply of lubricating oil and grease in clean containers and covered to protect them from dust and dirt.

Keep the lubricating gun nozzle clean and free from dirt at all times. Wipe all of the dirt from the grease fittings before lubricating them.

### PTO DRIVELINE

Grease PTO sliding shafts every 20 hours. Zerk is located on the outer shaft and is accessible through cutout slots in spin shields (see Figure 24).



Figure 24 - PTO Driveline Shaft

Grease the bearing crosses and plastic shaft bearings every 20 hours. The bearing cross zerk can be accessed through round hole in PTO spin shield (see Figure 25).

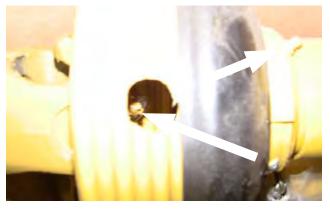


Figure 25 - PTO Driveline Cross Bearing (Left Arrow) and Plastic Shaft Bearings (Right Arrow)

#### **HAMMERMILL SHAFT BEARINGS**

Grease the front and rear pillow block bearings on the hammer mill cylinder shaft every week or every 10 hours of operation (see Figure 26 & 27). Use SAE multi-purpose type grease for this lubrication.

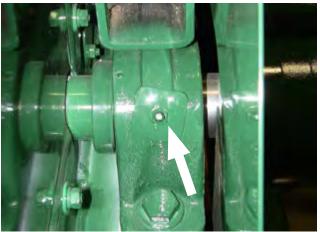


Figure 26 - Front Cylinder Shaft Bearing

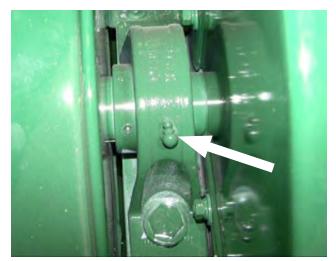


Figure 27 - Rear Cylinder Shaft Bearing

### DRIVEBELT IDLER TENSIONER

Grease the pivot shaft and rod guide periodically (see Figure 28)



Figure 28 - Drive Belt Idler Tensioner Art's-Way Manufacturing Co., Inc.

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#### HAMMERMILL CLUTCH PIN

Periodically oil the sliding pin that engages the large hammer mill drive pulley. Use light engine oil for lubrication (see Figure 29).

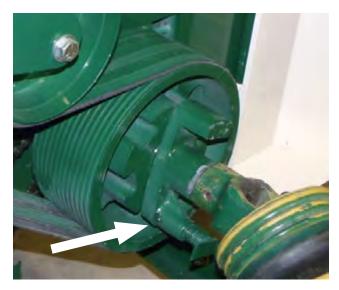


Figure 29 - Hammermill Clutch Pin

#### **DRIVE SHAFT BEARINGS**

Grease the pillow block bearings on the front and rear bearings on the hammer mill jack shaft (see Figure 30). Grease pillow block bearings on the lower line shaft once a month or every 25 hours of operation. Use SAE multi-purpose type grease for these lubrications.

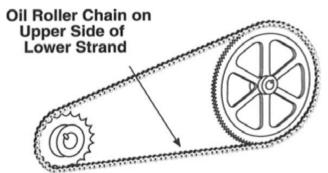


Figure 31 - Oiling Roller Chains

The split end of the chain clip must face the direction opposite of the chain travel. Make sure the clip is properly seated in the groove on the ends of the pin (see Figure 32).

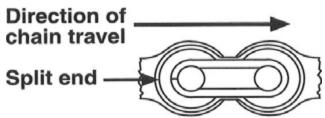


Figure 32 - Chain Spring Clip

#### **WHEELS**

Remove, clean, and repack the wheel bearings once a year or every 100 hours of operation using SAE multi-purpose type grease (See Figure 33).



Figure 30 - Jack Shaft Front Bearing, Front (Looking Up Under Machine)

#### **CHAINS**

Chains should be lubricated at frequent intervals. Apply light engine oil to the chain. Oil the chain on the inside located in the upper side of lower the strand (see Figure 31).

The chains should also be cleaned regularly. Remove the chains and dip or soak them in kerosene. Once the chains have been cleaned, dry and oil them thoroughly.



Figure 33 - Wheel Bearing Lubrication

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## PORTABLE HAMMERMILL SERVICE TORQUE SPECIFICATIONS

**A**CAUTION

#### DISENGAGE ALL DRIVES AND MAKE SURE THE TRACTOR ENGINE IS SHUT OFF. PLACE THE KEY IN YOUR POCKET AND DISCONNECT THE PTO DRIVELINE PRIOR TO SERVICING THE GRINDER MIXER.

When performing service on the grinder mixer and its components, take time to use and comply with the torque specification guide listed for Grade 5 bolts.

Size	Clamp Load	Plain GR 5	Plated GR 5
1/4 – 20 (.250)	2,025	8 ft. lbs.	76 in. Ibs.
5/16 - 18 (.3125)	3,338	17 ft. lbs.	13 ft. lbs.
3/8 – 16 (.375)	4,950	31 ft. lbs.	23 ft. lbs.
7/16 – 14 (.4375)	6,788	50 ft. lbs.	37 ft. lbs.
1/2 – 13 (.500)	9,075	76 ft. lbs.	57 ft. lbs.
9/16 - 12 (.5625)	11,625	109 ft. lbs.	82 ft. lbs.
5/8 - 11 (.625)	14,400	150 ft. lbs.	112 ft. lbs.
3/4 - 10 (.750)	21,300	266 ft. lbs.	200 ft. lbs.
7/8 – 9 (.875)	29,475	430 ft. lbs.	322 ft. lbs.
1 - 8 (1.00)	38,625	644 ft. lbs.	483 ft. lbs.
1-1/8 - 7 (1.125)	42,375	794 ft. lbs.	596 ft. lbs.

#### SHEAR BOLTS

# 

#### SHEAR BOLTS MAKE A LOUD NOISE WHEN SHEARED. IMMEDIATELY SHUT THE TRACTOR IGNITION OFF AND DETERMINE THE CAUSE OF SHEARING.

Shear bolts will make a loud noise when they shear. This is your warning to turn off the tractor ignition immediately and determine the cause of the shear.

When replacing sheared bolts, always tighten them securely using lock nuts. The shear bolts must be the correct hardness to ensure safety (see Figure 34). Warning: using a

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harder bolt in a shear bolt location can cause damage to vital and more expensive drive components.

IDENTIFICATION OF SAE BOLT GRADES; HEAD MAKINGS

Grades 0, 1, and 2 no markings

Grades 5: 3 radial dashes 120° apart

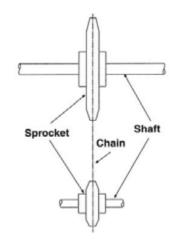


Grades 8: 6 radial dashes 60° apart

Figure 34 - SAE Bolt Identification

#### SPROCKET AND CHAIN ALIGNMENT

Make sure the sprockets are in line with the shafts. If the sprockets are not aligned a sideways pull will develop and will concentrate the load on sides of the sprocket teeth and on the side of the chain (See Figure 35). This faulty alignment will result on excessive wear on both the chain and sprockets.



#### Figure 35 - Sprocket Alignment

Excessive wear of chain and sprockets will result if sprockets are not centered properly.

#### **REPLACEMENT OF WORN/DAMAGED HAMMERS**

Hammers must be replaced in pairs to maintain proper balance. This is accomplished by replacing the hammers opposite of each other (180 degrees apart) using a matched pair.

#### **REVERSING THE HAMMERS**



MAKE SURE THE HAMMER- MILL HAS STOPPED ROTATING BEFORE THE HAMMER MILL DOOR IS OPENED. SHUT THE TRACTOR IGNITION OFF AND PLACE THE KEY IN YOUR POCKET. SAFELY DISENGAGE ALL DRIVES.

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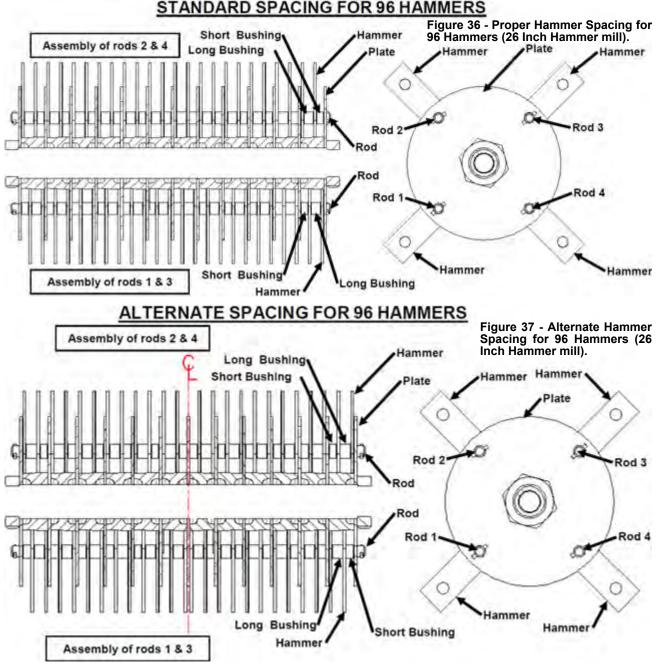
#### PORTABLE HAMMERMILL SERVICE

There are four rows of hammers in the rotor assembly with a total of 96 hammers on a 26 inch hammer mill (see Figure 36 and 37). The hammers are reversible, but make sure to always replace the hammers and spacers in the exact sequence in which they were removed. This will preserve the balance of these specially matched units. All four corners can be used on each hammer.

To remove the hammers, remove the bolts from the side of the mill and round plate (see Figure 38 and Figure 39). Release the tension on belt idler roller to allow access to removal hole (see Figure 40). Remove the pins from each end of the rod and pull the rods outward making sure the hammers are put back in the same place from which they were removed.



Figure 38 - Hammer Removal Inside Hammer mill, Hole to Remove Hammer mill Rods



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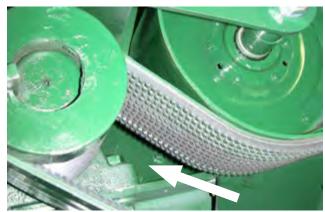


Figure 39 - Hammer mill Removal Hole, Plate To Be Removed

#### MAIN DRIVEBELT REPLACEMENT

To remove the drive belts, relieve tension applied to drive belts by idler roller. Loosen nuts that control spring tension (see Figure 40). If belts still cannot be removed loosen the bolts holding bearing (see Figure 41, Detail B). Then relieve the belt tension by loosening the bolt (see Figure 41, Detail A) and move bearing mount and sheave.



Figure 40 - Belt Replacement, Idler Roller

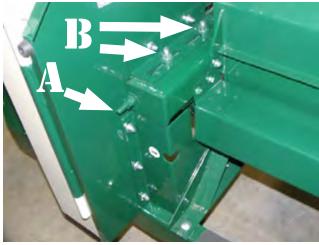


Figure 41 - Belt Replacement, Drive Sheave and Bearing Mount

After the belts are no longer in tension, remove the belts and replace them with the new set and continue as described in PORTABLE HAMMERMILL ADJUSTMENTS - Main Drive-

belts. Make sure to realign the pulley and the sheave.

### WEAR PLATE REPLACEMENT

# **A**WARNING

#### HAMMERS MAKE A LOUD BANGING NOISE WHEN CONTACTING THE WEAR PLATES. IMMEDIATELY SHUT THE TRACTOR IGNITION OFF AND DETER-MINE THE CAUSE OF BANGING.

There are two replaceable wear plates in the Hammer Mill (see Figure 42 & 43).

Upper Wear Plate: Unscrew the 4-bolts (2 on each side) that hold it in place, then remove the hood and slide the wear plate out toward the throat of the hammer mill.

To replace the wear plate, slide it in making sure that it is fully seated. Check dimensions shown (+/-1/16"). If not fully seating then remove it and clear any obstructing material. Make sure the hammers do not hit the wear plate before operating the hammer mill.

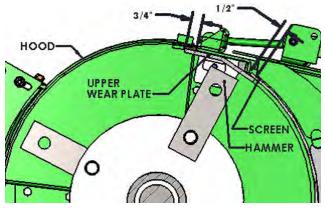


Figure 42 - Upper Wear Plate Detail

Note: The lower wear plate is reversible.

# **DANGER**

#### TO PREVENT DAMAGE TO HAMMER MILL:

1. KEEP MATERIAL FROM BUILDING UP UNDER WEAR PLATE AND FORGING IT UP INTO HAM-MERS BY MAKING SURE THAT THE FRONT EDGE OF LOWER WEAR PLATE IS TIGHT UP AGAINST THE THROAT PLATE.

2. KIEEP WEAR PLATE BOLTS TICHT AND/OR PLACE TACK WELDS ALONG THE FRONT EDGE TO HOLD LOWER WEAR PLATE TICHT TO THE THROAT PLATE.

3. IF THE LOWIER WEAR PLATE IS EVER MOVED OR REPLACED, MAKE SURE THERE IS NO CAP BETWEEN WAND THE THROAT PLATE BOLT THE

### LOWERWEAR PLATE TIGHT OR TACKWELD THE FRONT EDGEDOWN TO THROAT PLATE TO KEEP MATERIAL FROM CEITING BETWEEN THEM.

Lower Wear Plate: Unscrew the bolts (2-each on side and 3-each center of wear plate or 3-welds along front edge) holding the lower wear plate in place and/or grind any welds holding the front edge down to the throat plate (see Figure 43).

To replace the wear plate, slide it in making sure that it is fully seated. It must be tight against the throat plate with no gap along the front edge for material to get between. Clean any material out that could cause problems. Make sure that the hammers do not hit the wear plate (there should be a minimum of 1/32" clearance). Moving the lower wear plate in or out will only change the clearance to the hammers by approximately 1/16" (see Figure 43). Weld front edge down or bolt center down so there is no gap with throat plate. Make sure the hammers do not hit the wear plate before operating the hammer mill.

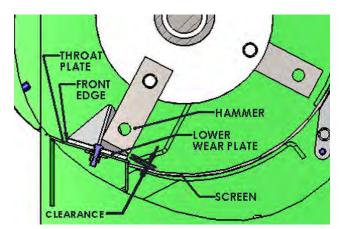


Figure 43 - Lower Wear Plate Detail

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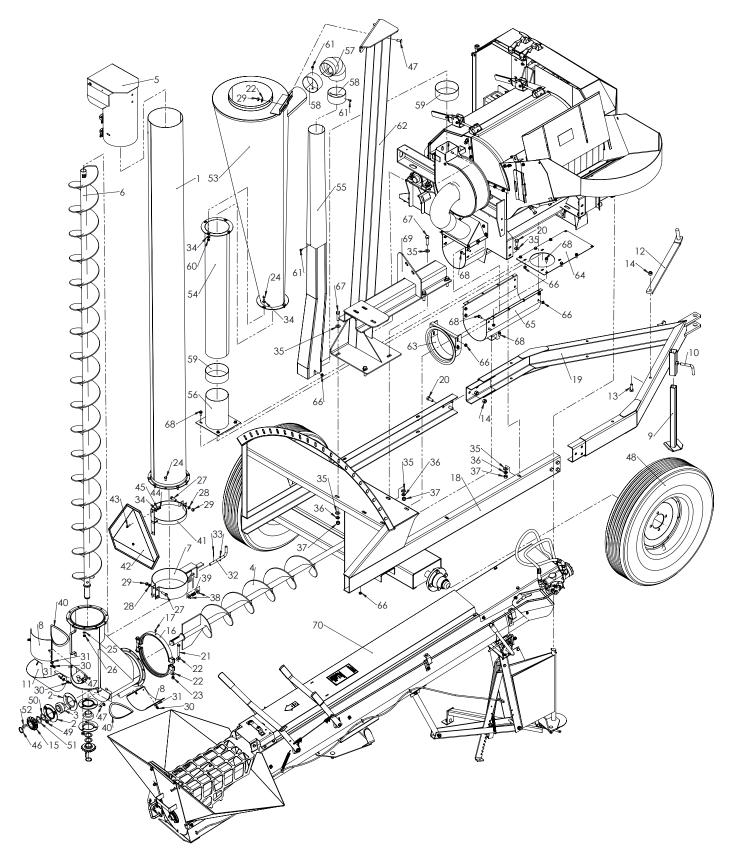
### **TROUBLESHOOTING GUIDE**

The majority of difficulties are caused by improper adjustments. When you encounter trouble, perform a systematic check of all possible adjustments using the chart that follows. If difficulties cannot be corrected by making the adjustments that follow, consult your local Art's Way authorized dealer for further assistance.

TROUBLE	POSSIBLE CAUSE	POSSIBLE REMEDY
PTO driveline is hard to telescope and hard to connect	Shafts are twisted due to overloading of the mill	Replace PTO driveline if necessary, load uniformly, and adjust belts to prevent slipping (1000 rpm recommended over 100 hp)
	Lack of grease on the sliding halves	Lubricate as necessary
Mill vibrates excessively while in operation	PTO driveline is not properly aligned	Front of grinder main shield must be parallel to tractor axle
	PTO driveline is bent	Replace the PTO driveline
	Missing and/or broken hammers	Replace the hammers (in pairs)
	Tractor drawbar is not adjusted properly	Adjust the tractor drawbar (Refer to Figure 12.)
Low volume from hammer mill	Hammer mill is not operating at optimum speed	Before grinding, set tractor throttle to rated PTO speed (540 or 1000 rpm)
	Hammer mill screens and/or hammers are worn	Reverse and/or replace the screens and hammers if necessary
	Hammer mill is not level	Find level surface if at all possible
	Mill drive belts are slipping	Adjust the drive belts (Refer to Figures 48-50)
Tractor engine RPM falls below the rated PTO speed while grinding	Adding too much feed to the mixer	Reduce flow of material to the mill
	Screen size is too small	Increase the screen size
	Feed gate is too high	Lower the feed gate
	Drive belts are too loose	Adjust the drive belts (Refer to Figures 48-50)
Drive belt squeals when the mill is engaged	Drive belts are too loose	Tighten the drive belts
Drive belts show excessive wear	Belts are out of alignment	Align the pulleys
	Belts are slipping	Adjust the drive belts (Refer to Figures 48-50)

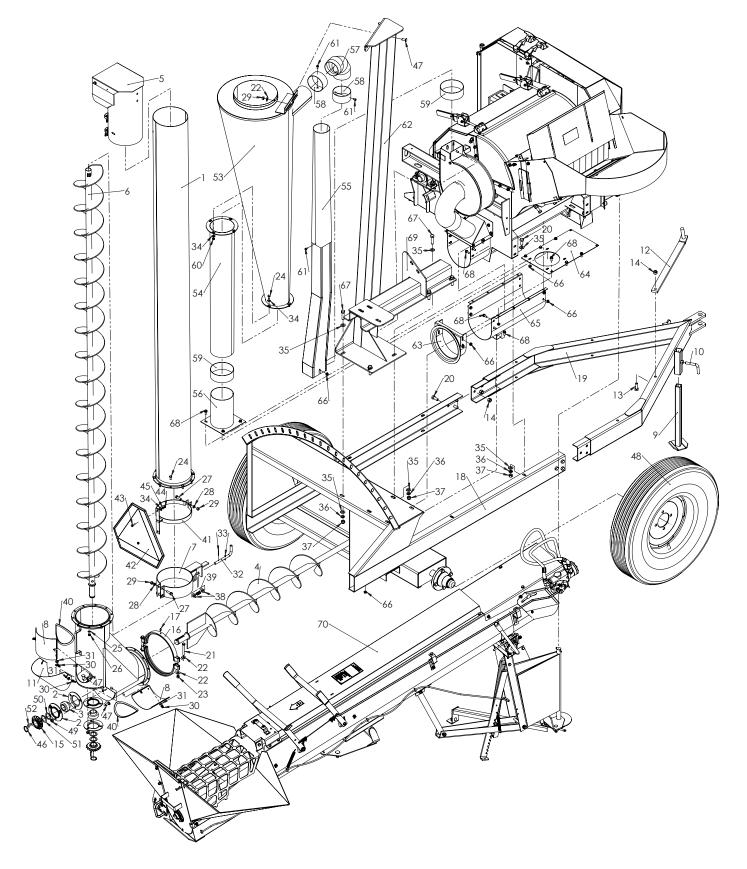
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# **SECTION 2: ILLUSTRATED PARTS LIST**



## MAIN ASSEMBLY W/ OPTIONAL AUGER FEEDER

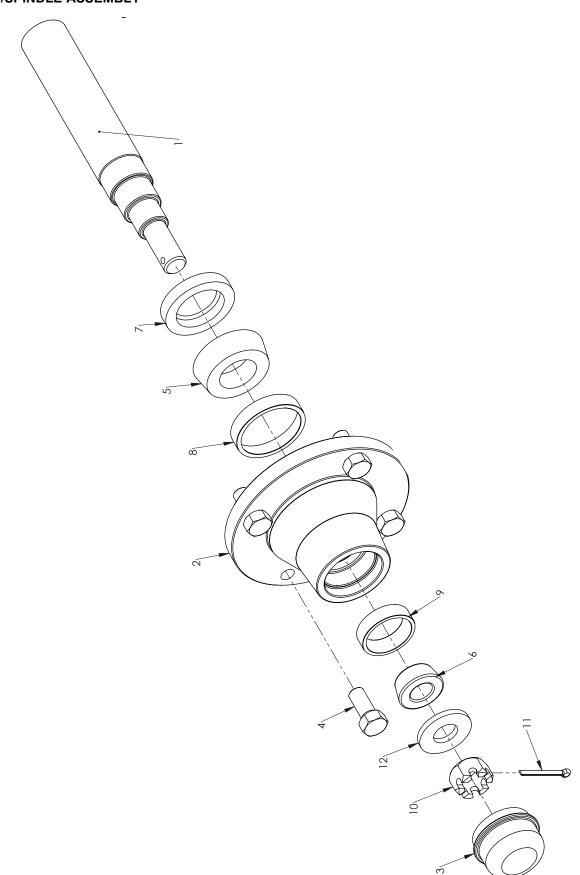
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	205990	TUBE WELDMENT**	1
2	019150	FLG, 1-1/8 BRG	6
3	461780	BEARING ASSY,	3
4	607860	AUGER WLDT,	1
5	152100	HOOD ASSEMBLY	1
6	528670	AUGER WLDT, TILTED	1
7	577330	MOUNT WLDT, LATCH	1
8	012520	DOOR	2
9	577240	TUBE WELD, JACK STAND	1
10	454010	HANDLE, ADJUSTING	1
11	040870	SHIELD, BEVEL GEAR	1
12	379470	HOLDER, PTO	1
13	014770	BOLT, HHCS .50-13X1.50	1
14	037540	NUT, LOCK 1/2-13 GR5 ZN NYLON	7
15	461790	GEAR, BEVEL 14T	2
16	188340	SWIVEL CLAMP	2
17	115590	FITTING, GREASE	2
18	607730	FRAME WLDT,	1
19	579350	HITCH WLDT, 20"	1
20	010730	BOLT, HHCS 1/2-13 X 1-1/4"	10
21	990820	BOLT, HHCS 3/8-16 X 3	2
22	021190	WASHER, FLAT 3/8 STD	6
23	023060	NUT, LOCK 3/8-16 2 WAY	2
24	012140	BOLT, HEX, 5/16" X 3/4" Z5	14
25	023620	WASHER, LOCK 5/16 ZN 5	10
26	023630	NUT, HEX 5/16-18 GR5 ZN	10
27	006690	BOLT, HHCS 3/8-16X1-1/4 GR5 ZN	3
28	021180	WASHER, LOCK 3/8	10
29	027260	NUT, HEX 3/8-16 GR5 ZN	10
30	009790	NUT, WING 5/16-18 TYPE A ZN	6
31	022920	WASHER, FLAT 5/16 STD	6
32	MP17-00750	PIN, CAM LEVER	1
33	MP904246	PIN,SPRING,5/32,1-1/4	2
34	023260	WASHER, FLAT 1/4 STD	11
35	005200	WASHER, FLAT 1/2 STD	29



## MAIN ASSEMBLY W/ OPTIONAL AUGER FEEDER, (CONTINUED)

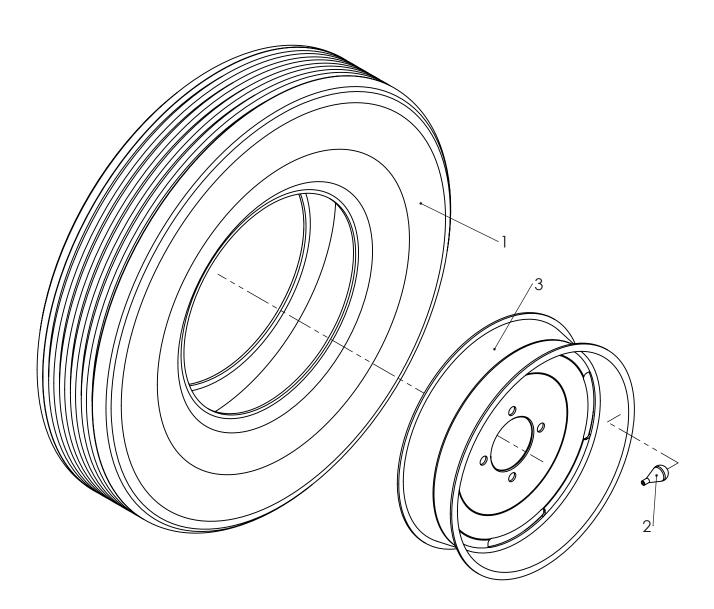
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
36	005370	WASHER, LOCK 1/2	17
37	005360	NUT, HEX 1/2-13	17
38	1120396	WASHER, FLAT 1/2"	2
39	MP07.17764	SPRING	1
40	185900	STRIP, SEAL	2
41	577970	BRACKET WLDT, SMV	1
42	E224138	EMBLEM, CAUTION SMV	1
43	012051	BOLT, HHCS 1/4-20 X 3/4	2
44	027660	NUT, HEX 1/4-20 GR5 ZN	2
45	029440	WASHER, LOCK 1/4 SAE	2
46	025710	RING, SNAP	2
47	170530	BOLT, CRG 3/8-16 X 1"	20
48	236300	TIRE & RIM ASSY, 6.70 X 15 4PLY	2
49	020180	NUT, LOCK 3/8-16 GR5 ZN HEX FLG	13
50	020880	WASHER, FLAT	2
51	020910	WASHER, FLAT	2
52	020760	KEY, PARALLEL	2
53	584140	CYCLONE WLDT, DUST	1
54	607780	TUBE WLDT, LOWER	1
55	584210	PIPE WLDT, VERTICAL	1
56	607800	COVER WLDT,	1
57	188391	ELBOW, 4" -90	1
58	185880	BAND, RUBBER	2
59	254160	BAND, RUBBER	2
60	025670	NUT, LOCK 5/16-18 HEX FLG	4
61	205940	SCREW, TEK 8-18 X 1/2 SELF DRILLING ZN	6
62	607910	WLDT, MNT DUST COLLECTOR	1
63	607720	WLDT, TRANSITION	1
64	607760	CAP, U-TROUGH	1
65	607970	WLDT, U-TROUGH	1
66	020190	NUT, LOCK 5/16-18 GR5 ZN HEX FLG	35
67	023950	BOLT, HHCS 1/2-13 X 2"	12
68	JN10212	SCREW, FLG 5/16-18 X 3/4 GR5 ZN HEX	38
69	608670	WLDT, FRMD REST AGR	1
70	593920	AUGER FEEDER ASSY,	1

## HUB/SPINDLE ASSEMBLY



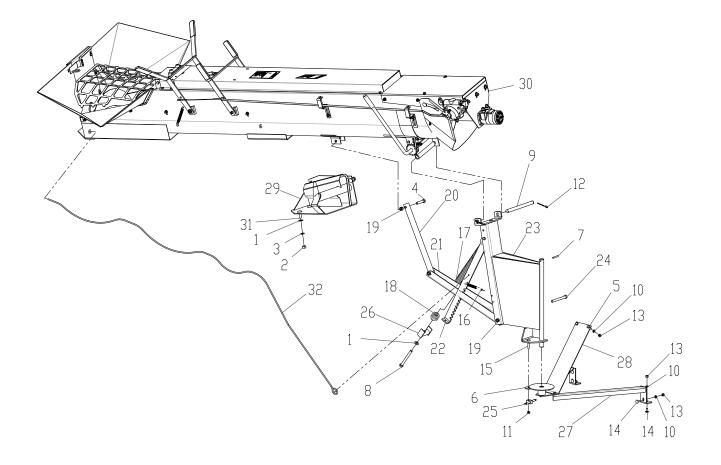
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	SD206090	SPINDLE	1
2	SD200232	HUB ASSY	1
3	SD202250	PLATE, FACE	1
4	V007000	HBOLT 0.5000-13X2.5X1.25-N	4
5	012630	BEARING CONE	1
6	1758209	BEARING, CONE .75 ID	1
7	012620	SEAL, 1.62 X 2.33 X .40	1
8	018860	BEARING, CUP 2.33 OD	1
9	1748009	BEARING, CUP 1.78 OD	1
10	020710	HSNUT .750-16-GR5	1
11	026630	COTTER PIN, 5/32 X 1-1/2	1
12	020720	WASHER, FLAT	1

### WHEEL ASSEMBLY

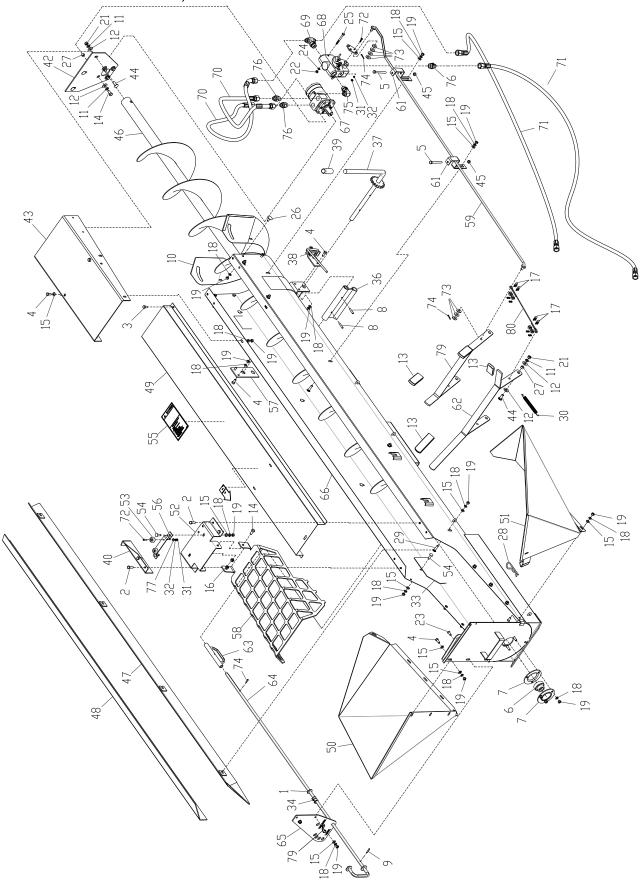


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	219620	TIRE, 6.70 / 15; 4 PLY	1
2	164420	VALVE STEM W/CAP	1
3	1757903	RIM, 15/ 6 - 4 BOLT	1

AUGER FEEDER SUPPORT SYSTEM ASSEMBLY, OPTIONAL

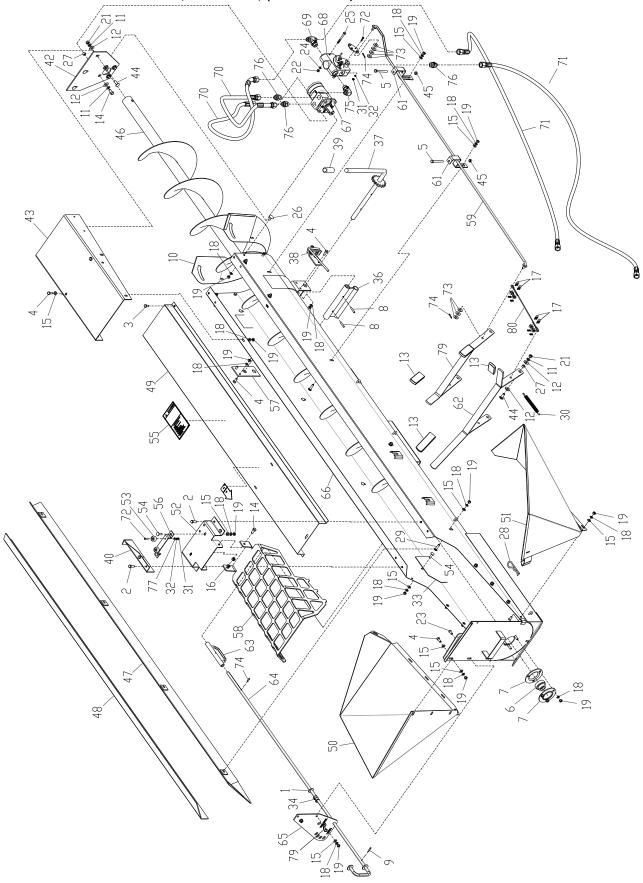


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STD	6
2	005360	NUT, HEX 1/2-13	5
3	005370	WASHER, LOCK 1/2 ZN	5
4	007080	BOLT, HHCS 1/2-13 X 2-1/2	2
5	012260	BOLT, HHCS 3/8-16 X 1.00 GR5 ZN	5
6	012270	WASHER, FLAT	1
7	013600	PIN, ROLL .25 X 2	1
8	013800	BOLT, HHCS 1/2-13 X 5 GR5 ZN	1
9	015120	PIN, DRAG	1
10	021180	WASHER, LOCK 3/8 ZN	10
11	023060	NUT, LOCK 3/8-16 2-WAY	2
12	026630	1/4 X 2 COTTER PIN	2
13	027260	NUT, HEX 3/8-16 GR5 ZN	10
14	032840	BOLT, CRG 3/8-16 X 3/4 SSN GR5 ZN	6
15	041450	BOLT, CRG 3/8-16 X 2.00 SSN GR5 ZN	1
16	100750	SPRING, EXTENSION	1
17	113470	SPRING, EXTENSION	1
18	113490	NUT, SPRING	1
19	127890	NUT, LOCK 1/2-13 HEX	3
20	131960	VERTICAL LINK SPRING	1
21	152870	CHANNEL, LOWER	1
22	152880	BAR, RATCHET	1
23	159810	SUPPORT WLDT	1
24	160350	BOLT, HHCS 1/2-13 X 5 GR5 ZN	1
25	160560	HANDLE ASSY	1
26	161540	PIN WLDT, PIVOT	1
27	366470	SUPPORT WLDT	1
28	528430	STRAP, REINF. MILL	1
29	583440	MOUNT WLDT, AF	1
30	593930 SEE NEXT PAGE	AUGER FEEDER ASSY	1
31	E096046	BOLT, CRG 1/2-13 X 2-1/2 GR5 ZN	5
32	211490	ROPE, POLYPROPYLENE 110"	1



### AUGER FEEDER ASSEMBLY, OPTIONAL

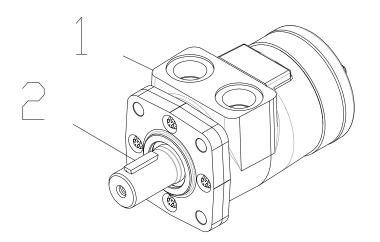
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STD	1
2	005900	BOLT, HHCS 5/16-18 X 1 GR5 ZN	7
3	006880	BOLT, HHCS 5/16-18 X 5/8	2
4	012140	BOLT, HHCS 5/16-18 X 3/4 GR5 ZN	14
5	160230	BOLT, HHCS 5/16-18 X 3 GR5 ZN	2
6	012310	BEARING, ADAPTER 1 SOD	1
7	012330	FLANGETTE, BEARING 7/8 X 1.0, 3-BOLT ROUND	2
8	012550	PIN, EXPANSION	2
9	012560	PIN, ROLL 3/16 X 1	2
10	015060	DOWNSPOUT, AUGER	1
11	021180	WASHER, LOCK 3/8 ZN	11
12	021190	WASHER, FLAT 3/8 STD 7/1 6 X 1 X 5/64 ZN	15
13	021560	GRIP CLUTCH HANDLE	4
14	022420	BOLT, HHCS 3/8-16 X 3/4	6
15	022920	WASHER, FLAT 5/16 STD	29
16	023060	NUT, LOCK 3/8-16 2-WAY	2
17	129260	CLIP, 1/8" MALLEABLE WIRE	4
18	023620	WASHER, LOCK .31 ZN	40
19	023630	NUT, HEX 5/16-18 GR5 ZN	42
20	025670	NUT, HEX 5/16-18	2
21	027260	NUT, HEX 3/8-16 GR5 ZN	7
22	027660	NUT, HEX 1/4-20-D-N	2
23	028230	SCREW, THREAD 5/16-18 X .75	9
24	029440	WASHER, LOCK 1/4 SAE MED	2
25	031560	HHCS, 1/4-20 X 2-1/2	2
26	033320	BOLT, STEP 5/16-18 X 3/4	2
27	033460	SPACER, .38 ID X .56 OD X .312	6
28	035830	PIN, COTTER 3/16 X 1-1/2 ZN	1
29	049290	BOLT, CRG 5/16-18 X 3/4 SSN ZN	4
30	100750	SPRING, EXTENSION	1
31	120590	NUT, HEX 10-24 GR2 ZN	3
32	120600	WASHER, LOCK #10	3
33	123900	SEAL, DRAG	1
34	129310	SPRING, COMP	1
35	421240	BOLT, HHMS #10-24 X 3/4	1
36	150810	BRACKET WLDT, EXTENSION	1
37	150820	LEVER & RATCHET	1
38	150840	STOP & HOLDER ASSY	1
39	150940	GRIP, HANDLE	1
40	152310	BRACKET, LEVER STOP	1



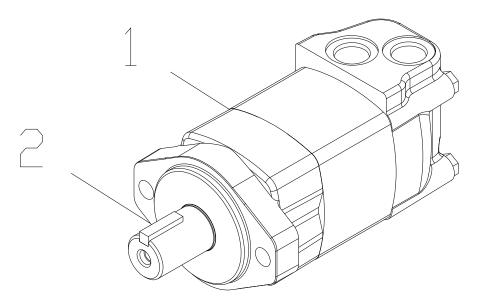
AUGER FEEDER ASSEMBLY, OPTIONAL, (CONTINUED)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
41	158520	DECAL, A-W STOP AUGER FEEDER	1
42	164620	PLATE, HYD. MOTOR	1
43	164630	PLATE, TOP HYD.	1
44	170530	BOLT, CRG 3/8-16 X 1 SSN GR5 ZN	7
45	181570	NUT, LOCK 5/16-18 NYLON HEX	2
46	206760	AUGER WLDT	1
47	206770	ANGLE WLDT, RH	1
48	206780	ANGLE, LEFT SIDE DRAG	1
49	206790	COVER WLDT, UPPER	1
50	210810	HOPPER WLDT	1
51	210830	HOPPER WLDT, FOLDING	1
52	560660	BRACKET, AUGER FEEDER GRATE MOUNTING	1
53	212510	BUMPER, RUBBER	2
54	254060	BOLT, CRG 5/16-18 X 1 SSN	6
55	383990	DECAL, DANGER AUGER FEEDER HAZARD	1
56	529650	STRAP, RUBBER	1
57	529660	PLATE, TRANSPORT LOCKING	1
58	560670	GRATE, AUGER FEEDER	1
59	581750	LINKAGE WLDT, AF SHUTOFF	1
60	581770	TAB, AF SHUTOFF	1
61	581780	STRAP, ROD GUIDE	2
62	581810	HANDLE WLDT, AF	1
63	583410	LATCH WLDT, AF	1
64	583490	ROD WLDT, AF	1
65	583510	PLATE, END AF	1
66	584920	HOUSING WLDT, AF	1
67	585120	MOTOR, HYD. 12 CU. IN. (SEE PAGE 49)	1
68	585130	VALVE ASSY, HYD. (SEE PAGE 49)	1
69	585150	ADAPTER, TEE-8 MJIC	1
70	585180	HOSE ASSY, HYD. 1/2-20", -8FJIC 45 DEG8FJIC	2
71	585190	HOSE ASSY, HYD. 1/2-84", -8FJIC -8FJIC	2
72	991120	SCREW, RHMS #10-24 X 3/4 GR2 SLOTTED ZN	2
73	I120394	WASHER, FLAT 3/8 SAE ZN	7
74	023090	PIN, COTTER 3/16 X 3/4	2
75	MP32.03794	ADAPTER, 90 DEG. ELBOW	1
76	MP3202101	ADAPTER, STRAIGHT	3
77	W144750056	WASHER, FLAT #10 SAE 7/32 X 1/2 X 3/64	2
78	586320	DECAL, AF LATCH 'LOCK'-'UNLOCK'	1
79	593940	HANDLE WLDT, AUGER FEEDER ON-OFF	1
80	593960	CABLE, CLUTCH AF SHUT-OFF	1

### HYDRAULIC MOTOR KITS, OPTIONAL

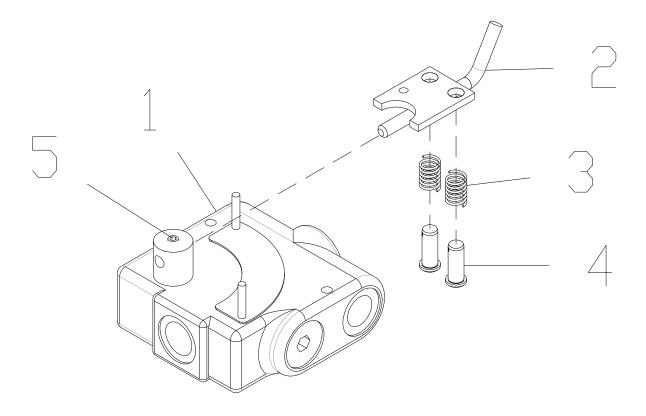


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	586440	MOTOR, HYD. 20 CI DISPLACE -10 SAE O-RING (SWING)	-
2	006180	KEY, WOODRUFF 1/4 X 1 #15 (808)	-
3	1780808	SEAL KIT, EATON 'H'-SERIES MOTOR #60023 (NOT SHOWN)	-
3	243040	SEAL KIT, ROSS TRW 'MG'-SERIES MOTOR #SK000090 (NOT SHOWN)	-



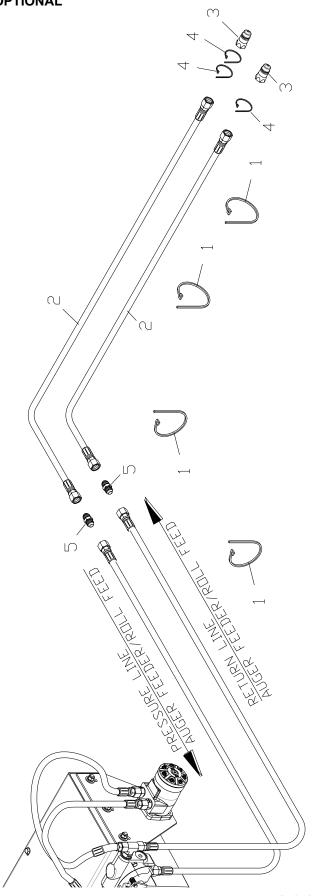
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	576240	MOTOR, HYD. 20 CI DISPLACEMENT SAE-10 O-RING	-
2	020220	KEY, SQUARE 5/16 X 1-1/4	-
3	G214101	SEAL KIT, EATON '2000'-SERIES MOTOR #61258-000 (NOT SHOWN)	-

# AUGER FEEDER FLOW CONTROL VALVE ASSEMBLY, OPTIONAL



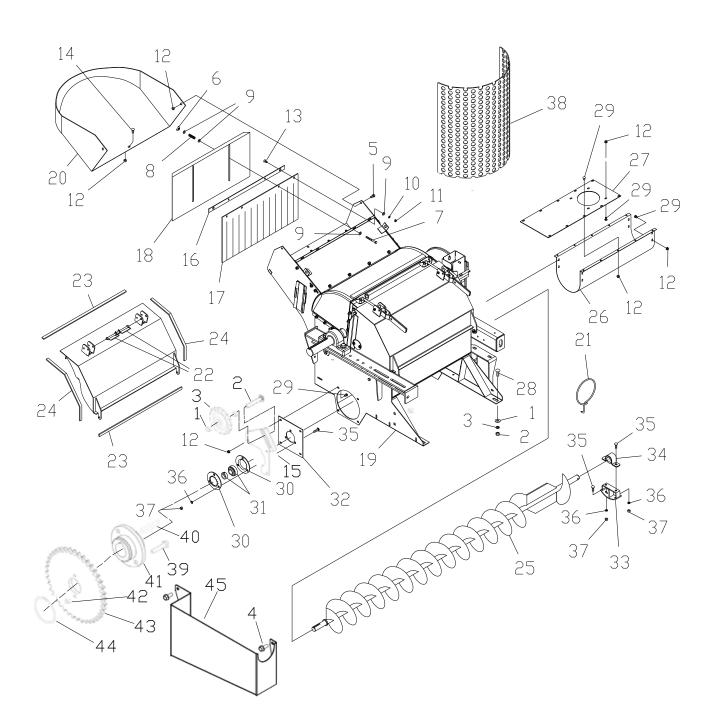
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	585140	VALVE, FLOW CONTROL W/O HANDLE	1
2	161500	LEVER WLDT, HYD. CONTROL	1
3	042390	SPRING, COMPRESSION 0.415 X 0.50 X 1.045 ZN	2
4	012172	PIN, CLEVIS 3/8 X 1	2
5	E672451	SCREW, SHSS 1/4-20 X 1/4	1

## TRACTOR HYDRAULICS, OPTIONAL

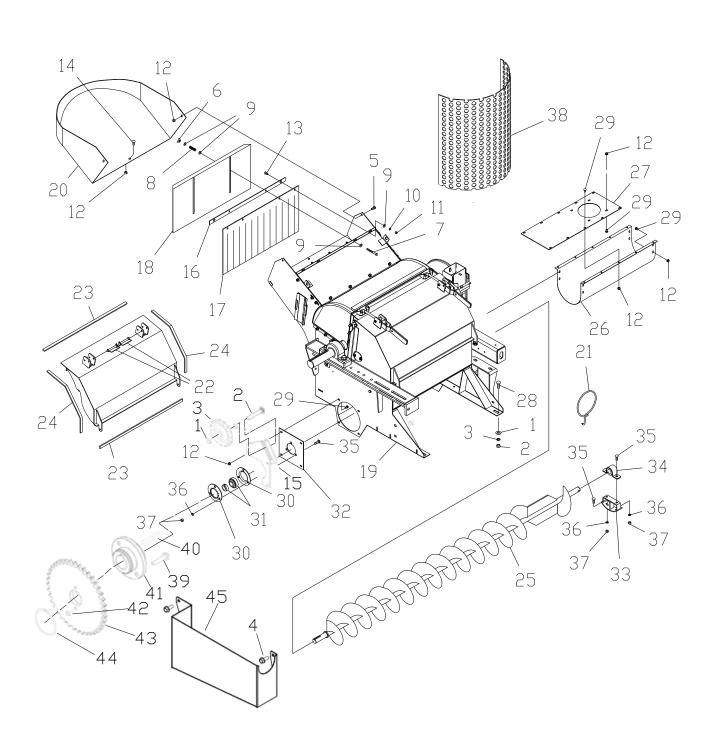


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	149670	TIE, NYLON CABLE 3/16" X 11"	4
2	591950	HOSE ASSY, HYD 1/2 X 155" SAE -8 MORB X -8 FJIC	2
3	MP09.74158	COUPLER, HYD -8 ORB	2
4	MP17.00567	CABLE, TIE - GREEN	3
5	MP32.01952	UNION, SAE -8 MJIC	2





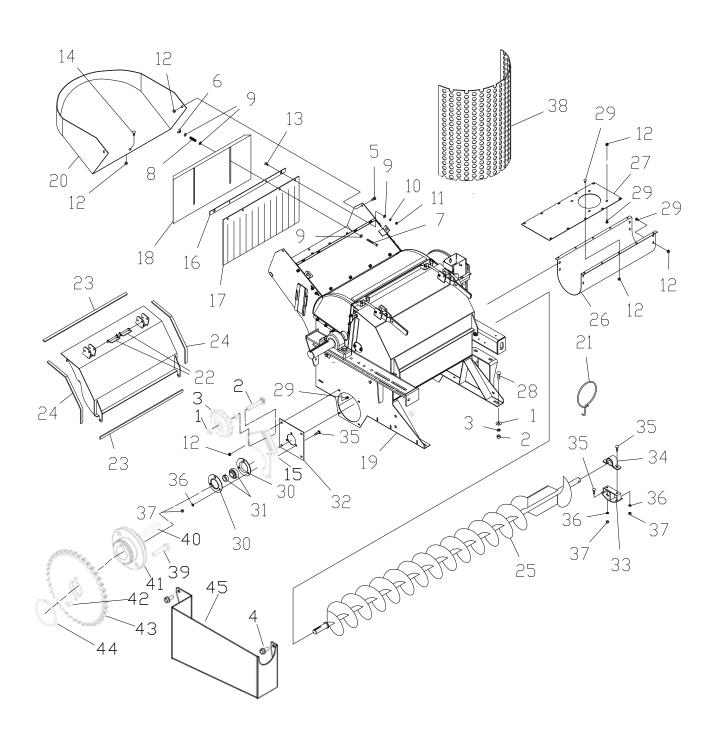
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005360	NUT, HEX 1/2-13	2
2	MP903921	BOLT, CRG, 1/2-13 UNC X 3	1
3	021840	SPROCKET, 60A15 IDLER W/	1
4	JN10212	SCREW, FLG 5/16-18 X 3/4	2
5	006880	BOLT, HHCS 5/16-18 X 5/8 GR5, ZN	2
6	009790	NUT, WING 5/16-18 TYPE A ZN	2
7	009800	BOLT, HHCS 5/16-18 X 2-1/2 GR5, ZN	2
8	013080	SPRING, COMP 12 GA X 0.62 X 1.88	2
9	022920	WASHER, FLAT 5/16 STD ZN	8
10	023620	WASHER, LOCK 5/16 ZN	2
11	023630	NUT, HEX 5/16-18 GR5, ZN	2
12	020190	NUT, HEX FLG LK 5/16-18 ZN	4
13	033080	SCREW, FHMS 5/16-18 X 1 GR2, ZN	2
14	035290	BOLT, CRG 5/16-18 X 5/8 SSN GR2	1
15	607710	MOUNT FORMED IDLER	1
16	158960	STRAP, THROAT	1
17	158970	FLAP, THROAT	1
18	158980	PLATE, LARGE FEED GRATE	1
19	591500	HAMMERMILL ASSEMBLY, 26"	1
20	366590	BASKET WLDT, 26"	1
21	013120	HOOK, SCREEN	1
22	143710	PIN, SNAPPER 0.38 X 2.5 ZN	2
23	157670	SEALING STRIP, 500	2
24	213900	STRIP, SEALING 0.25 X 0.62 X 20.0	2
25	196140	AUGER WLDT, MILL TO MIXER	1
26	364250	THROUGH, LOWER PAN TO TANK	1
27	365880	CAP, THROUGH	1
28	030470	BOLT, CRG 1/2-13 X 1-1/4 SSN GR5	4
29	169340	BOLT, CRG 5/16-18 X 1/2 SSN GR2	26
30	019150	FLANGE, 1.12 BRG 3-BOLT ROUND	2



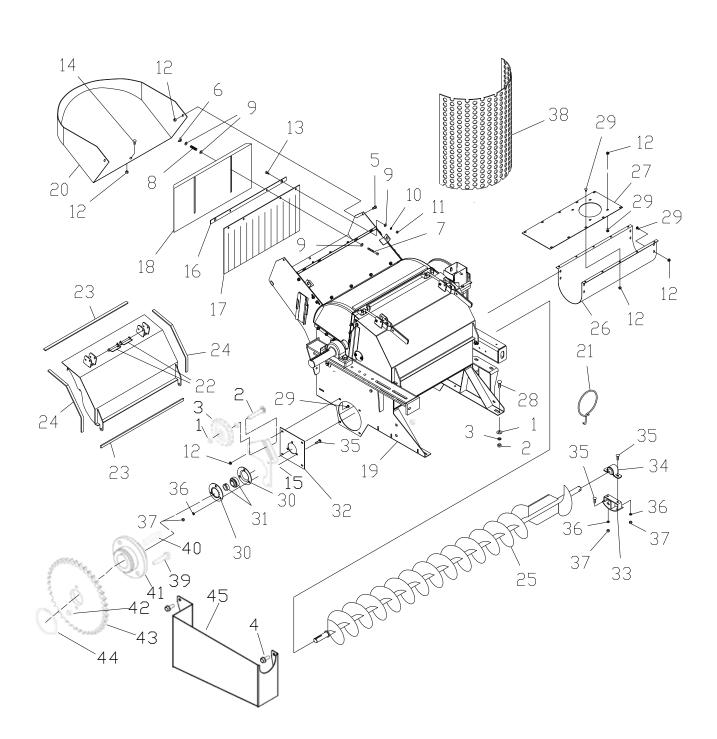


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
31	461780	BEARING, 1.25 SOD SPRING LOCK	1
32	128040	PLATE, HOLE COVER	1
33	165020	BRACKET WLDT, BEARING HOLDER	1
34	165030	BEARING, 1.12 SPLIT WOOD PB	1
35	170530	BOLT, CRG 3/8-16 X 1 SSN GR5	7
36	021180	WASHER, LOCK 3/8"	7
37	027260	NUT, HEX 3/8-16 GR5, ZN	7
	157700	SCREEN, HAMMERMILL – 1/8"	1
	187630	SCREEN, HAMMERMILL – 5/32"	1
	157710	SCREEN, HAMMERMILL – 3/16"	1
	157720	SCREEN, HAMMERMILL – 1/4"	1
	157730	SCREEN, HAMMERMILL – 5/16"	1
	157740	SCREEN, HAMMERMILL – 3/8"	1
38	157750	SCREEN, HAMMERMILL – 1/2"	1
	157760	SCREEN, HAMMERMILL – 5/8"	1
	157770	SCREEN, HAMMERMILL – 3/4"	1
	157780	SCREEN, HAMMERMILL – 1" (SHOWN)	1
	157790	SCREEN, HAMMERMILL – 1-1/4"	1
	157800	SCREEN, HAMMERMILL – 1-1/2"	1
	157810	SCREEN, HAMMERMILL – 2"	1
39	206070	BOLT, HHCS 1/4-20 X 1-1/	2
40	020400	KEY, SQUARE 5/16 X 2	1
41	163741	HUB WLDT, SHEAR 1.25 DIA	1
42	042370	NUT, LOCK 1/4-20 HEX GRC	2
43	608040	SPROCKET, CHAIN	1
44	010380	RING, EXT RETAINING	1
45	607980	SHIELD, LOWER SPRKT	1





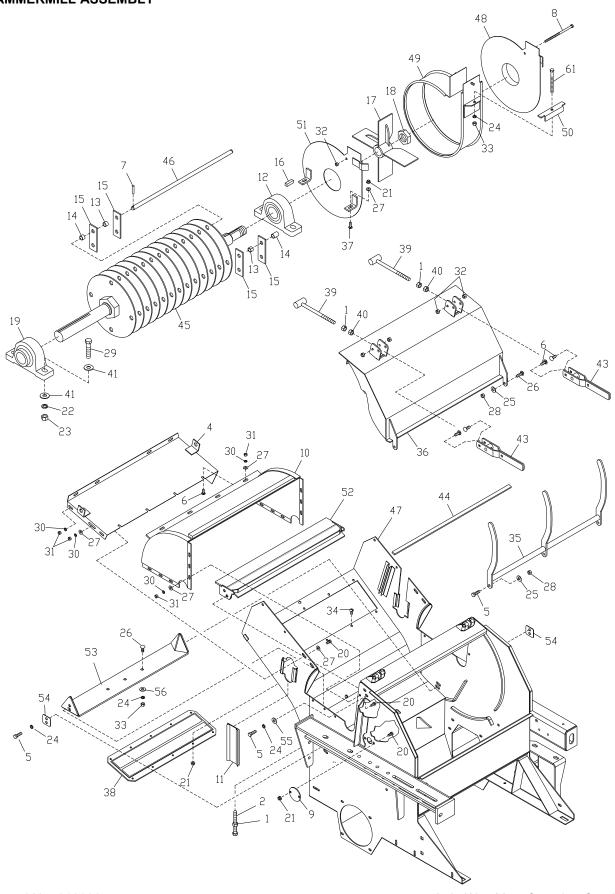
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005360	NUT, HEX 1/2-13	2
2	MP903921	BOLT, CRG, 1/2-13 UNC X 3	1
3	021840	SPROCKET, 60A15 IDLER W/	1
4	JN10212	SCREW, FLG 5/16-18 X 3/4	2
5	006880	BOLT, HHCS 5/16-18 X 5/8 GR5, ZN	2
6	009790	NUT, WING 5/16-18 TYPE A ZN	2
7	009800	BOLT, HHCS 5/16-18 X 2-1/2 GR5, ZN	2
8	013080	SPRING, COMP 12 GA X 0.62 X 1.88	2
9	022920	WASHER, FLAT 5/16 STD ZN	8
10	023620	WASHER, LOCK 5/16 ZN	2
11	023630	NUT, HEX 5/16-18 GR5, ZN	2
12	020190	NUT, HEX FLG LK 5/16-18 ZN	4
13	033080	SCREW, FHMS 5/16-18 X 1 GR2, ZN	2
14	035290	BOLT, CRG 5/16-18 X 5/8 SSN GR2	1
15	607710	MOUNT FORMED IDLER	1
16	158960	STRAP, THROAT	1
17	158970	FLAP, THROAT	1
18	158980	PLATE, LARGE FEED GRATE	1
19	591500	HAMMERMILL ASSEMBLY, 26"	1
20	366590	BASKET WLDT, 26"	1
21	013120	HOOK, SCREEN	1
22	143710	PIN, SNAPPER 0.38 X 2.5 ZN	2
23	157670	SEALING STRIP, 500	2
24	213900	STRIP, SEALING 0.25 X 0.62 X 20.0	2
25	196140	AUGER WLDT, MILL TO MIXER	1
26	364250	THROUGH, LOWER PAN TO TANK	1
27	365880	CAP, THROUGH	1
28	030470	BOLT, CRG 1/2-13 X 1-1/4 SSN GR5	4
29	169340	BOLT, CRG 5/16-18 X 1/2 SSN GR2	26
30	019150	FLANGE, 1.12 BRG 3-BOLT ROUND	2



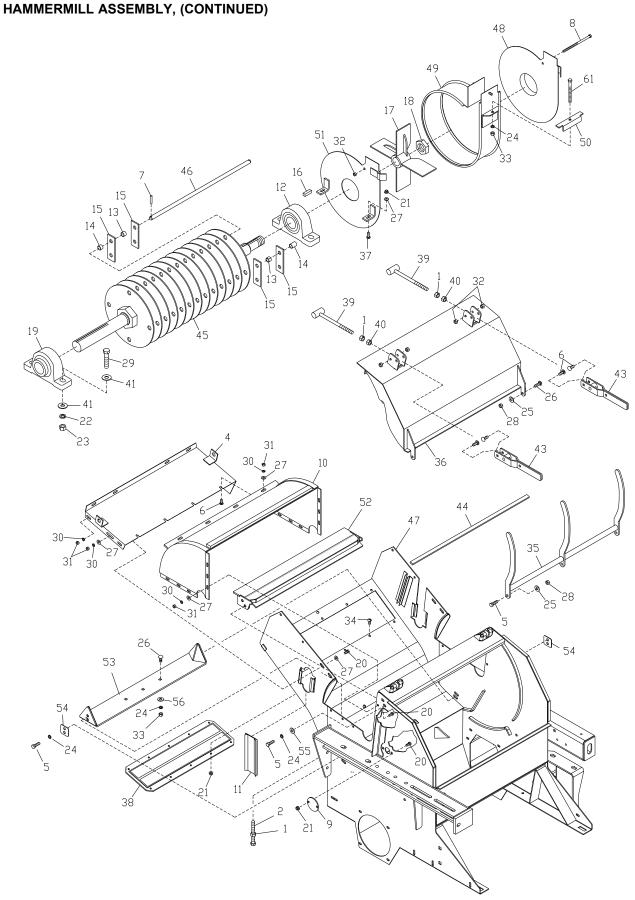


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
31	461780	BEARING, 1.25 SOD SPRING LOCK	1
32	128040	PLATE, HOLE COVER	1
33	165020	BRACKET WLDT, BEARING HOLDER	1
34	165030	BEARING, 1.12 SPLIT WOOD PB	1
35	170530	BOLT, CRG 3/8-16 X 1 SSN GR5	7
36	021180	WASHER, LOCK 3/8"	7
37	027260	NUT, HEX 3/8-16 GR5, ZN	7
	157700	SCREEN, HAMMERMILL – 1/8"	1
	187630	SCREEN, HAMMERMILL – 5/32"	1
	157710	SCREEN, HAMMERMILL – 3/16"	1
	157720	SCREEN, HAMMERMILL – 1/4"	1
	157730	SCREEN, HAMMERMILL – 5/16"	1
	157740	SCREEN, HAMMERMILL – 3/8"	1
38	157750	SCREEN, HAMMERMILL – 1/2"	1
	157760	SCREEN, HAMMERMILL – 5/8"	1
	157770	SCREEN, HAMMERMILL – 3/4"	1
	157780	SCREEN, HAMMERMILL – 1" (SHOWN)	1
	157790	SCREEN, HAMMERMILL – 1-1/4"	1
	157800	SCREEN, HAMMERMILL – 1-1/2"	1
	157810	SCREEN, HAMMERMILL – 2"	1
39	206070	BOLT, HHCS 1/4-20 X 1-1/	2
40	020400	KEY, SQUARE 5/16 X 2	1
41	163741	HUB WLDT, SHEAR 1.25 DIA	1
42	042370	NUT, LOCK 1/4-20 HEX GRC	2
43	252180	SPROCKET, 60A40 2.0 ID	1
44	010380	RING, EXT RETAINING	1
45	607980	SHIELD, LOWER SPRKT	1



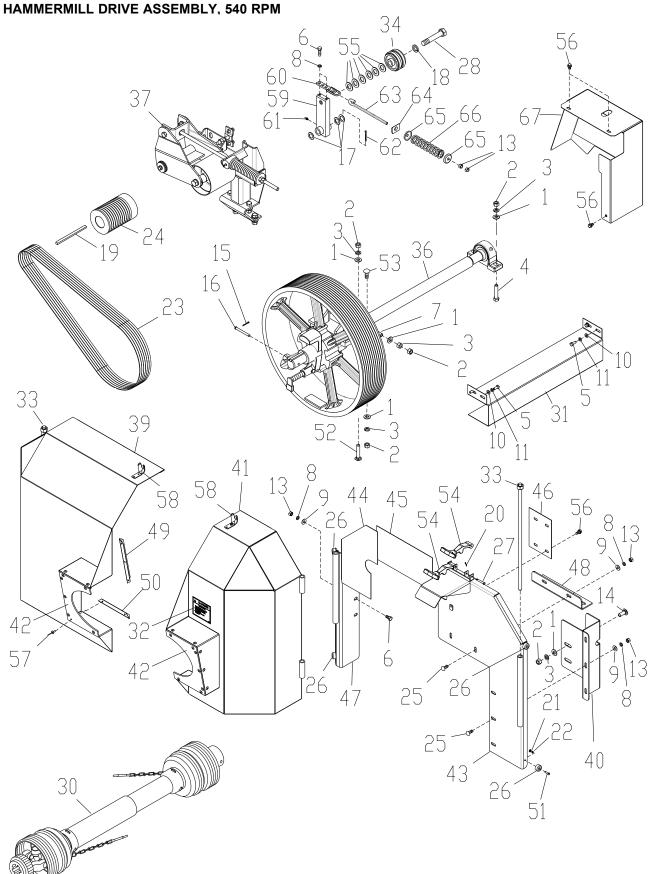


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005360	NUT, HEX 1/2-13 GR5, ZN	6
2	034650	BOLT, 1/2-13 X 3-1/2 GR5, FULL THREAD	4
3	990870	BOLT, HHCS 3/8-16 X 3-1/2 GR5, ZN	1
4	362770	COVER WLDT, 26" THROAT	1
5	012260	BOLT, HHCS 3/8-16 X 1 GR5, ZN	2
6	012410	BOLT CRG 5/16-18 X 3/4 GR5, ZN	8
7	012550	PIN, EXPANSION 1/4 X 1-1/4	8
8	012820	BOLT, HHCS 5/16-18 X 5 GR5, ZN	1
9	012920	PLATE	1
10	362730	HOOD WLDT, 26"	1
11	013360	SLIDE ASSEMBLY	2
12	013420	BEARING, 2.0 PB, CI HSG W/LC	1
13	581720	SPACER, SPLIT .69	48
14	581710	SPACER, SPLIT .49	48
15	581700	HAMMER, KNIFE	96
16	013510	KEY, PAR, 3/8 SQ. X 1-1/4	1
17	013520	FAN, A37 BLOWER, MACHINE DWG	1
18	013530	NUT, HEX JAM 1.50-12 PLN	1
19	013950	BEARING, 2.0 PB, DBL ROW, CI HSG, W/LC	1
20	012140	BOLT, HHCS 5/16-18 X 3/4 GR5, ZN	18
21	020190	NUT, LOCK 5/16-18 HEX FLG	14
22	020440	WASHER, LOCK 5/8 REG. ZN	4
23	020450	NUT, HEX 5/8-11 GR2, ZN	4
24	021180	WASHER, LOCK 3/8"	1
25	021190	WASHER, FLAT 3/8 STD ZN	4
26	035180	BOLT, CRG 3/8-16 X 1-1/4 GR5, ZN	2
27	022920	WASHER, FLAT 5/16 STD ZN	30
28	023060	NUT, LOCK DISTHRD 3/8-16	4

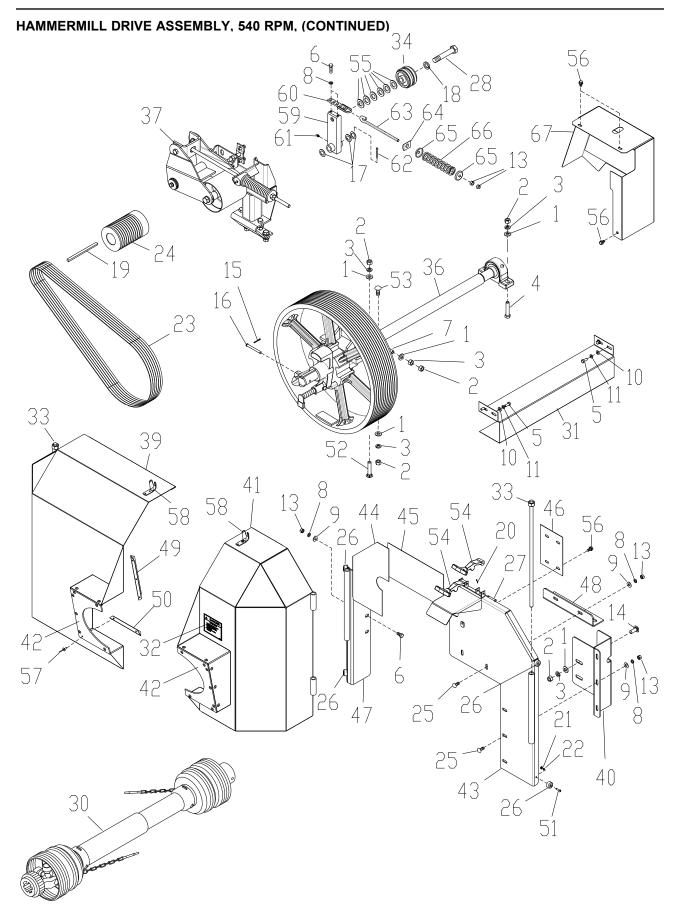


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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
29	023110	BOLT, HHCS 5/8-11 X 2-1/2 GR5, ZN	4
30	023620	WASHER, LOCK 5/16 ZN	22
31	023630	NUT, HEX 5/16-18 GR5, ZN	22
32	025670	NUT, LOCK 5/16-18 HEX DISTHRD	5
33	027260	NUT, HEX 3/8-16 GR5, ZN	1
34	028230	SCREW, THRD 5/16-18 X 3/4 GR2, ZN	10
35	362690	SUPPORT WLDT, 26" SCREEN	1
36	362610	DOOR WLDT, 26" HAMMERMILL	1
37	1111267	BOLT, CRG 5/16-18 X 1.25 GR5	2
38	113270	MAGNET, #4 24 MILL	1
39	127860	BAR-T WELD ASSEMBLY	2
40	127890	NUT, LK DISTHRD 1/2-13 GR5, CD	2
41	127920	WASHER, FLAT 5/8 STD ZN	8
42	398230	SEALANT, CLEAR 10 OZ. TUBE	1
43	151920	HANDLE WLDT, LOCKING SUB ASSEMBLY	2
44	157670	SEALING STRIP, 500	1
45	157830	SHAFT ASSEMBLY, ROTOR	1
46	157840	PIN, HAMMERMILL 3/4 X 23.50	4
47	515250	HOUSING WLDT, 26" HAMMERMILL	1
48	170990	SIDE PLATE WELD, REAR	1
49	171000	WRAPPER WELD, FAN HOUSING	1
50	170970	CLAMP, PULL DOWN	1
51	170980	SIDE PLATE WELD, FRONT	1
52	591420	PLATE WLDT, UPPER WEAR	1
53	591460	PLATE WLDT, LOWER WEAR	1
54	592560	PLATE, COVER	2
55	1120394	WASHER, FLAT 3/8 STD ZN	4
56	169280	WASHER, FLAT .406X1.5X.13	3

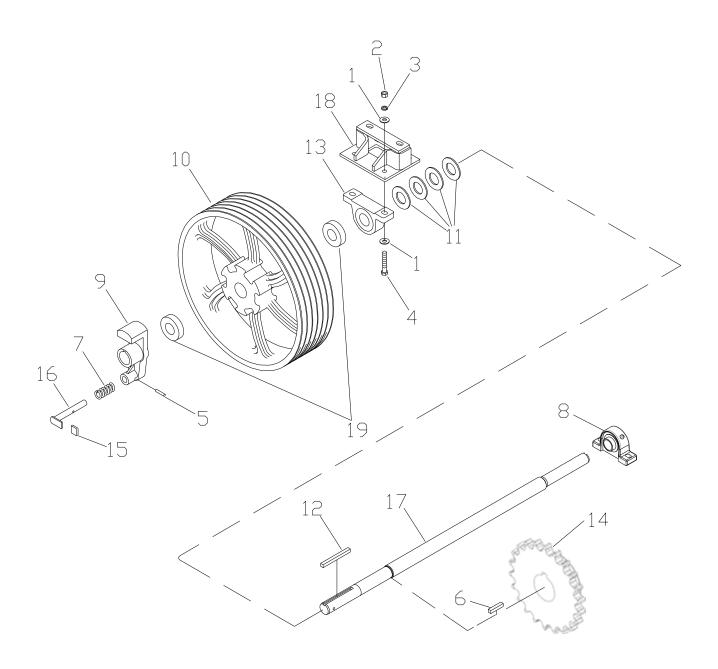


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STD	9
2	005360	NUT, HEX 1/2-13	10
3	005370	WASHER, LOCK 1/2 ZN	8
4	007800	BOLT, HHCS 1/2-13 X 2-1/2	2
5	012140	BOLT, HHCS 5/16-18 X 3/4 GR5 ZN	4
6	012260	BOLT, HHCS 3/8-16 X 1 GR5 ZN	4
7	013800	BOLT, HHCS 1/2-13 X 5 GR5 ZN	1
8	021180	WASHER, LOCK 3/8 ZN	9
9	021190	WASHER, FLAT 3/8 STD ZN	7
10	022920	WASHER, FLAT 5/16 STD ZN	4
11	023620	WASHER, LOCK 5/16 ZN	4
13	027260	NUT, HEX 3/8-16 GR5 ZN	9
14	030470	BOLT, CRG 1/2-13 X 1-1/4 SSN GR5 ZN	2
15	034360	PIN, COTTER 1/8 X 1.00	1
16	036480	PIN, CLEVIS 5/16 X 3.00	1
17	E126057	BUSHING, MACH. 3/4 X 14 GA.	3
18	036800	WASHER, LOCK 3/4 SAE MED	1
19	110390	KEY, TAPERED	1
20	116820	PIN, COTTER 1/16 X 3/4	2
21	120590	NUT, HEX 10-24 GR2 ZN	4
22	120600	WASHER, LOCK #10 X 21/64 X 3/64 ZN	4
23	172600	BELT SET, 2/3V850 SET OF 6	1
24	165500	PULLEY, 12-GROOVE	1
25	170530	BOLT, CRG 3/8-16 X 1 GR5 ZN	5
26	212510	BUMPER, RUBBER	4
27	215800	PIN, CLEVIS 1/4 X 1-5/8	2
28	990590	BOLT, HHCS 3/4-10 X 4 GR5 ZN	1
30	354640	PTO ASSY, 540 1-3/8-6B	1
31	365820	SHIELD, JACK SHAFT	1
32	384030	DECAL, DANGER 565 RPM	1
33	518711	PIN WLDT, DOOR WHITE	2



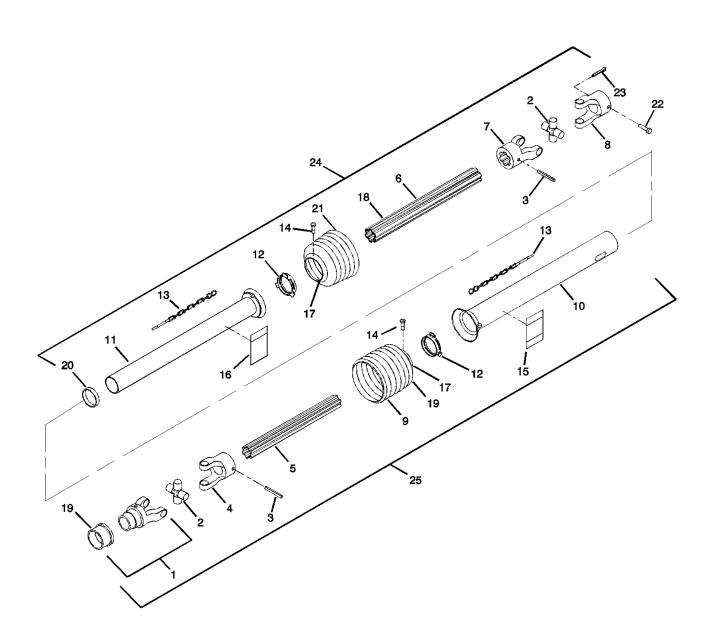
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
34	591740	ROLLER, DOUBLE RC60 IDLE MASTER	1
36	SEE NEXT PAGE	JACK SHAFT ASSEMBLY, 540 RPM 26" MILL	1
37	586500	IDLER ASSEMBLY,540 RPM HAMMER MILL DRIVE	1
39	581830	SHIELD WLDT, RH MAIN	1
40	581870	PLATE, MTG SHIELD	1
41	581890	SHIELD WLDT, LH MAIN	1
42	581930	GUARD, RUBBER PTO	2
43	581940	MOUNT WLDT, LH	1
44	581970	SHIELD, FILLER RH	1
45	581980	SHIELD WLDT, FILLER	1
46	582010	SHIELD, FILLER LH	1
47	582020	MOUNT WLDT, RH	1
48	583540	ANGLE, SHIELD SUPPORT	1
49	584430	ANGLE, BACKING EYEBROW SHORT	4
50	584440	ANGLE, BACKING EYEBROW LONG	2
51	991120	SCREW, RHMS 10-24 X 3/4 GR2 SLOTTED ZN	4
52	991200	BOLT, CRG 1/2-13 X 2 GR5 ZN	2
53	E096046	BOLT, CRG 1/2-13 X 1-1/2 GR5 ZN	2
54	E504003	LATCH, RUBBER	2
55	1131017	WASHER, FLAT 3/4 SAE	6
56	JN71292	SCREW, FLG 5/16-18 X 1/2 GR5 ZN HEX	5
57	MP904602	RIVET, BLIND 3/16 X .527	28
58	E104310	BRACKET, HOOK RUBBER HOLD (IN 581830 & 581890)	RF
59	591580	ARM WLDT, TENSIONER	1
60	602310	LOOP BRKT, TENSIONER	1
61	115590	FITTING, 1/4-28 STRAIGHT	1
62	124340	PIN, COTTER 3/16 X 1-1/2 ZN	1
63	R66275	BOLT, J 3/8-16 X 8-1/8 FULL THREAD	1
64	264780	WASHER, OVAL 5/8 X 1-1/4 X 1-1/2	1
65	JN72401	WASHER, CUPPED 13/32 X 1-9/16 X 1/4	2
66	J23096	SPRING, COMPRESSION 1.00 X 1.41 X 6.0	1
67	591620	SHIELD WLDT, CENTER DRIVE	1

## JACKSHAFT ASSEMBLY, 540 RPM



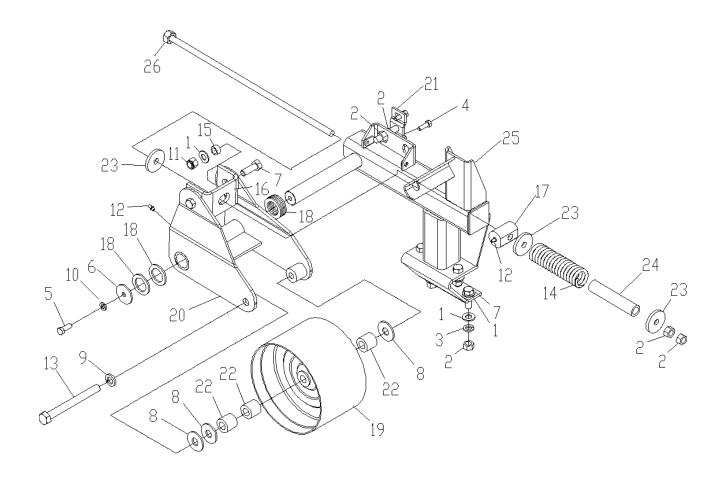
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 0.562 X 1.38 X 0.109 ZN	4
2	005360	NUT, HEX 1/2-13 GR5, ZN	2
3	005370	WASHER, LOCK 1/2" ZN	2
4	007080	BOLT, HHCS 1/2-13 X 2.50 GR5, ZN	2
5	012550	PIN, EXPANSION 0.25 X 1.25	1
6	021530	KEY, PAR, 0.38" SQ X 2.0	1
7	013580	SPRING, COMPRESSION DR. CLUTCH	1
8	013670	BEARING, 1.44 PB, CI HSG W/LC	1
9	013860	CLUTCH, A46 CASTING 1-5/8	1
10	016750	PULLEY, 22.6 12 GROOVE, BAL W/BRG	1
11	126940	WASHER, FLAT 1.65 X 2.0 X 0.134	4
12	151280	KEY, PAR, 0.38" SQ X 5.0	1
13	165480	BEARING, 1.62 SOD W/LC	1
14	366520	SPROCKET, CHAIN	
15	204430	GRIP, HANDLE, RED 0.12 X 1.0 X 1.0	1
16	241570	PIN ASSEMBLY, LOCKING	1
17	607960	JACKSHAFT, 26" HM	1
18	470410	SUPPORT, BEARING	1
19	013930	BEARING, 1.62 BORE	2

### **DRIVELINE ASSEMBLY, 540 RPM**

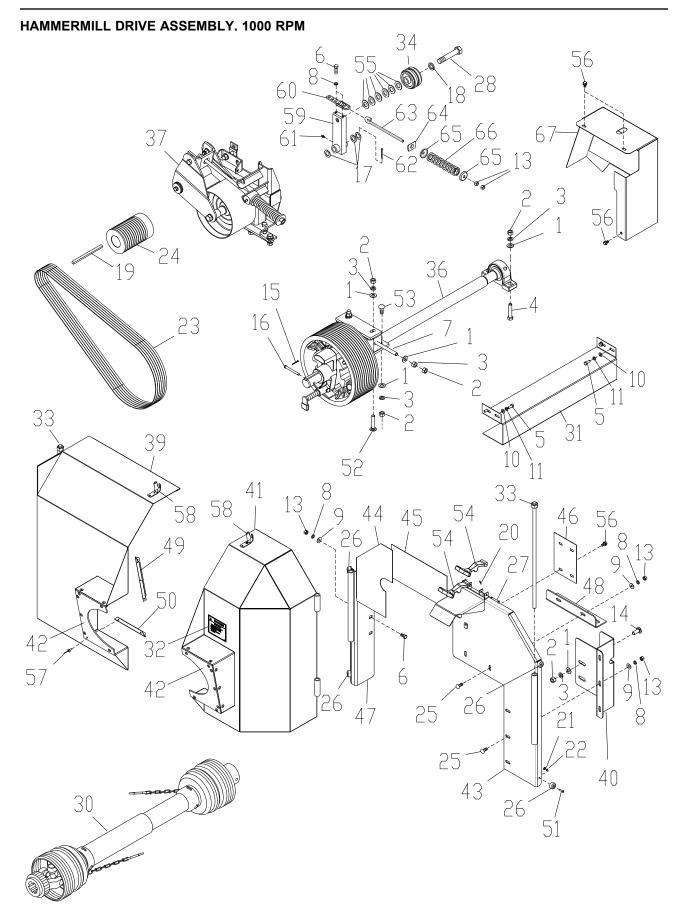


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	340130	YOKE, 1-3/8 – 6 SPL AS	1
2	182230	KIT, CROSS & BEARING	2
3	196740	PIN, SPRING 10 X 90	2
4	196730	YOKE, INBOARD	1
5	355660	SHAFT, INNER PROFILE	1
6	355670	TUBE, OUTER PROFILE	1
7	196770	YOKE, INBOARD	1
8	349230	YOKE, 1-5/8" R8, 3/8 K-WAY	1
9	340140	SHIELD, CONE 7 RIB	1
10	355680	TUBE, OUTER SHIELD	1
11	355690	TUBE, INNER SHIELD	1
12	182900	RING, SC 24 BEARING	2
13	182890	CHAIN, SAFETY	2
14	345980	SCREW, SHIELD (IN ITEM 9)	2
15	340170	DECAL, DANGER ROTATING DRIVE LINE	1
16	340180	DECAL	1
17	349250	REINFORCED COLLAR	2
18	196890	ZERK, 3/16 DRIVE GREASE (IN ITEM 6)	1
19	340210	KIT, SLIDE COLLAR	1
20	340190	SUPPORT BEARING	1
21	387770	SHIELD, CONE 5 RIB	1
22	036480	PIN, CLEVIS	1
23	020700	PIN, COTTER	1
24	354650	PTO, IMPLEMENT HALF 1-5/8"	1
25	354660	PTO, TRACTOR HALF 1-3/8" 6-SPLINE	1

### IDLER ASSEMBLY, 540 RPM

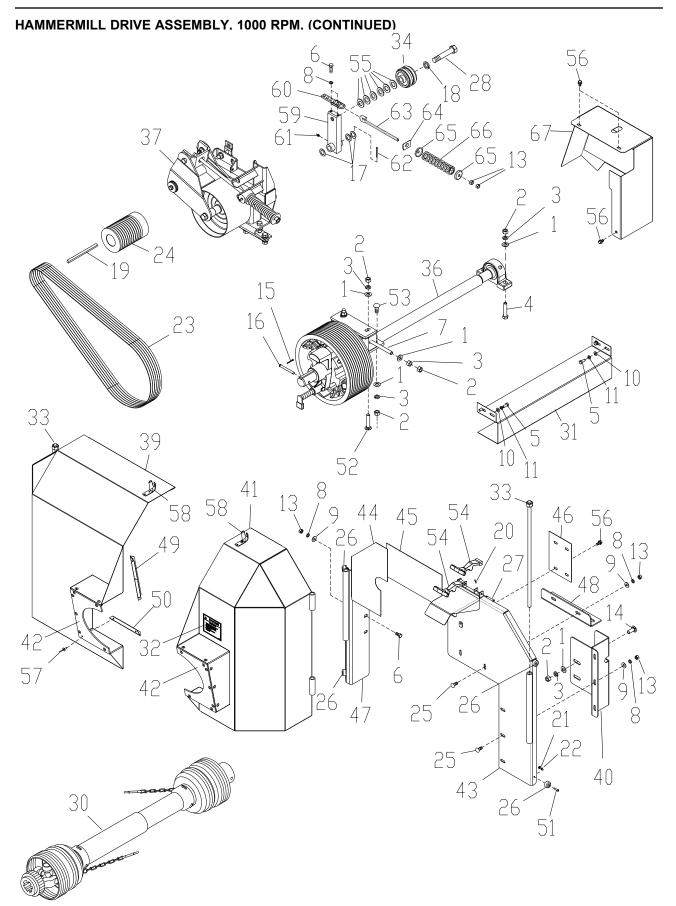


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STANDARD ZN	8
2	005360	NUT, HEX 1/2-13 GR5, ZN	8
3	005370	WASHER, LOCK 1/2 ZN	4
4	005900	BOLT, HHCS 5/16-18 X 1 GR5 ZN	2
5	012260	BOLT, HHCS 3/8-16 X 1 GR5 ZN	1
6	012270	WASHER, FLAT 3/8 STANDARD ZN	1
7	014770	BOLT, HHCS 1/2-13 X 1-1/2 GR5 ZN	6
8	020430	WASHER, FLAT 5/8 STANDARD ZN	3
9	020440	WASHER, LOCK 5/8 ZN	1
10	021180	WASHER, LOCK 3/8 ZN	1
11	037540	NUT, LOCK 1/2-13 NYLON GR5 ZN	2
12	115590	FITTING, GREASE ZERK	2
13	201660	BOLT, HHCS 5/8-11 X 6 GR5 ZN	1
14	231000	SPRING, COMPRESSION	1
15	231030	SPACER, .75 X .51 X .38	2
16	251010	BRACKET, SPRING	1
17	251020	GUIDE,	1
18	275880	BUSHING, MACH. 1-1/4 X 1.88 X 10 GA.	7
19	586480	SHEAVE, IDLER 5.0 OD X 5.5 WIDE	1
20	581100	BRACKET WLDT, IDLER	1
21	581290	ROD WLDT, UPPER	1
22	E126195	BUSHING, 11/16 X 1-1/4 X 1-1/8	3
23	I486801R1	WASHER, FLAT .531 X 2 X	3
24	231050	SPACER, SPRING	1
25	581150	MOUNT WLDT, IDLER	1
26	586700	ROD WLDT, TAKE-UP 22"	1



Manual No. 616800

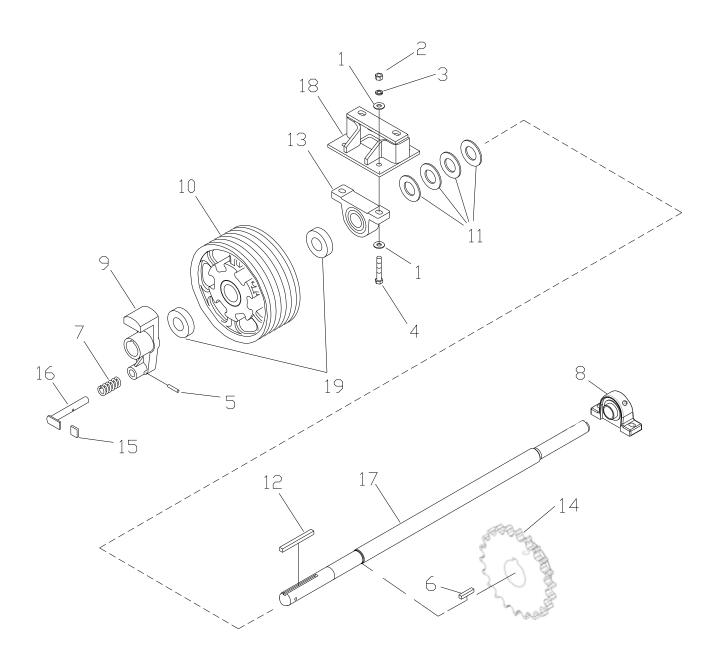
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STD	9
2	005360	NUT, HEX 1/2-13	10
3	005370	WASHER, LOCK 1/2 ZN	8
4	007800	BOLT, HHCS 1/2-13 X 2-1/2	2
5	012140	BOLT, HHCS 5/16-18 X 3/4 GR5 ZN	4
6	012260	BOLT, HHCS 3/8-16 X 1.00 GR5 ZN	2
7	013800	BOLT, HHCS 1/2-13 X 5.00 GR5 ZN	1
8	021180	WASHER, LOCK 3/8 ZN	7
9	021190	WASHER, FLAT 3/8 STD ZN	7
10	022920	WASHER, FLAT 5/16 STD ZN	4
11	023620	WASHER, LOCK 5/16 ZN	4
13	027260	NUT, HEX 3/8-16 GR5 ZN	7
14	030470	BOLT, CRG 1/2-13 X 1-1/4 SSN GR5 ZN	2
15	034360	PIN, COTTER 1/8 X 1.00	1
16	036480	PIN, CLEVIS 5/16 X 3.00	1
17	E126057	BUSHING, MACH. 3/4 X 14 GA.	3
18	036800	WASHER, LOCK 3/4 SAE MED	1
19	110390	KEY, TAPERED	1
20	116820	PIN, COTTER 1/16 X 3/4	2
21	120590	NUT, HEX 10-24 GR2 ZN	4
22	120600	WASHER, LOCK #10 X 21/64 X 3/64 ZN	4
23	159070	BELT SET, 3V X 670.6 DOUBLE	1
24	165500	PULLEY, 12-GROOVE	1
25	170530	BOLT, CRG 3/8-16 X 1 GR5 ZN	5
26	212510	BUMPER, RUBBER	4
27	215800	PIN, CLEVIS 1/4 X 1-5/8	2
28	990590	BOLT, HHCS 3/4-10 X 4 GR5 ZN	1
30	354670	PTO ASSY, 1000 1-3/8-21	1
31	365820	SHIELD, JACK SHAFT	1
32	384020	DECAL, DANGER 1050 RPM	1
33	518711	PIN WLDT, DOOR WHITE	2



Manual No. 616800

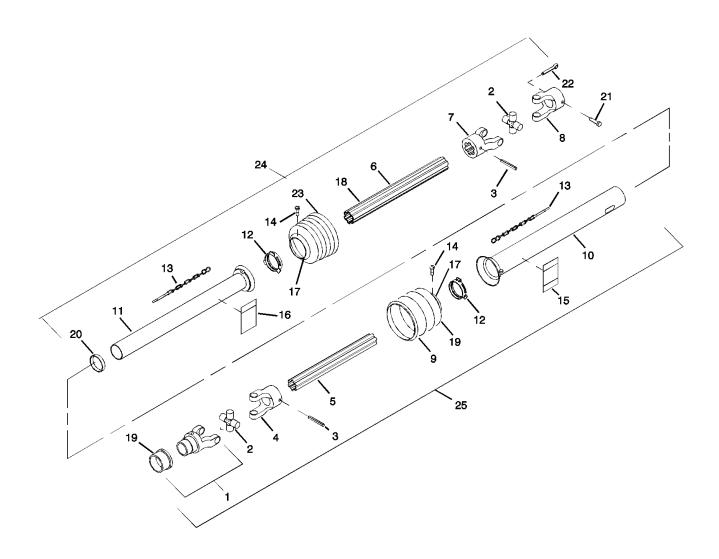
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
34	591740	ROLLER, DOUBLE RC60 IDLE MASTER	1
36	SEE NEXT PAGE	JACK SHAFT ASSEMBLY, 1000 RPM 26" MILL	1
37	581090	IDLER ASSEMBLY, 1000 RPM HAMMER MILL DRIVE	1
39	581830	SHIELD WLDT, RH MAIN	1
40	581870	PLATE, MTG SHIELD	1
41	581890	SHIELD WLDT, LH MAIN	1
42	581930	GUARD, RUBBER PTO	2
43	581940	MOUNT WLDT, LH	1
44	581970	SHIELD, FILLER RH	1
45	581980	SHIELD WLDT, FILLER	1
46	582010	SHIELD, FILLER LH	1
47	582020	MOUNT WLDT, RH	1
48	583540	ANGLE, SHIELD SUPPORT	1
49	584430	ANGLE, BACKING EYEBROW SHORT	4
50	584440	ANGLE, BACKING EYEBROW LONG	2
51	991120	SCREW, RHMS 10-24 X 3/4 GR2 SLOTTED ZN	4
52	991200	BOLT, CRG 1/2-13 X 2 GR5 ZN	2
53	E096046	BOLT, CRG 1/2-13 X 1-1/2 GR5 ZN	2
54	E504003	LATCH, RUBBER	2
55	1131017	WASHER, FLAT 3/4 SAE	6
56	JN71292	SCREW, FLG 5/16-18 X 1/2 GR5 ZN HEX	5
57	MP904602	RIVET, BLIND 3/16 X .527	28
58	E104310	BRACKET, HOOK RUBBER HOLD (IN 581830 & 581890)	RF
59	591580	ARM WLDT, TENSIONER	1
60	602310	LOOP BRKT, TENSIONER	1
61	115590	FITTING, 1/4-28 STRAIGHT	1
62	124340	PIN, COTTER 3/16 X 1-1/2 ZN	1
63	R66275	BOLT, J 3/8-16 X 8-1/8 FULL THREAD	1
64	264780	WASHER, OVAL 5/8 X 1-1/4 X 1-1/2	1
65	JN72401	WASHER, CUPPED 13/32 X 1-9/16 X 1/4	2
66	J23096	SPRING, COMPRESSION 1.00 X 1.41 X 6.0	1
67	591620	SHIELD WLDT, CENTER DRIVE	1

### JACKSHAFT ASSEMBLY, 1000 RPM



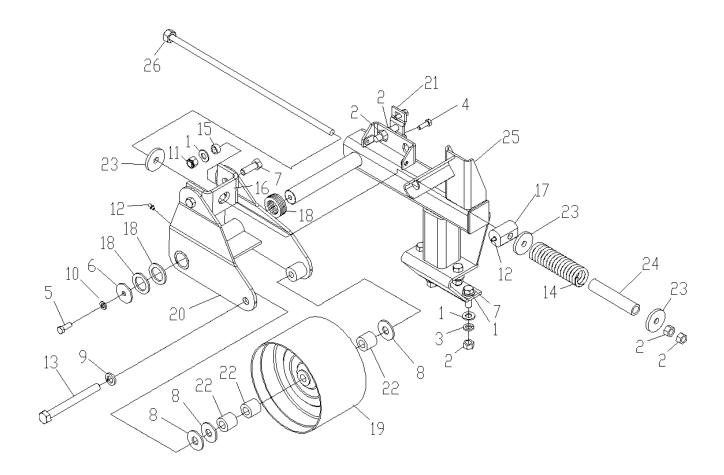
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 0.562 X 1.38 X 0.109 ZN	4
2	005360	NUT, HEX 1/2-13 GR5, ZN	2
3	005370	WASHER, LOCK 1/2" ZN	2
4	007080	BOLT, HHCS 1/2-13 X 2.50 GR5, ZN	2
5	012550	PIN, EXPANSION 0.25 X 1.25	1
6	021530	KEY, PAR, 0.38" SQ X 2.0	1
7	013580	SPRING, COMPRESSION DR. CLUTCH	1
8	013670	BEARING, 1.44 PB, CI HSG W/LC	1
9	013860	CLUTCH, A46 CASTING 1-5/8	1
10	013870	PULLEY, 12.3 12 GROOVE, BAL W/BRG	1
11	126940	WASHER, FLAT 1.65 X 2.0 X 0.134	4
12	151280	KEY, PAR, 0.38" SQ X 5.0	1
13	165480	BEARING, 1.62 SOD W/LC	1
14	272800	SPROCKET, CHAIN	
15	205430	GRIP, HANDLE, RED 0.12 X 1.0 X 1.0	1
16	241570	PIN ASSEMBLY, LOCKING	1
17	607960	JACKSHAFT, 26" HM 6530	1
18	470410	SUPPORT, BEARING	1
19	013930	BEARING, 1.62 BORE	2

#### **DRIVELINE ASSEMBLY, 1000 RPM**



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	340130	YOKE, 1-3/8 – 21 SPL AS	1
1	340100	YOKE, 1-3/4 – 20 SPL AS	1
2	182230	KIT, CROSS & BEARING	2
3	196740	PIN, SPRING 10 X 90	2
4	196730	YOKE, INBOARD	1
5	355660	SHAFT, INNER PROFILE	1
6	355670	TUBE, OUTER PROFILE	1
7	196770	YOKE, INBOARD	1
8	349230	YOKE, 1-5/8" R8, 3/8 K-WAY	1
9	340140	SHIELD, CONE 7 RIB	1
10	355680	TUBE, OUTER SHIELD	1
11	355690	TUBE, INNER SHIELD	1
12	182900	RING, SC 24 BEARING	2
13	182890	CHAIN, SAFETY	2
14	345980	SCREW, SHIELD (IN ITEM 9)	2
15	340170	DECAL, DANGER ROTATING DRIVE LINE	1
16	340180	DECAL	1
17	349250	REINFORCED COLLAR	2
18	196890	ZERK, 3/16 DRIVE GREASE (IN ITEM 6)	1
19	340210	KIT, SLIDE COLLAR	1
20	340190	SUPPORT BEARING	1
21	036480	PIN, CLEVIS	1
22	020700	PIN, COTTER	1
23	387770	SHIELD, CONE 5 RIB	1
24	354650	PTO, IMPLEMENT HALF 1-5/8"	1
25	354680	PTO, TRACTOR HALF 1-3/8" 21-SPLINE	1
20	449200	PTO, TRACTOR HALF 1-3/4" 20-SPLINE	1

### **IDLER ASSEMBLY, 1000 RPM**

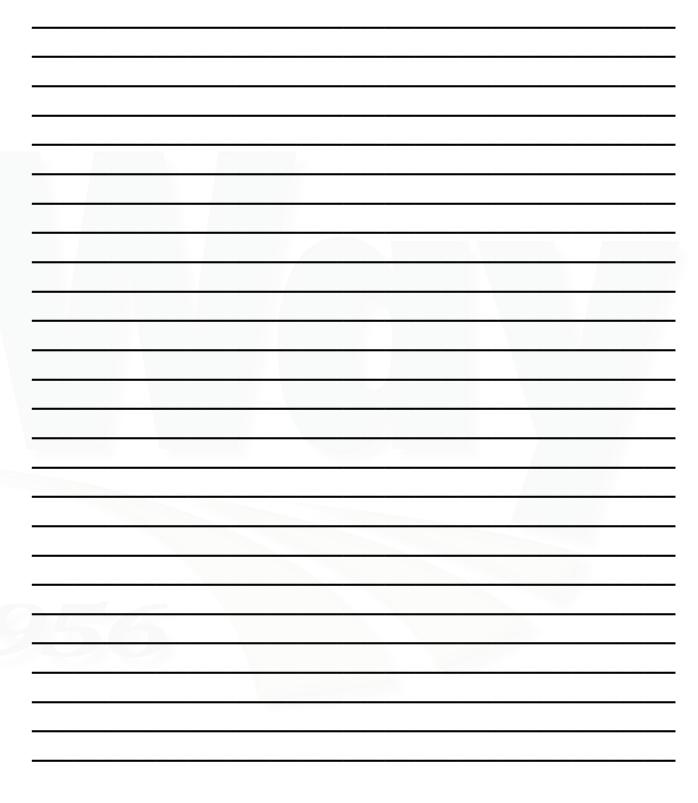


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	005200	WASHER, FLAT 1/2 STANDARD ZN	8
2	005360	NUT, HEX 1/2-13 GR5, ZN	8
3	005370	WASHER, LOCK 1/2 ZN	4
4	005900	BOLT, HHCS 5/16-18 X 1 GR5 ZN	2
5	012260	BOLT, HHCS 3/8-16 X 1 GR5 ZN	1
6	012270	WASHER, FLAT 3/8 STANDARD ZN	1
7	014770	BOLT, HHCS 1/2-13 X 1-1/2 GR5 ZN	6
8	020430	WASHER, FLAT 5/8 STANDARD ZN	3
9	020440	WASHER, LOCK 5/8 ZN	1
10	021180	WASHER, LOCK 3/8 ZN	1
11	037540	NUT, LOCK 1/2-13 NYLON GR5 ZN	2
12	115590	FITTING, GREASE ZERK	2
13	201660	BOLT, HHCS 5/8-11 X 6 GR5 ZN	1
14	231000	SPRING, COMPRESSION	1
15	231030	SPACER, .75 X .51 X .38	2
16	251010	BRACKET, SPRING	1
17	251020	GUIDE,	1
18	275880	BUSHING, MACH. 1-1/4 X 1.88 X 10 GA.	7
19	440210	SHEAVE, IDLER 8.25 OD X 5.25 WIDE	1
20	581100	BRACKET WLDT, IDLER	1
21	581290	ROD WLDT, UPPER	1
22	E126195	BUSHING, 11/16 X 1-1/4 X 1-1/8	3
23	I486801R1	WASHER, FLAT .531 X 2 X	3
24	231050	SPACER, SPRING	1
25	581150	MOUNT WLDT, IDLER	1
26	586700	ROD WLDT, TAKE-UP 22"	1

### NOTES:

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# Art's-Way Manufacturing Co., Inc. TECHNICAL MANUALS

Manuals are available from your local dealer or Art's-Way Manufacturing Co., Inc. for the operation, service, and repair of your machine. For prompt convenient service, contact your local dealer for assistance in obtaining the manuals for your machine.

Your local dealer can expedite your order for operator manuals, illustrated parts catalogs, service manuals, and maintenance records.

Always give the Machine Name, Model, and Serial Number so your local dealer can provide the correct manuals for your machine.

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