

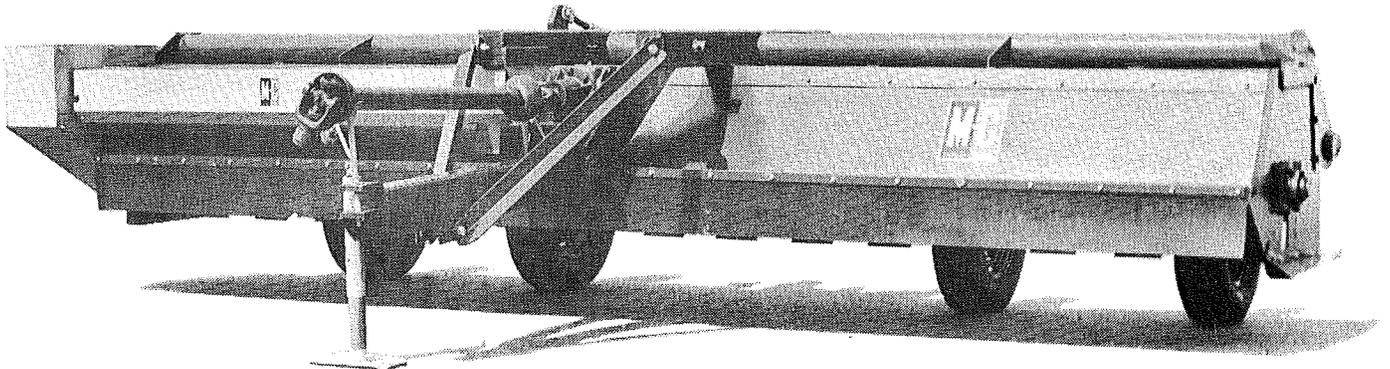


# SHREDDER

## ASSEMBLY- OPERATION AND MAINTENANCE INSTRUCTIONS

### MODELS

**144SB      180SB**  
**144SS      180SS**



**Serial Numbers 35995 thru 36854**

**MATHEWS COMPANY** ● BOX 70, CRYSTAL LAKE, IL 60014 ● U.S.A.

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# Supplement

to  
**Operator's Manual Dated 11-79**  
 for  
**Model 144SS, 144SB, 180SS & 180SB**  
**Serial No. 35995 thru 36854**

1. **Page 5** - Change part number for ref. 2 to 111 0129, change part number for ref. 3 to 111 0128.
2. **Page 11** - Replace with new page.
3. **Stone Guard** - Kit part numbers (for field installations).  
 Model 144 - 112 9022  
 Model 180 - 112 9023

Kits consist of the following:

Part No.	Quantity		Description
	144	180	
111 4456	2	0	Stone Guard
111 4457	0	2	Stone Guard
111 5716	2	0	Stone Guard Flap
111 5715	0	2	Stone Guard Flap
111 2050	2	0	Retaining Strip
111 2051	0	2	Retaining Strip
111 3485	4	6	Stone Guard Support
000 8121	34	34	$\frac{3}{8}$ -16 x 1" Hex-Hd. Capscrew
000 8119	22	22	$\frac{3}{8}$ -16 x $\frac{3}{4}$ " Hex-Hd. Capscrew
000 8174	12	12	$\frac{3}{8}$ " Flatwasher
001 8149	56	56	$\frac{3}{8}$ -16 Two Way Locknut

**Mathews Company /** P.O. Box 70  
 Crystal Lake, IL 60014  
 815/459-2210


**Iron Horse Quality**

# PARTS LIST

REF.	PART #	QTY.	DESCRIPTION	REF.	PART #	QTY.	DESCRIPTION
1	1110118	1	180 Body Weldment	44	1116211	1	2-3/16" ID "E" Bushing
	1110137	1	144 Body Weldment	45	1116208	1	5V/10.3 6-GRV. "E" Sheave
2	1111040	1	144SB Rotor Assembly (see page 8)	46	1111028	1	Idler Assembly (see page 6)
	1111039	1	144SS Rotor Assembly (see page 8)	47	1115442	1	Spring Spacer
*	1111031	1	180SB Rotor Assembly (see page 8)	48	1418979	1	Spring
	1111032	1	180SS Rotor Assembly (see page 8)	49	1110115	1	Idler Pivot Weldment
3	1115182	4	Nut Bar	50	0918231	1	1-8 Hex Nut
4	1115709	4	Anti-Wrap Half	51	1110127	1	Spring Retainer Weldment
5	1116003	2	2-3/16" 4-Bolt Flange Bearing	52	1115713	1	1-8 x 36" Threaded Rod
6	0918170	8	5/8-11 x 1 3/4" HHCS NYLK #5	53	1114768	1	Belt Guard Cover
	0008181	8	5/8" Lockwasher	54	0008106	8	5/16-18 x 3/4" HHCS
7	1110125	1	180 Axle Weldment		0008173	8	5/16" Flatwasher
	1110126	1	144 Axle Weldment		0018111	8	Tinnerman Nut Retainer
8	0008123	2	3/8-16 x 1 1/4" HHCS	55	0916608	1	Gearbox #A76 Assy #2723 (see pg. 10)
	0008174	2	3/8" Flatwasher	56	0918170	4	5/8-11 x 1 3/4" HHCS NYLK #5
	0008168	2	3/8-16" Flange Whiz Locknut		0008181	4	5/8" Lockwasher
9	1113760	1	Ram Arm	57	8047	1	Gearbox Input Shaft Guard Weld.
10	0008230	3	Ram Pin	58	0018314	1	Safety Decal - "Caution"
11	0008250	6	1" Ram Pin Snap ring	59	0008145	2	5/8-11 x 1 1/4" HHCS
12	0018985	1	Mechanical Ratchet Jack (Optional)		0008181	2	5/8" Lockwasher
13	1110117	1	Right Axle Mount Weldment		0008176	2	5/8" Flatwasher
14	1410018	1	Left Axle Mount Weldment	60	1116610	1	PTO Shaft 1000 RPM (see pg. 9)
15	0008137	6	1/2-13 x 1 1/4" HHCS	61	1118988	1	LP - Universal Joint
	0008180	6	1/2" Lockwasher	62	1110134	1	Output Drive Shaft Weldment - 180
	0008163	6	1/2-13" Hex Nut		1110143	1	Output Drive Shaft Weldment - 144
16	1110109	1	Left Skid Weldment	63	1114786	1	Outboard Drive Shaft Guard - 180
17	1110108	1	Right Skid Weldment		1114785	1	Outboard Drive Shaft Guard - 144
18	0008121	8	3/8-16 x 1" HHCS	64	0018315	1	Safety Decal - "Warning"
	0008168	8	3/8-16" Flange Whiz Locknut	65	0008134	4	3/8-16 x 3/4" Truss Head Screw
19	1110124	2	180 Front Cover Weldment		0008168	4	3/8-16" Flange Whiz Locknut
	1410033	1	144 Front Cover Weldment	66	1110128	1	Pole Support Angle Weld. - (Right)
20	1114446	1	Front Cover Splice	67	1110129	1	Pole Support Angle Weld. - (Left)
21	0018302	1	8-3/16 x 9" M-C Decal	68	1288195	4	3/4-10 x 2" HHCS - Grade #5
22	0008119	31	3/8-16 x 3/4" HHCS		0008182	4	3/4" Lockwasher
	0008168	31	3/8-16" Flange Whiz Locknut		0008165	4	3/4-10" Hex Nut
23	1110131	1	Right Stone Guard Weldment - 180	69	1111041	4	Wheel Mount Ass'y. (see page 7)
24	1110133	1	Center Stone Guard Weldment - 180	70	1113590	4	Wheel Mount Clamp (see page 7)
25	1110132	1	Left Stone Guard Weldment - 180	71	0018993	4	15" 5-Bolt Rim (see page 7)
	1110140	2	Stone Guard Weldment - 144	72	0008999	4	5.90 x 15" Tire & Tube
26	1114447	2	Stone Guard Splice	73	0018989	20	1/2-20" NF 45 Degree Lug Nut
27	0008119	22	3/8-16 x 3/4" HHCS	74	1288172	16	5/8-11 x 2 1/2" HHCS Grade #5
	0008168	22	3/8-16" Flange Whiz Locknut		0008181	16	5/8" Lockwasher
28	1115714	2	Rubber Stone Guard - 180		0008164	16	5/8-11" Hex Nut
	1415710	2	Rubber Stone Guard - 144	75	1113679	1	Heavy Duty Disc. Hitch
29	1113382	2	Flap Mounting Bar - 180	76	1288195	2	3/4-10 x 2" HHCS Grade #5
	1113361	2	Flap Mounting Bar - 144		0008182	2	3/4" Lockwasher
30	0008119	22	3/8-16 x 3/4" HHCS		0008165	3	3/4-10" Hex Nut
	0008168	22	3/8-16" Flange Whiz Locknut	77	1110119	1	Axle Center Bearing Weldment
31	1110105	1	Pole Weldment	78	0008123	2	3/8-16 x 1 1/4" HHCS
32	1111035	1	Pole Pin Assembly		0008174	2	3/8" Flatwasher
33	0008994	2	Klik Pin		0008168	2	3/8-16" Flange Whiz Locknut
34	1418997	1	Pole Jack	79	1111037	1	Stop Pin Assembly
35	0916001	1	Pillow Block Bearing 1 3/4"	80	0018303	1	Decal - R & Y M-C Arrow
36	0008278	2	1/2-13 x 1 3/4" HHCS Grade #5	81	1114787	1	Outboard Drive Shaft Guard Extension
	0018257	4	1/2" S.A.E. Flatwasher				
	0008180	2	1/2" Lockwasher	82	0008104	2	5/6-18 x 3/4" Slotted Truss Head
	0008163	2	1/2-13" Hex Nut		0008169	2	5/16-18" Flange Whiz Locknut
37	1114781	1	Belt Guard - Bottom	83	1113483	2	180 Shredder Cutter Bars
38	1114779	1	Belt Guard - Back		0003470	2	144 Shredder Cutter Bars
39	1114780	1	Belt Guard - Top	84	0008137	12	1/2-13 x 1 1/4" HHCS
40	1110116	1	Pivot Support Weldment		0008175	12	1/2" Flatwasher
41	1116202	1	5V/10.9 6 GRV. "E" Sheave		0008180	12	1/2" Lockwasher
42	1116205	1	1 3/4" ID "E" Bushing		0008163	12	1/2-13" Hex Nut
43	1116101	1	3/5V800 Matched Set of 2 Banded Belts	85	1273404	2	Gearbox Mount Stiffener

\*Shown in Illustration.

# ASSEMBLY AND MAINTENANCE INSTRUCTIONS

Place the Shredder Body Assembly on blocking so that it sets approximately 6" to 10" above the ground. Mount the tires and wheels to the Wheel Mount Weldment (Figure 1). Determine the desired wheel spacing for the crop to be cut and place the Wheel Mount Weldment against the axle of the machine. Proper alignment with the axle may be obtained by use of the rear Mechanical Ram. Place the Wheel Mount Clamping Bracket in position and bolt securely using the  $\frac{1}{2}$ -13  $\times$  2 $\frac{1}{4}$ " H.H.C.S., nuts and washers provided. Follow the same bolting procedure for the remaining three wheel mounts. Tighten bolts evenly into place.

Place the pole end into the space under the gearbox and pin into place with the 1" clevis pin. Be sure lockpins are installed properly. Next, install the left and right pole support braces using  $\frac{3}{4}$ -10  $\times$  2 H.H.C.S. These support angles can be adjusted front to rear on the pole for increased cutting height in conjunction with the axle ram.

Install PTO shaft to gearbox and secure with  $\frac{5}{8}$ -11  $\times$  2 $\frac{3}{4}$  H.H.C.S. Slip round universal guard over PTO shaft and secure to gearbox case.

## LUBRICATION

Check oil level in gearbox. Use No. 90 gear lube. Oil level should be up to oil level plug at side of gearbox. All points should be lubricated once a day if machine is getting constant use. A hard grease gun is best because there will be less tendency to break the seals in the bearings by forcing too much grease into them. Use grease sparingly and just give it enough to do the job. When you put the machine away at the end of the season, fill the bearings with grease to eliminate any cavities where condensation may occur.

## CUTTING HEIGHT ADJUSTMENT

Cutting Height Adjustment is made by cranking the mechanical ram, or by using a hydraulic cylinder in place of the rear mechanical ram, such as used on a plow. A hydraulic cylinder is desirable in rocky fields, especially if you see a rock you can raise the machine up and over. It is best, however, to stop and pick up the rocks.

## TRACTOR GROUND SPEED AND POWER TAKE OFF SPEED

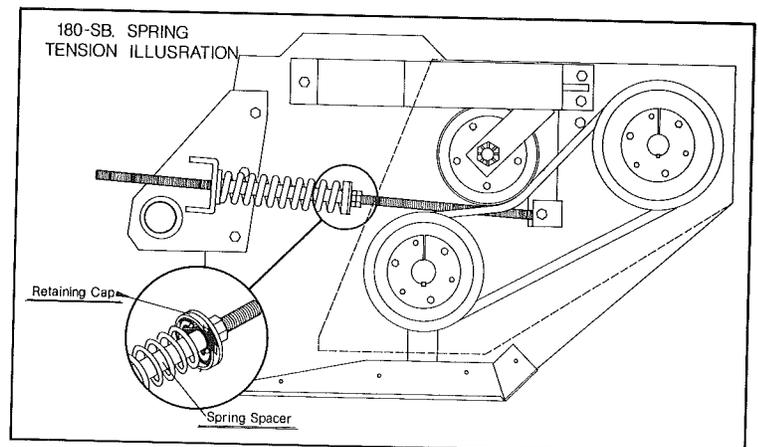
Operating with a Power Take-Off speed of 1000 RPM and with a ground speed of from three to six miles per hour, you may shred heavy crops provided you have power available. Horsepower requirements vary with the weight of crop and the type of shredding. Horsepower is reduced by traveling at a slower forward speed. The right combination of power take-off speed and ground speed will produce the best results.

## BREAKING-IN PERIOD

It takes approximately 10 to 15 acres of shredding to get the inside of the machine and the blades polished to get the best performance. As the machine works in, performance will get better. After the machine has been operated a few hours, check all nuts and bolts to make sure they are tight. Also check knife bolts to be sure they are tight.

## MAINTENANCE OF SHREDDER BLADES

The shredder blades will last a long time with only occasional sharpening. It is important to check the blades occasionally to get good shredding action. The blades are eccentrically pivoted to the rotor shaft so that when they cut into the stalk, they swing freely. When replacing blades to the hangers, be sure the whole blade assembly swings free. Be sure to tighten all bolts. **NOTE:** When sharpening blades, try to maintain original angle of cutting edge as close as possible.



**NOTE: TO ASSURE PROPER TENSION, RETAINING CAP MUST BE TIGHT AGAINST SPRING SPACER AS ILLUSTRATED.**

## MAINTENANCE OF BELT DRIVE AND SHEAVES

The 15 foot shredder is equipped with a powerband belt drive. The preceding instructions should be followed to insure maximum belt and sheave life.

- A. Belt tension has been pre-set at the factory. However, after machine has been in use approximately 10 to 20 hrs., remove belt guard cover and inspect for proper tension. Belt tension should be set so that there is no slippage under load, but not overtightened.
- B. Keep belt guard box free of dirt and debris. Inspect daily.

# SURE-GRIP® BUSHINGS

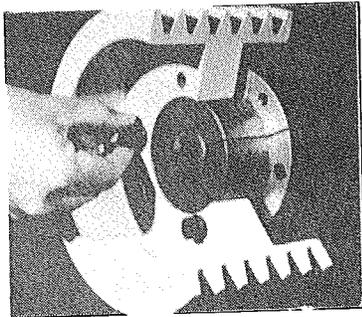
## 4-WAY MOUNTING

### THERE ARE NO PROBLEM INSTALLATIONS WITH WOOD'S SURE-GRIP 4-WAY MOUNTING

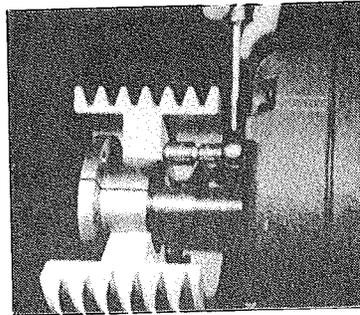
Sure-Grip bushings permit Wood's mating parts to be mounted in four different ways, as shown in the photographs. The bushing flange can be turned either toward or away from the motor, and the cap screws can be inserted from either side in the

"standard" way (cap screws through mating part into bushing) or in "reverse" (cap screws through bushing into mating part). This 4-way mounting flexibility eliminates the need of ordering "specials" for problem installations.

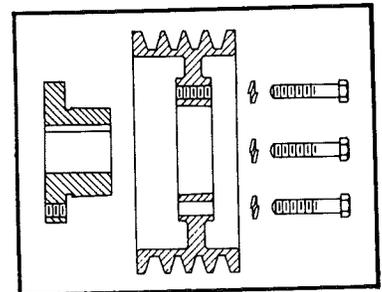
## STANDARD MOUNTING



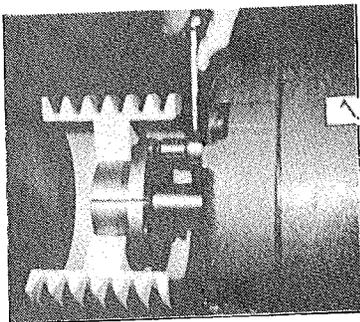
1. Cap screws from outside through mating part and into bushing flange.



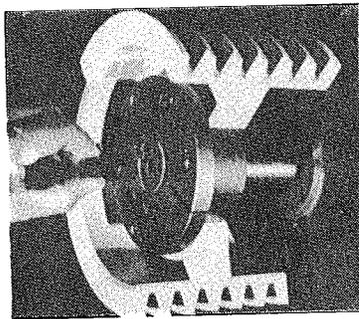
2. Cap screws from inside through mating part and into bushing flange.



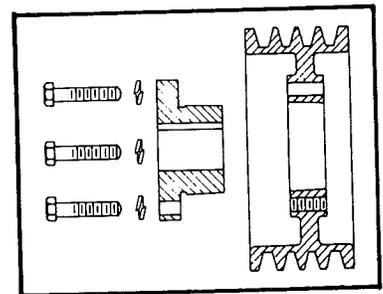
## REVERSE MOUNTING



3. Cap screws from inside through bushing flange and into mating part.



4. Cap screws from outside through bushing flange and into mating part.



# SURE-GRIP® BUSHINGS

## Installation Instructions

### TO REMOVE:

1. Thoroughly inspect the bore of the mating part and the tapered surface of the bushing. Any paint, dirt, oil or grease must be removed.

### IMPORTANT: DO NOT USE LUBRICANTS IN THIS INSTALLATION

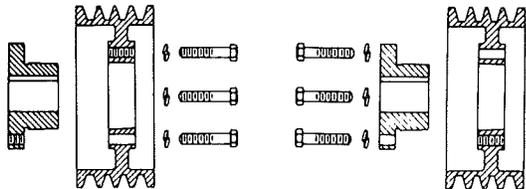


Fig. 1 Standard Mounting

Fig. 2 Reverse Mounting

2. Assemble bushing into mating part as illustrated in Fig. 1 or 2. (Since either the standard or the reverse mounting assembly can be rotated so that the bushing flange is toward or away from the motor, four ways of mounting are obtainable.) Loosely insert the cap screws into assembly, but do not lubricate cap screw threads. (Note: Install M thru S bushings in the hub so that the two extra holes in the hub are located as far as possible from the bushing's saw cut.)
3. With key in keyseat of shaft, slide assembly to its desired position with cap screw heads to the outside, Fig. 3. (A few small sheaves may have to be installed with the cap screws on the inside.) If it is difficult to slide the bushing onto the shaft, wedge a screwdriver blade into the saw cut to overcome the tightness.

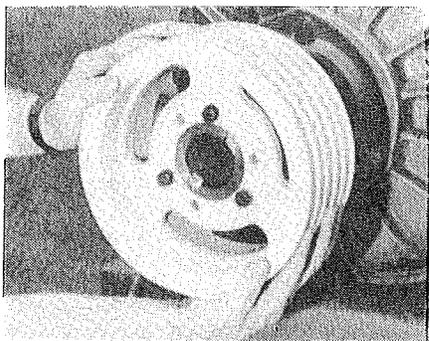


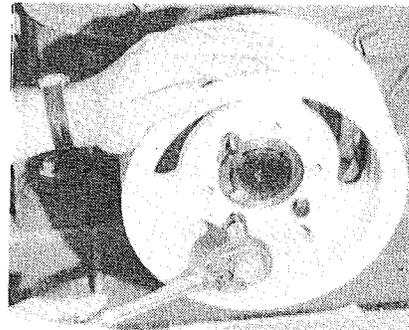
Fig. 3

4. Line up assembly so that belts, when installed, will be in alignment. Tighten cap screws evenly and progressively. Apply the recommended torque to cap screws as listed in the table right. There should be 1/8 in. to 1/4 in. gap between the mating part hub and the bushing flange. If gap is closed, the shaft is seriously undersize.

### TO INSTALL:

1. Loosen and remove cap screws.

Fig. 4



2. Insert cap screws (three in JA through J bushings, two in M through S bushings) in tapped removal holes and progressively tighten each one until mating part is loose on bushing, Fig. 4. (Exception: If mating part is installed with cap screw heads next to motor, with insufficient room to insert screws in tapped holes, loosen cap screws and use wedge between bushing flange and mating part.)

3. Remove mating part from bushing and, if necessary, bushing from shaft. If bushing won't slip off shaft, wedge screwdriver blade in saw cut to overcome tightness. See Fig. 5.

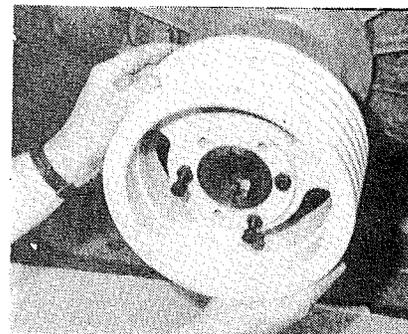


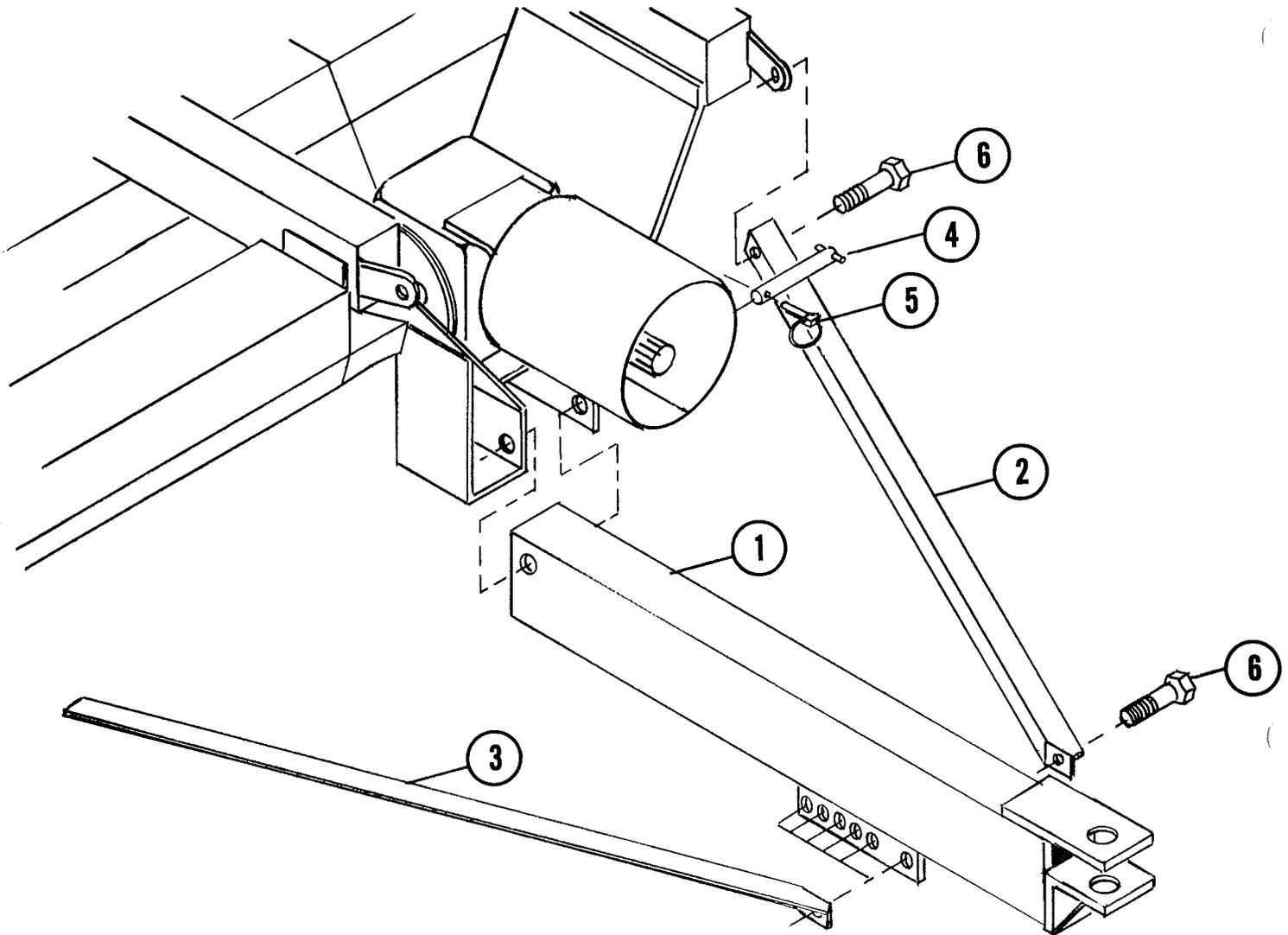
Fig. 5

### SURE-GRIP BUSHINGS SCREW TIGHTENING INFORMATION

Tapered Bushing	Size & Thread of Cap Screw	Ft.-Lbs. To Apply With Torque Wrench
JA	No. 10—24	5
SH—SDS—SD	1/4—20	9
SK	5/16—18	15
SF	3/8—16	30
E	1/2—13	60
F	9/16—12	75
J	5/8—11	135
M	3/4—10	225
N	7/8—9	300
P	1—8	450
W	1 1/8—7	600
S	1 1/4—7	750

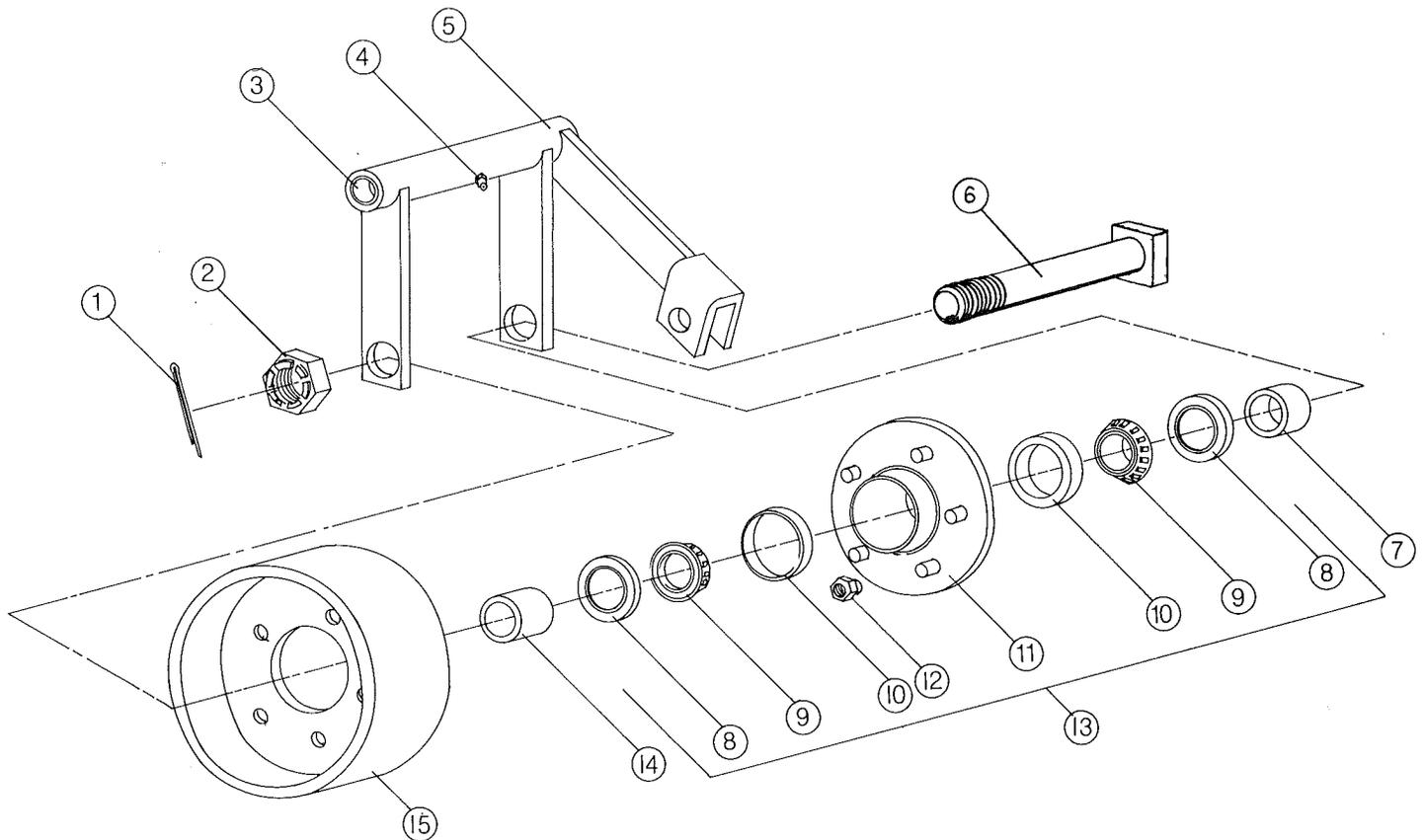
**CAUTION:** The tightening force on the screws is multiplied many times by the wedging action of the tapered surface. If extreme tightening force is applied, or if a lubricant is used, bursting pressures will be created in the hub of the mating part.

# POLE ASSEMBLY ILLUSTRATION



REF.	PART #	DESCRIPTION
1	1110105	Pole Weldment
2	1110128	Support Angle Left
3	1110129	Support Angle Right
4	1111035	Pole Pin Assembly
5	0008994	Klik Pin (1/4" Diameter Pin)
6	1288195	3/4-10 x 2" HHCS Grade #5
	0008182	3/4" Lockwasher
	0008165	3/4-10" Hex Nut

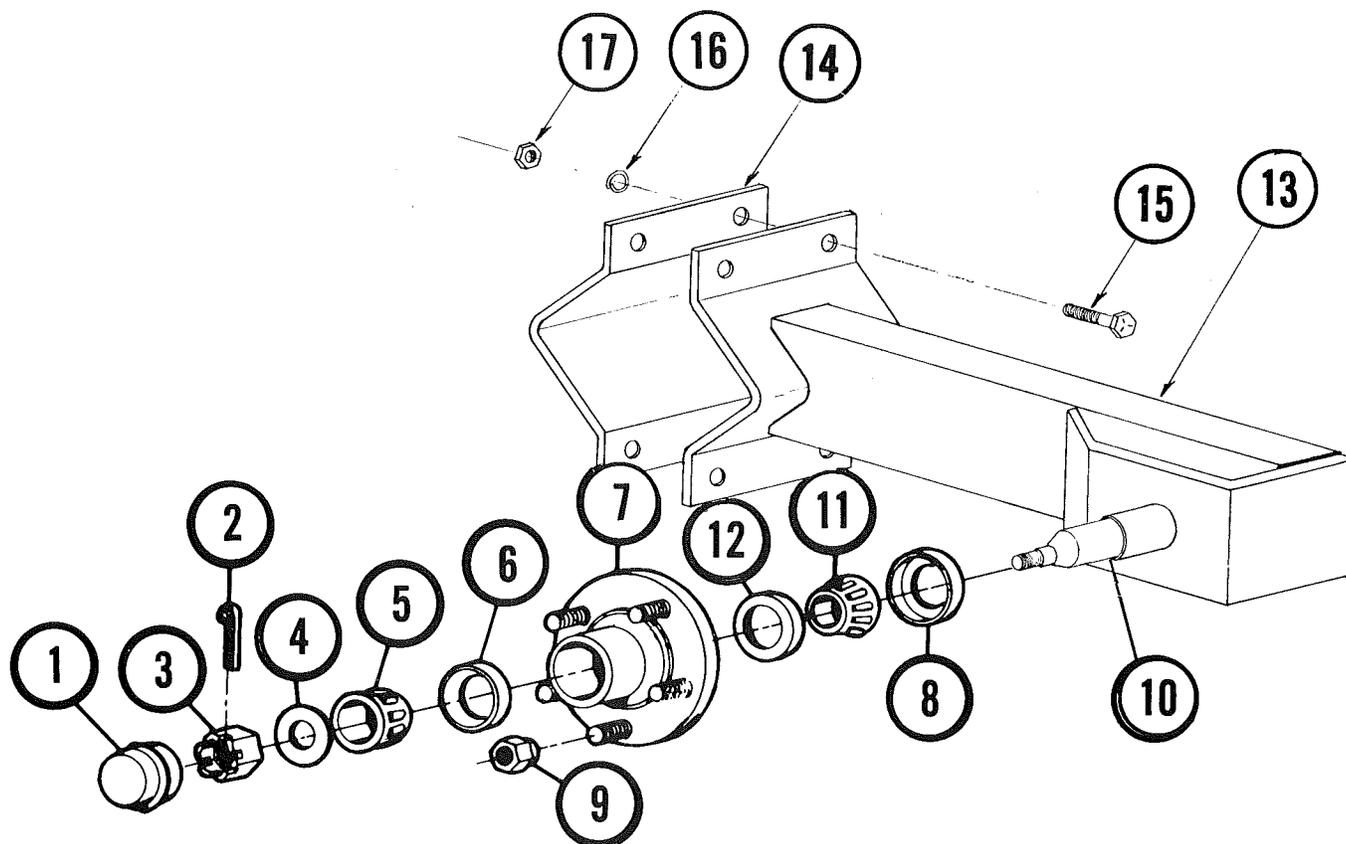
# IDLER ASSEMBLY #1111028



REF.	PART #	QTY.	DESCRIPTION
1	0008255	1	1/4 x 2" Cotter Pin
2	1118252	1	1 3/8 - 12 Castle Nut
3	1286017	2	Oilite Bushing
4	0016604	1	90° Zerk Fitting
5	1111029	1	Idler Rocker Arm Assembly (includes 2 of item #3)
6	1110145	1	Idler Bolt 1 3/8 x 7 1/2
7	1115623	1	Idler Inboard Spacer
8	1126000	2	Seal
9	1126002	2	Cone
10	1126001	2	Bearing Cup
11	1128999	1	5 Bolt Hub Assembly (includes 2 item #10, and 5 studs)
12	0018989	5	1/2- 20 N.F. Lug Nut 90°
13	1118986	1	5-Bolt Hub Assembly
14	1115624	1	Idler Outboard Side Spacer
15	1115710	1	Idler

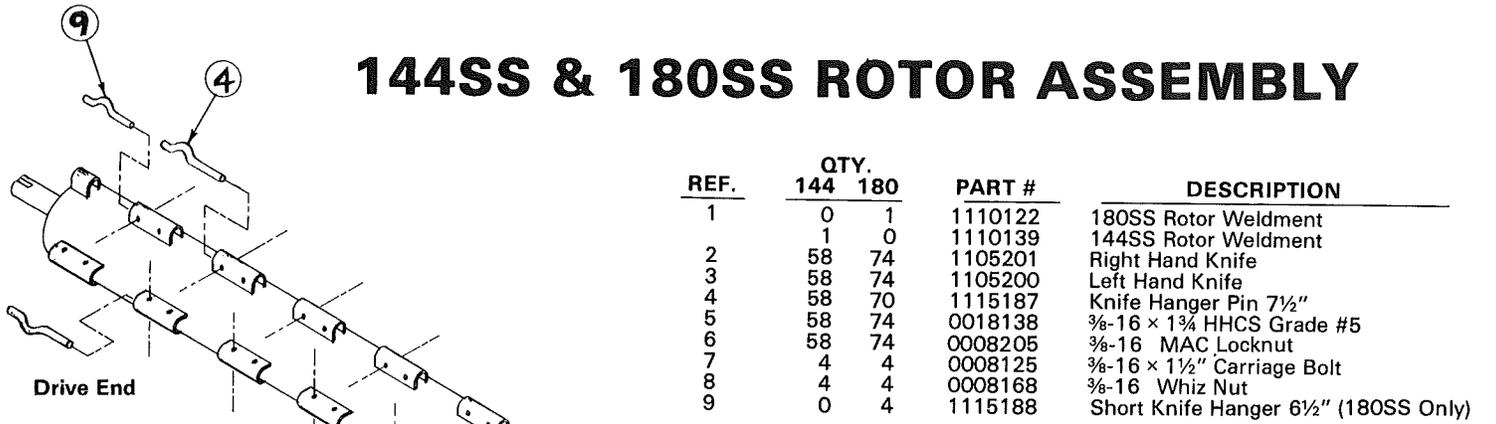
# WHEEL HUB ILLUSTRATION

## ASSEMBLY #1111041

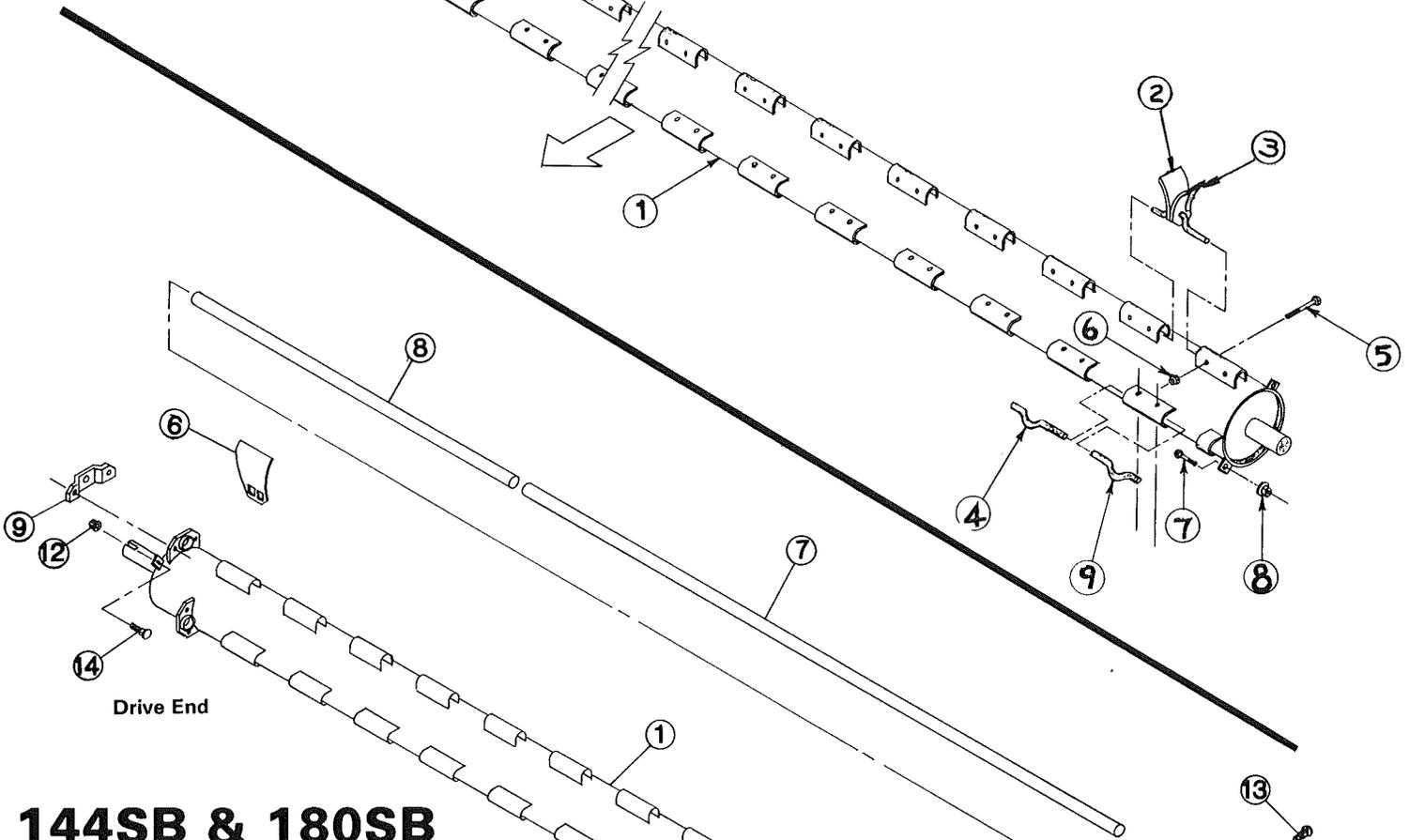


REF.	PART #	DESCRIPTION
1	0018996	Hub Cap
2	0018252	1/8 x 1" Cotter Pin
3	0018253	Spindle Nut
4	0018254	Spindle Washer
5	0016000	Bearing Cone (Outer)
6	0026000	Bearing Cup (Outer)
7	0018992	Wheel Hub Assembly — 5-Bolt, Includes Cups, Hub & Studs
8	0018991	Seal
9	0018989	1/2-20 NF Lug Nut 90°
10	0018990	Spindle Only—Must Be Welded In
11	0016001	Bearing Cone (Inner)
12	0026001	Bearing Cup (Inner)
13	1110130	Wheel Mount Weldment w/Spindle
x 14	1113590	Wheel Mount Clamp —
15	1288172	5/8-11 x 2 1/2" HHCS - Grade #5
16	0008181	5/8" Lockwasher
17	0008164	5/8-11" Hex Nut

# 144SS & 180SS ROTOR ASSEMBLY

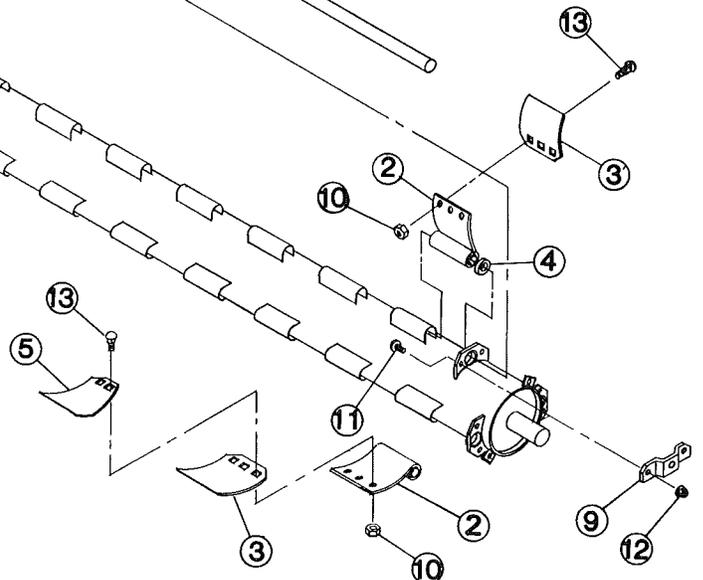


REF.	QTY.		PART #	DESCRIPTION
	144	180		
1	0	1	1110122	180SS Rotor Weldment
	1	0	1110139	144SS Rotor Weldment
2	58	74	1105201	Right Hand Knife
3	58	74	1105200	Left Hand Knife
4	58	70	1115187	Knife Hanger Pin 7½"
5	58	74	0018138	¾-16 × 1¾ HHCS Grade #5
6	58	74	0008205	¾-16 MAC Locknut
7	4	4	0008125	¾-16 × 1½" Carriage Bolt
8	4	4	0008168	¾-16 Whiz Nut
9	0	4	1115188	Short Knife Hanger 6½" (180SS Only)



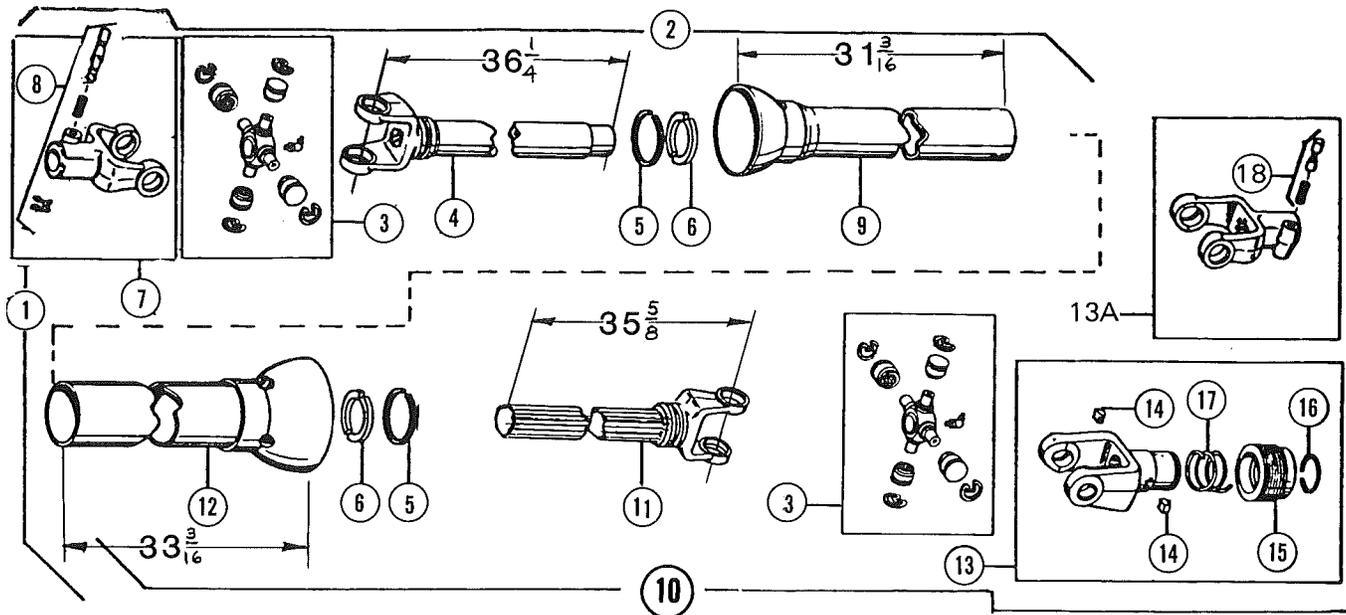
# 144SB & 180SB ROTOR ASSEMBLY

REF.	QTY.		PART #	DESCRIPTION
	144	180		
1	0	1	1110121	180SB Rotor Weldment
	1	0	1110138	144SB Rotor Weldment
2	48	60	1115200	Wide Blade Hanger (8" Rotor)
3	48	60	0015208	Heavy Duty Knife Blade
4	8	8	6524	Spacer
5	2	2	0015211	Heavy Duty End Knife - Left
6	2	2	0015212	Heavy Duty End Knife - Right
7	0	4	1118984	Rotor Hanger Bar - 102"
8	0	4	1118983	Rotor Hanger Bar - 67¼"
9	4	0	0018975	Rotor Hanger Bar - 134½"
10	144	180	0018149	¾-16 2-Way Locknut
11	16	16	0008134	¾-16 × ¾" Truss Head
12	20	20	0008168	¾-16" Whiz Nut
18	144	180	0018131	¾-16 × ¾" Knife Carriage Bolt
14	4	4	0008125	¾-16 × 1½" Carriage Bolt



# UNIVERSAL JOINT & TELESCOPING SHAFT ASSEMBLY WITH QUICK DETACHABLE FREE-WHEELING GUARDS

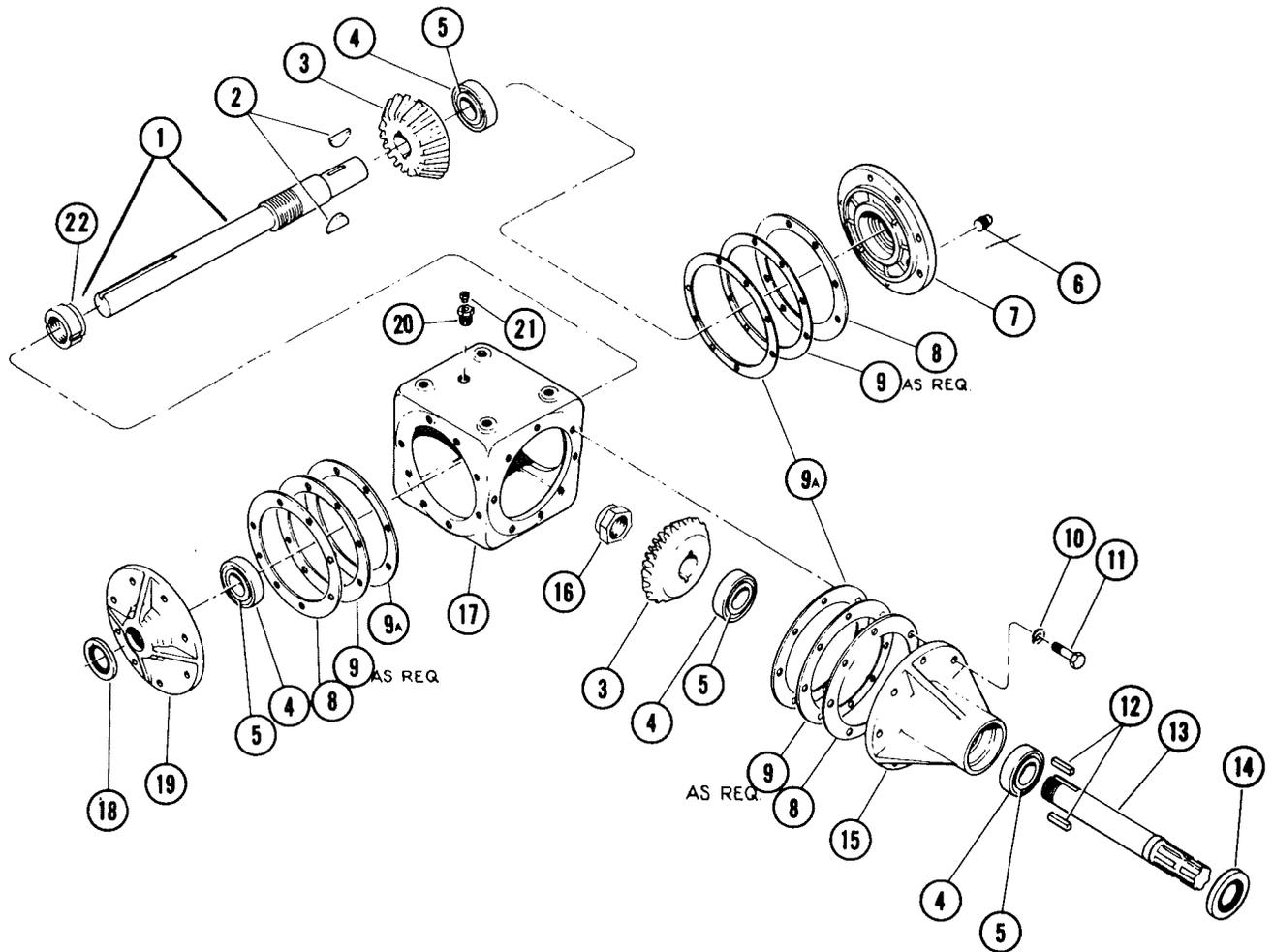
## ASSEMBLY #1116610



REF.	PART #	DESCRIPTION
1	1116610	L55 Universal Joint & Telescoping Shaft Assembly w/QDFWG. 1 $\frac{3}{4}$ -6B Spline Gearbox End
2	1126649	Joint & Spline Tube with QDFWG 1 $\frac{3}{4}$ 6B Spline (Machine End)
3	0026633	Repair Kit
4	1426641	Yoke and Spline Tube
5	0926692	Bearing Retainer
6	0926693	Nylon Bearing
7	0026686	QD Yoke Assembly (1 $\frac{3}{4}$ -6B)
8	0026684	Saf-T-Pin & Spring Kit 1 $\frac{3}{4}$ - 6B Spline
9	1426602	Male Guard Tube
10	1426612	Joint & Spline Shaft w/QDFWG 1 $\frac{3}{8}$ -21 Spline Yoke (Tractor End)
11	1426614	Yoke and Spline Shaft
12	1426613	Female Guard Tube
13	0026674	Safety Slide Lock Yoke - 1 $\frac{3}{8}$ -21 Spline
13A	1436600	Yoke Assembly - 1 $\frac{3}{4}$ -20 Spline
14	0026632	Pawl
15	0026631	Collar
16	0026655	Retaining Ring
17	0026630	Spring
18	1426648	Saf-T-Pin and Spring Kit 1 $\frac{3}{4}$ -20 Spline

# GEAR BOX ILLUSTRATION

## Complete Assembly Part Number 0916608

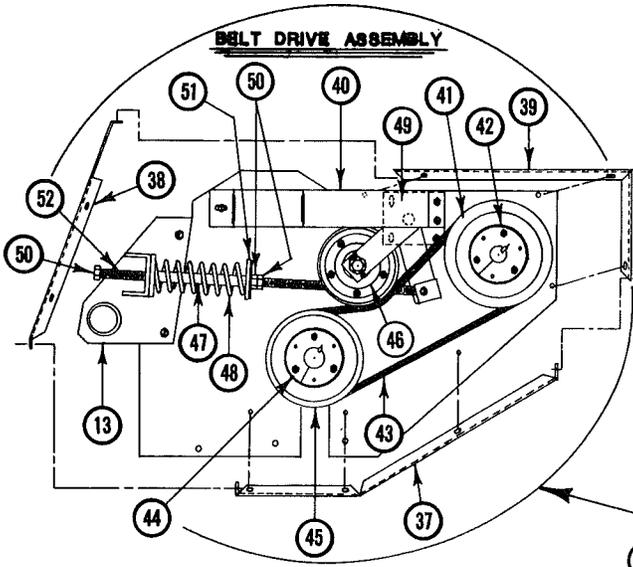


REF.	PART #	DESCRIPTION	REF.	PART #	DESCRIPTION
1	0926621	Output Shaft, Gearbox w/Stake Nut	12	0018969	Key $\frac{3}{8} \times \frac{3}{8} \times 1\frac{1}{8}$ " (Hard)
2	0018988	Woodruff Key $\frac{3}{8} \times 1\frac{1}{2}$ " (Hard)	13	0026638	Input Shaft
3	0026500	Bevel Gear	14	0026639	Grease Seal
4	0026010	Bearing Cup	15	0027656	Hub
5	0026011	Bearing Cone	16	0026668	Stake Nut
6	0028000	Oil Level Plug	17	0027654	Gear Housing
7	0027655	Cover, Solid Gearbox	18	0026667	Grease Seal
8	0026636	Shim .005" Thick	19	0027657	Cover Gearbox Output
9	0026637	Shim .010" Thick	20	0026678	Bushing - $\frac{3}{8}$ " to $\frac{1}{8}$ " - N.P.T.
9A	0926609	Gasket - $\frac{1}{32}$ " Thick	21	0026677	Vent - $\frac{1}{8}$ " - N.P.T.
10	0008180	$\frac{1}{2}$ " Lockwasher	22	1128252	Stake Nut - Only
11	0018261	$\frac{1}{2}$ -13 $\times$ $1\frac{1}{2}$ " Hex Bolt			

# PARTS LIST

REF.	PART #	QTY.	DESCRIPTION	REF.	PART #	QTY.	DESCRIPTION
1	1110118	1	180 Body Weldment	45	1116208	1	5V/10.3 6-Groove Sheave
	1110137	1	144 Body Weldment	46	1111028	1	Idler Assembly (See Page 6)
2	1111040	1	144SB Rotor Assembly (See Page 8)	47	1115442	1	Spring Spacer
	1111039	1	144SS Rotor Assembly (See Page 8)	48	1418979	1	Spring
*	1111031	1	180SB Rotor Assembly (See Page 8)	49	1110115	1	Idler Pivot Weldment
	1111032	1	180SS Rotor Assembly (See Page 8)	50	0918231	1	1/8" Hex Nut
3	1115182	4	Nut Bar	51	1110127	1	Spring Retainer Weldment
4	1115709	4	Anti-Wrap Half	52	1115713	1	1/8 x 36" Threaded Rod
5	1116003	2	2-3/16" 4-Bolt Flange Bearing	53	1114768	1	Belt Guard Cover
6	0918170	8	5/8-11 x 1 3/4" HHCS NYLR #5	54	0008106	8	5/16-18 x 3/4" HHCS
	0008181	8	5/8" Lockwasher		0008173	8	5/16" Flatwasher
7	1110125	1	180 Axle Weldment		0018111	8	Tinnerman Nut Retainer
	1110126	1	144 Axle Weldment	55	0916608	1	Gearbox #A76 Assy #2723 (See Pg. 10)
8	0008123	2	3/8-16 x 1 1/4" HHCS	56	0918170	4	5/8-11 x 1 3/4" HHCS NYLK #5
	0008174	2	3/8" Flatwasher		0008181	4	5/8" Lockwasher
	0008168	2	3/8-16" Flange Whiz Locknut	57	8047	1	Gearbox Input Shaft Guard Weld.
9	1113760	1	Ram Arm	58	0018314	1	Safety Decal - "Caution"
10	0008230	3	Ram Pin	59	0008145	2	5/8-11 x 1 1/4" HHCS
11	0008250	6	1" Ram Pin Snap Ring		0008181	2	5/8" Lockwasher
12	0018985	1	Mechanical Ratchet Jack (Optional)		0008176	2	5/8" Flatwasher
13	1110117	1	Right Axle Mount Weldment	60	1116610	1	PTO Shaft 1000 RPM (See Pg. 9)
14	1410018	1	Left Axle Mount Weldment	61	1118988	1	LP - Universal Joint
15	0008137	6	1/2-13 x 1 1/4" HHCS	62	1110134	1	Output Drive Shaft Weldment - 180
	0008180	6	1/2" Lockwasher		1110143	1	Output Drive Shaft Weldment - 144
	0008163	6	1/2-13" Hex Nut	63	1114786	1	Outboard Drive Shaft Guard - 180
16	1110109	1	Left Skid Weldment		1114785	1	Outboard Drive Shaft Guard - 144
17	1110108	1	Right Skid Weldment	64	0018315	1	Safety Decal - "Warning"
18	0008121	8	3/8-16 x 1" HHCS	65	0008134	4	3/8-16 x 3/4" Truss Head Screw
	0008168	8	3/8-16" Flange Whiz Locknut		0008168	4	3/8-16" Flange Whiz Locknut
19	1110124	2	Front Cover Weldment	66	1110129	1	Pole Support Angle Weld. - (Right)
20	1114446	1	Front Cover Splice	67	1110128	1	Pole Support Angle Weld. - (Left)
21	0018302	1	8-3/16 x 9" M-C Decal	68	1288195	4	3/4-10 x 2" HHCS - Grade #5
22	0008119	31	3/8-16 x 3/4" HHCS		0008182	4	3/4" Lockwasher
	0008168	31	3/8-16" Flange Whiz Locknut		0008165	4	3/4-10" Hex Nut
23	1110131	1	Right Stone Guard Weldment - 180	69	1110138	4	Wheel Mount Weldment (See Page 7)
24	1110133	1	Center Stone Guard Weldment - 180	70	1113590	4	Wheel Mount Clamp (See Page 7)
25	1110132	1	Left Stone Guard Weldment - 180	71	0018993	4	15" 5-Bolt Rim (See Page 7)
	1110140	2	Stone Guard Weldment - 144	72	0008999	4	5.90 x 15" Tire & Tube
26	1114447	2	Stone Guard Splice	73	0018989	20	1/2-20" NF 45 Degree Lug Nut
27	0008119	22	3/8-16 x 3/4" HHCS	74	1288172	16	5/8-11 x 2 1/2" HHCS Grade #5
	0008168	22	3/8-16" Flange Whiz Locknut		0008181	16	5/8" Lockwasher
28	1115714	2	Rubber Stone Guard - 180		0008164	16	5/8-11" Hex Nut
	1415710	2	Rubber Stone Guard - 144	75	1113679	1	Heavy Duty Disc. Hitch
29	1113382	2	Flap Mounting Bar - 180	76	1288195	2	3/4-10 x 2" HHCS Grade #5
	1113361	2	Flap Mounting Bar - 144		0008182	2	3/4" Lockwasher
30	0008119	22	3/8-16 x 3/4" HHCS		0008165	2	3/4-10" Hex Nut
	0008168	22	3/8-16" Flange Whiz Locknut	77	1110119	1	Axle Center Bearing Weldment
31	1110105	1	Pole Weldment	78	0008123	2	3/8-16 x 1 1/4" HHCS
32	1111035	1	Pole Pin Assembly		0008174	2	3/8" Flatwasher
33	0918259	2	Klik Pin		0008168	2	3/8-16" Flange Whiz Locknut
34	0018973	1	Pole Jack	79	1111037	1	Stop Pin Assembly
35	0916001	1	Pillow Block Bearing 1 3/4"	80	0018303	1	Decal - R & Y M-C Arrow
36	0008278	2	1/2-13 x 1 3/4" HHCS Grade #5	81	1114787	1	Outboard Drive Shaft Guard Extention
	0018257	4	1/2" S.A.E. Flatwasher				
	0008180	2	1/2" Lockwasher	82	0008104	2	5/16-18 x 3/4" Slotted Truss Head
	0008163	2	1/2-13" Hex Nut		0008169	2	5/16-18" Flange Whiz Locknut
37	1114781	1	Belt Guard - Bottom	83	1113483	2	180 Shredder Cutter Bars
38	1114779	1	Belt Guard - Back	84	0008137	12	1/2-13 x 1 1/4" HHCS
39	1114780	1	Belt Guard - Top		0008175	12	1/2" Flatwasher
40	1110116	1	Pivot Support Weldment		0008180	12	1/2" Lockwasher
41	1116202	1	5V/10.9 6-Groove Sheave		0008163	12	1/2-13" Hex Nut
42	1116205	1	1.75 I.D. Bushing	85	1273404	2	Gearbox Mount Stiffener
43	1116101	2	Belt 6/5V/800				
44	1116211	1	2.1875 I.D. Bushing				

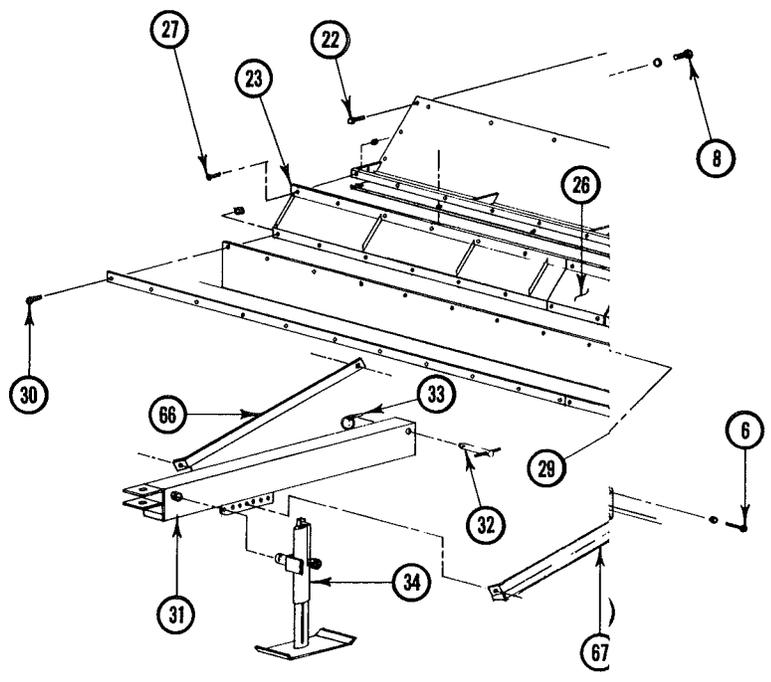
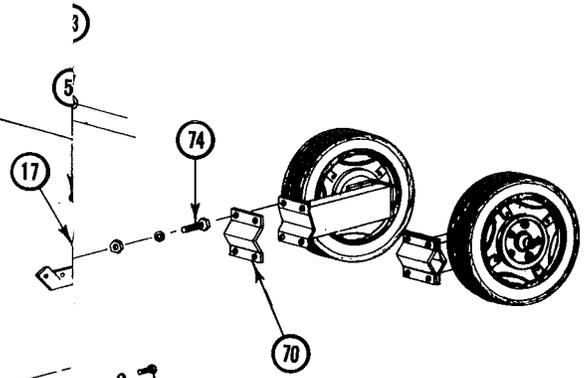
\*Shown in Illustration.



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**NOTE :**

FOR HUB ASSEMBLY SEE PAGE

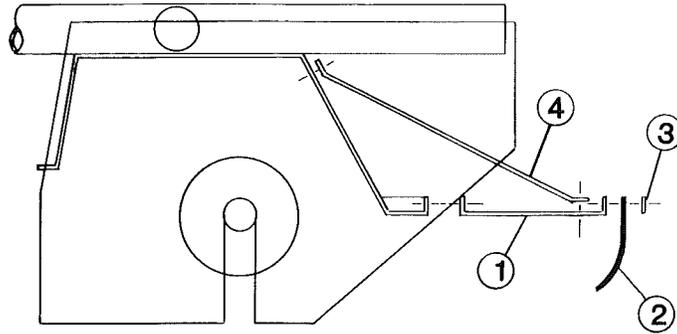


# NOTES

# NOTES

For Assembly of Stone Guards on Shredder Models 144 & 180

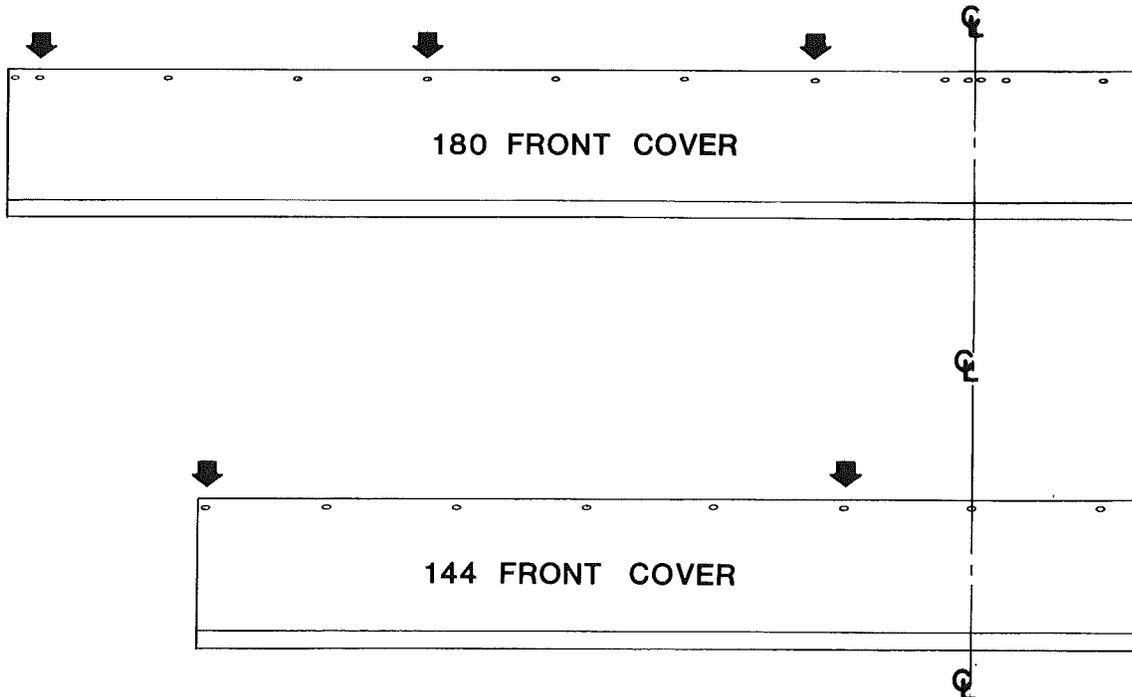
Assemble as Shown Below



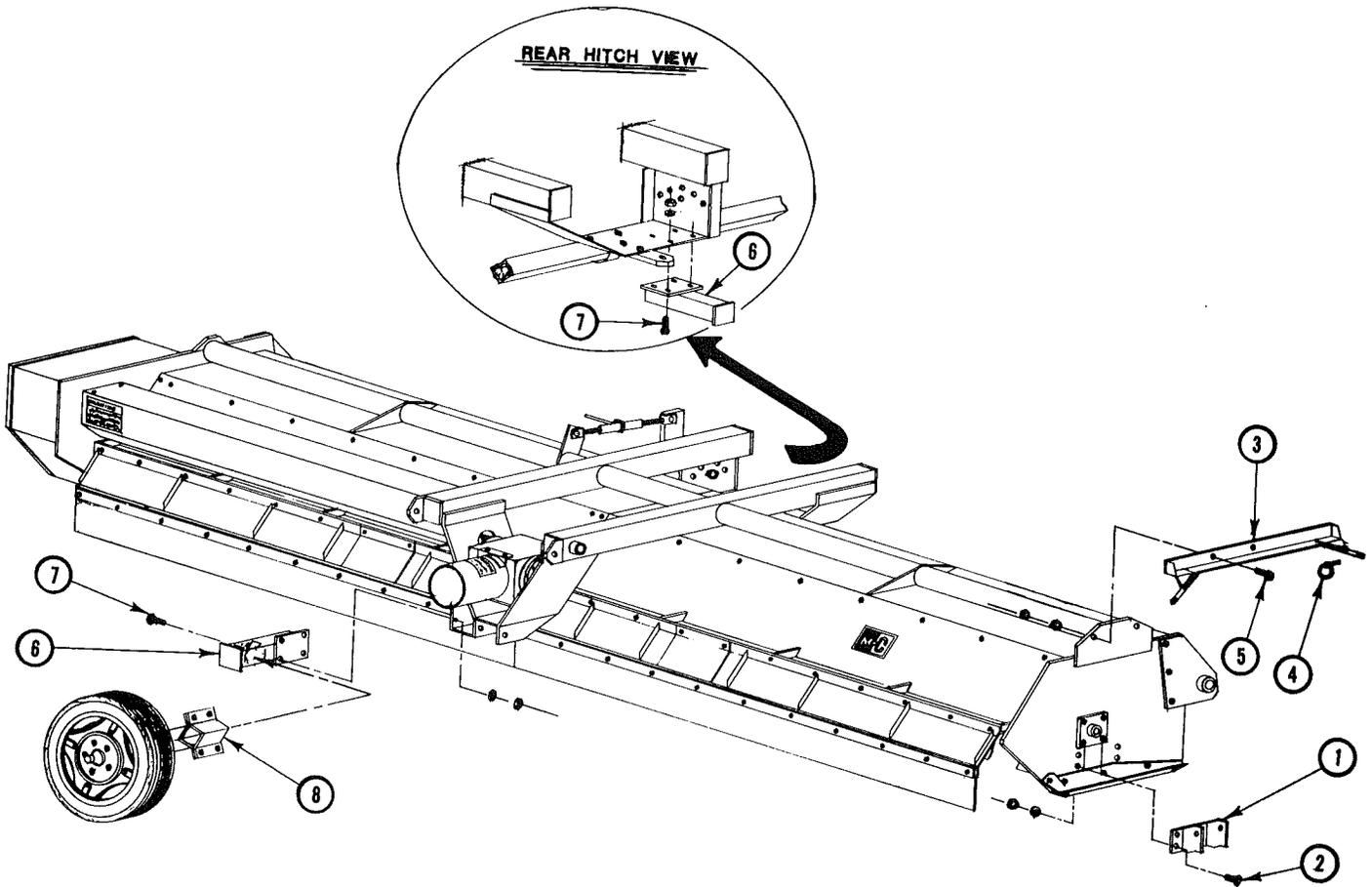
FIELD INSTALLATION ON MODELS BUILT BEFORE SERIAL #36854

REF.	PART NO.	QTY.	MODEL	DESCRIPTION
1	1114456	2	144	Stone Guard
	1114457	2	180	Stone Guard
2	1115716	2	144	Rubber Flap
	1115715	2	180	Rubber Flap
3	1112050	2	144	Rubber Flap Retainer
	1112051	2	180	Rubber Flap Retainer
4	1113485	4	144	Stone Guard Support
		6	180	Stone Guard Support

Arrows show location of support straps (ref. #4) which bolt to the top edge of front covers.



# OPTIONAL END TOW KIT ILLUSTRATION



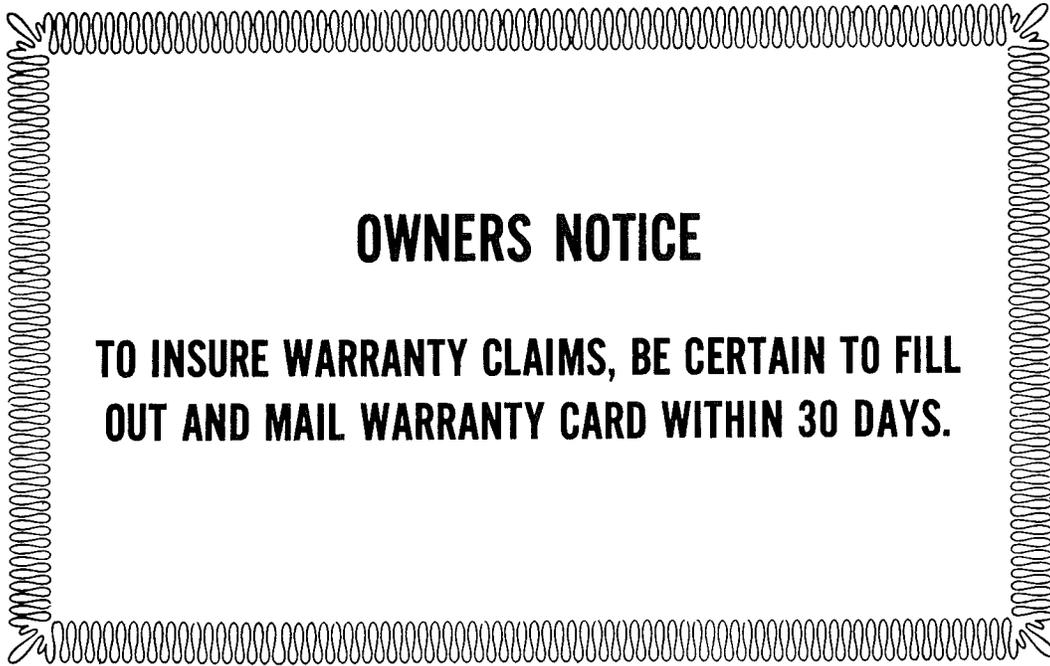
REF.	PART #	QTY.	DESCRIPTION
1	1130016	1	Pole Mount Bracket Transport Weldment
2	no #	4	1/2-13 x 1 1/4" HHCS Grade #5
	0008180	4	1/2" Lockwasher
	0008163	4	1/2-13" Hex Nut
3	1330017	1	Transport Pole Weldment
4	0918259	2	Klik Pin
5	0008278	2	1/2-13 x 1 3/4" HHCS Grade #5
	0008180	2	1/2" Lockwasher
	0008163	2	1/2-13" Hex Nut
6	1130015	2	Transport Wheel Tube Weldment
7	0008278	8	1/2-13 x 1 3/4" HHCS Grade #5
	0008180	8	1/2" Lockwasher
	0008163	8	1/2-13 Hex Nut
8	1111041	2	Wheel Mount Assembly (Not supplied with End Tow Kit)

111 3590

**INSTRUCTIONS FOR ORDERING PARTS:**

1. ALL PARTS MUST BE ORDERED FROM YOUR DEALER.
2. GIVE MODEL NUMBER and SERIAL NUMBER that is stamped on the NAME PLATE of your machine.
3. Order from your PARTS LIST, found following each illustration, as this is the ONLY means we have of identifying the parts you need. Order by the QUANTITY DESIRED, the PART NUMBER and the DESCRIPTION OF THE PART.

NOTE: The Company reserves the right to incorporate any changes in design without obligation to make these changes on units previously sold.



**OWNERS NOTICE**

**TO INSURE WARRANTY CLAIMS, BE CERTAIN TO FILL  
OUT AND MAIL WARRANTY CARD WITHIN 30 DAYS.**

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