



# Shredders

Models 144B, 180B  
& 240B

**Operator's & Parts Manual**

183910 (S)  
0501

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



# **TO THE OWNER**

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

Many people have worked on the design, production, and delivery of this shredder. The information in this Manual is based on the knowledge, study and experience of these people through years of manufacturing specialized farming machinery. This Manual is designed to provide you with important information regarding safety, maintenance and machine operation so you can get the best possible performance from your Art's-Way shredder.

Even if you are an experienced operator of this or similar equipment, we ask you to *read this Manual before running this shredder*. 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 piece 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 or add improvements to our products without obligation for equipment previously sold.

Because modifications to the shredder may effect the performance, function and safety of its operation, no modifications are to be made without the written permission of Art's-Way Manufacturing Co., Inc. Any modifications made without the written permission of Art's-Way Mfg. Co. shall void the warranty of this product.

In the interest of continued safe operation of this shredder, pay particular attention to the safety alert symbol throughout this Manual.

## **Art's-Way Manufacturing Co., Inc. Statement Of Product Liability**

Art's-Way Manufacturing Co., Inc. recognizes its responsibility to provide its customers with a safe and efficient product. Art's-Way attempts to design and manufacture its products in accordance with accepted engineering practices in effect at 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, as set forth in this Manual, nor will Art's-Way be liable for any such act. In addition, Art's-Way assumes no liability for product altered or modified in any way by users or anyone other than an authorized dealer.

## **Important Warranty Information**

The warranty for the shredder is included with this manual. In order to establish a proper warranty, the **Warranty Registration and Dealer Pre-Delivery Checklist** must be completed and returned to the factory. **Failure to comply with this requirement will result in reduced warranty allowances.**

## **Limitations Of This Manual**

This manual contains operating instructions for your shredder only. It does not replace the manual(s) for any machine that it may be attached to or used with.

# PARTS & SERVICE

As the new purchaser of your shredder, 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 shredder. 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.

Owner's Name: \_\_\_\_\_

Owner's Address: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Dealership Name: \_\_\_\_\_

Dealership Address: \_\_\_\_\_

Dealership Phone No.: \_\_\_\_\_

Building on a  
*Art's-Way*  
Tradition of Quality

SERIAL NO.

MODEL NO.

Manufactured By  
Art's-Way Manufacturing Co., Inc.  
Armstrong, IA

Enter the serial number and model number of your shredder in the space provided above.

# LIMITED WARRANTY

**Art's-Way Manufacturing Co., Inc.** warrants the products it sells to be free from defects in material and workmanship for a period of one (1) year after the date of delivery to the first purchaser, subject to the following conditions:

- **Art's-Way Manufacturing Co., Inc.** obligation and liability under this warranty is to repair or replace (at the company's option) any parts which upon manufacture were defective in material or workmanship.
- All parts and repairs under this warranty shall be supplied at an authorized **Art's-Way Manufacturing Co., Inc.** dealer or at the factory, at the option of **Art's-Way Manufacturing Co., Inc.**
- **Art's-Way Manufacturing Co., Inc.** warranty does not extend to parts and elements not manufactured by **Art's-Way Manufacturing Co., Inc.** and which carry the warranty of the other manufacturer.
- Transportation or shipping to an authorized dealer for necessary repairs is at the expense of the purchaser.
- **Art's-Way Manufacturing Co., Inc.** 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 Manufacturing Co., Inc.** 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 the Company's liability is limited to repair or replacement of defective parts as set forth herein.
- Any improper use, and maintenance, including operation after discovery of defective or worn parts, operation beyond the rated capacity, substitution of parts not approved by **Art's-Way Manufacturing Co., Inc.** or any alteration or repair by other than authorized **Art's-Way Manufacturing Co., Inc.** dealer which affects the product materially and adversely, shall void this 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 Manufacturing Co., Inc.** at its home office.
- Some states do not allow limitations on how long an implied warranty lasts or exclusions of, or limitations on relief such as 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 which vary from state to state.

# SAFETY FIRST

*“A careful operator is the best insurance against an accident.”*

(National Safety Council)

Most accidents can be prevented if the operator:

- fully understands how the machine functions
- can anticipate situations which may produce problems
- can make necessary corrections before problems develop.

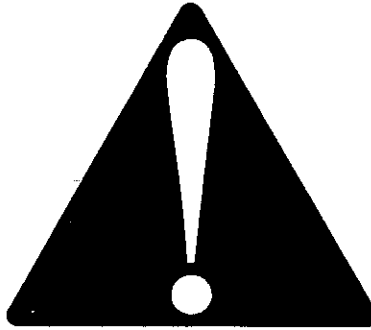


Figure 1: The Universal Safety Alert Symbol

The American Society of Agricultural Engineers has adopted the *Universal Safety Alert Symbol* (Figure 1) 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 Shredder.*

Art's-Way Manufacturing Co., Inc. strives to make our equipment as safe as it can possibly be. The Shredder 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 Shredder are detailed elsewhere in the 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 Shredder. (*Occupational Safety and Health Administration (OSHA) regulation 1928.57.*)

---

## Notices of Danger, Warning and Caution

Watch for these words on the Shredder and in this manual to alert you to important safety messages:



**DANGER:** Immediate and specific hazard which *will* result in severe personal injury or death if proper precautions are not taken.



**WARNING:** Specific hazard or unsafe practice *could* result in severe personal injury or death if proper precautions are not taken.



**CAUTION:** A reminder of good safety practices. Personal injury *could* result if proper procedures are not followed.



# SAFETY GUIDELINES



**CAUTION: Remember, a careful operator is the best insurance against an accident.**



**CAUTION: READ and UNDERSTAND the Operator's Manual and all the safety decals before operating the shredder. Review safety instructions with all operators annually.**

## Before Operating

- *Do not* wear loose fitting clothing as it may catch in moving parts.
- Make sure to install and/or secure all guards and shields, including the tractor power take-off master shield, before starting or operating the machine.
- Be sure that the correct implement driveline parts are used and that they are properly secured.
- Install the tractor safety chain when attaching the mixer to the tractor.
- *Do not* allow riders while transporting.
- Put all tractor and machine controls in "neutral" and disengage the PTO before starting. Follow the starting instructions according to your tractor manual.
- Operate the machine only while seated on the tractor seat.

## During Operation

- Shut off the tractor engine, put key in pocket, and be sure to wait until all rotation has come to a complete stop before opening any covers/shields, adjusting, cleaning or lubricating.
- Keep hands, feet, hair and clothing away from moving parts.
- Keep all shields and guards in place and in good repair.
- Keep all children and bystanders away from the machine while in operation.
- Always disengage the auger feeder before transporting.
- *Do Not* allow riders while the mixer is in operation.

- *Do Not* attempt to unclog, clean or adjust the machine while it is running.
- Keep all hydraulic lines, fittings, and couplers tight and free of leaks. (See the "Hydraulic Safety" section below.)

## Maintenance Safety

- Follow all operating, maintenance and safety instructions found in this manual.
- Before servicing, adjusting, repairing or unplugging the machine, stop the tractor engine, place all controls in neutral, set parking brake, remove ignition key and wait for all moving parts to stop.
- Use only the tools, jacks and hoists that are of sufficient capacity for the job.
- Use support blocks or safety stands when changing tires or working under the machine.
- Before applying pressure to the hydraulic system, make sure all lines, fittings and couplers are tight and in good condition (see "Hydraulic Safety" below).
- Relieve pressure from hydraulic circuit before servicing or disconnecting from tractor.
- Follow the good shop practices of keeping the service area clean and dry and use adequate light for the job at hand.
- Make sure all shields/guards are in place and properly secured when maintenance work is complete.

## Hydraulic Safety

- Make sure all components in the hydraulic system are kept clean and in good condition.
- Replace any worn, cut, abraded, flattened or crimped hoses.
- *Do not* make any temporary repairs to the hydraulic lines, fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high pressure and temporary repairs may fail suddenly and create a hazardous situation.
- Wear proper hand and eye protection when searching for a high-pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to identify and isolate a leak. If injured by a concentrated high-

# SAFETY GUIDELINES

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 lines, hoses and couplings are not damaged.

## Transportation Safety

- Be sure to comply 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 in place, clean and clearly visible to all oncoming or following traffic.
- *Do not* allow riders while transporting.
- Make sure the shredder is securely attached to the tractor and install a safety chain to the machine. Install a retainer through the drawbar pin and attach the safety chain.
- *Do not* fail to latch the tractor brake pedals together.
- *Do not* exceed 20 mph (32 km/h) when transporting the shredder. Always reduce speed to a maximum of 10 mph on rough roads and surfaces, or when going down inclines.
- Drive slow when turning and always use turn signals on the tractor to indicate your turning intentions to other traffic.
- A dealer installed Road Light Kit is available. It includes warning lights that plug into your tractor's light connector. The red tail lights will illuminate whenever the tractor road lights are turned on.
- The weight of the trailed machine should **NEVER** exceed the weight of the towing vehicle.

## Storage Safety

- Store the shredder in an area away from human activity.
- *Do Not* permit children to play on or around the stored machine.

## Tire Safety

- Have a qualified tire dealer or 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.
- Follow proper procedures when installing a tire on a wheel or rim to prevent an explosion which could result in serious injury or death.
- *Do not* substitute tires of lesser road rating and capacity for the original equipment tires.



**CAUTION:** Failure to follow proper procedures when installing a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to install a tire unless you have the proper equipment and experience to perform the job. Have it done by your dealer or a qualified tire repair service.

## Assembly Safety

- Use adequate manpower to perform assembly procedures safely.
- Use only forklifts, lift cranes, jacks and tools with sufficient capacity for the loads.
- *Do not* allow spectators in the working area.

*Remember:*

*"The Best Operator is a Safe Operator"*



# 144B, 180B, 240B SHREDDER

## TABLE OF CONTENTS

DESCRIPTION	PAGE
WORK SAFELY - FOLLOW THESE RULES	1
TO THE OWNER & LIMITED WARRANTY	2
ACCIDENTS CAN BE PREVENTED	3
ORDERING PARTS	4
TABLE OF CONTENTS	5
INTRODUCTION & BOLT TORQUE	5
SAFETY DECALS	6,7
ASSEMBLY	8,9
PREPARING FOR FIELD OPERATION	10
FIELD OPERATION AND ADJUSTMENTS	11,12
DAILY MAINTENANCE & LUBRICATION	13
SERVICE	14
STORAGE	14
 <b>PARTS LISTINGS</b>	
POWER TAKE OFF	15,16
BASIC UNIT ASSEMBLY	17-19
ROTOR ASSEMBLIES	20
GEARBOX PARTS	21
WHEEL ASSEMBLY	22
WHEEL ASSEMBLY	23
JACK RATCHET	24
DISK HITCH	24
HITCH	24
ROAD TRANSPORT	25
PAINT AND DECALS	26
SPECIFICATIONS	27

### INTRODUCTION

This manual has been prepared to acquaint you with the proper assembly, operation, adjustment, service and lubrication of the Art's-Way Shredder. Take time to be careful and better understand the efficient operation and care of your machine.

Whenever the terms "Left" and "Right" are used, it should be understood to mean standing behind the machine and facing the direction of the forward travel.

The 144B, 180B, and 240B Shredders have been designed to efficiently chop stalks, stubble, or just trim an area. The cupped knife design creates a suction that lifts plant material into the cutting chamber to allow running maximum height from the ground.

The rotors of the Shredder are balanced with knives in place to assure vibration free operation.

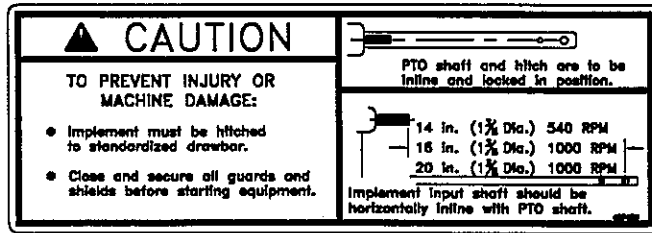
### SAE GRADE 5 - Coarse Thread

SIZE	CLAMP LOAD	PLAIN	PLATED
1/4 - 20(250)	2,025	8 ft. lbs.	76 in. lbs.
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(1,000)	38,625	644 ft. lbs.	483 ft. lbs.
1-1/8 - 7(1,125)	42,375	794 ft. lbs.	596 ft. lbs.

FIGURE 1 - Tightening Torque Guide

## SAFETY DECALS

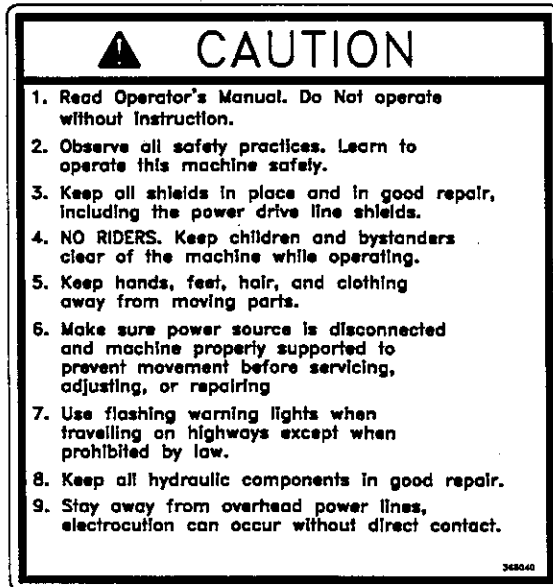
Located at strategic points on this machine are safety decals. These decals warn you of potential danger if the warnings on the decals are not followed.



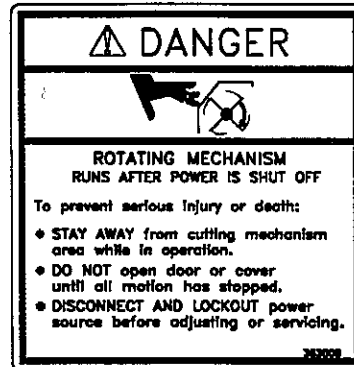
NO. 1-"CAUTION"-Implement must be hitched to standardized drawbar. p/n 383970



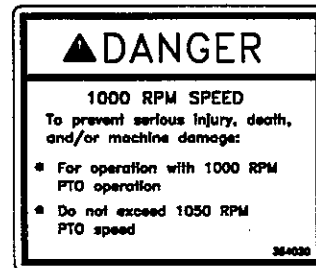
NO. 2-"DANGER"-Rotating Driveline. p/n 268860



NO. 3-"CAUTION"- General Safety Instructions. p/n 368040



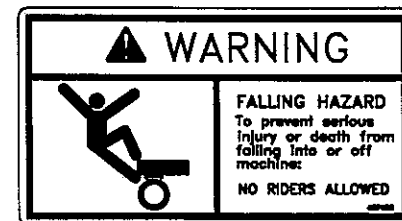
NO. 4-"DANGER"-Rotating Cutting Mechanism that runs after power is shut off. p/n 363000



NO. 5-"DANGER"-1000 RPM Speed. p/n 384020



NO. 6-"WARNING"-Thrown Object Hazard. p/n 467400



NO. 7-"WARNING"-Falling Hazard-NO Riders Allowed. p/n 467420

## SAFETY DECALS

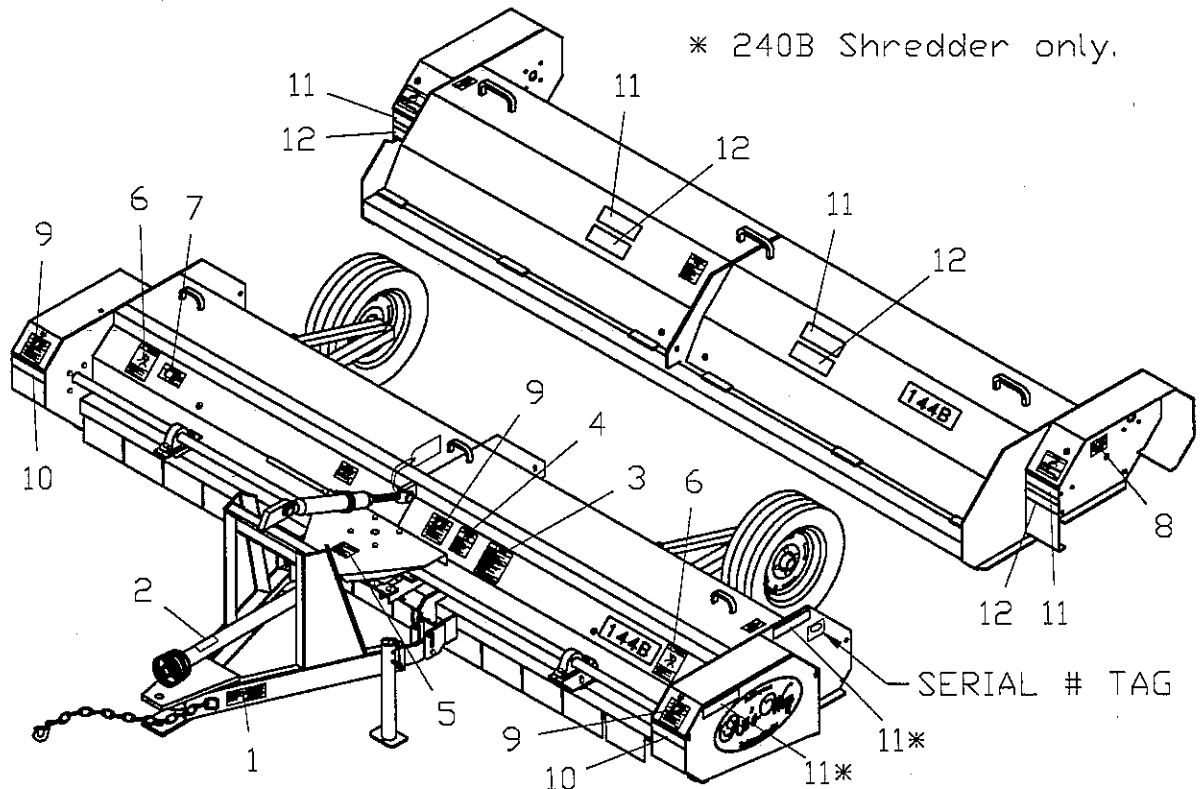


NO. 8-"DANGER"-Shield Missing or Open Do Not Operate. p/n 467430



NO. 9-"WARNING"-Moving Part Hazard. p/n 467450

ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1	383970	1	1	1	DECAL, HITCH INSTRUCTIONS
2	268860	1	1	1	DECAL, DANGER ROT. DRIVE
3	368040	1	1	1	DECAL, CAUT. SAFETY INSTRUCTIONS
4	363000	2	2	2	DECAL, DANGER, COMP., ROTATE, DISENGAGE
5	384020	1	1	1	DECAL, DANGER 1050 RPM
6	467400	2	2	2	DECAL, WARNING FLYING OBJ.
7	467420	1	1	1	DECAL, WARNING RIDER FALL.
8	467430	2	2	2	DECAL, DANGER SHIELD MISS.
9	467450	3	3	3	DECAL, WARNING MOVING PART
10	476460	2	2	2	TAPE, YELLOW REFLECTIVE
11	476450	2	2	4	TAPE, RED REFLECTIVE
12	476470	4	4	4	TAPE, RED-ORANGE REFLECTIVE



NOTE: Keep all decals clean and free of dirt for maximum visibility. Replace any and all decals that are no longer legible. Read and obey all safety decals.

## ASSEMBLY



**CAUTION:** In the set up procedure, keep **SAFETY IN MIND**. Use adequate blocking to prevent personal injury. Keep children away. Injury can occur from lifting too heavy of an item or from a falling member if it is not properly supported or blocked.

### I. INSTALLING THE "A" HITCH AND DRIVE LINE

1. Carefully tilt Shredder to operating position and remove wood blocks. Do not allow flails to contact the ground, this could damage flails or rotor.
2. Raise and secure Shredder on wood blocks or other stand so that the flails are clear of the ground. This will protect the balanced shafts.
3. Slide the "A" Hitch into the front mounting brackets located on each side of the gear box (see page 24). Fasten in place with the 2(two) 1"-8 x 3" hex bolts and the 2(two) 1"-8 hex lock nuts provided.
4. Install Screw Jack or Hydraulic Cylinder from top of Hitch to tab on Shredder housing. Cylinder or Screw Jack must be purchased separately.
5. Fill Gearbox to top of shafts with SAE 90 gear lubricant.
6. Before installing the P.T.O., lubricate and inspect telescoping members and shields. Install P.T.O. on input shaft of gearbox. Make sure it is securely locked to shaft of gearbox.
7. Lubricate between rotating P.T.O. parts and plastic shield through plastic grease fitting on shield.
8. Secure the PTO shield from rotating with chain provided.

### II. ATTACHING WHEEL ASSEMBLY

1. Calculate approximate position of axle brackets according to the row spacing desired. The outer wheels should run between the outer two rows being cut. The bracket should be mounted to the inside of the tire. The bracket as shown on page 22 is the left mounting. On the 180B & 240B, or if equipped with additional set of carrier wheels, install in reversed position on the next row in on the 180B or two rows in on the 240B.
2. Install the axle attaching brackets to rear 4x4 tube in the determined positions with 3/4" x 6-1/2" hex head cap screws, and 3/4" x 6" eye bolt, lock washers and hex nuts. Slide the axle arm into attaching bracket, secure with 1" x 8-1/2" hex head cap screws, lock washers and hex nuts. Set in top hole of attaching brackets and top hole of axle arm for most conditions.

Mount tire and wheel to hub. Tire pressure for 7.60-15 6 ply tire is 40 psi. Recheck tire spacing and tighten all bolts.

### III. ROAD TRANSPORT (See Page 25) (Optional)

1. Bolt the Hitch Weldment (item 17) to the Shredder with 3/4" x 2" bolts, flat washers and lock nuts (items 8,10,13). One side of the Hitch Weldment bolts to the Transport End Plate and the other side bolts to the Transport Side Plate. The flat washers act as spacers between the Hitch Weldment Sidebars and the Transport End Plate and Side Plate.
2. Attach the end of the Brace Angle that has one bolt hole to the Hitch Weldment with a 3/4" x 2" bolt, flat washer and lock nut (items 8,10,13). The flat washer acts as a spacer and is placed between the Brace Angle and Transport Hitch Weldment. There are four(4) holes in the opposite end of the Brace Angle which is bolted to the upper most hole in the Side Plate, with a 3/4" x 2" bolt, lock washer and nut (items 6,7,10). This will position the Hitch Assembly in the transport position.
3. Position and pin the Transport Jack Assembly (item 18) to the Hitch Weldment (item 17). A piece of tubing with four(4) holes equally spaced on the circumference is welded to the Hitch so the Jack may be pinned in either a vertical or horizontal position. Position the Jack Mounting Tube over the mating tube on the Hitch and pin the Jack in the vertical position.
4. Bolt the Axle Weldments (item 16) to the Axle Mounting Plates previously welded on each side of the machine using four(4) 5/8" x 2-1/4" bolts, lock washers and nuts (items 1,3,4) per Axle Weldment.
5. The Hub and Spindle Assembly (item 19) is shown as an exploded view in the drawing for clarity but is actually pre-assembled at the factory. Bolt the Spindle Assembly to the Channel Weldments using the 1/2" x 4-1/2" bolts and 1/2" lock nuts (items 2,5).
6. Place the Channel Weldment (item 15) between the plates of the Axle Weldment Assembly, bolt the two together by passing a 3/4" x 5-1/2" bolt through the upper most hole in each piece and fasten with a 3/4" lock washer and nut, (items 6,7,9) This bolt acts as the pivot when raising or lowering the Transport Wheel. Secure the Channel Weldment in the transport position by placing a second 3/4" x 5-1/2" bolt through the lower hole in the Axle

## ASSEMBLY

Weldment and the corresponding hole in the Channel Weldment. Fasten with a 3/4" lock washer and nut. Follow this procedure for each side of the machine.

7. Hook a tractor to the Shredder as it would be when in field operation. Either remove the cylinder stops or move stops as close as possible to the clevis so maximum cylinder stroke may be obtained. Leave the PTO disconnected.

8. With the Jack Stands lowered and pinned retract the Hydraulic Cylinder so the Carrier Wheels are as far off the ground as possible.

9. Place a 6" block under the two Carrier Wheels closest to the center of the Shredder. Extend the Cylinder, raising the front of the Shredder.

10. Pin Jack Stands in the lowered position.

11. Retract Cylinder fully, causing the Shredder to pivot on the Jack Stand, this will lift the rear of the machine.

12. Place wheel with tire on REAR Hub and Spindle Assembly and secure with lug nuts.

13. Extend the Cylinder completely pivot the Shredder on the rear transport tire, raising the front of the Shredder.

14. Bolt wheel with tire on FRONT Hub Assembly and secure with lug nuts. (Tires not supplied, 9.5L-15 6 ply implement tire recommended)

15. Raise and pin Jack Stands in the upper position.

16. Retract Cylinder until the Shredder is resting on the Transport Wheels and Transport Hitch Jack.

17. See operation for instructions on transport and field operation procedure.

## PREPARING FOR FIELD OPERATION

### REVIEW THE MACHINE

Generally review the machine for:

- Any loose bolts or set screws.
- Proper tensioning of drive belts.
- Proper P.T.O. installation.
- Hydraulic cylinders and hoses being properly installed.
- Oil level in gearbox.
- All shields and guards being in place.
- Proper installation of any options.

### HITCHING TO THE TRACTOR



**CAUTION:** Never put your hands inside of the machine during operation. Keep children and bystanders away from machine in operation. Shut off tractor engine and place ignition key in pocket before adjusting, lubricating or repairing machine.

Adjust front and rear wheels of the tractor to fit desired row spacing.

Adjust the tractor drawbar as shown in Fig. 2 for 540 or 1000 RPM operation of P.T.O.

Attach Shredder to tractor with suitable hitch pin. Attach Safety Chain as shown on page 7.

Connect P.T.O. driveline to proper tractor P.T.O. shaft. Secure rotating shield of P.T.O. with chain provided.

Raise Shredder to retract Jack Stands.

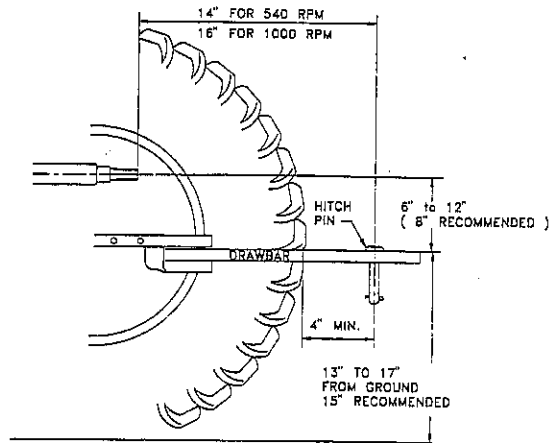


FIGURE 2

### TEST RUN SHREDDER

Check flails to make sure they are free swinging and all in place.

Run tractor at low RPM, slowly engage P.T.O. Check operation of machine at low RPM. Slowly increase RPM's to proper operating speed of 540 or 1000 RPM. Check operation, alignment and clearances of all moving parts. Make any necessary adjustments.



**CAUTION:** Keep well clear of moving parts. Be sure to shut off tractor and place key in pocket while making adjustments. Wait for all movement to stop before approaching machine.

Run machine for 10 to 15 minutes. After running is complete recheck machine for any loose hardware and recheck drives.

It is important that the Shredder be operated and adjusted correctly. The following explains how to get the best service out of the machine.

## FIELD OPERATION AND ADJUSTMENT



**CAUTION:** Never make any adjustment or replace any part without first observing all safety procedures outlined in this manual and waiting until all moving parts have stopped.



**CAUTION:** Flails rotate at high speed while shredding. Bystanders must stay clear of machine to prevent injury from thrown objects.

### LEVELING AND HEIGHT ADJUSTMENT

The end of the blade tips should be 4" to 6" from the top of the ground. The rear wheels will most likely be adjusted to top hole of attaching brackets and top hole of arms.

Lower front of machine to height desired, run as high as possible. Use cylinder stop to maintain height. Use of Screw Jack instead of a Hydraulic Cylinder helps prevent lowering knives into ground. If necessary, reposition rear wheel height.

**Damage to knives and excessive wear will occur with knives too close to ground.**

Shredder bars (item 10, page 18) are adjustable. For a finer cut, move the Shredder bar towards the knives; for a coarser cut, move the Shredder bar away from the knives. If a coarse cut is acceptable, the bars may be removed.

### GEARBOX OIL LEVEL

Check to insure that the gearbox has sufficient oil. DO NOT over fill the gearbox. Correct gearbox lubricant level is verified by removing top vent plug. Then use clean dip stick or visually verify that oil is even (level) with the top of main cross shaft. Use EP90 gear lubricant or equal as required.

### BELT TENSION

It is important to maintain belt tension. Be sure to check daily. Extend springs as shown in figure 3, a nickel will just pass between each coil.



FIGURE 3 - SPRING ADJUSTMENT

### FLAIL INSPECTION (see Service Section also)

Check flails regularly especially if rocks are struck. Any bent or broken knives should be replaced immediately. Remember, always replace two knives, the one needed and one directly opposite to maintain balance.

If vibration is present, check bearings and flails and correct problem. Continual running with vibration will result in damage to the machine.

### FROM TRANSPORT TO FIELD OPERATION (See Page 25)

1. Lower Hitch Jack and unhook tractor from Transport Hitch.
2. Connect tractor to field hitch and attach Hydraulic Cylinder.
3. Extend Cylinder until FRONT Transport Wheel raises from the ground.
4. Raise front Transport Wheel and bolt in the up position by removing the lower 3/4" x 5-1/2" bolt joining the Axle Weldment Assembly (item 16) and Channel Weldment (item 15). Pivot Channel Weldment and tire about the upper 3/4" bolt until the holes in the Channel Weldment align with the upper holes in the Axle Weldment and bolt in place using the 3/4" x 5-1/2" bolt, lock washer and nut.
5. Lower and pin Jack Stands.
6. Retract Cylinder until REAR Transport Wheels are lifted from the ground.
7. Lift REAR Transport Wheel and bolt in the raised position using the same procedure as in step 4.
8. Rotate Transport Hitch Jack to the horizontal/transport position.
9. Remove the bolt that joins the Brace Angle (item 14) to the Side Plate, lift Hitch and bolt to tab.
10. Extend cylinder until pressure from Jack Stands is removed. Raise Jack Stands and pin in the raised position.

### FROM FIELD OPERATION TO TRANSPORT (See Page 25)

1. Extend Lift Cylinder which will raise the front of the Shredder.
2. Lower and pin Jack Stands.
3. Retract Cylinder which will raise the back of the Shredder allowing the REAR Carrier Wheel to be lowered into position.

## FIELD OPERATION AND ADJUSTMENT

4. Lower REAR Carrier Wheel into position and secure by first removing the lower 3/4" x 5-1/2" bolt that passes through the Axle Weldment Assembly (item 16). Pivot the Transport Wheel about the upper 3/4" bolt until the holes in the Channel Weldment align with the lower holes in the Axle Weldment Assembly. Replace the 3/4" x 5-1/2" bolt and fasten with lock washer and nut.
5. Position Transport Hitch. Remove bolt fastening Brace Angle (item 14) to Tab then refasten Brace Angle to top hole in Side Plate. Rotate Transport Hitch to the horizontal position and extend until Jack has pressure on the ground.
6. Extend Lift Cylinder; Shredder will pivot on the REAR Transport Wheel and Transport Hitch Jack.
7. Lower FRONT Transport Wheel and bolt in position using the same procedure as in step 4.
8. Raise and pin Jack Stands.
9. Lower Shredder so that it rest on Transport Wheels and Transport Hitch Jack.
10. Disconnect tractor from field hitch and Hydraulic Cylinder.
11. Hook tractor to Transport Hitch and place Hitch Jack in horizontal position.
12. Fasten safety chain to tractor.
13. Remove and secure Hydraulic Cylinder and PTO.



## DAILY MAINTENANCE AND LUBRICATION

I. GREASE BEARINGS WITH ONE OR TWO PUMPS OF GREASE FROM A HAND GREASE GUN EVERY 10(TEN) HOURS OF OPERATION. THIS IS ESPECIALLY IMPORTANT ON FOUR ROTOR BEARINGS. SEE DRAWING BELOW.

II. CHECK GEARBOX LUBRICATION LEVEL SEASONALLY. CORRECT GEARBOX LUBRICANT LEVEL IS VERIFIED BY REMOVING TOP VENT PLUG. THEN USE CLEAN DIP STICK OR VISUALLY VERIFY THAT OIL IS EVEN (LEVEL) WITH THE TOP OF MAIN CROSS SHAFT. USE EP90 GEAR LUBRICANT OR EQUAL AS REQUIRED.

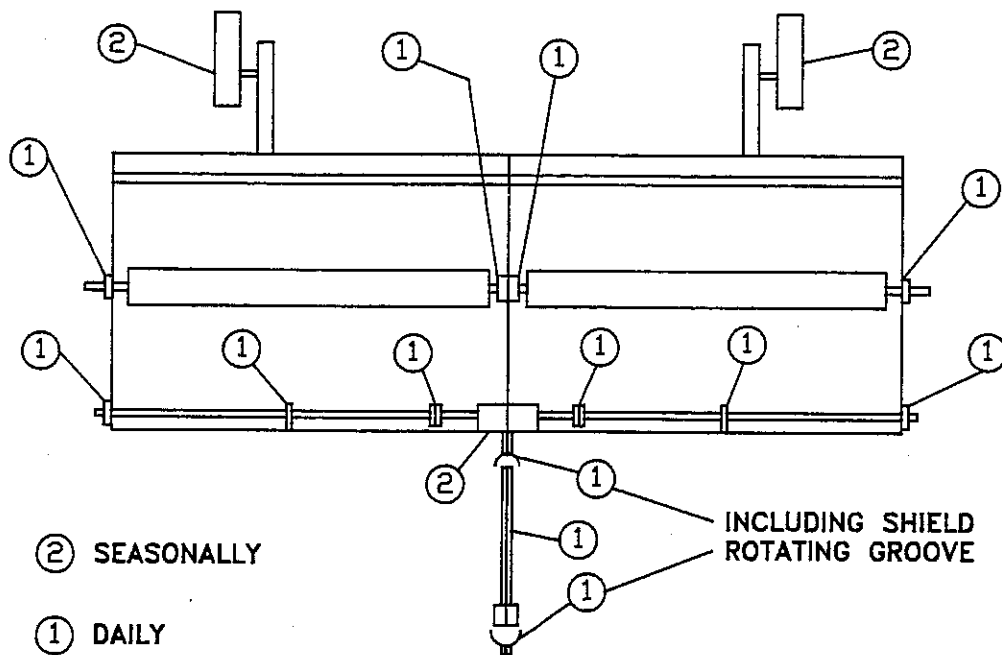
III. CHECK SPRING TENSION ON DRIVE BELTS.

IV. CHECK FOR LOOSE OR DAMAGED FASTENERS.

V. CHECK ALL KNIVES FOR EXCESSIVE WEAR, OR BENT, OR BROKEN KNIVES. (REMEMBER, ALWAYS REPLACE TWO KNIVES, THE ONE NEEDED AND ONE DIRECTLY OPPOSITE TO MAINTAIN BALANCE).

VI. DO NOT OPERATE THE MACHINE IF EXCESSIVE VIBRATION IS PRESENT.

### LUBRICATION SCHEDULE



## SERVICE AND STORAGE

### SERVICE

#### I. REPLACEMENT OF KNIVES

1. Disconnect P.T.O. from tractor. Make sure machine is adequately blocked.
2. When replacing knife, replace in pairs, replace damaged knife plus knife most directly opposite. Be sure to inspect other parts and replace if necessary torque bolts to 150 ft.lb.

**IMPORTANT: AN UNBALANCED ROTOR WILL CAUSE THE MACHINE TO VIBRATE EXCESSIVELY AND MAY DAMAGE BOTH THE BEARINGS AND THE SHAFTS.**

#### II. REPLACEMENT OF ROTOR SHAFT BEARINGS

Do not attempt to replace bearings from underneath the Shredder. The safe and proper way is:

1. Remove the axle arms and "A" Hitch.
2. Loosen spring loaded idler and remove belts.
3. Turn the Shredder on its back.
4. Remove drive sheave from rotor shaft and clean and smooth shaft. Remove remote lubrication line.
5. Loosen bearing lock collar and remove bearing mounting bolts on drive end. Remove bearing from shaft, taking care not to damage shaft.
6. Shaft seal should extend approximately 1/16" past the end plate on the bearing side when reinstalled. Place lube plate between end plate and bearing.

7. If center bearing must be replaced, remove remote lubrication line, loosen bearing collar and remove bolts. Lift rotor up until bearing can be removed and replaced.

8. When reassembling be sure to note lube fitting locations and make sure center shaft clears center housing plate. Torque bearing bolts to proper torque 9/16" diameter, GR5, plated to 82 ft. lb. and 5/8" diameter, GR5 plated to 112 ft. lb.

9. Reattach remote lubrication lines, turn Shredder over and reassemble. Lubricate new bearings with three(3) pumps of grease.



**CAUTION: Never put your hands inside of the machine during operation, or perform any kind of an adjustment, lubrication or repair to the machine without shutting off the tractor ignition and placing key in pocket. Keep children and bystanders away from machine in operation.**

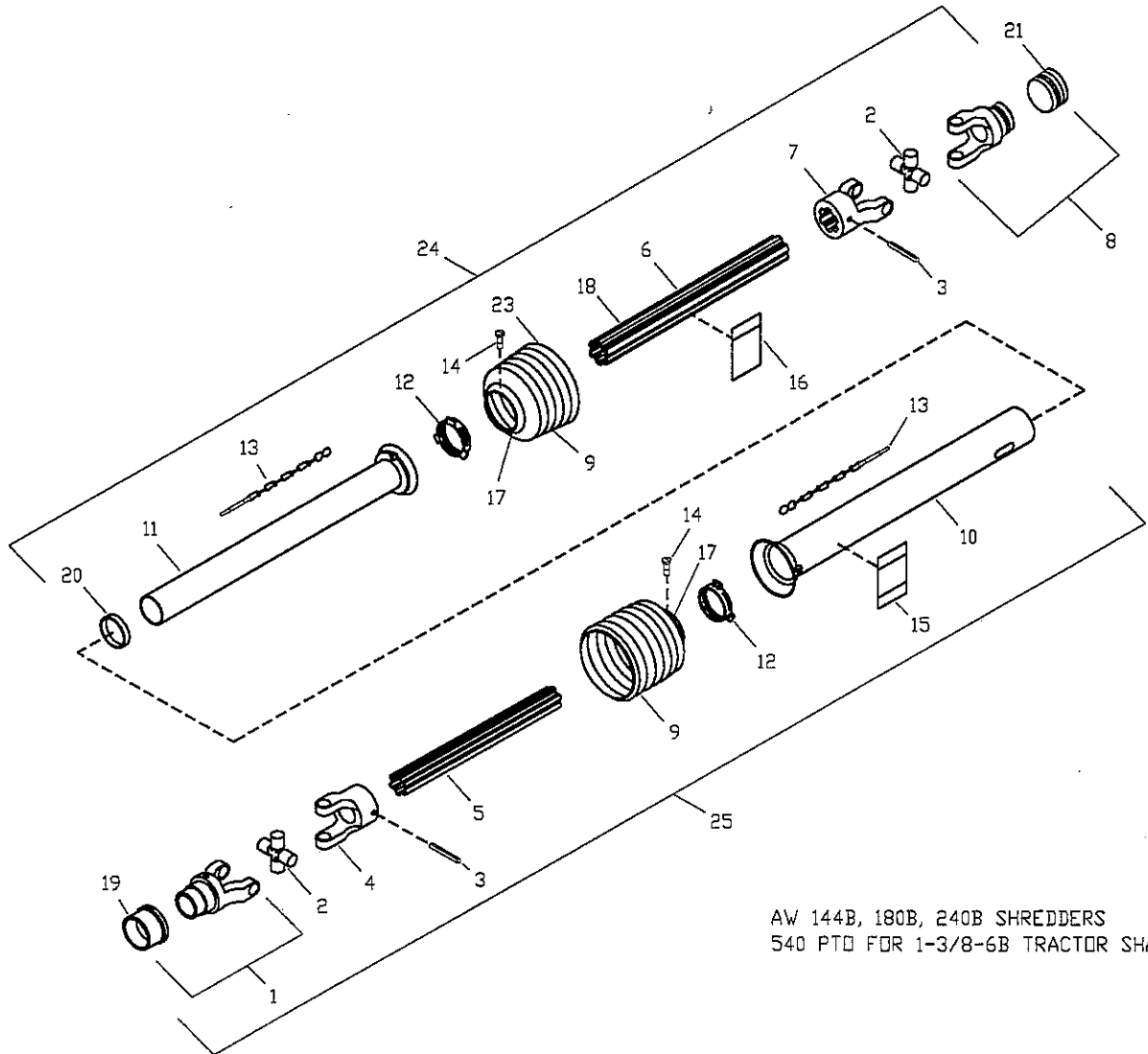
Remove all wrenches, tools, parts, or other foreign objects from the machine, when work is complete.

#### STORAGE

To obtain a long life and trouble free service from this unit, it should be properly prepared and stored.

First, flush entire unit with water to remove all accumulations of dirt, grease, or material. Then check for cracked, worn, or damaged belts, bearings, blades or other parts. Early detection and replacement of failing parts will save "Downtime" next season. Repaint any area(s) where the paint has been worn or chipped off. Replace all safety decals that are no longer legible. Remove and grease driveline and store in a dry place. Repack wheel bearings. Set machine on blocks and store inside.

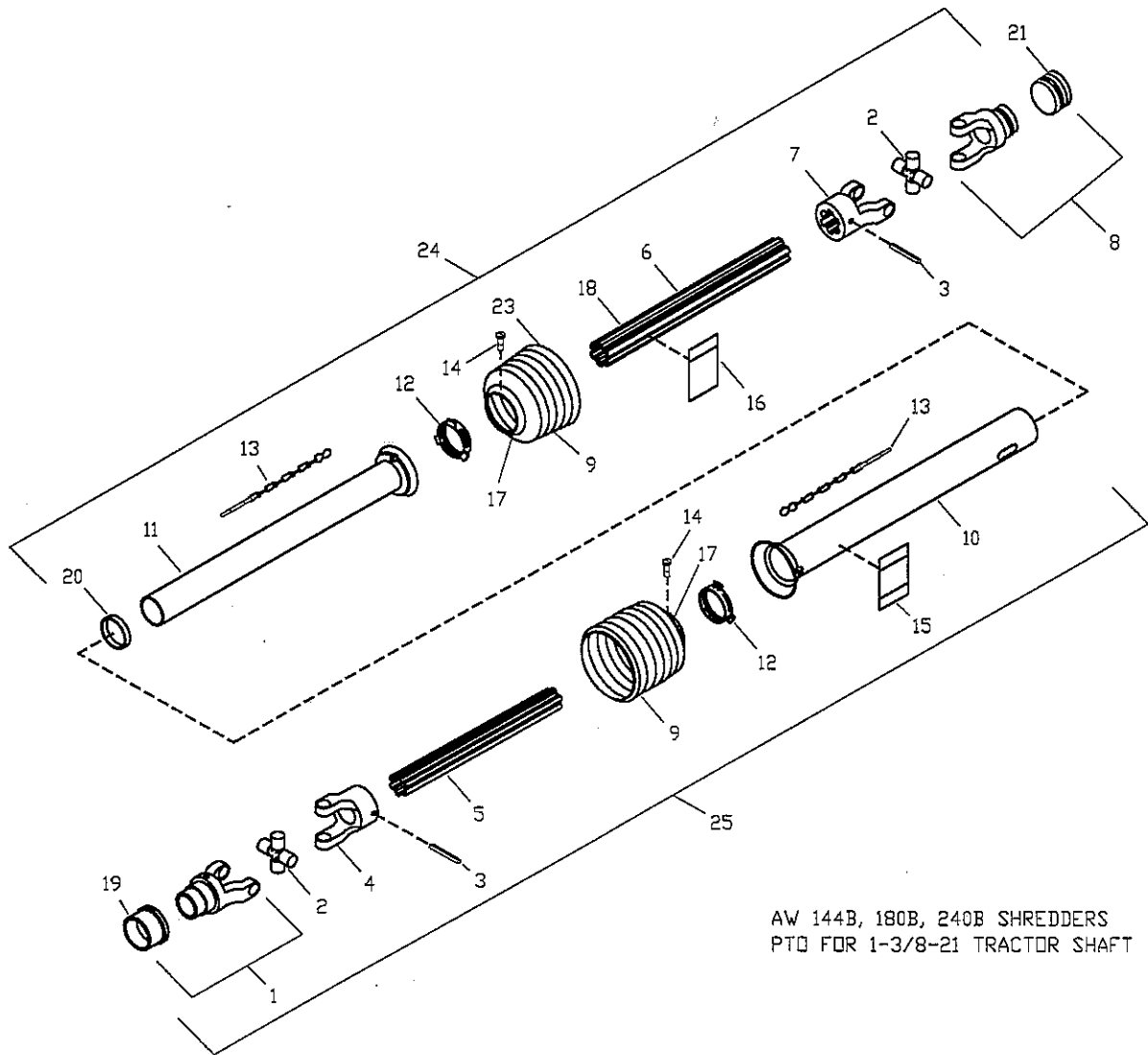
367120 SHREDDER 540 PTO, AW 1-3/8-6B TRACT.



AW 144B, 180B, 240B SHREDDERS  
540 PTO FOR 1-3/8-6B TRACTOR SHAFT

1	340130	1	YOKE, 1-3/8-6B SPL AS
2	182230	2	KIT, CROSS & BEARING
3	196740	2	PIN, SPRING 10x90
4	196730	1	YOKE, INBOARD
5	196750	1	SHAFT, INNER PROFILE
6	388330	1	TUBE, OUTER PROFILE
7	196770	1	YOKE, INBOARD
8	340100	1	YOKE, 1-3/4-20 SPL AS
9	340140	2	SHIELD, CONE 7 RIB
10	355620	1	TUBE, OUTER SHIELD
11	354210	1	TUBE, INNER SHIELD
12	182900	2	RING, SC 24 BEARING
13	182890	2	CHAIN, SAFETY
14	345980	2	SCREW, SHIELD (IN ITEM 9)
15	268860	1	DECAL, DANGER ROTATING DRIVE LINE
16	340180	1	DECAL
17	349250	2	REINFORCED COLLAR
18	196890	1	ZERK, 3/16 DRIVE GREASE (IN ITEM 6)
19	340210	1	KIT, SLIDE COLLAR-1-3/8-6B
20	340190	1	SUPPORT BEARING
21	340200	1	KIT, SLIDE COLLAR 1-3/4-20
24	387580	1	HALF, IMPLEMENT-387350 & 367120
25	196860	1	HALF, TRACTOR, 1-3/8-6B

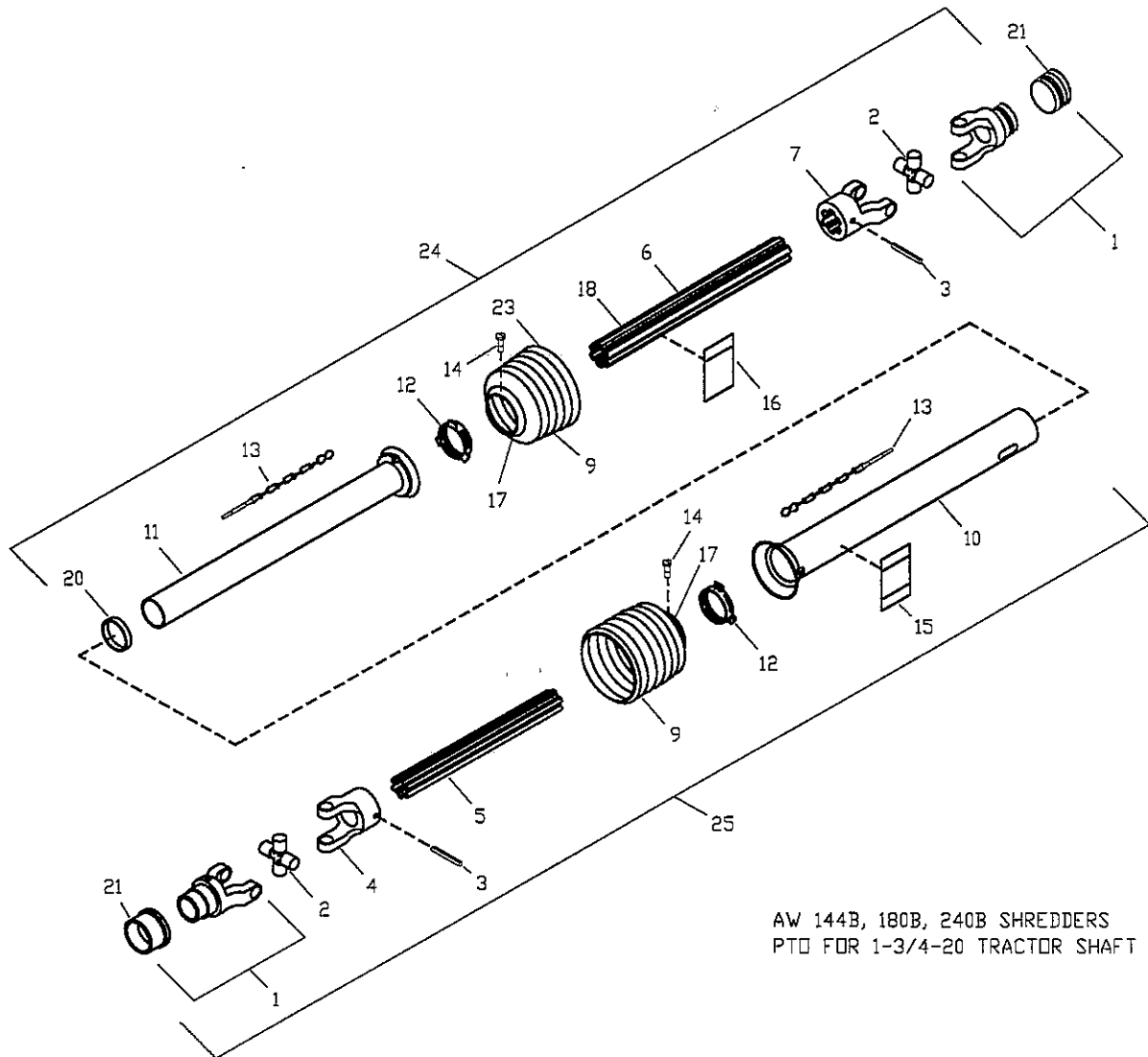
387350 SHREDDER 1000 PTO, AW 1-3/8-21 TRACT.



AW 144B, 180B, 240B SHREDDERS  
PTO FOR 1-3/8-21 TRACTOR SHAFT

1	354180	1	YOKE, 1-3/8 - 21 SPL AS
2	182230	2	KIT, CROSS & BEARING
3	196740	2	PIN, SPRING 10x90
4	196730	1	YOKE, INBOARD
5	196750	1	SHAFT, INNER PROFILE
6	388330	1	TUBE, OUTER PROFILE
7	196770	1	YOKE, INBOARD
8	340100	1	YOKE, 1-3/4-20 SPL AS
9	340140	2	SHIELD, CONE 7 RIB
10	355620	1	TUBE, OUTER SHIELD
11	354210	1	TUBE, INNER SHIELD
12	182900	2	RING, SC 24 BEARING
13	182890	2	CHAIN, SAFETY
14	345980	2	SCREW, SHIELD (IN ITEM 9)
15	268860	1	DECAL, DANGER ROTATING DRIVE LINE
16	340180	1	DECAL
17	349250	2	REINFORCED COLLAR
18	196890	1	ZERK, 3/16 DRIVE GREASE (IN ITEM 6)
19	340210	1	KIT, SLIDE COLLAR-1-3/8-21
20	340190	1	SUPPORT BEARING
21	340200	1	KIT, SLIDE COLLAR 1-3/4-20
24	387580	1	HALF, IMPLEMENT 387350 & 367120
25	196840	1	HALF, TRACTOR, 1-3/8-21

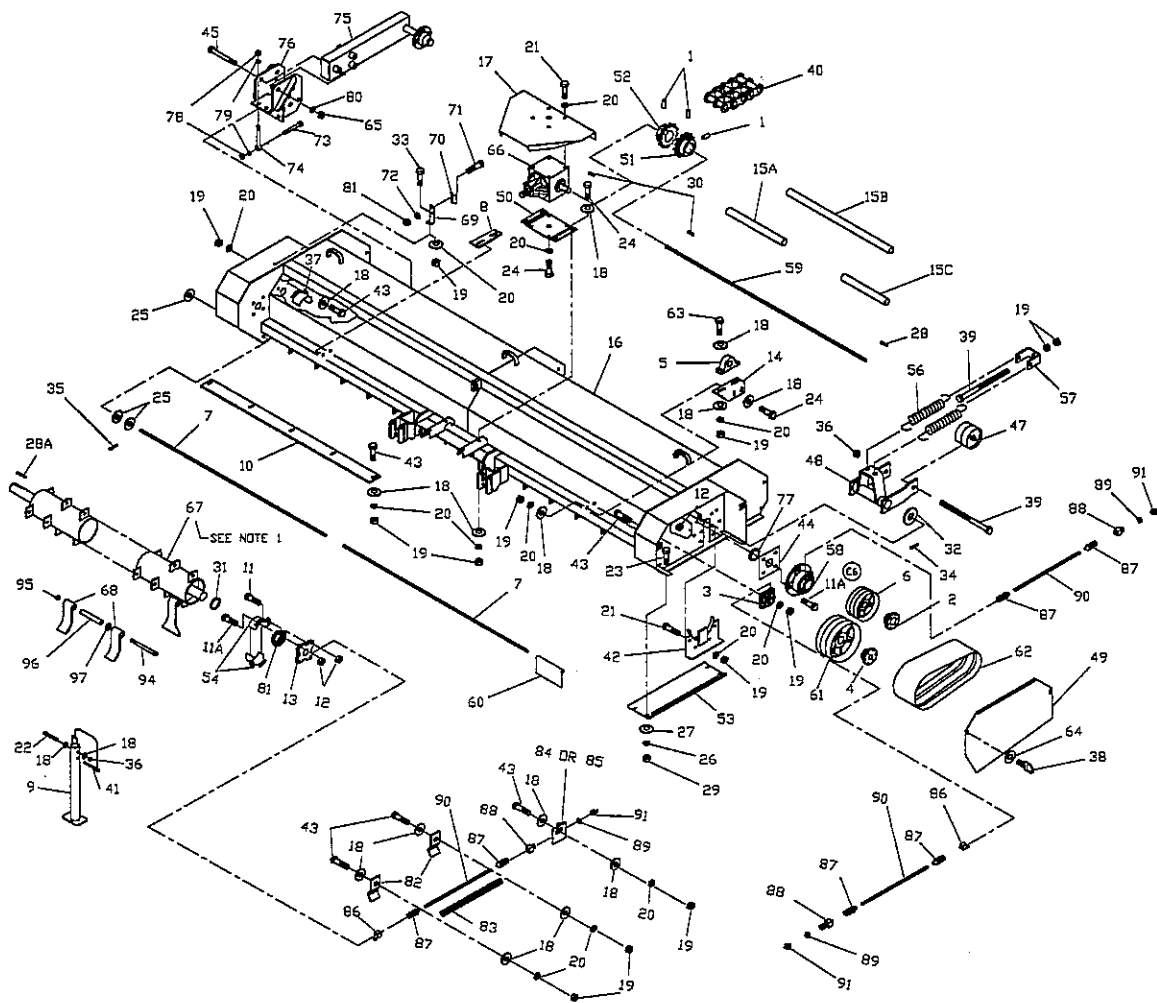
394910 SHREDDER 1000 PTO, AW 1-3/4-20 TRACT.



AW 144B, 180B, 240B SHREDDERS  
PTO FOR 1-3/4-20 TRACTOR SHAFT

1	340100	2	YOKE, 1-3/4 - 20 SPL AS
2	182230	2	KIT, CROSS & BEARING
3	196740	2	PIN, SPRING 10x90
4	196730	1	YOKE, INBOARD
5	340110	1	SHAFT, INNER PROFILE
6	340120	1	TUBE, OUTER PROFILE
7	196770	1	YOKE, INBOARD
8	-	-	-
9	340140	2	SHIELD, CONE 7 RIB
10	340150	1	TUBE, OUTER SHIELD
11	340160	1	TUBE, INNER SHIELD
12	182900	2	RING, SC 24 BEARING
13	182890	2	CHAIN, SAFETY
14	345980	2	SCREW, SHIELD (IN ITEM 9)
15	268860	1	DECAL, DANGER ROTATING DRIVE LINE
16	340180	1	DECAL
17	349250	2	REINFORCED COLLAR
18	196890	1	ZERK, 3/16 DRIVE GREASE (IN ITEM 6)
19	-	-	-
20	340190	1	SUPPORT BEARING
21	340200	2	KIT, SLIDE COLLAR 1-3/4-20
24	402660	1	HALF, IMPLEMENT, 394910
25	340090	1	HALF, TRACTOR, 1-3/4-20

# BASIC UNIT



ITEM	PART NUMBER	QTY			DESCRIPTION
		144B	180B	240B	
1	120970	-	-	-	SCREW, 3/8-16 x 1/2 AHSS
2	R37960	2	2	-	HUB, ROTOR SHEAVE QD, SK 1-3/4
2	R66251	-	-	2	HUB, ROTOR SHEAVE QD, SF 2-3/16
3	R40290	2	2	2	BEARING, FLANGE 1-3/8 4-BOLT
4	R40340	2	2	-	HUB, JACK SHAFT SHEAVE
4	R64765	-	-	2	HUB, JACK SHAFT SHEAVE
5	R40741	4	4	4	BEARING, 1-3/8 PILLOW BLOCK
6	R41180	-	2	-	SHEAVE, ROTOR 4B QD 8.35" O. D.
6	R40750	2	-	-	SHEAVE, ROTOR 3B QD 8.38" O. D.
6	R64761	-	-	2	SHEAVE, ROTOR 5B QD 8.35" O. D.
7	R42360	-	2	-	ROD, SKIRT 92"
7	R42340	1	-	-	ROD, SKIRT 80"
7	R42870	1	-	-	ROD, SKIRT 67"
7	R45310	-	-	2	ROD, SKIRT 123.5"
8	R60608	2	2	2	BEARING, MTG. JACKSHAFT R. H.
9	254350	1	1	2	STAND, JACK
10	R61055	-	2	-	BAR, SHREDDER
10	R60589	2	-	-	BAR, SHREDDER
10	R64368	-	-	2	BAR, SHREDDER
11	254550	2	2	-	BOLT, 1/2-20 x 1-3/4 HHCS
11	254440	-	-	2	BOLT, 5/8-18 x 1-3/4 HHCS

BASIC UNIT

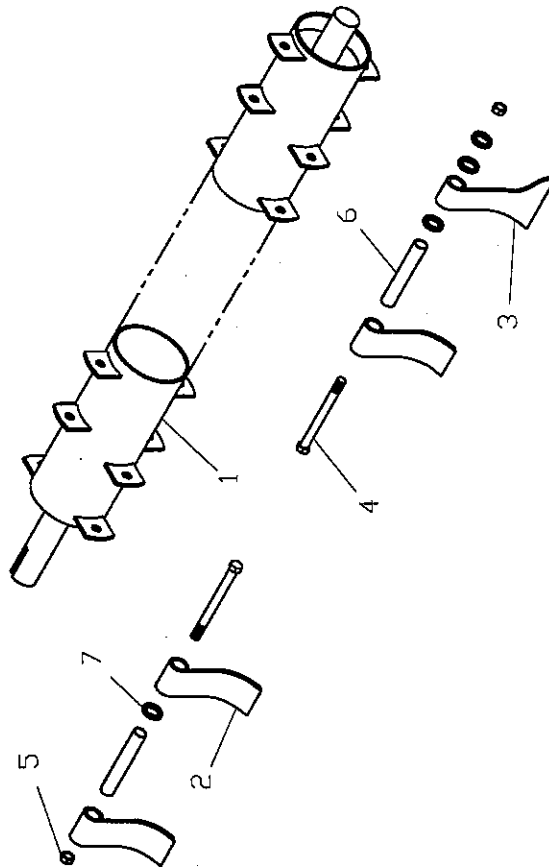
ITEM	PART NUMBER	QTY	QTY	QTY	DESCRIPTION
		144B	180B	240B	
11A	252840	14	14	-	BOLT, 1/2-20-18 x 1-3/4 HHCS
11A	213250	-	-	14	BOLT, 5/8-18 x 2 HHCS
12	1795104	-	-	16	NUT, 5/8-18 2-WAY LOCK
12	R61479	16	16	-	NUT, 1/2-20 2-WAY LOCK
13	253860	2	2	-	BRG., 4-BLT. FLNG. 1.75 ECEN
13	253870	-	-	2	BRG., 4-BLT. FLNG. 2.18 ECEN
14	R62891	1	1	2	BEARING, MTG. JACKSHAFT L. H.
15A	R64473	-	2	-	SHIELD, SPIN 54-1/2"
15A	R64470	2	-	-	SHIELD, SPIN 37-1/2"
15A	R64476	-	-	2	SHIELD, SPIN 51"
15B	R64469	-	-	2	SHIELD, SPIN 32-3/4"
15C	119641	2	2	2	SHIELD, SPIN 23-5/8"
16	R45220	-	1	-	HOUSING 180B
16	R45220	1	-	-	HOUSING 144B
16	R45220	-	-	1	HOUSING 240B
17	367110	1	1	1	SHIELD, SUPERIOR GEARBOX
18	005200	64	64	64	WASHER, .562x1.37x.109 FLAT
19	005360	57	57	57	NUT, 1/2-13 HEX
20	005370	61	61	61	WASHER, 1/2 LOCK
21	010730	12	12	12	BOLT, 1/2-13 x 1-1/4 HHCS
22	038560	2	2	2	BOLT, 1/2-13 x 4
23	012260	8	8	8	BOLT, 3/8-16 x 1 HHCS
24	014770	16	16	16	BOLT, 1/2-13 x 1-1/2 HHCS
25	020430	6	6	6	WASHER, .688x1.75x.134 FLAT
26	021180	8	8	8	WASHER, 3/8 LOCK
27	021190	8	8	8	WASHER, .438x1.00x.083 FLAT
28	021530	4	4	2	KEY, 3/8 SQ. x 2.00
28A	R66305	-	-	2	KEY, 1/2 SQ. x 2.00
29	027260	29	29	29	NUT, 3/8-16 HEX
30	039950	4	4	4	KEY, 3/8 SQ. x 1-3/4
31	250590	-	-	2	SPACER, ROTOR
31	250550	2	2	-	SPACER, ROTOR
32	1107389	4	4	4	WASHER, 1.05x2.00x.134 FLAT
33	031080	1	1	1	BOLT, 1/2-13 x 1 HHCS
34	124340	2	2	2	PIN, COTTER 3/16 x 1-1/2
35	124350	4	4	4	PIN, COTTER 1/8 x 1-1/2
36	127890	4	4	4	NUT, 1/2-13 HEX LOCK
37	250370	2	2	-	RTR. GRD. WELD UPPER END
37	250480	-	-	2	RTR. GRD. WELD W/TABS END
38	156510	4	4	4	LATCH, MAIN DRIVE SHIELD
39	162930	4	4	4	BOLT, 1/2-13 x 5-1/2 HHCS
40	163770	2	2	2	CHAIN ASSY. INCL. CONN.
41	255320	1	1	2	PIN, COTTERLESS HITCH
42	250330	2	2	-	PLATE, SPLICE WELD W/LWR GRD
42	250430	-	-	2	PLATE, SPLICE WELD W/LWR GRD
43	1770500	21	23	25	BOLT, 1/2-13 x 1-3/4 HHCS
44	250560	2	2	-	PLATE, SEAL
44	250580	-	-	2	PLATE, SEAL
45	1070034	4	8	8	BOLT, 1-8 x 8.5 HHCS
46	204510	2	2	2	NAIL, 1/4 GRIP
47	210270	2	2	2	PULLEY ASSY. IDLER
48	210330	2	2	2	IDLER WELDMENT
49	210400	1	1	1	SHIELD, LEFT
49	210390	1	1	1	SHIELD, RIGHT
50	367080	1	1	1	PLATE, GEARBOX MOUNTING
51	210690	2	2	2	SPROCKET, 1-3/8 60B14
52	367100	2	2	2	SPROCKET, 60B14 1.75 BORE
53	210890	2	2	2	CHANNEL WELD, BOTTOM
54	254390	4	4	-	RTR. GRD. WELD. CTR. R. H.
54	254340	-	-	4	RTR. GRD. WELD. CTR. R. H.

## BASIC UNIT

ITEM	PART NUMBER	QTY	QTY	QTY	DESCRIPTION
		144B	180B	240B	
55	-	-	-	-	-
56	220860	4	4	4	SPRING, EXTENSION
57	224400	2	2	2	CLIP, TAKE UP BOLT
58	250640	2	2	-	BEARING, 1-3/4 SPHER. RLR.
58	250630	-	-	2	BEARING, 2-3/16 SPHER. RLR.
59	243530	-	2	-	SHAFT, DRIVE JACK 180B 1-3/8
59	243540	2	-	-	SHAFT, DRIVE JACK 144B 1-3/8
59	210680	-	-	2	SHAFT, DRIVE JACK 240B 1-3/8
60	243650	13	2	25	DEFLECTOR, STEEL 9.50 x 5.5
60	243660	-	17	-	DEFLECTOR, STEEL 9.25 x 5.5
61	R40330	2	-	-	SHEAVE, 12.75 O. D. 540 RPM
61	R41170	-	2	-	SHEAVE, 12.75 O. D. 540 RPM
61	243590	-	2	-	SHEAVE, 11.35 O. D. 1000 RPM
61	243580	-	-	2	SHEAVE, 11.35 O. D. 1000 RPM
62	242300	2	-	-	BELT, DRIVE 3B-72" 540 RPM
62	242290	-	2	-	BELT, DRIVE 4B-72" 540 RPM
62	R41190	-	2	-	BELT, DRIVE 4B-70" 1000 RPM
62	R65108	2	2	2	BELT, DRIVE 5B-70" 1000 RPM
63	023950	8	8	8	BOLT, 1/2-13 x 2 HHCS
64	I120393	4	4	4	WASHER, FLAT 5/16x.34x.69
65	J14H805	8	8	8	NUT, 1-8 GR 5 ZN
66	387330	1	1	1	GEARBOX, 1: 1, 1000, SUPERIOR(PG 21)
66	367090	1	1	-	GEARBOX, 1: 1.5, 540, SUPERIOR(PG 21)
67					ROTOR ASSY. (see page 20)
68					CUP KNIVES (see page 20)
69	I493166R1	1	1	1	BRACKET, SMV MOUNTING
70	167330	1	1	1	SOCKET, S. M. V. MTG.
71	012410	2	2	2	BOLT, 5/16-18 x 3/4 CRG.
72	023620	2	2	2	WASHER, 5/16 LOCK
73	036730	4	8	8	BOLT, 3/4-10 x 6.50 GR 5 ZN
74	254320	4	8	8	EYEBOLT 3/4-10 x 6.0
75	254730	4	4	4	ASS'Y. CARRIER ARM (see page 22)
76	254680	4	4	4	BRKT., CARRIER ARM (see page 22)
77	251120	2	2	-	SEAL, V-RING
77	251130	-	-	2	SEAL, V-RING
78	J14H794	8	8	8	NUT, 3/4-10 GR 5 ZN
79	036800	8	8	8	WASHER, 3/4 LOCK
80	003350	4	4	4	WASHER, 1.0 LOCK
81	252500	2	2	-	COLLAR, ECCEN. LOCK
81	252510	-	-	2	COLLAR, ECCEN. LOCK
82	254330	4	4	4	CLIP, GREASE LINE
83	254470	2	2	2	SPRING, .5 OD. x .06 WIREx13.0
84	244230	1	1	1	CLIP, CENTER LUBE LINE
85	244240	1	1	1	CLIP, CENTER LUBE LINE
86	244250	4	4	4	ELBOW, 45 DEG. STREET
87	244260	12	12	12	CONNECTOR, TUBE 1/8-1/4 NPT
88	244280	6	6	6	CONN. BULKHEAD 1/4 PTF
89	244290	6	6	6	NUT, LOCK
90	962500	5	5	5	TUBE, NYLON 1/4 O. D.
91	I102467H	6	6	6	ZERK, 1/4-28
92					
93					
94	387680	40	48	64	BOLT, HHCS 5/8x7.0 G8 ZN
95	JK40015	40	48	64	NUT, TOP-LK 5/8 G8 ZN
96	R41650	40	48	64	BUSHING, BLADE
97	R41660	40	48	64	SPACER, BLADE



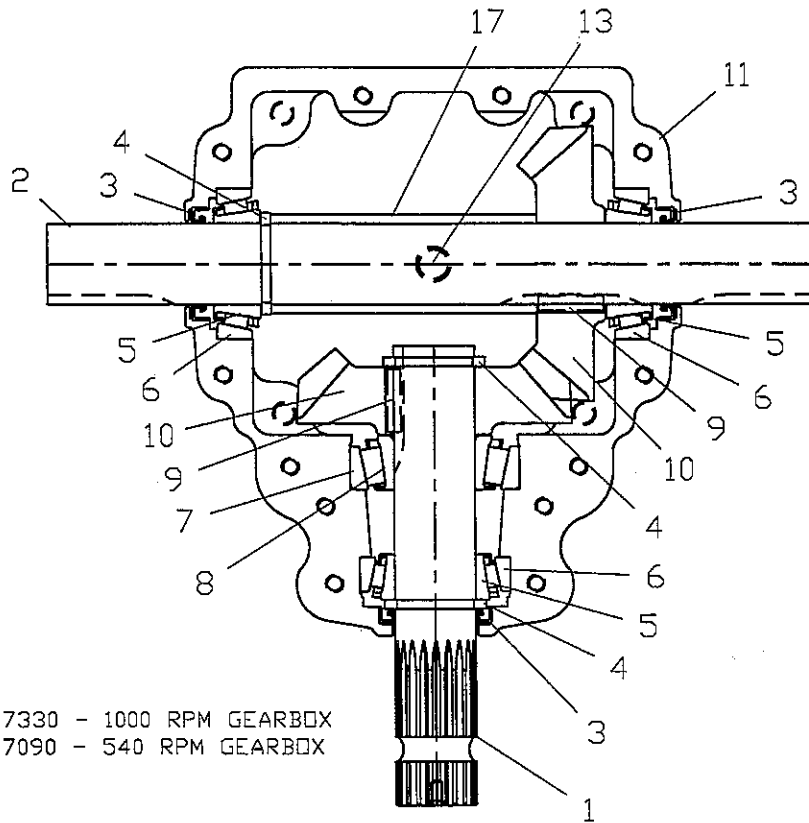
# ROTOR ASSEMBLIES



PART NUMBER	DESCRIPTION
R40140	KNIFE, 6" STANDARD
R40141	KNIFE, 6" HARD SURFACED
R41650	BUSHING, BLADE
R41660	SPACER, BLADE
R45400	KNIFE, 6" OFFSET HARDSURFACED LH
R45420	KNIFE, 6" OFFSET HARDSURFACED RH
R45450	KNIFE, 5" HARDSURFACED
R48340	KNIFE, 5" OFFSET HARDSURFACED LH
R48350	KNIFE, 5" OFFSET HARDSURFACED RH
387680	BOLT, 5/8-11 X 7 HHCS GR 8 ZN
JK40015	NUT, 5/8-11 LOCK
250650	144 ROTOR WELDMENT
250660	180 ROTOR WELDMENT
250670	240 ROTOR WELDMENT

MODEL	PART NO.	DESCRIPTION	1	2	3	4	5	6	7
144	182740	ROTOR, STD. KNIVES W/OFFSETS R. H.	250650 (1)	R40140 (39)	213150 (1)	387680 (20)	JK40015 (20)	R41650 (20)	R41660 (22)
	182750	ROTOR, STD. KNIVES W/OFFSETS L. H.	250650 (1)	R40140 (39)	213140 (1)	387680 (20)	JK40015 (20)	R41650 (20)	R41660 (22)
	182760	ROTOR, H. S. KNIVES W/OFFSETS R. H.	250650 (1)	R40141 (39)	R45420 (1)	387680 (20)	JK40015 (20)	R41650 (20)	R41660 (22)
180	182770	ROTOR, H. S. KNIVES W/OFFSETS L. H.	250650 (1)	R40141 (39)	R45400 (1)	387680 (20)	JK40015 (20)	R41650 (20)	R41660 (22)
	182780	ROTOR, STD. KNIVES W/OFFSETS R. H.	250660 (1)	R40140 (47)	213150 (1)	387680 (24)	JK40015 (24)	R41650 (24)	R41660 (26)
	182790	ROTOR, STD. KNIVES W/OFFSETS L. H.	250660 (1)	R40140 (47)	213140 (1)	387680 (24)	JK40015 (24)	R41650 (24)	R41660 (26)
240	182800	ROTOR, H. S. KNIVES W/OFFSETS R. H.	250660 (1)	R40141 (47)	JK40015 (1)	387680 (24)	JK40015 (24)	R41650 (24)	R41660 (26)
	182810	ROTOR, H. S. KNIVES W/OFFSETS L. H.	250660 (1)	R40141 (47)	R45400 (1)	387680 (24)	JK40015 (24)	R41650 (24)	R41660 (26)
	182840	ROTOR, H. S. KNIVES W/OFFSETS R. H.	250670 (1)	R45450 (63)	R48350 (1)	387680 (32)	JK40015 (32)	R41650 (32)	R41660 (34)
182850	ROTOR, H. S. KNIVES W/OFFSETS L. H.	250670 (1)	R45450 (63)	R48340 (1)	387680 (32)	JK40015 (32)	R41650 (32)	R41660 (34)	

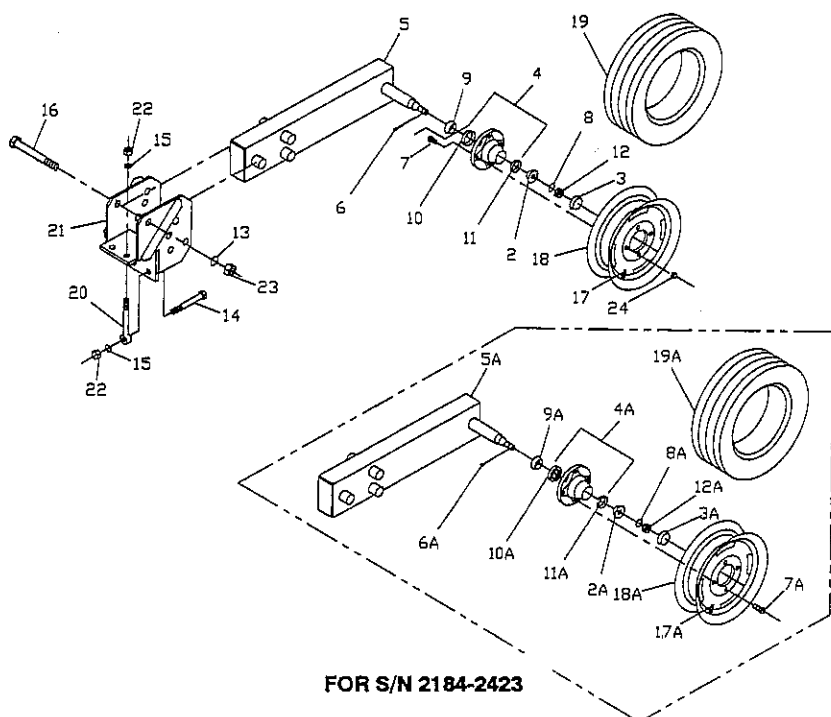
GEARBOX-387330  
& 367090



387330 - 1000 RPM GEARBOX  
367090 - 540 RPM GEARBOX

ITEM	PART NUMBER	QTY		DESCRIPTION
		387330	367090	
1	387900	1	1	SHAFT, PINION
2	387910	1	1	SHAFT, CROSS
3	247660	3	3	SEAL, 1.75 O.D. SHAFT
4	247670	3	3	RING, RETAINING
5	235770	3	3	CONE, TAPERED BRG. SM.
6	129770	3	3	CUP, TAPERED BRG. SM.
7	V241091	1	1	CONE, TAPERED BRG. LG.
8	E072317	1	1	CUP, TAPERED BRG. LG.
9	247700	2	2	KEY, 3/8 SQ.x1.45
10	387950	2	-	GEAR, 1:1 22 TOOTH-1000RPM
10	247740	-	1	GEAR, 1:1.5, 30T, 540 RPM
10	247790	-	1	GEAR, 1:1.5, 20T, 540 RPM
11	387920	1	1	CASTING, MOD. T HOLES
12	387930	1	1	CASTING, MOD. THRU HOLES
13	006370	1	1	PLUG, 1/2 NPT
14	247810	1	1	BUSHING, 1/8NPT-1/2NPT
15	247820	1	1	PLUG, PRESSURE RELIEF
16	247830	12	12	BOLT, SHCS 3/8-16x2.25
17	387940	1	1	SPACER, 1.75 I.D.

# WHEEL ASSEMBLY



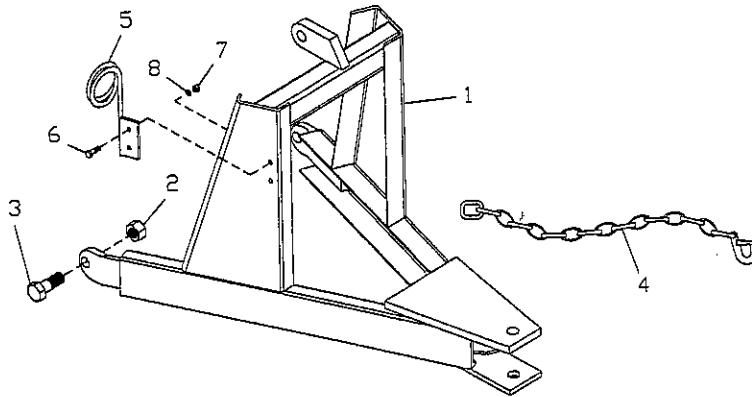
FOR S/N 2184-2423

\*Includes Items 2-12, \*\* Includes Items 2A-12A(S/N 2184-2423)

ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1*	273710	1	1	1	ARM ASSY, CARRIER
1A**	254730	1	1	1	ARM ASSY, CARRIER
2	012630	1	1	1	CONE, 1.25 ID
2A	1758209	1	1	1	CONE, .75 ID
3	035420	1	1	1	CAP, WHEEL HUB 2-1/2"
3A	1799509	1	1	1	CAP, WHEEL HUB
4	016530	1	1	1	HUB, 6-BOLT
4A	250610	1	1	1	HUB, 4-BOLT W/CUPS W/ZERK
5	273700	1	1	1	ARM WELDMENT, CARRIER
5A	254740	1	1	1	ARM WELDMENT, CARRIER
6	026630	-	-	-	PIN, COTTER 5/32" x 1-1/2"
6A	1120123	-	-	-	PIN, COTTER 1/8" x 1-1/4"
7	020740	1	1	1	STUD, HUB 1/2" x 1-1/2"
7A	1351079R1	1	1	1	BOLT, WHEEL HUB
8	020720	-	-	-	WASHER, FLAT 3/4" x 1-3/4"
8A	1575813R1	-	-	-	WASHER, FLAT 3/4" x 1-1/4"
9	016520	1	1	1	CONE, W/SEAL 1.25" ID
9A	1602958R91	1	1	1	CONE, W/SEAL, 1.25" ID
10	018850	1	1	1	CUP
10A	1651814R1	1	1	1	CUP
11	018860	1	1	1	CUP
11A	1651817R1	1	1	1	CUP
12	020710	-	-	-	NUT, SLOTTED HEX 3/4"
12A	169448D	-	-	-	NUT, SLOTTED HEX, JAM 3/4"
13	003350	-	-	-	WASHER, LOCK 1.0"
14	036730	2	2	2	BOLT, HHCS 3/4" x 6-1/2"
15	036800	1	1	1	WASHER, LOCK 3/4"
16	1070034	4	8	8	BOLT, HHCS 1" x 8.5"
17	164420	1	1	1	VALVE STEM W/CORE & CAP
18	273740	1	1	1	WHEEL, 15" x 6 LB
18A	1757903	1	1	1	WHEEL, 15" x 4-1/2"
19	273730	1	1	1	TIRE, 7.60 x 15-6 PLY
19A	219620	1	1	1	TIRE, 6.70 x 15-4 PLY
20	254320	2	2	2	EYEBOLT, 3/4" x 6"
21	254680	1	1	1	BRACKET, CARRIER ARM ADJ.
22	J14H794	-	-	-	NUT, HEX 3/4"
23	J14H805	-	-	-	NUT, HEX 1"
24 ***	020730	-	-	-	NUT, HUB 1/2"

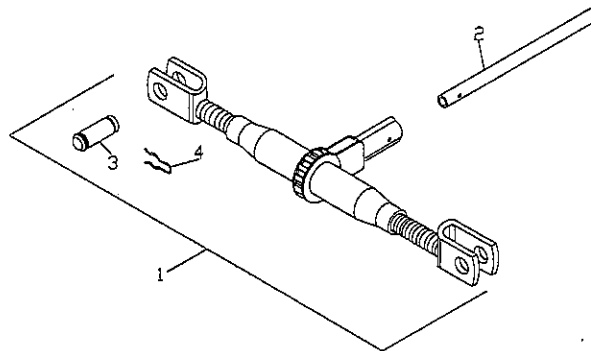
**NOTES**

## HITCH



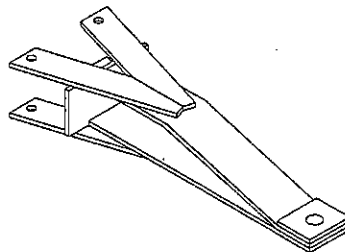
ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1	254140	1	1	1	HITCH ASSY
2	R65072	-	-	-	NUT, HEX LOCK 1"
3	R66338	-	-	-	BOLT, HHCS 1" x 3"
4	1765302	1	1	1	KIT, SAFETY CHAIN
5	E150004	1	1	1	HOSE CARRIER
6	006690	-	-	-	BOLT, HHCS 3/8" x 1-1/4"
7	027260	-	-	-	NUT, HEX 3/8"
8	021180	-	-	-	WASHER, LOCK 3/8"

## JACK RATCHET



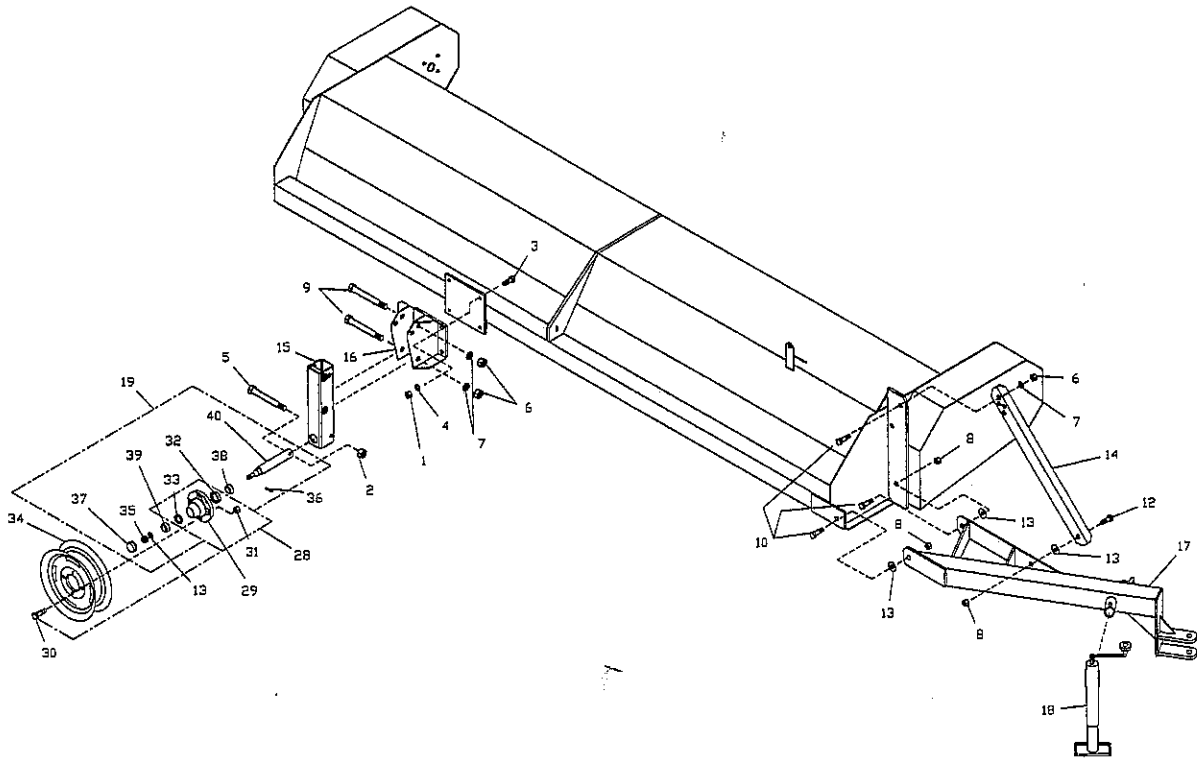
ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1	R39520	1	1	1	JACK, RATCHET
2	R41830	1	1	1	HANDLE, JACK
3	R41810	2	2	2	PIN, YOKE
4	R41820	4	4	4	PIN, COTTER HAIR

## DISK HITCH



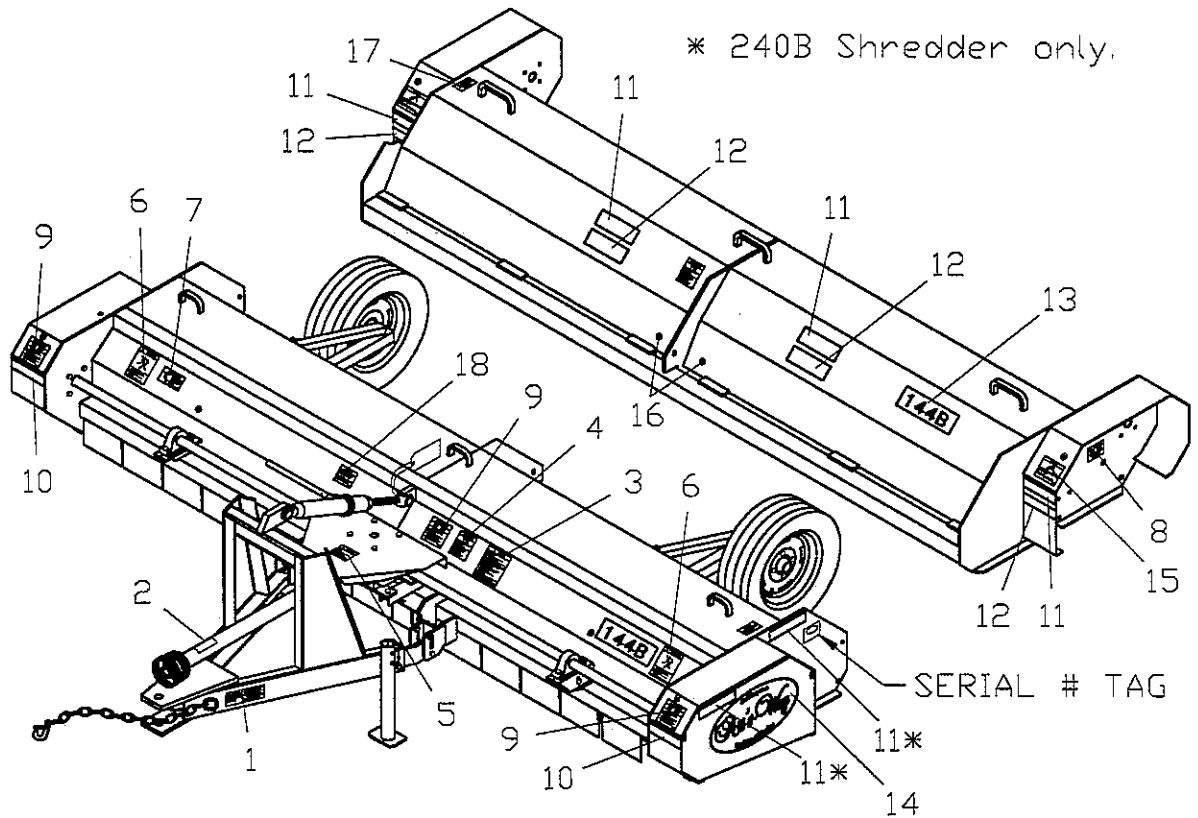
ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1	R42650	1	1	1	DISK HITCH
	201660	2	2	2	BOLT, HHCS 5/8" x 6"
	020440	-	-	-	WASHER, LOCK 5/8"
	I124589	-	-	-	NUT, 5/8"
	181940	-	-	-	KIT, DISK HITCH COMPLETE

# ROAD TRANSPORT



ITEM	PART NUMBER	QTY	DESCRIPTION
1	1124589	-	NUT, HEX 5/8"
2	19413967	-	NUT, HEX 1/2" LOCK
3	013430	-	BOLT, HHCS 5/8" x 2-1/4"
4	020440	-	WASHER, LOCK 5/8"
5	030420	2	BOLT, HHCS 1/2" x 4-1/2"
6	036750	-	NUT, HEX 3/4"
7	036800	-	WASHER, LOCK 3/4"
8	991040	-	NUT, HEX 3/4" NYLON LOCK
9	147150	4	BOLT, HHCS 3/4" x 5-1/2"
10	990540	-	BOLT, HHCS 3/4" x 2"
11	990680	2	BOLT, HHCS 5/8" x 5-1/2"
12	1769804	-	BOLT, HHCS 3/4" x 1-3/4"
13	990710	-	WASHER, FLAT .81" x 2.0" x .149"
14	248970	1	ANGLE, BRACE
15	249170	2	CHANNEL WELDMENT
16	249230	2	AXLE ASSY WELDMENT
17	249270	1	HITCH WELDMENT
18	251300	1	JACK, SCREW TOP WIND
19	250960	2	SPINDLE ASSY
20	R60636	2	STAND, PARKING
28	016530	2	HUB ASSY
29	016531	2	HUB CASTING
30	018850	6	BOLT, STUD FOR HUB
31	018860	6	NUT, HEX 1" WHEEL
32	020730	1	CUP, BEARING 2.56"OD
33	020740	1	CUP, BEARING 2.33"OD
34	018710	2	RIM
35	020710	2	NUT, SLOTTED 3/4"
36	026630	2	PIN, COTTER 5/32" x 1-1/2"
37	035420	2	CAP, HUB 2-1/2"
38	016520	2	CONE, BEARING 1-3/8" TAPERED ROLLER
39	012630	2	CONE, BEARING 1-1/4" TAPERED ROLLER
40	249290	2	SPINDLE, 1-7/8" DIA x 13.0"

# DECALS M198070



ITEM	PART NUMBER	QTY 144B	QTY 180B	QTY 240B	DESCRIPTION
1	383970	1	1	1	DECAL, HITCH INSTRUCTIONS
2	268860	1	1	1	DECAL, DANGER ROT. DRIVE
3	368040	1	1	1	DECAL, CAUT. SAFETY INSTRUCTIONS
4	363000	2	2	2	DECAL, DANGER, COMP, ROTATE, DISENGAGE
5	384020	1	1	1	DECAL, DANGER 1050 RPM
6	467400	2	2	2	DECAL, WARNING FLYING OBJ.
7	467420	1	1	1	DECAL, WARNING RIDER FALL.
8	467430	2	2	2	DECAL, DANGER SHIELD MISS.
9	467450	3	3	3	DECAL, WARNING MOVING PART
10	476460	2	2	2	TAPE, YELLOW REFLECTIVE
11	476450	2	2	4	TAPE, RED REFLECTIVE
12	476470	4	4	4	TAPE, RED-ORANGE REFLECTIVE
13	387650	2			DECAL, 144B
13	387660		2		DECAL, 180B
13	387670			2	DECAL, 240B
14	355450	2	2	2	DECAL, ARTS-WAY 20" LOGO
15	211260	2	2	2	DECAL, IMPORT, SPRING ADJ
16	146670	10	10	12	DECAL, GREASE SYMBOL
17	R65644	1	1	1	DECAL, HARD SURFACED KNIVES
18	R63829	1	1	1	DECAL, BEST PERFORMANCE

NOTE: Keep all decals clean and free of dirt for maximum visibility. Replace any and all decals that are no longer legible. Read and obey all safety decals.

## SPECIFICATIONS

	144B	180B	240B
TRACTOR REQUIREMENTS	65HP MIN	75HP MIN	100HP MIN
CUTTING WIDTH	144"	180"	240"
LAP 40" ROWS	12"	-	20"
LAP 30" ROWS	-	15"	15"
NO. & SIZE KNIVES	80 6-1/2"	96 6-1/2"	128 5"
ROTOR TUBE DIAMETER	6"	6"	8"
ROTOR BEARING	1-3/4" FLANGE	1-3/4" FLANGE	2 -3/16" FLANGE
GEARBOX	200HP	200HP	200HP
BELTS	(2) 3-B	(2) 4-B	(2) 5-B
OVER-ALL DIMENSIONS	159"x120"	195"x120"	260"x120"
SHIPPING WEIGHT (APPROX)	2128 LBS	2689 LBS	4000 LBS
PTO RPM	540/1000	1000	1000

### OPTIONS

HARD SURFACED KNIVES  
(STANDARD ON 240B)  
DISK HITCH  
EXTRA WHEEL ASSEMBLIES  
OVERRIDING CLUTCH ASSEMBLY



## PARTIAL INDEX

PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY
012630	25	39	1799509	22	3A	196860	15	13	249170	25	15
016520	22	9	1799509	23	16	196890	15	8	249230	25	16
016520	25	38	181840	23	18	201660	23	22	249270	25	17
016530	22	4	181850	23	19	201660	24	1	249290	25	40
016530	25	28	181940	24	-	210270	19	47	250330	18	42
016531	25	29	182100	23	6	210330	19	48	250370	18	37
018710	25	34	182110	23	6	210390	19	49	250430	18	42
018850	22	10	182230	15	2	210400	19	49	250480	18	37
018850	25	30	182230	16	3	210650	19	50	250560	18	44
018860	22	11	182870	15	1A	210680	19	59	250580	18	44
020730	25	32	182870	15	1	210690	19	51	250610	22	4A
020740	25	33	182880	15	4	210700	19	52	250610	23	9
021530	18	28	182890	15	12	210890	19	53	250630	19	58
021630	22	2	182890	16	15	213140	20	3	250640	19	58
021990	26		182900	15	9	213150	20	3	250650	20	1
022000	26		182900	16	7	214570	15	18	250660	20	1
022010	26		182930	15	8	219620	22	19A	250670	20	1
022020	26		182940	15	7	219620	23	7	250960	25	19
030420	25	5	182950	15	3	220860	19	56	251120	19	77
035420	22	3	182960	15	6	224400	19	5	251130	19	77
035420	25	37	182970	15	5	235700	21	11	251300	25	18
036730	19	73	182980	15	1	236580	21	12	252500	19	81
036730	22	14	183000	26		237390	21	5	252510	19	81
038560	18	22	183120	26		237400	21	14	253860	18	13
039950	18	30	183190	15	14	240110	16	5	253870	18	13
043121	26		183210	15	13	240130	16	9	254140	24	1
043161	26		183220	15	13	240140	16	6	254320	19	74
1070034	18	45	189720	19	66	240150	16	8	254320	22	20
1070034	22	16	189730	19	66	242290	19	62	254330	19	82
1107389	18	32	189740	21	26	242300	19	62	254340	19	54
119641	18	15C	189750	21	3A	243530	19	59	254350	18	9
147150	25	9	189760	21	30	243540	19	59	254390	19	54
156510	18	38	196730	15	7	243580	19	61	254470	19	53
162930	18	39	196730	16	4	243590	19	61	254680	19	76
163770	18	40	196740	15	4	243640	23	5	254680	22	21
164420	22	17	196740	16	2	243650	19	60	254730	19	75
164420	23	17	196750	15	6	243660	19	60	254730	22	1A
167160	18	41	196760	15	5	244230	19	84	254740	22	5A
167330	19	70	196770	15	3	244240	19	85	255320	18	41
1757903	22	18A	196770	16	10	244250	19	86	257160	22	-
1757903	23	17	196780	15	11	244260	19	87	273700	22	5
1758209	22	2A	196790	15	10	244280	19	88	273710	22	1
1758209	23	13	196840	15	13	247650	26		273720	22	-
1765302	24	4	196850	15	14	248970	25	14	273730	22	19

# PARTIAL INDEX

PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY	PART NUMBER	PAGE	KEY
273740	22	18	R41830	24	2	R67299	21	7			
340050	15	18	R42340	18	7	R67299	21	30			
340050	16	20	R42360	18	7	R67301	21	8			
340060	15	19	R42650	24	1	R67302	21	9			
340060	16	21	R42870	18	7	R67303	21	10			
340080	16	17	R45220	18	16	R67305	21	13			
340090	16	16	R45310	18	7	R67307	21	25			
340100	16	1	R45400	20	2	R67308	21	26			
340120	16	11	R45400	20	3	R67309	21	15			
340160	16	13	R45420	20	2	R67310	21	16			
340190	16	14	R45420	20	3	R67311	21	17			
340200	16	18	R45450	20	2	R67312	21	18			
340210	16	19	R48340	20	3	R67313	21	18			
962500	19	90	R48350	20	3	R67314	21	19			
990680	25	11	R60428	23	2	R67315	21	20			
E150004	24	5	R60429	23	3	R67316	21	21			
I102467H	19	91	R60589	18	10	R67317	21	27			
I493166R1	19	69	R60608	18	8	R67318	21	27			
I602958R91	22	9A	R60636	18	9	R67319	21	28			
I602958R91	23	8	R60636	25	20						
I651814R1	22	10A	R61055	18	10						
I651814R1	23	12	R61567	19	94						
I651817R1	22	11A	R62891	18	14						
I651817R1	23	10	R64368	18	10						
R16260	18	13	R64451	18	16						
R37960	18	2	R64469	18	15B						
R39520	24	1	R64470	18	15A						
R40140	20	2	R64473	18	15A						
R40141	20	2	R64476	18	15A						
R40290	18	3	R64622	18	16						
R40330	19	61	R64761	18	6						
R40340	18	4	R64765	18	4						
R40440	23	1	R65108	19	62						
R40741	18	5	R66250	18	13						
R40750	18	6	R66251	18	2						
R41170	19	61	R66305	18	28A						
R41180	18	6	R66580	21	22						
R41190	19	62	R66581	21	23						
R41650	19	96	R67020	18	17						
R41650	20	6	R67294	21	1						
R41660	19	97	R67295	21	3A						
R41660	20	7	R67295	21	3						
R41810	24	3	R67296	21	4						
R41820	24	4	R67298	21	6						



5  
1  
2



3  
4  
5





## Quality Manufacturers of:

- **SupRaMix®** - forage vertical tub mixer  
425, 500 or 710 cu. ft. capacity
- **Portable Mixer-Processor**  
105 bushel with 20" hammer Mill or 150 bushel with 26" Hammer Mill.
- **CATTLEMAXX - Cattle Processing**  
105 bushel or 150 bushel with 20" Roller Mill for cattle applications.
- **Hammer Mills**  
26" electrically or PTO driven mills.
- **Roller Mills**  
10", 20", 30" or 36" PTO or electrically driven mills.
- **SCALE SYSTEMS**  
Electronic weighing equipment — from basic weighing to a computerized system.  
Platform Scales  
Universal Scales  
Small Animal Scales  
Mounting Scales  
Scale Accessories  
Indicators, single ingredient & Batching
- **UFT Grain Drills**  
10', 12', 15' or 30' seeding width.
- **UFT High Dump Wagons**
- **Speedy Edible Bean Equipment**  
Bean cutters and windrowers.
- **Finishing Mowers**  
60" or 72" Mid-Mount Mowers
- **Eversman Ditchers**  
43" to 84" ditch width.  
20" to 33" ditch depth.
- **Eversman Land Planes**  
16', 20' or 24' blade widths.
- **Agricultural Graders**  
Landstar 12' or 14' widths.
- **Sugar Beet Defoliators**  
4 to 12 row defoliators with different row spacings. Optional hydraulic or mechanical scalpers.
- **Sugar Beet Harvesters**  
4 to 8 row harvesters with different row spacings.
- **MEGA tater**  
4-row potato harvester.
- **LOGAN - Potato Equipment**  
Potato Harvesters, Potato Planters, Windrowers and Bulk Boxes.
- **Art's-Way/UFT Flail Shredders**  
Various cutting widths.

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

P.O. Box 288, Highway 9 West • Armstrong, Iowa 50514-0288  
Phone: (712) 864-3131 • Fax: (712) 864-3154