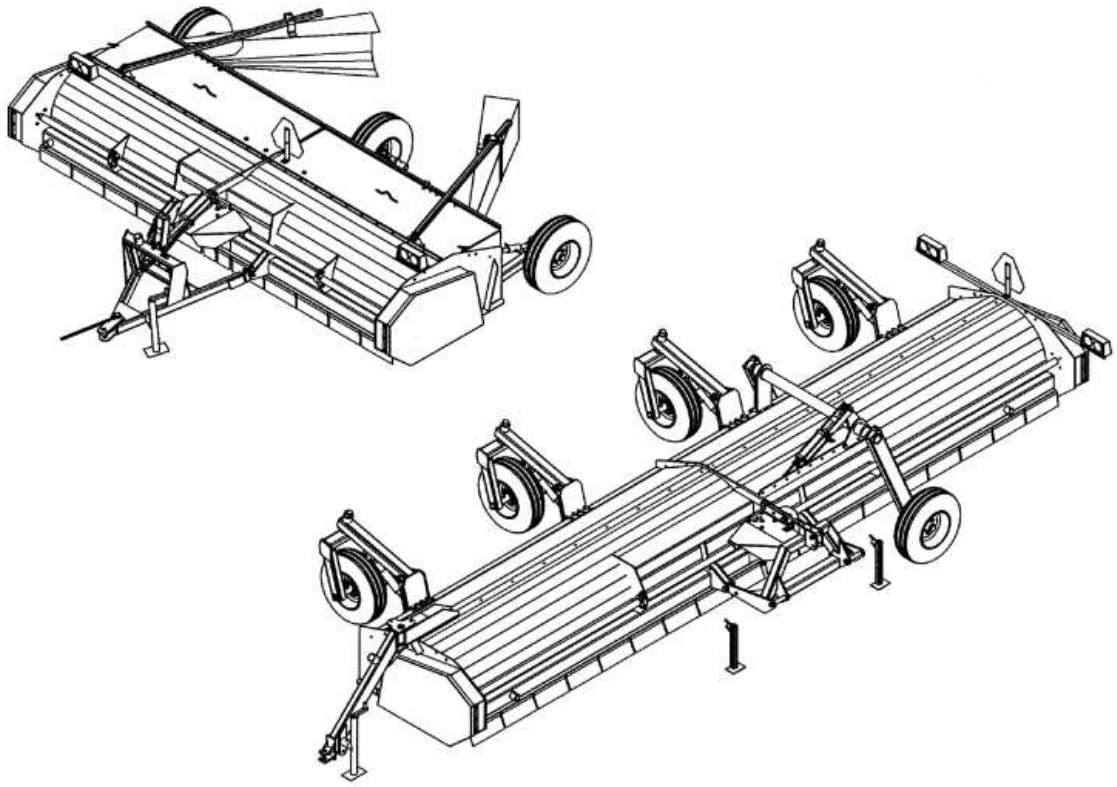
REMLINGER

1800 Series

Belt Drive Shredder

12’, 15’, 20’, & 25’



Operation and Parts Manual

Our Tradition is Quality Driven and Field Proven

CONTENTS

INTRODUCTION

This manual contains an illustrated parts catalog and instructions for installation, operation, and service of unit. Read carefully and follow instructions.

BELT DRIVE SHREDDER

TO THE PURCHASER

This new shredder was carefully designed to give years of dependable service. To keep it running efficiently, read the instructions in this manual. Each section is clearly identified so that you can find the information you need. Read contents to learn where each section is located.

Parts catalog covers serviceable parts and is broken down into groups for each section of unit.

Parts shown in exploded views of assemblies are reference numbered and correspond to numbers in Ref. No. (Reference Number) column of parts list following each illustration. ***DO NOT ORDER PARTS BY REFERENCE NUMBERS.*** Part number and part description are shown with reference numbers. Total number of parts required per unit or assembly is shown opposite each part number.

When ordering parts, always give parts number and part description. If part number can not be found in manual, give clear description of part and its location and function. Specify machine type and size.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

SERIAL NUMBER

The shredder serial number is located on the front of machine near gearbox.

Record your shredder serial number. Your dealer needs this information to give you prompt, efficient service when you order parts or attachment. If your shredder requires replacement parts, go to your Remlinger dealer where you can obtain genuine Remlinger parts. Accept no substitutes. The warranty on this shredder appears on page 4.

Write product identification number in the Specification section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. When ordering parts, always bring with you the model and serial number as given on the serial number plate. By doing so, you will assist your Remlinger dealer in giving you prompt, efficient service. For your convenience, a space is provided below for recording this number.

WARRANTY is provided as part of Remlinger support program for customers who operate and maintain their equipment as described in this manual.

This warranty provides you the assurance that Remlinger will back its products where defects appear within the warranty period. Should the equipment be abused, or modified to change its performance beyond the original factory specification, the warranty will become void and field improvements may be denied.

FOR YOUR RECORDS

DEALER NAME_____
ADDRESS _____
PHONE NUMBER _____
SERIAL NUMBER _____
MODEL NUMBER _____
DATE PURCHASED _____

LIMITED WARRANTY

REMLINGER MANUFACTURING COMPANY warrants to original retail purchaser that within time limits set forth, new equipment shall be free from defects in material and workmanship. A part will not be considered defective if it substantially fulfills performance specifications. Should any part prove defective within the warranty period, the parts will be replaced without charge F.O.B. Plant - Kalida, OH.

THE FOREGOING LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS OF PURPOSE AND OF ANY OTHER TYPE, WHETHER EXPRESSED OR IMPLIES. Remlinger neither assumes nor authorizes anyone to assume for it any other obligation or liability in connection with said part, and will not be liable for incidental or consequential damages. ***THE REMEDIES STATED HEREIN SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE UNDER THIS LIMITED WARRANTY.***

Remlinger reserves the right to change specifications, add improvements or discontinue manufacture of any of its equipment without notice or obligation to purchasers of its equipment. This warranty gives you specific legal rights. You may also have other rights which vary according to state or province.

WARRANTY EXCLUSIONS-- Labor, transportation, or any cost related to a service call is not provided by Remlinger. This Limited Warranty does not apply to damage resulting from misuse, neglect, normal wear, accident or improper installation or maintenance. ***ITEMS NOT MANUFACTURED BY REMLINGER*** (i.e. Tires, Belts, Electric Motors, etc.) ***ARE COVERED UNDER WARRANTIES OF THEIR RESPECTIVE MANUFACTURERS AND ARE EXCLUDED FROM COVERAGE UNDER THE SUKUP WARRANTY.***

BASIC WARRANTY-- All Remlinger manufactured products are warranted for one year from date of purchase.

WARRANTY CERTIFICATION--Warranty registration card should be mailed within two weeks of purchase to certify warranty coverage.

UNAPPROVED PARTS OR MODIFICATION--All obligations of Remlinger under this Warranty are terminated if unapproved parts are used or if equipment is modified or altered in any way not approved by Remlinger.

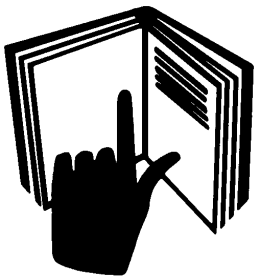
1800 SERIES REMLINGER SHREDDER SAFETY SECTION

RECOGNIZE SAFETY ALERT SYMBOL

The above safety-alert symbol means “Attention! Be Alert! Your personal safety is involved! This symbol draws your attention to important instructions concerning your personal safety. Read the message carefully to avoid personal injury or death.

FOLLOW MACHINE SAFETY SIGNS & MESSAGES

Observe safe operating practices. Carefully read this manual and all safety signs on your equipment. Safety signs must be kept in good condition. Replace missing or damaged safety decals; available from Remlinger Manufacturing Co., at no charge.



Learn how to use controls and operate machine. Do not let anyone operate unit (especially youth) without thorough training of basic operating and safety procedures.

Make no unauthorized modifications to machine. Modifications may endanger function an/or safety of unit. Keep unit in good working condition.

EMERGENCIES - KNOW WHAT TO DO

Have emergency numbers near your telephone:

For doctors:
Emergency medial squad:
Ambulance service:
Hospital:
Fire department:

Have written directions to your location:

Always park the shredder on level ground and block the wheels when unhooking from the tractor. Drop front parking stands and lower shredder in down position before unhooking tractor from shredder.

Always check tractor and shredder before towing on the road. Use safety chain <u>provided</u> to secure the shredder to the tractor.

Safety decals are mounted when shredder is assembled. Yearly and prior to equipment use, please check that all decals and shields are securely in place according to the drawing and in good legible condition. To order a replacement decal or shield (no charge) contact your dealer or Remlinger Manufacturing Co. Please specify computer number.

IMPORTANT!! If suggested locations are not clearly visible, place safety decals in more suitable area. Never cover up any existing safety decals. Make sure location for decal is free from grease, oil, and dirt. Remove backing from decal and place in proper position.

1. WARNING - To Avoid serious injury or death. - **Decal L0281**

2. WARNING - No riders! **- Decal L0274**

3. WARNING - Escaping fluid under pressure can cause serious injury and requires doctor’s attention. – **Decal L0273 - USE ONLY FOR PULL TYPE HITCH & END TRANSPORT SHREDDERS**

4. DANGER - Keep Away! Rotating Drive Line – **Decal L0250**

5. CAUTION - Not intended for use on public roads.- **Decal L0285**

6. WARNING - Keep away from moving parts. - **Decal L0284**

7. WARNING - Look & Listen for rotation **Decal L0289**

8. DANGER - To prevent being crushed **Decal L0282**

9. DANGER - Keep away - Discharge area **Decal - L0251**

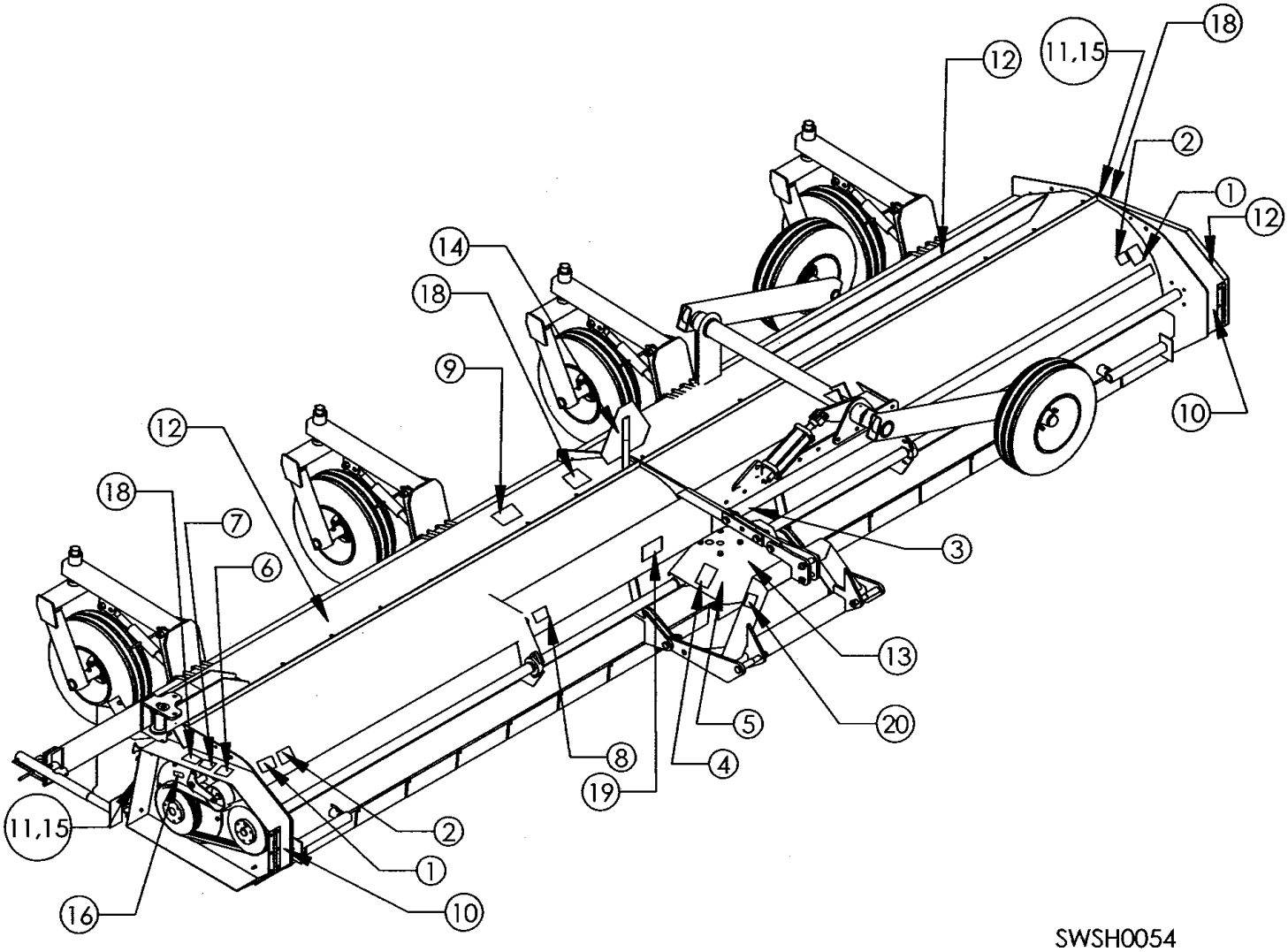
10. Amber reflector tape – **Decal L0276**
11. Red reflector tape - **Decal L0277**
12. Remlinger Sticker – **Decal L05171**
13. Grease zerk sticker (10 hrs.)– **Decal L0312**
    (For swivel wheels only)
14. S.M.V. Sign - **S8901**

15. Orange reflector tape – **Decal L02765** (2x9")
16. DANGER - Shield Missing! – **Decal L0271**

17. Light Kits **#S5248 For 15' and above.**
18. Grease zerk sticker (40 hrs.)
19. Serial # -
20. 3-point hitch sticker

21. WARNING - Use Safety Chain when towing unit to eliminate detachment hazard. **Decal - L0512**
See page 37 for Safety Chain Placement.

SHREDDER DECAL PLACEMENT



AS SHOWN WITH
SHIELD REMOVED

SWSH0054
010713BDW

CHECK LIST

PRE-DELIVERY CHECK LIST

After the shredder has been completely assembled, inspect it to be sure it is in good running order before delivering it to the customer. Check each item when found satisfactory or after making the necessary adjustments.

- ❑ Shredder has been assembled properly.
- ❑ All grease fittings have been lubricated. Lubricate all lubrication points; be sure all fittings are taking grease and check all lubrication seals for leakage.
- ❑ Check gearbox to be sure it is filled to proper level.
- ❑ Check tightness of all external nuts and bolts.
- ❑ Check that all moving parts are working freely.
- ❑ Connect hydraulic hoses, check operation of all hydraulic cylinder functions. Watch for any signs of leaks or faulty operation, vibration or unusual sounds. After a period of operation, shut off tractor engine. Check for loose bolts and hydraulic leaks.
- ❑ Clean the shredder and touch up any places where the paint is nicked or scratched. Be sure all decals are properly applied and undamaged.
- ❑ Hook up shredder to tractor and run PTO up to operating speed to check for smooth operation of shredder.

Signature of Set Up
Technician_____ Date Set Up _____

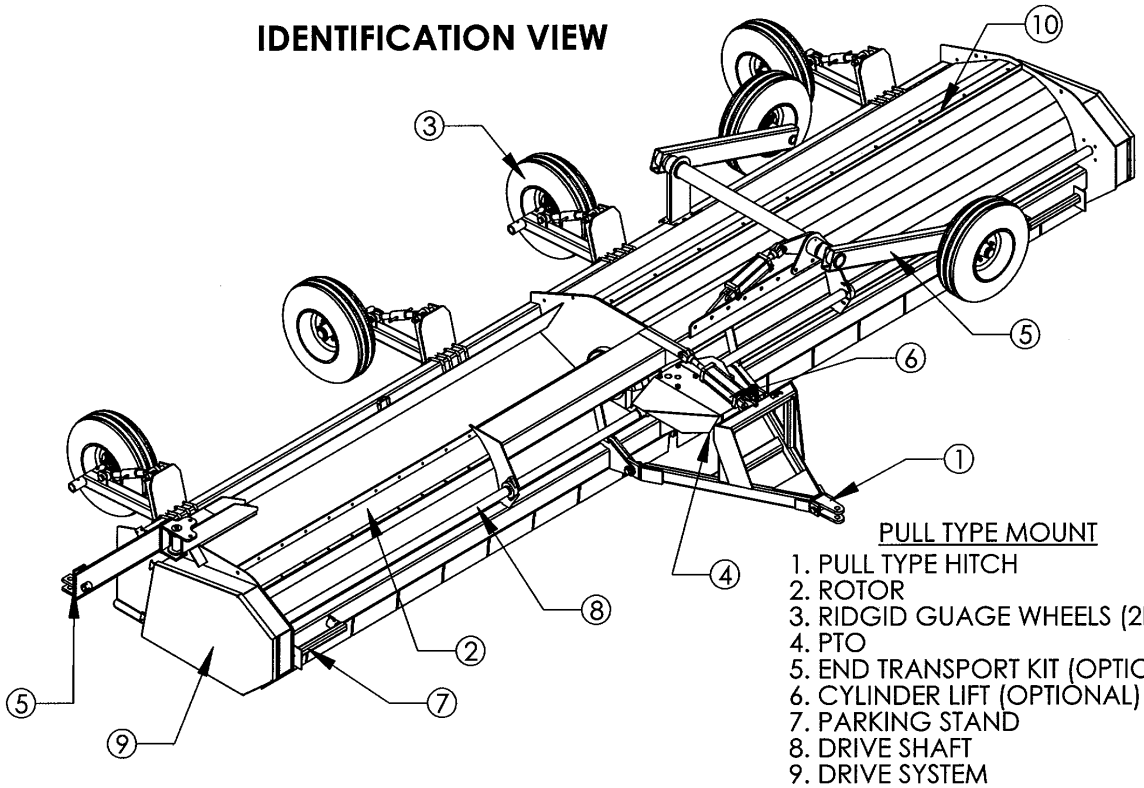
DELIVERY CHECK LIST

The following check list is a reminder of very important information that should be conveyed directly to the customer at the time the shredder is delivered. Check off each item as it is fully explained.

- ❑ Advise the customer that the life expectancy of this or any other machine depends on regular lubrication as described in the operator's manual.
- ❑ Give the operator's manual to your customer and explain all operating adjustments and lubrication.
- ❑ Explain the importance of safe and proper operation of the machine. Point out decals warning the operator of the dangers of unsafe operating procedures and conditions.
- ❑ Advise the customer that he must check the torque of nuts and bolts after the first 4 hours of operation.
- ❑ Tell the customer to record the serial number of this shredder in the space provided on page of this manual.
- ❑ Complete Delivery and Warranty registration forms, listing serial number of machine.
- ❑ Explain Warranty. Have dealer and customer sign form.

Date Delivered_____ Signature of Set-up Technician_____

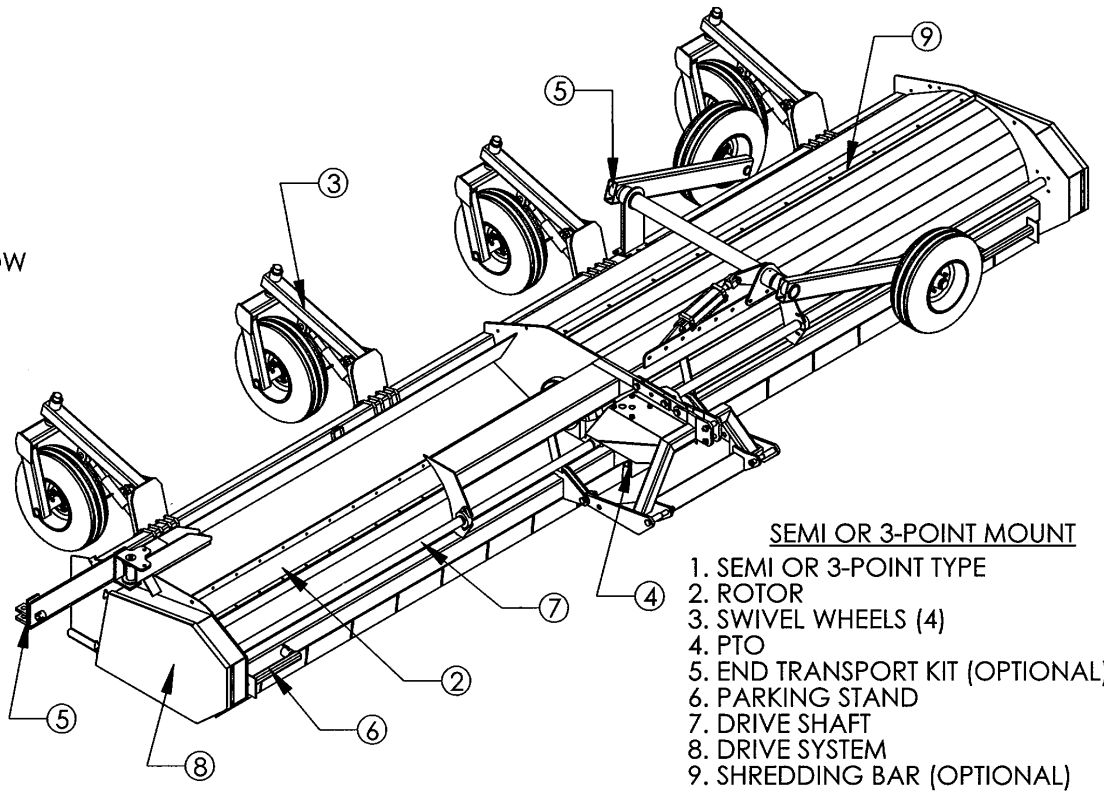
IDENTIFICATION VIEW



PULL TYPE MOUNT

1. PULL TYPE HITCH
2. ROTOR
3. RIDGID GUAGE WHEELS (2LH & 2RH
4. PTO
5. END TRANSPORT KIT (OPTIONAL)
6. CYLINDER LIFT (OPTIONAL)
7. PARKING STAND
8. DRIVE SHAFT
9. DRIVE SYSTEM
10. SHREDDING BAR (OPTIONAL)

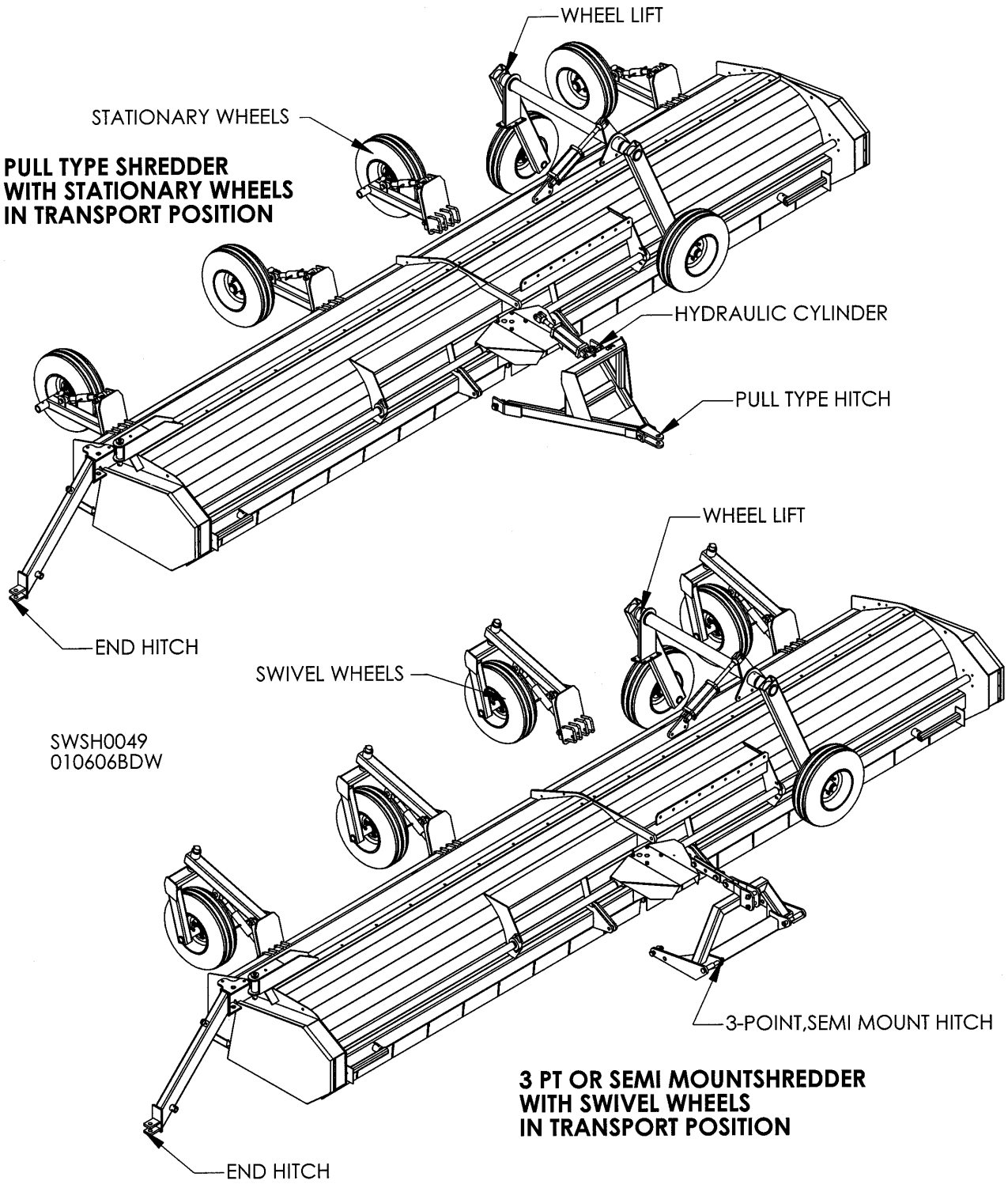
SWSH0047
010606 BDW



SEMI OR 3-POINT MOUNT

1. SEMI OR 3-POINT TYPE
2. ROTOR
3. SWIVEL WHEELS (4)
4. PTO
5. END TRANSPORT KIT (OPTIONAL)
6. PARKING STAND
7. DRIVE SHAFT
8. DRIVE SYSTEM
9. SHREDDING BAR (OPTIONAL)

ASSEMBLY



PULL TYPE SHREDDER WITH STATIONARY WHEELS IN TRANSPORT POSITION

SWSH0049
010606BDW

3 PT OR SEMI MOUNTSHREDDER WITH SWIVEL WHEELS IN TRANSPORT POSITION

ASSEMBLY

The Mounted or Pull Type Shredders are assembled as illustrated on previous page. The illustration shows the parts to be assembled and attached in their proper order.

After unpacking and placing all parts where they will be handy. Follow the instructions carefully. Most problems with new machines are due to improper assembly and lack of lubrication.

Do not completely tighten the bolts until each assembly operation is completed. Refer to torque chart when tightening bolts.
NOTE: Always torque U-bolts evenly. This will insure that the wheel assembly will stay in a vertical position.

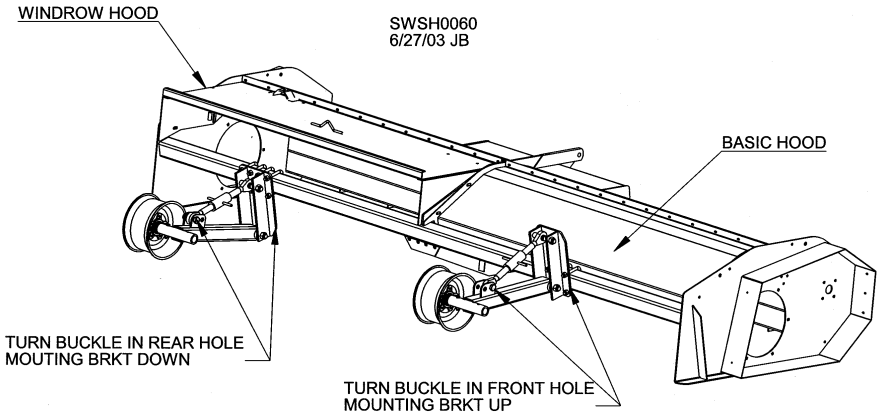
1. POSITION FRAME FOR ASSEMBLY

Lift up shredder on the front and rear frame tubes - DO NOT lift on the rotors. Raise shredder high enough that the knives do not touch the ground. Block up shredder in a level position under the endplates on each side.

2. MOUNT REAR WHEEL ASSEMBLIES

ROW CAPACITY CHART FOR SHREDDER WIDTH						
MACHINE SIZE	22	30	34	36	38	40
12' or 144"			4	4	4	4
15' or 180"	8	6				
20' or 240"	10	8			6	6
25' or 300"		10			8	8

Attach the wheel leg mounting brackets to the rear shredder frame tube with the U-bolts provided as shown in the diagram below. Be sure to tighten the U-bolts evenly. Note that on a windrow shredder, the mounting bracket is attached in the "down" position and the turnbuckle is mounted in the rear hole, on all other shredders, the mounting bracket should be attached in the "up" position and the turnbuckle should be in the front hole.

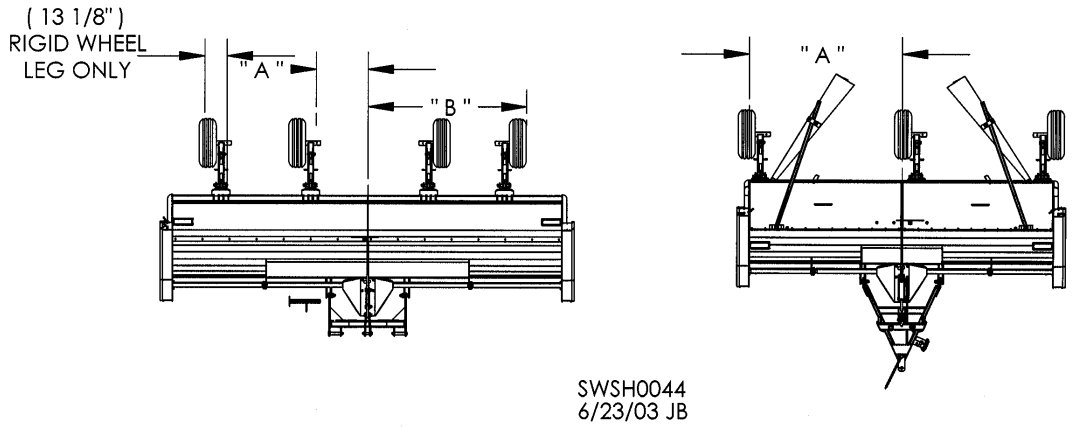


The ride height of the rear of the shredder is set with the turnbuckle on the wheel legs. For best results on windrow shredders, the back of the shredder should be set as low to the ground as possible. On a 15' machine with 3 wheel legs, set the center turnbuckle as short as possible. Set the outer two turnbuckles extended about 2 turns from the minimum so that they will carry most of the weight most of the time. On all other shredders, the wheelleg turnbuckles should be set evenly.

DISTANCE BETWEEN WHEEL AND CENTER OF THE SHREDDER

MACHINE SIZE	ROW SPACING											
	22" ROW		30" ROW		34" ROW		36" ROW		38" ROW		40" ROW	
	A	B	A	B	A	B	A	B	A	B	A	B
12' or 144"					0	68	0	72	0	38	0	40
15' or 180"	22	66	90									
20' or 240"	40	110	30	90	34	102	36	108	38	114	40	80
25' or 300"			30	120					38	114	40	120

(See diagram on next page)

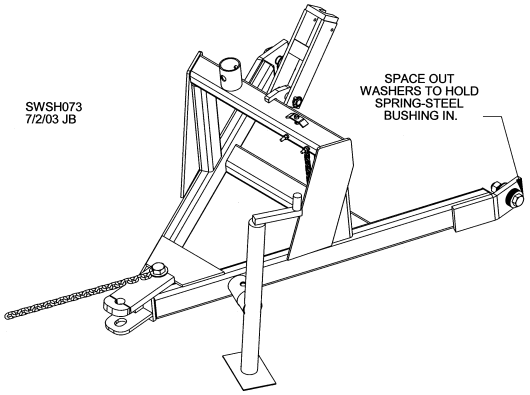


3. Mount the Hitch

A. Pull-Type Hitch

Mount hitch to the lower attaching links of the shredder with two 1" x 4-1/2" bolts and locknuts. The extra flat washers provided on the shredder must be used to fill up any extra space between the ears on the shredder frame and the hitch mounting lug to keep the spring-steel bushing in the hitch from working out. Tighten the 1" bolts until they are snug on the shredder ears, do not tighten until they clamp the hitch tight. The bolt should be tight enough to keep it from pivoting with the hitch, but allow the hitch to move freely. Attach the **Hydraulic Cylinder Kit** (or customer supplied cylinder - recommend 3-1/2" x 8" ASAE Cylinder) to the shredder top link with the rod end of the cylinder pointing towards the tractor. Attach the rod end of the cylinder to the hitch with the pin and transport lock provided on the hitch. Route hydraulic hoses and secure them in the hose clamp on the hitch.

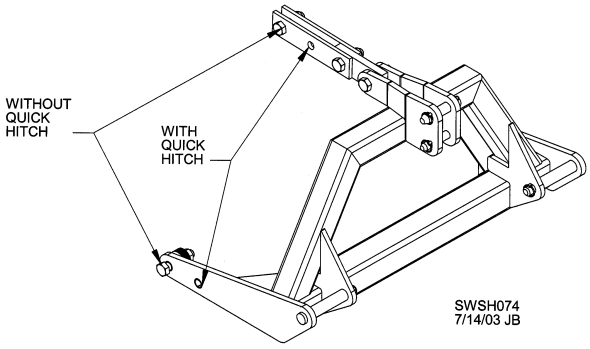
PULL TYPE HITCH ASSEMBLY S18446



B. 3-Point Hitch

The 3-point hitch adapter has two possible mounting positions on the lower lugs and the flexible top link. The rear hole should be used when mounting directly to the tractors 3-point arms. The forward hole should be used when mounting to a tractor using a quick attaching coupler (quick hitch). **Be certain the hitch is in proper mounting holes, driveline and PTO damage can occur if the wrong holes are used.** The extra flat washers provided on the shredder must be used to fill up any extra space between the ears on the shredder frame and the hitch mounting lug to keep the spring-steel bushing in the hitch from working out. Tighten the 1" bolts until they are snug on the shredder ears, do not tighten until they clamp the hitch tight. The bolt should be tight enough to keep it from pivoting with the hitch, but allow the hitch to move freely. Attach the flexible top link of the hitch to the top lug on the shredder frame using the 1" x 3-1/2" bolt and locknut. Again, the bolts should be loose enough to allow the linkage to flex when the shredder goes through the field. When using hitch on a semi-mounted shredder, hook up all three pins to the tractor's 3-point hitch, and remove the 1" x 3-1/2" bolt on the flexible top link of the hitch so the back of the shredder does not raise with the front.

3-POINT OR SEMI MOUNT HITCH ASSEMBLY S18447



4. Gearbox and Driveline (PTO)

Remove the rear plug on the top of the gearbox and install the dipstick/breather vent. The dipstick is shipped with the manual on the front driveshaft of the shredder. Check the oil in the shredder by threading the dipstick all the way in and removing it, if necessary, add SAE 85-140 Gear Lube until the oil level reaches the proper level on the dipstick. Check the tightness of the universal joint setscrews on the gearbox output shaft. Attach the PTO to the front shaft of the gearbox and secure with the split collar and 1/2" bolts and locknuts provided on the PTO. Make certain the CV joint, crosses and slide of the PTO are properly lubricated (see lubrication section page 16). Attach the gearbox shield to the top of the gearbox.

5. Mount Light Kit

Attach light mounting brackets to the 9/16" holes on the top of the frame endplates using 1/2" x 1-1/2" bolts. The mounting brackets should point toward the center of the shredder. Attach the lights to the brackets with 1/4 x 1-1/4" bolts with the red lights facing the rear of the shredder and the amber flasher lights to the outside of the shredder. Run the wishbone cable from the center of the shredder to each light. Attach cable to shredder with the mounting pads and cable ties provided. Plug the wishbone cable into the power cable and route through hitch to the tractor. Secure any extra cable with cable ties.

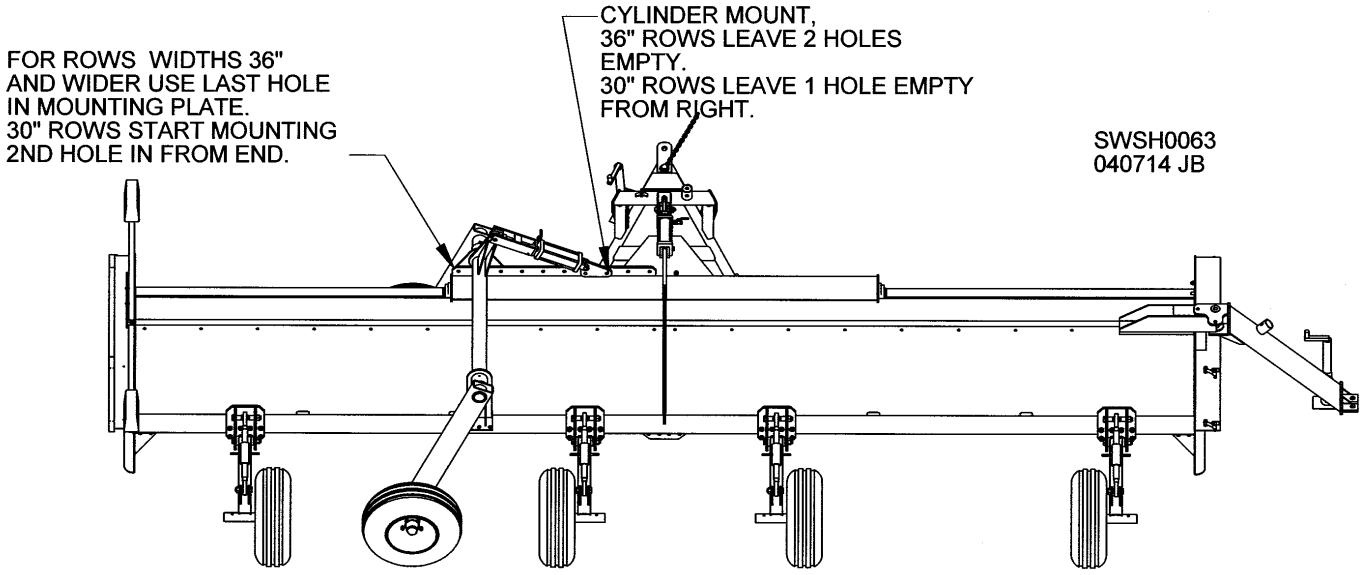
6. End Transport Kit (Optional - 25' Shredder only)

(1) WHEEL LIFT

Attach wheel lift to forward mounting bracket on shredder using 3/4 x 10 x 2" cap screw, 3/4" lock washer, and 3/4" hex nut. (qty of 3) Align mounting bracket with square tube at rear of shredder and assemble (3) U-bolts, 3/4" lock washer and 3/4" hex nuts. Align wheel lift with shredder, tighten all bolts. Attach hydraulic cylinder with rod end towards wheel lift, using 1" x 3" pin. Pin cylinder to ear on shredder. Attach rod end with cylinder lock using pin 1 x 5" with clip. Attach 90° elbow to cylinder ports. Assemble 3/8" hoses and fitting as required to connect hydraulics to tractor.

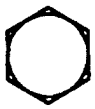
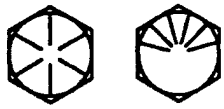
(2) End Hitch Assembly

Attach hitch anchor weld at right hand end of shredder using holes to attach shredding bar. Two 5/8" - 11NC x 3-1/2" and two 5/8" - 11NC x 2-1/2" hex cap screws, 5/8" nuts, and 5/8" lock washers. Assembly tongue weldment using hitch pivot pin, 7/16" lynch pin & 1-1/4" machine bushing.



Torque Values

UNIFIED INCH BOLT AND CAP SCREW TORQUE VALUES

SAE Grade and Head Markings	NO MARK	1 or 2[b]	5	5.1	5.2	8	8.2
							
SAE Grade and Nut Markings	NO MARK	2	5			8	
							

Size	Grade 1				Grade 2 **				Grade 5, 5.1, or 5.2				Grade 8 or 8.2			
	Lubricated *		Dry *		Lubricated *		Dry *		Lubricated *		Dry *		Lubricated *		Dry *	
	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft	N.m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	215	160	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	155	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	470	300	510	375	470	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

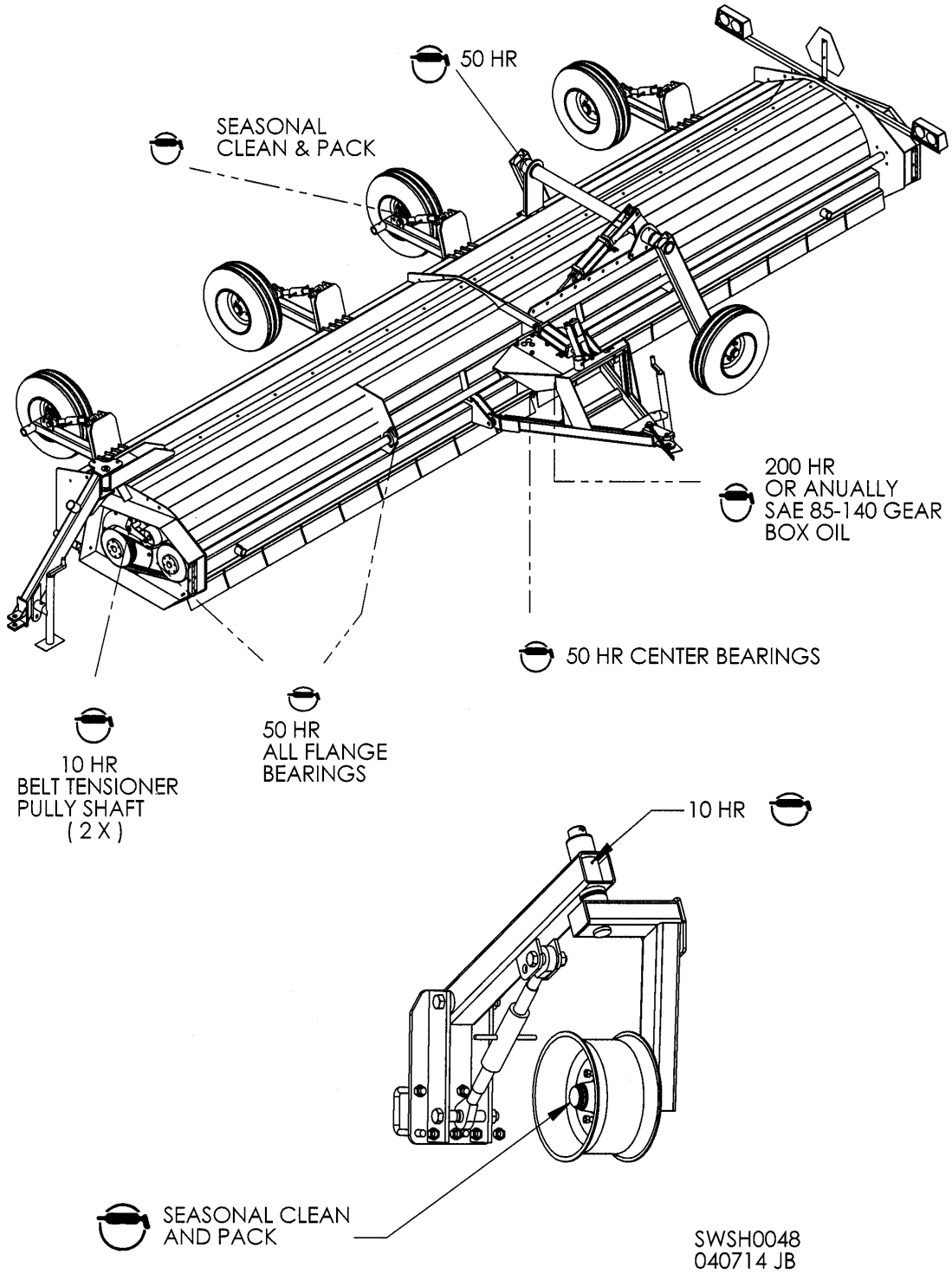
Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.
Tighten plastic insert or crimped steel-type lock nut to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

[a] "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

[b] Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6-in.) ong. Grade 1applies for hex cap screws over 152 mm (6-in.) long, and for all other types of bolts and screws of any length.

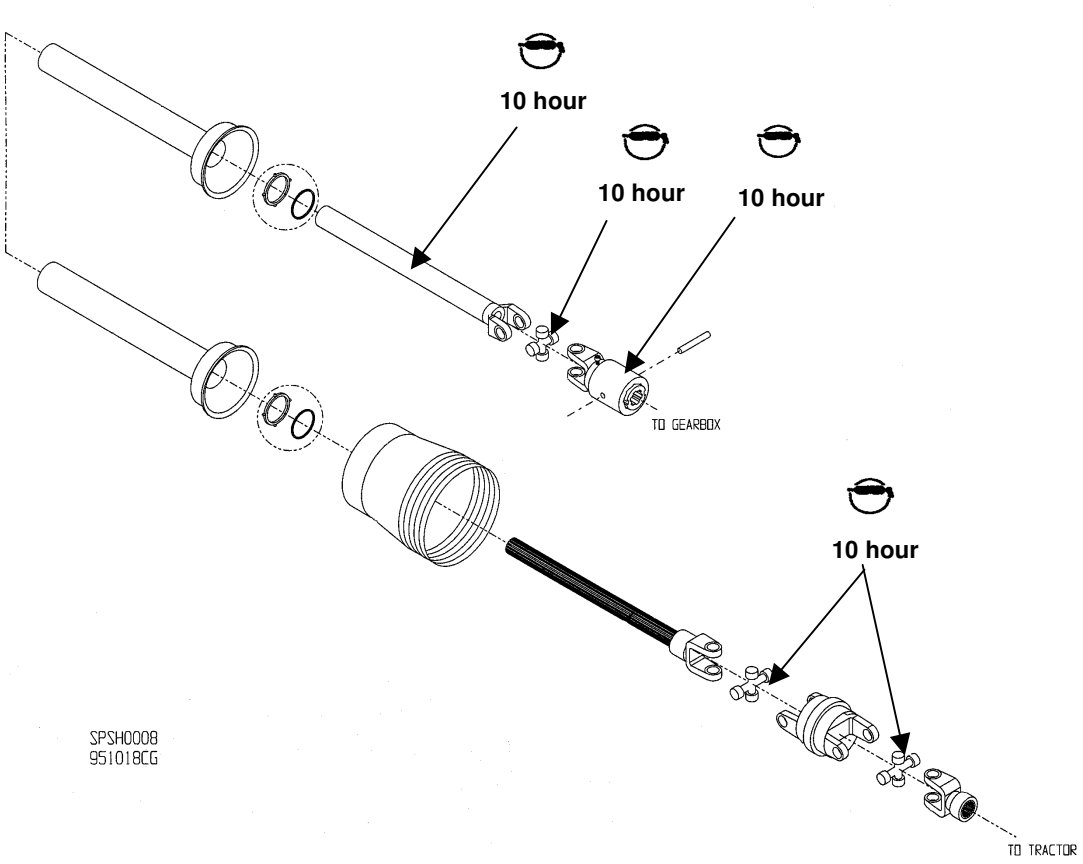
LUBRICATION AND MAINTAINANCE



LUBRICATION AND MAINTENANCE

DRIVELINE ASSEMBLY:

Grease fittings on universal joints should be lightly lubricated every 10 hours of operation. Telescoping section of front universal assembly should be greased daily. It is very important the shaft and the tube of the PTO shaft are kept well lubricated and slip freely at all times.



GEAR BOX:

Inspect and determine that oil level in gearbox is at the proper level every 10 hours of operation. Oil level should be above the lower mark on the dipstick.

Dirt, dust, and moisture can enter the gearbox through the breather plug. These contaminants must be removed periodically to ensure long gearbox life. The gearbox oil should be changed annually. In very dirty or dusty conditions, change oil twice a season.

1. Place a pan under the gearbox and remove the drain plug and the dipstick plug.
2. Allow the gearbox to drain for 10 minutes.
   NOTE: It is best to drain the oil when the gearbox is hot to remove the most contaminants.
3. Install and tighten the drain plug.
4. Add SAE 85-140 gear oil through the dipstick cover. Use the dipstick to check the oil level and add oil until the level reaches the upper mark. On gearboxes without dipsticks check the oil level and add oil until level is at halfway point of box or at seam.
5. Install and tighten the fill plug.

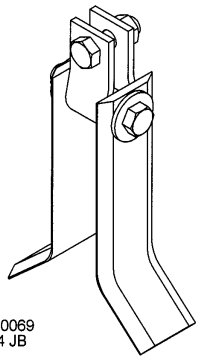
SERVICE

It is important to keep the shredder relatively clean. Excessive buildup of dirt or plant material on the rotor assemblies can cause the rotor to become out of balance. If this occurs, use a powerwasher to clean the rotor assemblies. Dirt can also buildup on the inside of the frame in front of the shredding bars. This can make the inside of the frame smooth and not allow the shredding bars to knock the material back down into the rotor to achieve a finer cut. Buildup in the frame can also cause premature rust and corrosion of the shredder hoods.

Rotors

Check all knives to be sure that they swing out freely. If a knife is bound up and does not swing out, the rotor will be out of balance and vibrate. Check for missing or broken knives and replace as necessary. Be sure to also replace the knives directly opposite (180° apart) of them to keep the rotor in balance. When installing new knife & clamp assemblies, mount to lower bar on rotor with bolt head facing to front and nuts facing to rear of shredder. Use only new Grade 8 bolts and Grade C locknuts. The rotors are balanced with the knives bolted on. As the knives wear, the rotors may begin to pick up a vibration as the knives loose weight. Replacing worn knives will bring the rotor back to its original balanced state.

Side Slice Knives

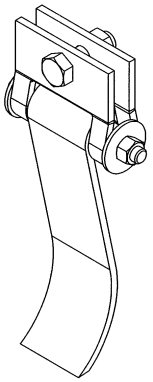


SWSH0069
040714 JB

There are two styles of side slice knives available, standard heat-treated knives, and hard surfaced knives. The standard heat-treated knives will work in most shredding conditions. The hard-surfaced knives are also heat-treated and are recommended for sandy soil conditions, large acreage, cotton and corn stalks, or wherever a more durable, longer running knife is desired. Hard-surfaced knives may run up to 2-3 times longer than standard heat-treated knives.

The side slice knives are double edged and may be reversed when the knife edge has worn out. Do not run the knives too long before reversing them because as the knives wear, they become lighter and may cause the rotors to vibrate making it necessary to replace the knives before taking advantage of the fresh cutting edge. On 15', 20', and 25' machines, the two rotors may be switched to change the knife direction.

Cupped Knives



SWSH0070
6/27/03 JB

These high carbon steel hammer cupped type knives are heat-treated for long life and are recommended for use when wind-rowing corn stalks or when air suction is required to lift debris from the ground resulting in clean cutting. The knives should be replaced when they are worn enough to make the shredder vibrate.

SERVICE

REPLACING DRIVE AND ROTOR PULLEYS:

Note: The drive and rotor pulleys are held on the shafts with tapered bushings. The bushings have jack screw holes that are used to remove them. Do not attempt to remove the pulleys with a gear puller as this could result in damage to the pulleys.

1. Remove the drive belts

2. Remove the three mounting capscrews on the pulley bushings. Thread the capscrews into the three-jackscrew holes in the bushing until they begin pushing on the pulley. Tighten the three capscrews progressively and evenly until the pulley is loose on the bushing.

3. Remove the pulley and bushing from the shaft. If the bushing does not slip off the shaft, wedge a screwdriver in the saw cut in the end of flange of the bushing (not the tapered surface) to spread the bushing.

4. Before installing the bushing and pulley, thoroughly inspect the tapered bore of the pulley and the tapered surface of the bushing. Any paint, dirt, oil, or grease must be removed before installation.

5 Place the bushing into the pulley from the front so that the bushing flange is to the outside. The bushing and the bore of the pulley are tapered. Be sure to install the bushing into the large ID of the pulley tapered bore. If the bushing is installed into the small ID of the pulley, the pulley hub will crack when the mounting capscrews are tightened.

IMPORTANT: Do not overtighten the capscrews. See torque chart.

NOTE: There should be a **1/8 to 1/4 inch** gap between the pulley hub and flange of the bushing. If the gap is closed, the shaft is undersized.

6. Replace belts and adjust the drive belt tension.

REPLACING ROTOR BEARINGS:

1. Lift the Shredder and block up the rotor so it cannot fall when the bearing is removed. Do not lift the shredder by the rotor.

2. Remove the pulley and hub.

3. Clean the end of the shaft with emery cloth. Remove the two setscrews in the bearing lock collar and the four capscrews holding the bearing to the shredder frame and slide the bearing off the rotor shaft.

4. Lightly polish the shaft with emery cloth and lubricate the shaft. Slide the new bearing onto the shaft with the lubrication fitting on top.

5. Place the four capscrews through the frame and the bearing flange. Install lock washers and nuts. Tighten the capscrews evenly to align the bearing on the shaft. Tighten the two setscrews in the bearing lock collar.

6. Install the rotor pulley and belts, and adjust the belt to the proper tension.

7. Lubricate the bearing with a hand grease gun. Do not over-lubricate.

REPLACING DRIVELINE BEARINGS:

1. Remove the drivebelts, and drive pulley.

2. Clean the end of the shaft with emery cloth. Remove the two setscrews in the bearing lock collar and the four capscrews holding the bearing to the shredder frame and slide the bearing off the shaft.

3. Lightly polish the shaft with emery cloth and lubricate the shaft. Slide the new bearing onto the shaft with the lubrication fitting on top.

4. Place the four capscrews through the frame and the bearing flange. Install lock washers and nuts. Tighten the capscrews evenly to align the bearing on the shaft. *Tighten the two setscrews in the bearing lock collar.*

5. Install the drive pulley and belts, and adjust the belt to the proper tension.

SERVICE

REPLACING THE IDLER PULLEY:

1. The sealed bearing on the idler pulley is not replaceable. If the idler pulley bearing goes bad the entire pulley must be replaced.

2. Loosen the spring tension adjusting bolt jam nut and loosen and remove the adjusting bolt.

3. Remove the cotter pin and machine bushing from the idler bracket pivot shaft and remove the complete idler bracket and pulley assembly.

4. Remove the pulley bolt and the pulley from the bracket.

5. Install the new pulley in the bracket taking care to install the spacers on each side of the idler pulley.

6. Install the idler bracket and pulley assembly with the machine bushing and a NEW cotter pin. Adjust pulley spring to proper tension.

REMOVING ROTOR:

1. Block up the rotor so it cannot fall when the bearing is removed.

2. Remove the drivebelts, and the rotor pulley.

3. Clean the end of the shaft with emery cloth. Remove the two setscrews in the bearing lock collar and the four capscrews holding the bearing to the shredder frame and slide the bearing off the rotor shaft.

4. Remove capscrews in the bearing plate and remove the bearing plate.

5. Lower rotor from shredder frame using hoist or fork lift. Use caution that the rotor does not roll when moving.

CAUTION: Be very careful when handling rotor, especially with hammers attached. The rotor does not set on the ground very easily because of the hammers and can shift very quickly when being set down.

6. To reinstall rotor, follow above directions starting with item 5.

FRONT SKIRTING REPLACEMENT:

The front skirting on the front of the shredder deflects or stops stones or debris from coming out from under the machine when operating. They must be replaced when damaged or missing to provide a safe working environment.

1. If the skirting rod is bent or damaged, it must be replaced.

2. To remove rod: Raise and support the shredder on jack stands. Do not lift the shredder by the rotor.

3. Slide the rod out of the shredder. The skirting panels will drop off as the rod is pulled out.

4. Installation is the reverse of the removal procedure.

STORAGE

End of Season:

1. Shelter the Shredder in a dry place.

2. Clean the Shredder thoroughly inside and out. Trash and dirt will draw moisture and cause rust.

3. Thoroughly lubricate the machine according to the Lubrication Section.

4. Paint all parts from which the paint has been worn.

5. Check rotor assembly's for worn parts, missing or broken hammers, hammer swinging freely and wrapping or rotor buildup. **All the above will cause rotor vibration.**

6. List the replacement parts and Comp. #'s that will be needed and order them early. The dealer at this time can expedite delivery of parts and install them during slack periods avoiding delays next season.

Beginning of Season:

1. Lubricate complete unit; this will force any collected moisture out of the bearings (See Lubrication Section). Do not over-grease bearings.

2. Check rotor assembly for loose bolts, nuts and set screws.

3. Replace any worn or broken parts.

4. Check rotor to be sure all hammers swing freely.

5. Review your owners manual.

OPERATION

Be careful when operating the shredder to avoid injury to the operator and assistants. If the shredder must be in a raised position when working on it or near it, be sure proper safety precautions are taken.

Permit only one person, the operator, on the tractor platform while tractor and shredder are in operation. Be careful when operating on side hills because the tractor may tip sideways if it strikes a hole, ditch, or other irregularity. Never ride or permit others to ride on the draw bar of the tractor or on the shredder.

Hydraulic oil escaping under pressure can have sufficient force to penetrate the skin causing serious personal injury. Before disconnecting lines be sure to relieve all pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes, and hoses are not damaged.

Oil escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood instead of a hand to search for suspecting leaks. If injured by escaping oil, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately. Always relieve pressure in a hydraulic system before working with hydraulic system components.

Remember this, an accident is usually caused by the carelessness, neglect, or oversight of someone.

Machine Break-In: (A)

1. Before starting the shredder, check the oil level in the gear case and lubricate the machine. Add oil if necessary. See Lubrication and Maintenance Section.

2. ⚠ CAUTION: Never operate the shredder until the powershaft and other safety shields are in place and secured. Tighten all nuts and check cotter pins to see they are properly installed.

3. Although there are no operational restrictions on the shredder when used for the first time, the following items should be checked:

A. After operating for 1/2 hour or after 5 acres:
1. Check all fasteners. Tighten to their specified torque.
2. Check and tighten wheel lug nuts.
3. Check that the knives are in good condition and hinge freely.
4. Check the oil in the gearbox.
5. Check the PTO shaft for any binding
6. Re-tighten wheel-leg U-bolts to specified torque.

B. After operating for 5-10 hours:
1. Repeat items 1-5 above.

4. **Tractor PTO:**

The Remlinger Shredder is designed and balanced to operate with PTO speed of 1000 RPM. Do not exceed the rated PTO speed. Avoid making sharp turns with the PTO engaged when using a standard PTO driveline, as this will put increased stress on the entire drive train. **Do not attempt to use any type of adapter to change size or spline of the tractor PTO to match the shredder. Always use the correct PTO shaft.** Be certain the drawbar is in the regular (center) position - there should be at least 15-3/4" horizontally from the center of the drawbar hole to the end of the PTO shaft to prevent the driveline from bottoming out.

5. **Turning Pull Type**
CV Drive line with over running clutch

Shredder equipped with CV (Constant Velocity) joint will allow sharper turns than a regular driveline; however, the CV joint angle should not exceed 80° in either operating or at a standstill. Larger angles will damage the joint. The driveline angle should not exceed 35° when under full load.

6. **3 Point or Semi Mounted**
Drive line with Overrunning Clutch

Make certain angles do not exceed more than 20° when lifting, when machine is running, or under load. Shut PTO off when LIFTING or TURNING at end of row. Do not lift shredder to a high position while the PTO is running or driveline damage will occur.

7. **Tractor Speed:**
Ground speed can vary between 3 and 8 mph depending on trash and terrain conditions. The speed can be increased if the shredder is doing a good job. Decrease speed if all trash is not being shredded. A lower ground speed will also decrease power requirements by reducing the amount of material being shredded. A higher ground speed will increase power requirements.

Under most conditions, the tractor can be operated at 3 to 8mph without causing undue wear on the shredder. Avoid excessive speeds. Reasonable speeds result in higher productivity.

Various shredding conditions require different ground speeds. Best results will be obtained by running the tractor at the travel speed that will meet field conditions or the speed where the smoothest cutting action results.

8. **Cutting Height Setting:**
Set the unit height to give a hammer height of 3 to 6" above the ground. In most conditions the shredder will perform more efficient if the front of the shredder is 1-1/2 to 3" higher than the back. The adjustment for the screw jack on each wheel assembly is in the back of the unit. **Important:** All wheels should be adjusted evenly. On pull type models the front height is adjusted by using a ratchet jack or hydraulic cylinder kit.

The front height on mounted shredders is controlled by lowering linkage on tractor controls.

FIELD OPERATIONS (B)

1. **IMPORTANT: When operating the shredder always check the cutting height so the knives do not hit the ground, stones, etc.**

2. **IMPORTANT: Always operate the shredder with the tractor at recommended speed to obtain 1000 rpm on the tractor PTO shaft.**

3. If turns at ends of fields are not too severe, you may leave the PTO engaged. Reduce ground speed of tractor to save wear on the PTO. If necessary, clear ends of the field before beginning your shredding operation. **IMPORTANT: Do not engage PTO with engine running at high speed. Doing so may cause undue wear or possible driveline and/or gear case damage.**

4. **IMPORTANT: The constant striking of knives on frozen ground and sudden impacts will cause excessive wear and damage. Raise shredder so knives do not contact frozen ground.**

MAINTAINING ROTOR BALANCE

5. The rotor on your flail shredder is dynamically balanced and must be maintained in balance throughout the life of the machine. The rotor must be kept clean and worn knives replaced.

ADJUSTING CUTTING HEIGHT

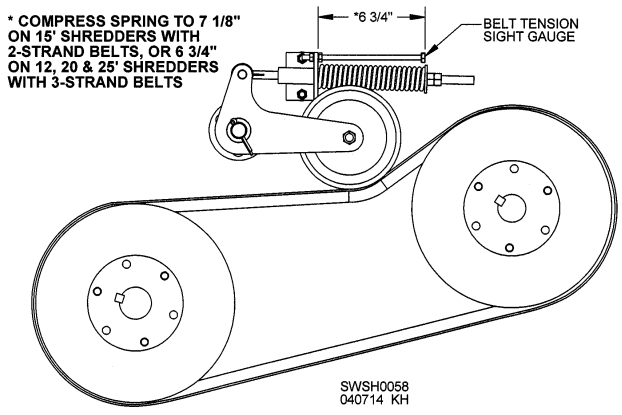
6. The cutting height of the knives is controlled by extending or retracting the hydraulic cylinder. Retracting the cylinder lowers the knives and extending the cylinder raised the knives. For best possible cut, operate the knives 3 to 6" above the ground. **IMPORTANT: Under no circumstances should the knives contact the ground. To do so will cause undue wear to the knives as well as possible damage to the rotor.**

ADJUSTING ROTOR DRIVE BELTS

7. Before beginning the shredding operation, the rotor drive adjustments, at each rotor drive end, must be checked to assure proper belt tension.

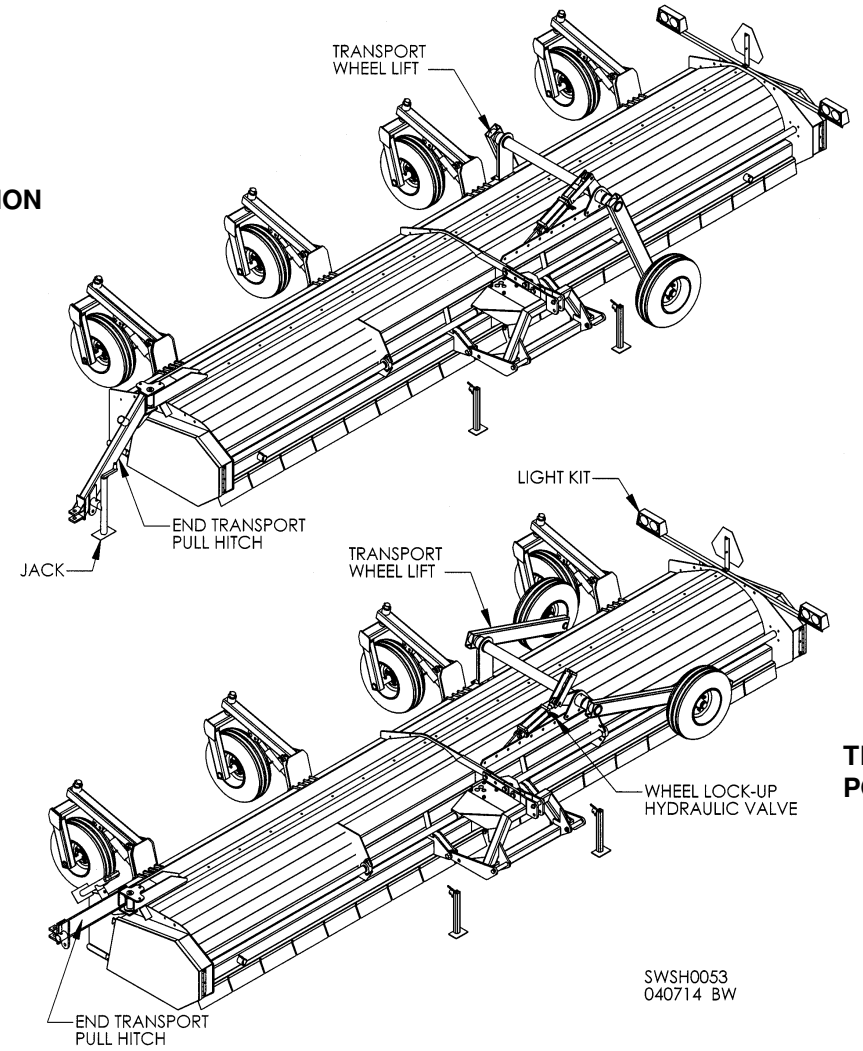
To check adjustments, first open the belt shield door-make sure PTO is disengaged and tractor engine is off.

Adjust belt tension by tightening or loosening the 1/2" Hex Nuts on adjustment rod until spring is compressed to 6-3/4" long on 3 banded belts, (7-1/8" on 15' dual drive with 2 banded belt) to adequately tension the belt. Use the 5/16" bolt alongside the spring as a quick-check sight gauge.
IMPORTANT: The idler spring must not be solidly compressed. Hand pressure on the bottom belts must produce movement in the spring assembly.



OPERATION END TRANSPORT SYSTEM

FIELD POSITION



TRANSPORT POSITION

1. Raise front of shredder on pull type with front hitch cylinder or on 3 point models use tractor 3 point lift.

2. Lower the two parking stands in front of shredder.

3. Lower shredder so front of shredder rests on parking stands.

4. Unhook shredder from tractor.

5. Connect hydraulic hoses to tractor from wheel lift on end transport.

6. Swing out end hitch to end pull position.

7. Swing down Jack on end hitch and adjust to tractor draw bar height.

8. Hydraulically raise end transport wheels and swing cylinder lock in place.

9. Hook tractor to end pull hitch, lower Jack and swing into fold-up position.

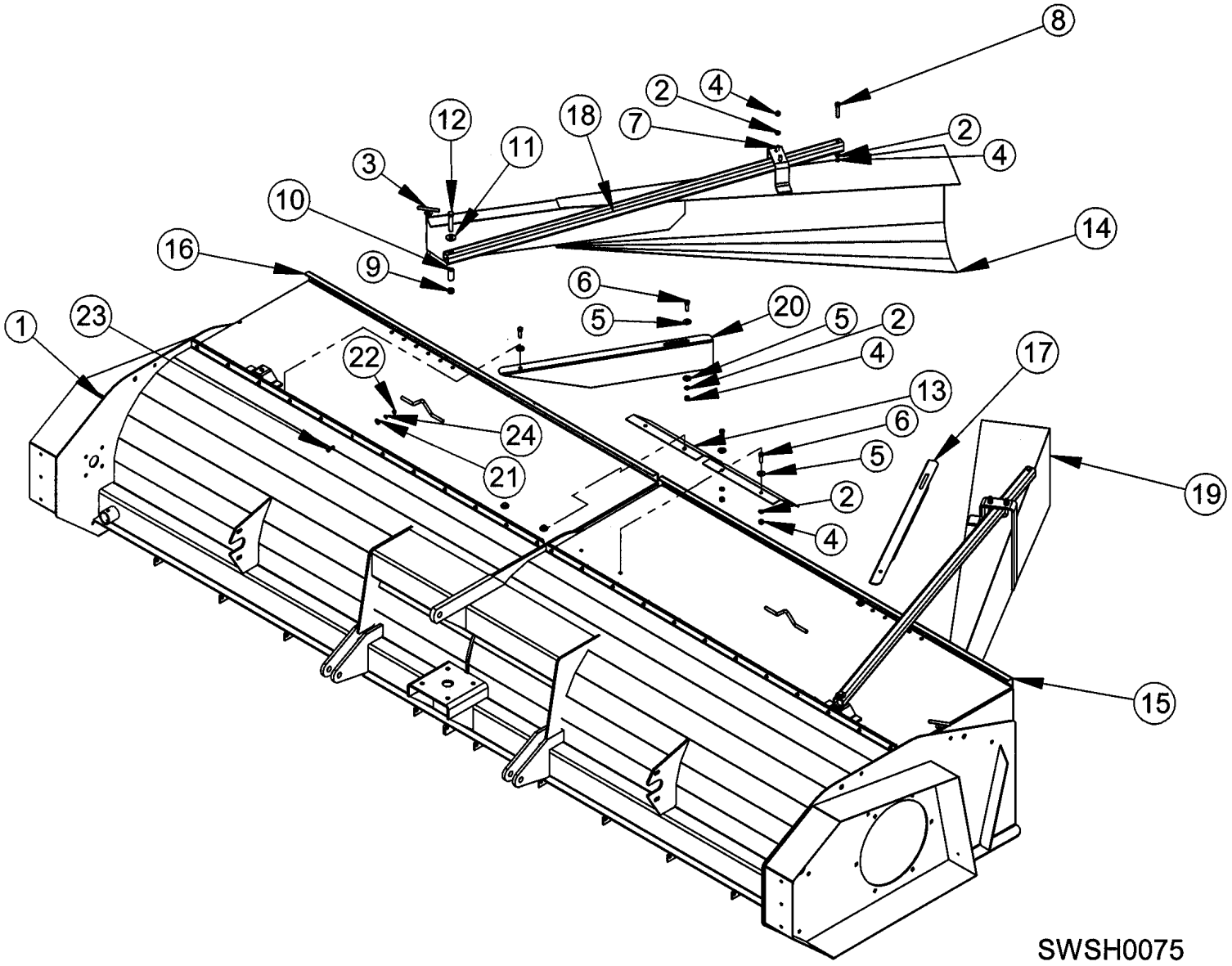
Shredder is ready for road transport. For field position reverse above steps.

TROUBLESHOOTING GUIDE

SYMPTOMS	PROBLEM	SOLUTION
Excessive Vibrations	Loss of rotor knives.	Install knives.
	Rotor deformation.	Straighten rotor & rebalance.
	Bent rotor shaft.	Straighten & rebalance
	Rotor buildup with residue, corrosion.	Pressure wash rotor.
	Rotor bearing going out.	Replace bearing.
Excessive Power Demand	Rotor knives hitting ground.	Adjust cutting height.
Non-Uniform Cutting	Improper tractor ground speed.	Operate tractor at slower ground speed.
	Dull knives.	Reverse or replace side knives. Replace cup knives.
	Tractor PTO RPM	Operate tractor PTO at 1000 RPM.
	Wheel height Adjustment (Not Even)	Adjust wheel leg even.
	Rear wheel legs not located correctly for row spacing.	Adjust to fit row spacing.
	Crop flattened by front of machine & not shredded.	Increase machine pitch by raising front of shredder.
Belt Breakage	Incorrect tension.	Adjust idler for proper tension.
	Mis-aligned between pulleys.	Align pulleys.
	Crop residue in pulley & belt drive.	Clean residue & replace shield.
Belts Slipping	Incorrect tension.	Adjust idler for proper tension.
	Ground speed too fast.	Reduce ground speed.
	Rotor knives hitting ground.	Adjust cutting height.
Noise Gear Case	Low oil level.	Refill to proper oil level
	Damaged gears or bearings.	Repair gear case.
Excessive Bearing Failure	Bearings not greased.	See Lubrication & Maintenance
	Bearings over-greased	"
	Excessive vibration	"

NOTE: Do Not operate shredder with excessive vibration until repairs are made.

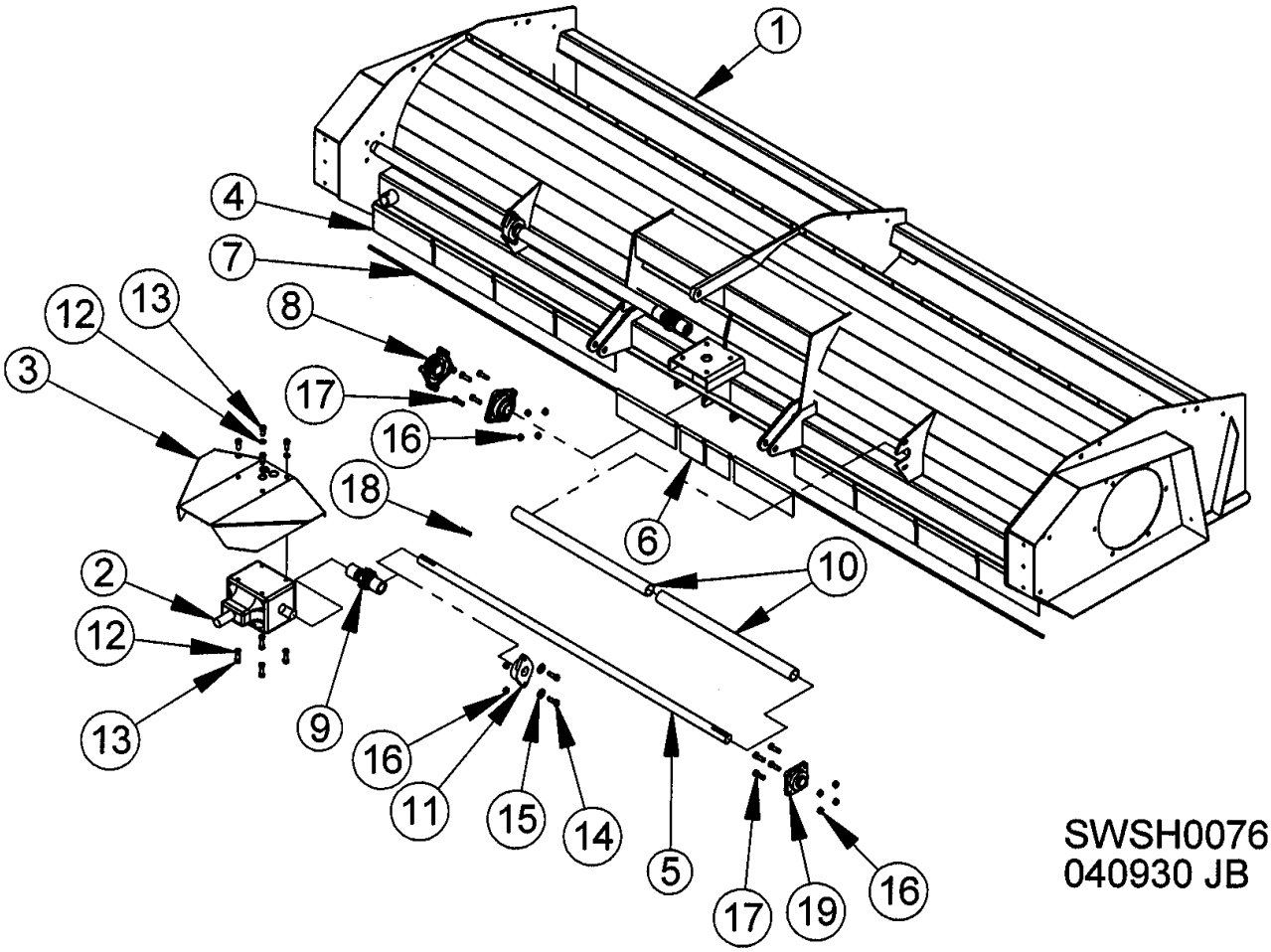
WINDROW ASSEMBLY



WINDROW ASSEMBLY

REF. #	DESCRIPTION	QTY	12' COMP.#	QTY	15' COMP.#	QTY	20' COMP.#
1	Frame Weldment	1	S18485	1	S18426	1	S18427
2	Washer, Lock, 1/2", PLT	14	J1215	14	J1215	14	J1215
3	Hinge Pin Weldment	2	S13961	2	S13961	2	S13961
4	Nut, Hex, 1/2-13, PLT	14	J1040	14	J1040	14	J1040
5	Washer, Flat, 1/2"	10	J1125	10	J1125	10	J1125
6	Screw,1/2-13, 1.5",Gr 5,HHCS	8	J0730	8	J0730	8	J0730
7	U-Bolt, 1/2 x 2-1/2 Square	2	J0780	2	J0780	2	J0780
8	Screw, 1/2-13, 2.5, Gr.5,HHCS	2	J0746	2	J0746	2	J0746
9	Nut, Top Lock, 5/8" - 11	2	J1047	2	J1047	2	J1047
10	Wing Adjusting Bushing	2	S14020	2	S14020	2	S14020
11	Washer, Flat, 5/8"	2	J1127	2	J1127	2	J1127
12	Screw, 5/8" - 11 x 3-1/2"	2	J0795	2	J0795	2	J0795
13	Hood Deflector	2	S18981	2	S18981	2	S18981
14	Right Windrow Wing	1	S14044	1	S14044	1	S14044
15	Hood, Windrow, Left Hand	1	S18985	1	S18930	1	S18995
16	Hood, Windrow, Right Hand	1	S18980	1	S18920	1	S18990
17	Deflector Vane, Left	1	S16944	1	S16944	1	S16944
18	Adjusting Tube	2	S14040	2	S14040	2	S14040
19	Left Wing Weldment	1	S14045	1	S14045	1	S14045
20	Deflector Vane, Right	1	S16844	1	S16844	2	S16844
21	Washer, flat, 3/8" - 16, PLT	24	J1117	24	J1117	24	J1117
22	Nut, Hex, 3/8" - 16, PLT	24	J1020	24	J1020	24	J1020
23	Screw, 3/8" - 16, 1.25", PLT	24	J0616	24	J0616	24	J0616
24	Washer, Lock, 3/8", PLT	24	J1205	24	J1205	24	J1205

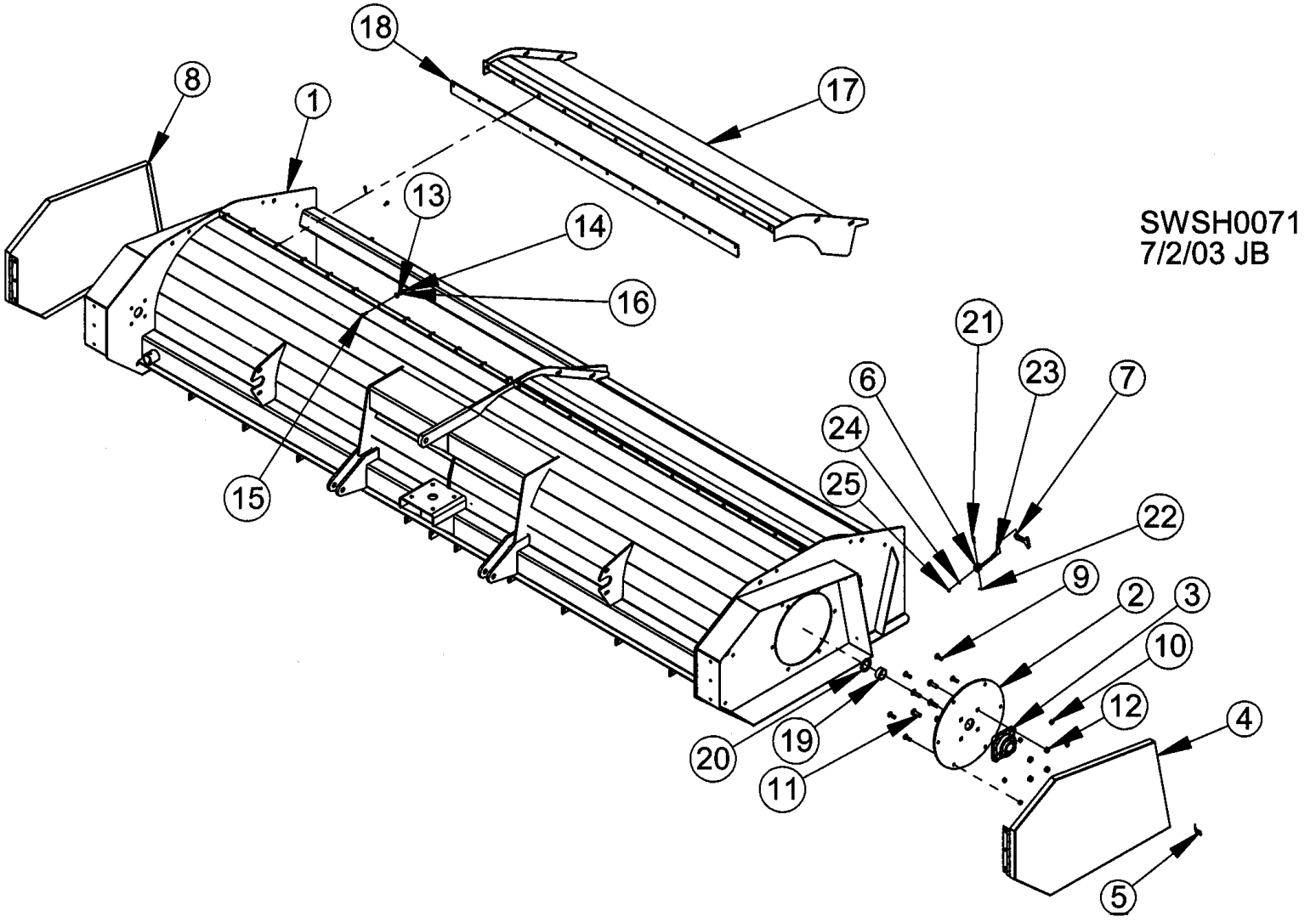
FRONT ASSEMBLY



FRONT ASSEMBLY

REF. #	DESCRIPTION	QTY	12' COMP. #	QTY	15' COMP. #	QTY	20' COMP. #	QTY	25' COMP. #
1	Frame Weldment	1	S18425	1	S18426	1	S18427	1	S18428
2	Gearbox, Superior	1	J8500	1	J8500	1	J8500	1	J8500
3	Gearbox Shield	1	S16314	1	S16314	1	S16314	1	S16314
4	Flipper Weldment	8	S18438	10	S18438	14	S18438	18	S18438
5	Drive Shaft	1	S18960	2	S18476	2	S18437	2	S18474
6	Flipper Weldment, 6-1/4"	2	S18478	2	S18478	-	--	-	--
7	Flipper Rod	1	S18475	1	S18479	1	S18439	2	S18475
8	Bearing, 2", 4 Bolt flange	-	--	2	J00492	2	J00492	2	J00492
9	U-Joint, 35R	1	J7348	2	J7348	2	J7348	2	J7348
10	Drive Shaft Shield	1	S18961	4	S18492	2	S18454	2	S18473
10A	Driveshaft Shield, Inner	-	--	-	-	2	S18455	2	S18455
11	Bearing,2 Blt Flange,1-3/4"	1	J00461	2	J00461	2	J00461	2	J00461
12	Washer, Lock, 5/8", PLT, Split	8	J1218	8	J1218	8	J1218	8	J1218
13	Screw, 5/8-11x1.5"	8	J0781	8	J0781	8	J0781	8	J0781
14	Screw, 5.8-11x2", Gr.8,HHCS	2	J0789	4	J0789	4	J0789	4	J0789
15	Washer, Flat, 5/8"	2	J1127	4	J1127	4	J1127	4	J1127
16	Nut, 5/8-11, Top Lock	2	J1047	12	J1047	12	J1047	12	J1047
17	Screw, 5/8-11 x 2	-	--	8	J0791	8	J0791	8	J0791
18	Key	1	D1495	2	D1495	2	D1495	2	D1495
19	Bearing, 4 Bolt Flange, 1-3/4"	1	J00460	2	J00460	2	J00460	2	J00460

BASIC HOOD/END ASSEMBLY

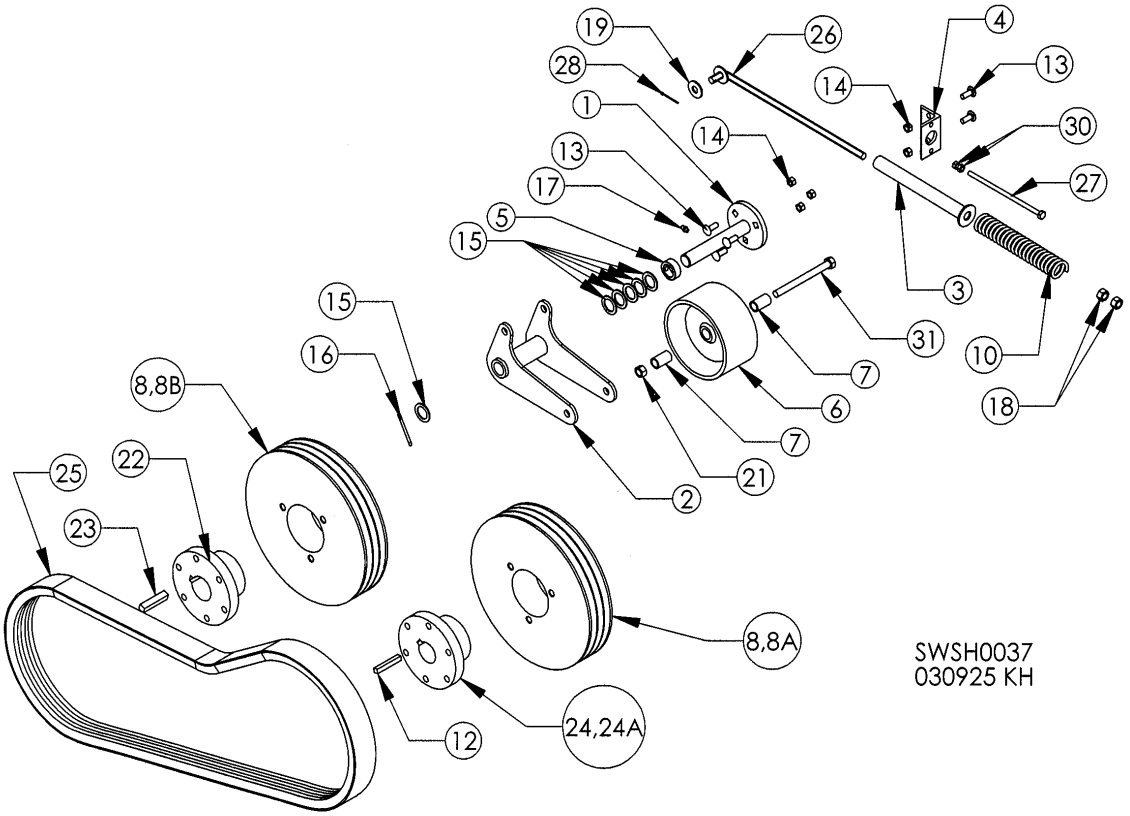


SWSH0071
7/2/03 JB

BASIC HOOD/END ASSEMBLY

REF. #	DESCRIPTION	QTY	12' COMP. #	QTY	15' COMP. #	QTY	20' COMP. #	QTY	25' COMP. #
1	Frame Weldment	1	S18425	1	S18426	1	S18427	1	S18428
2	Rotor End Plate	2	S18429	2	S18429	2	S18429	2	S18429
3	Bearing, 2", 4 Bolt Flange, Peer Med. Duty	2	J00493	2	J00493	2	J00493	2	J00493
4	Left Belt Shield Door	1	S18430	1	S18430	1	S18430	1	S18430
5	Bracket Hood	4	J23075	4	J23075	4	J23075	4	J23075
6	Bracket Anchor	4	J23074	4	J23074	4	J23074	4	J23074
7	Latch, Strap Rubber	4	J23073	4	J23073	4	J23073	4	J23073
8	Right Belt Shield Door	1	S18436	1	S18436	1	S18436	1	S18436
9	Bolt, 1/2-13, 1.5, PLT, Gr. 5, Carriage	12	J0739	12	J0739	12	J0739	12	J0739
10	Lock Nut, 1/2" - 13	12	J1042	12	J1042	12	J1042	12	J1042
11	Bolt, 5/8-11, 2, PLT, Gr. 5, Carriage	8	J07911	8	J07911	8	J07911	8	J07911
12	Nut, 5/8-11 Top Lock	12	J1047	12	J1047	12	J1047	12	J1047
13	Washer, Flat, 3/8-16, PLT	24	J1117	24	J1117	24	J1117	24	J1117
14	Nut, Hex, 3/8-16, PLT	24	J1020	24	J1020	24	J1020	24	J1020
15	Screw, 3/8-16, 1.25", PLT	24	J0616	24	J0616	24	J0616	24	J0616
16	Washer, Lock, 3/8", PLT	24	J1205	24	J1205	24	J1205	24	J1205
17	Hood, Shredder, Bolt-In	2	S18970	2	S18940	-	--	-	--
18	Bolt in Recutter Bar (Optional)	2	S1840	2	S1845	2	S18452	2	S18453
19	Spacer Tube	2	S16525	2	S16525	2	S16525	2	S16525
20	Bushing Machine, 2-10Ga	2	J1289	2	J1289	2	J1289	2	J1289
21	Pin, Picker, 1/4 x 1-1/2"	4	J15443	4	J15443	4	J15443	4	J15443
22	Pin, Cotter, 3/32 x 1/2"	4	J1423	4	J1423	4	J1423	4	J1423
23	Bolt, 5/16-18 x 3/4" Gr. 5, Hex Washer HD,JS500	4	J0536	4	J0536	4	J0536	4	J0536
24	Washer, Flat, 5/16	4	J1111	4	J1111	4	J1111	4	J1111
25	Nut, Hex, 5/16-18, PLT	4	J1002	4	J1002	4	J1002	4	J1002

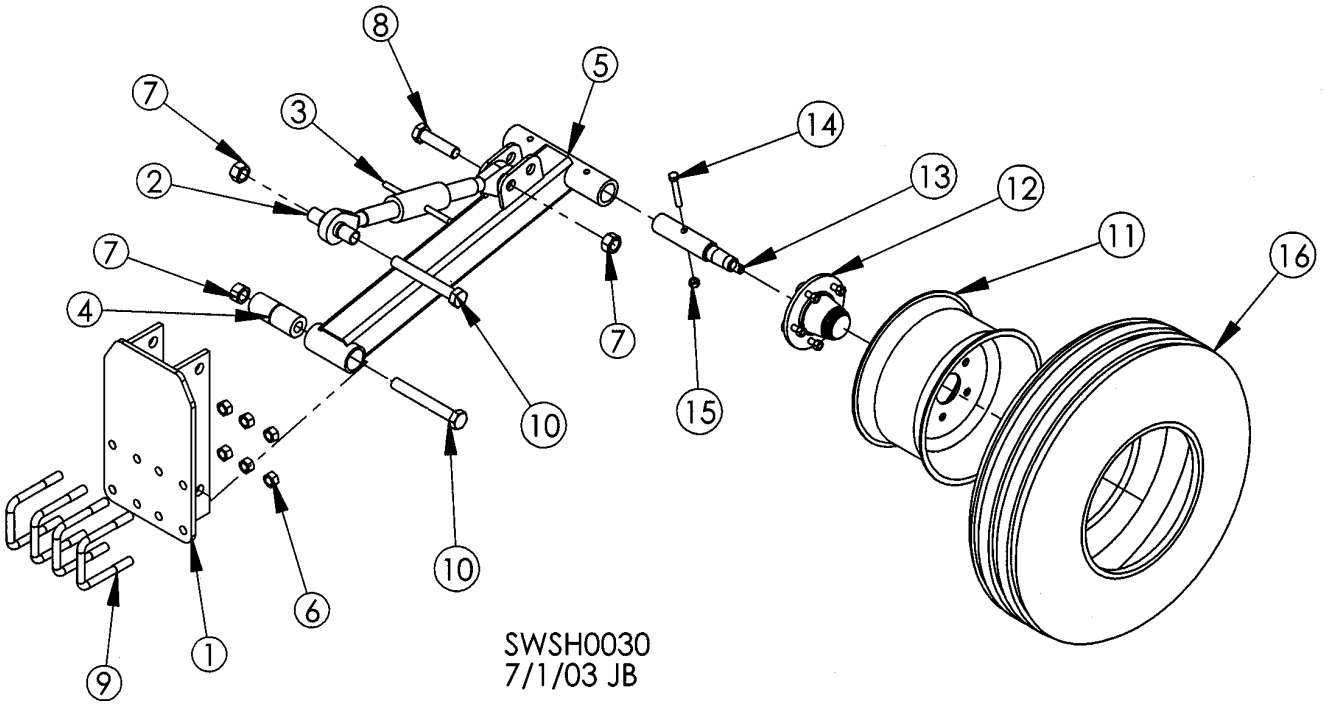
DRIVE ASSEMBLY
(RIGHT HAND SHOWN)



		Requires 1 side		Requires Right & Left Sides			
		12'		15'		20' & 25'	
REF. #	DESCRIPTION	QTY	COMP. #	Qty	COMP. #	QTY	COMP. #
1	Idler Pin Weldment	1	S18441	2	S18441	2	S18441
2	Pivot Arm Weldment	1	S18440	2	S18440	2	S18440
3	Tube Guide Weldment	1	S18442	2	S18442	2	S18442
4	Spring Stop	1	S18443	2	S18443	2	S18443
5	Shaft Collar 1"	1	J1335	2	J1335	2	J1335
6	Pulley, 6.5" OD Idler	1	J03340	2	J03340	2	J03340
7	Belt Tensioned Spacer	2	S16251	4	S16251	4	S16251
8	Pulley, 12.5 OD 3/5V1253E (FOR SIDE SLICER)	2	J0384	4	J0386	4	J0384
8A	Pulley, 5V1093 10.90D (FOR CUP KNIFE ROTOR)	1	J03671	2	J03672	2	J03671
8B	Pulley, 5V1403 14.00OD (FOR CUP KNIFE ROTOR)	1	J03956	2	J03957	2	J03956
10	Spring, Comp. 1.5 x .65 ID x 8,5"	1	J23671	2	J23671	2	J23671
12	Key - 3/8 x 2 - 1/2"	1	D1495	2	D1495	2	D1495
13	Bolt, Carriage, 3/8" x 1"	5	J06064	10	J06064	10	J06064
14	Nut, Hex, 3/8 - 16, PLT, Lock	5	J1025	10	J1025	10	J1025
15	Bushing, Machine, 1- 14 Ga. N-Rim	6	J1265	12	J1265	12	J1265
16	Pin, Cotter, 3/16, 2, PLT	1	J1435	2	J1435	2	J1435
17	Zerk, Drive In, Grease, 1/4"	1	J3605	2	J3605	2	J3605
18	Nut, Hex, 1/2 - 13, PLT	2	J1040	4	J1040	4	J1040
19	Washer, Flat, 1/2"	1	J1125	2	J1125	2	J1125
21	Lock Nut, ½" - 13	1	J1042	2	J1042	2	J1042
22	Bushing, Taperlock, 2" Bore E (SF on 15')	1	J04311	2	J04312	2	J04311
23	Keystock, 1/2" x 2-1/2"	1	D1681	2	D1681	2	D1681
24	Bushing, Taperlock, 1-3/4" Bore E (FOR SIDE SLICER)	1	J04271	2	J04288	2	J04271
24A	Bushing, Taperlock, 1.750 SF134 (FOR CUP KNIFE)	1	J04288	2	J04272	2	J04288
25	Belt, Banded, 3 x 90 (2 x 90 on 15' dual drive)	1	J0267	2	J0268	2	J0267
26	Spring Rod	1	J0844	2	J0844	2	J0844
27	Bolt, 5/16-18 x 7-1/2"	1	J06031	2	J06031	2	J06031
28	Pin Cotter, 1/8, 1-1/2", PLT	1	J1421	2	J1421	2	J1421
30	Nut, Lock, 5/16-18, PLT	2	J1010	4	J1010	4	J1010
31	Screw, 1/2-13 x 5.5	1	J0761	2	J0761	2	J0761

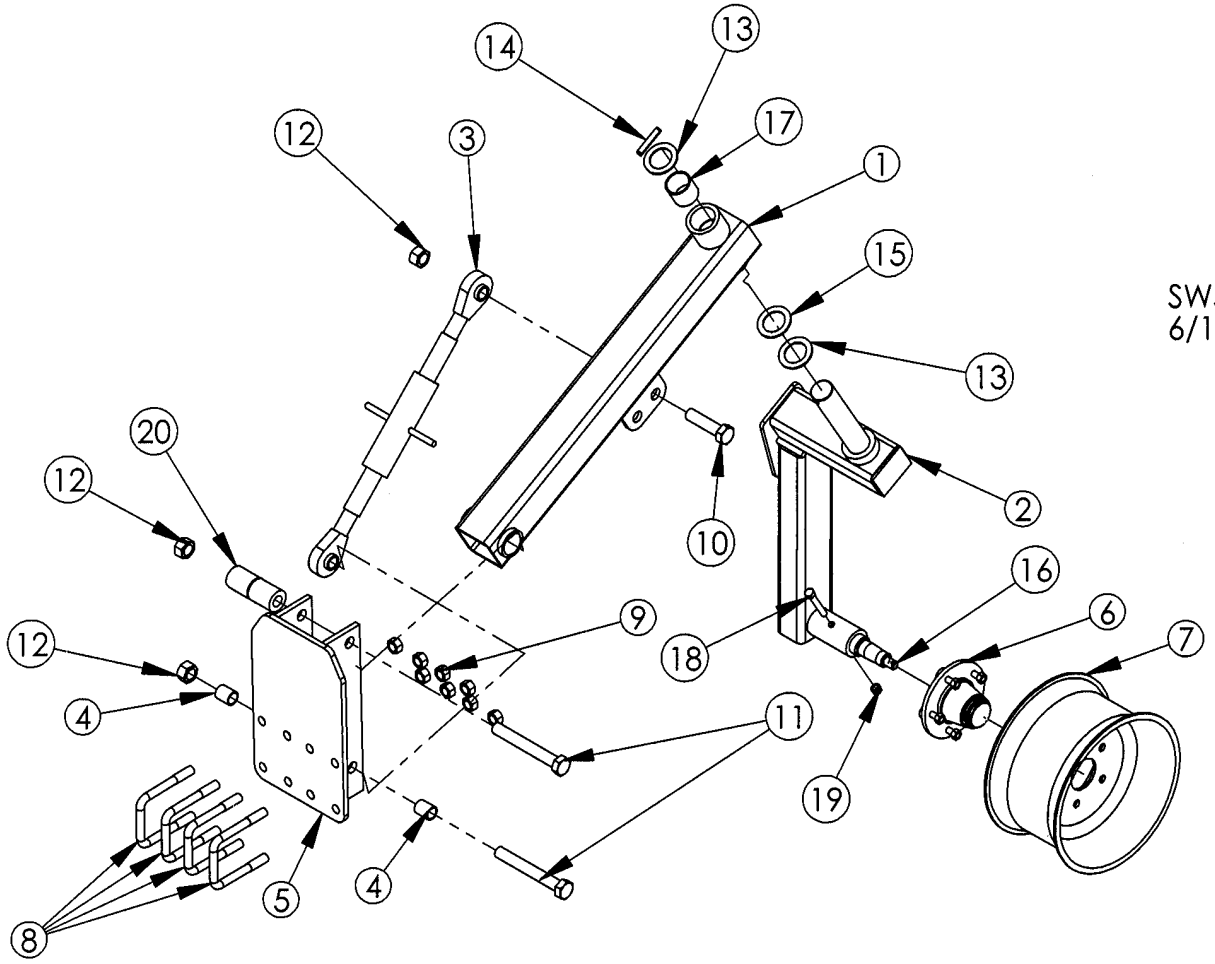
RIGID GAUGE WHEEL ASSEMBLY

(See Installation Instructions on Page 11)



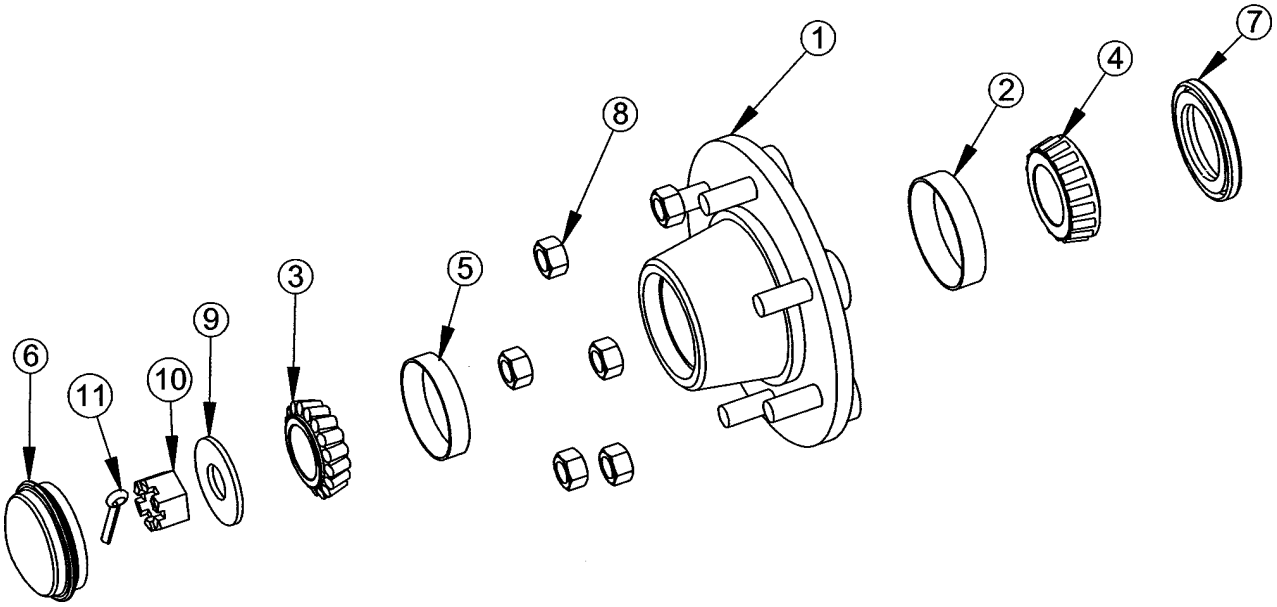
REF. #	DESCRIPTION	QTY	5 BOLT COMP. #	6 BOLT COMP. #
1	Rear Wheel Mount Weldment	1	S18435	S18435
2	Spacer Bushing, 1-1/4	2	M3197	M3197
3	Turnbuckle, TL174, 1-1/8" NC x 21-31	1	J0905	J0905
4	Pivot Bushing	1	W20527	W20527
5	Gauge Wheel Weldment	1	W20407	W20407
6	Nut, 3/4-10 Gr. B	8	J1057	J1057
7	Nut, Top, Lock, 1-8	3	J1061	J1061
8	Screw, 1-8, 4", PLT, Gr. 5, HHCS	1	J0911	J0911
9	U-Bolt, 3/4-10 x 4 x 5-3/4"	4	J07148	J07148
10	Screw, 1-8 x 7.5" PLT, Gr. 5,HHCS	2	J0918	J0918
11	Rim, 5H-14 x 8, Wheel	1	J7276	J72783
12	Hub Assembly with Studs	1	J7280	J72352
13	Spindle	1	S15394	R305004
14	Screw, 1/2 - 13, 3.25" PLT, Gr. 5, HHCS	1	J0752	J0752
15	Lock Nut, 1/2 - 13, PLT, Gr. 5	1	J1042	J1042
16	Tire, 9.5L - 15, 6-PLY, Tube Type	1	J72545	J72545

SWIVEL WHEEL ASSEMBLY - S18448



REF. #	DESCRIPTION	QTY	5 BOLT COMP. #	6 BOLT COMP. #
1	Swivel Wheel Support Weldment	1	S18154	S18154
2	Swivel Wheel Assembly	1	S18155	S18155
3	Turnbuckle, 1-1/8" NC x 21-31, TL 174	1	J0905	J0905
4	Spacer Bushing, 1-1/4	2	M3197	M3197
5	Rear Mount Wheel Weldment	1	S18435	S18435
6	Hub Assembly with Studs	1	J7280	J72352
7	Rim, 5H-14 x 8, Wheel, 106631	1	J7276	J72783
8	U-Bolt, 3/4 - 10 x 4 x 5-3/4"	4	J07148	J07148
9	Nut, 3/4 - 10 Gr. B	8	J1057	J1057
10	Screw, 1-8 x 4", PLT, Gr. 5,HHCS	1	J0911	J0911
11	Screw, 1-8 x 7.5", HHCS, PLT, Gr. 5	2	J0918	J0918
12	Nut, Top, Lock 1-8	3	J1061	J1061
13	Bushing, Machine, 2-10 Ga., N Rim	3	J1289	J1289
14	Roll Pin, 1/2 x 2-3/4"	1	J1475	J1475
15	Bushing, Oilite, 2"ID x 3"OD Thrust Bearing	1	J00822	J00822
16	Spindle	1	S15394	R305004
17	Bushing, Bronze, 2"ID x 2-1/4"OD	2	J00862	J00862
18	Screw, 1/2" - 13, 3.25, PLT, Gr. 5, HHCS	1	J0752	J0752
19	Lock Nut, 1/2 - 13, PLT, Gr.5	1	J1042	J1042
20	Pivot Bushing	1	W20527	W20527
21	Lock Washer, 3/4" (NOT SHOWN)	8	J1220	J1220

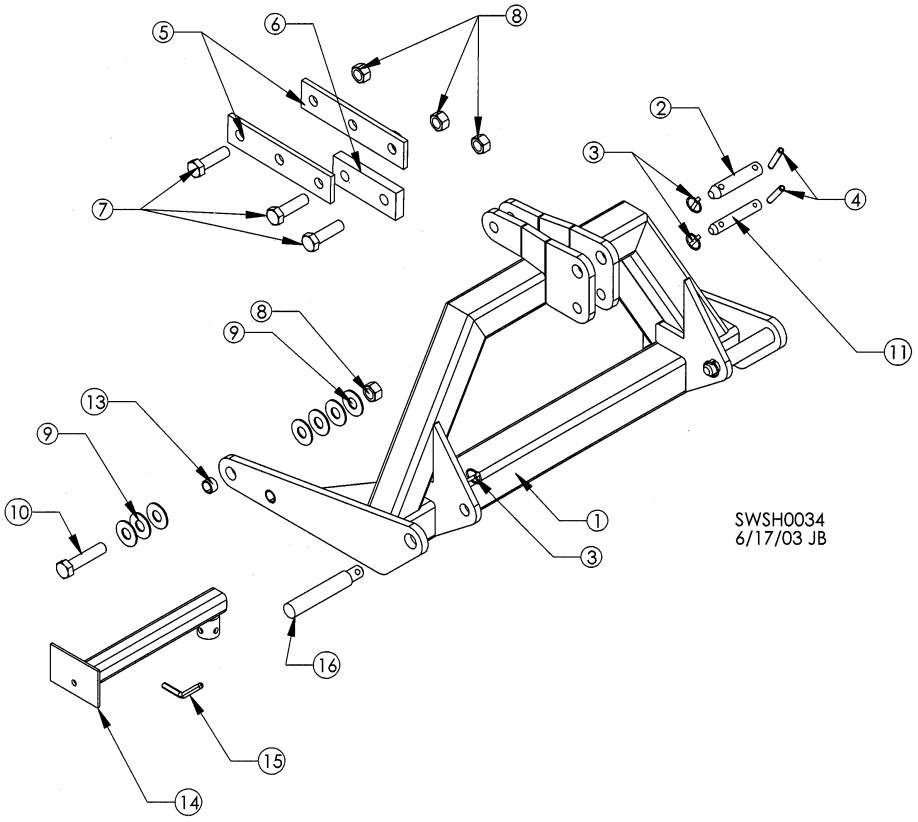
HUB ASSEMBLY
6 BOLT - J72352
5 BOLT - J7280



SWSH072
7/1/03 JB

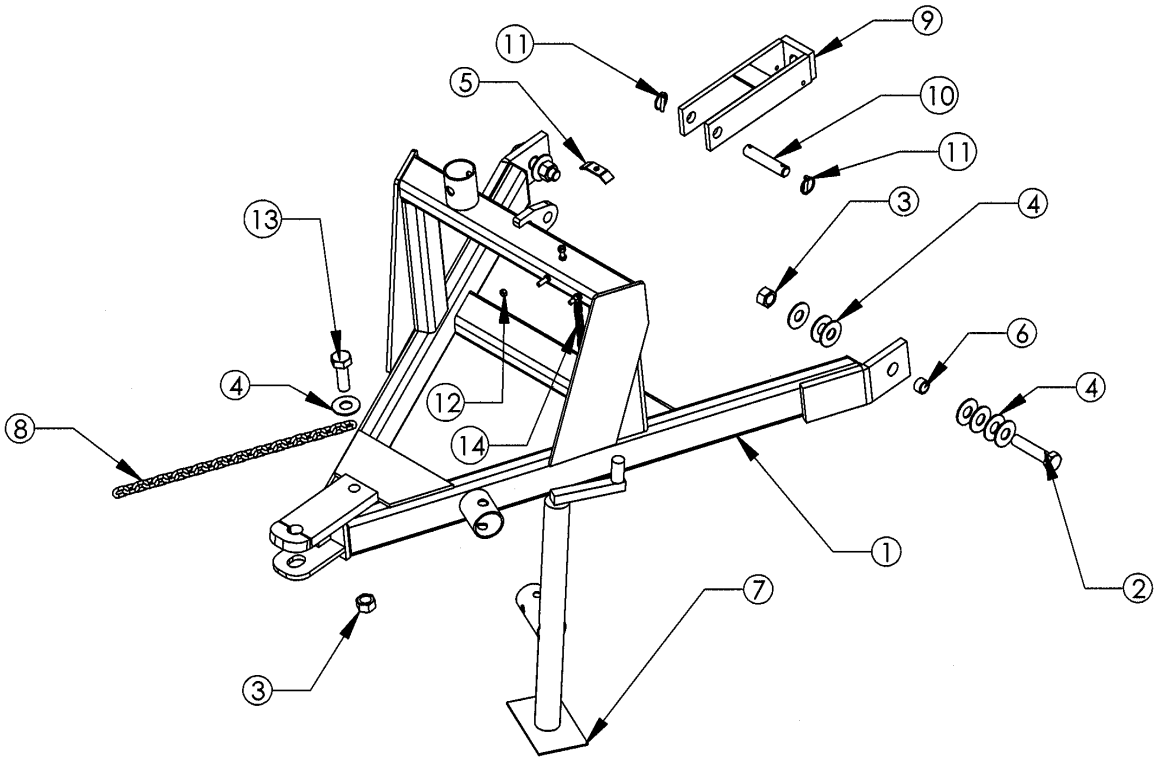
REF. #	DESCRIPTION	QTY	5 BOLT COMP. #	6 BOLT COMP. #
1	Hub Assembly W/Studs, Includes Items 1-8	1	J7280	J72352
2	Cup, Bearing, LM 29710	1	J0114	J01255
3	Bearing, Tapered, 1.25” x .66”	1	J0140	J0140
4	Bearing, Tapered, Roller LM 29749	1	J0113	J01254
5	Cup, Bearing, 1.25”	1	J0141	J0141
6	Dust Cover, 2-7/16 OD	1	J72331	J72331
7	Seal, 1.75 x 2.722, C/R, 17617 HB18	1	J7018	J7018
8	Nut, Wheel, 1/2 - 20, PLT, 60	6	J1043	J1043
9	Washer, Flat, 3/4”	1	J1130	J1130
10	Nut, Hex, 3/4 - 16, Slotted	1	J1050	J1050
11	Pin, Cotter, 3/16, 1-1/2”, PLT	1	J1432	J1432

MOUNTED HITCH ASSEMBLY
3-POINT ADAPTOR ASSEMBLY - S18447



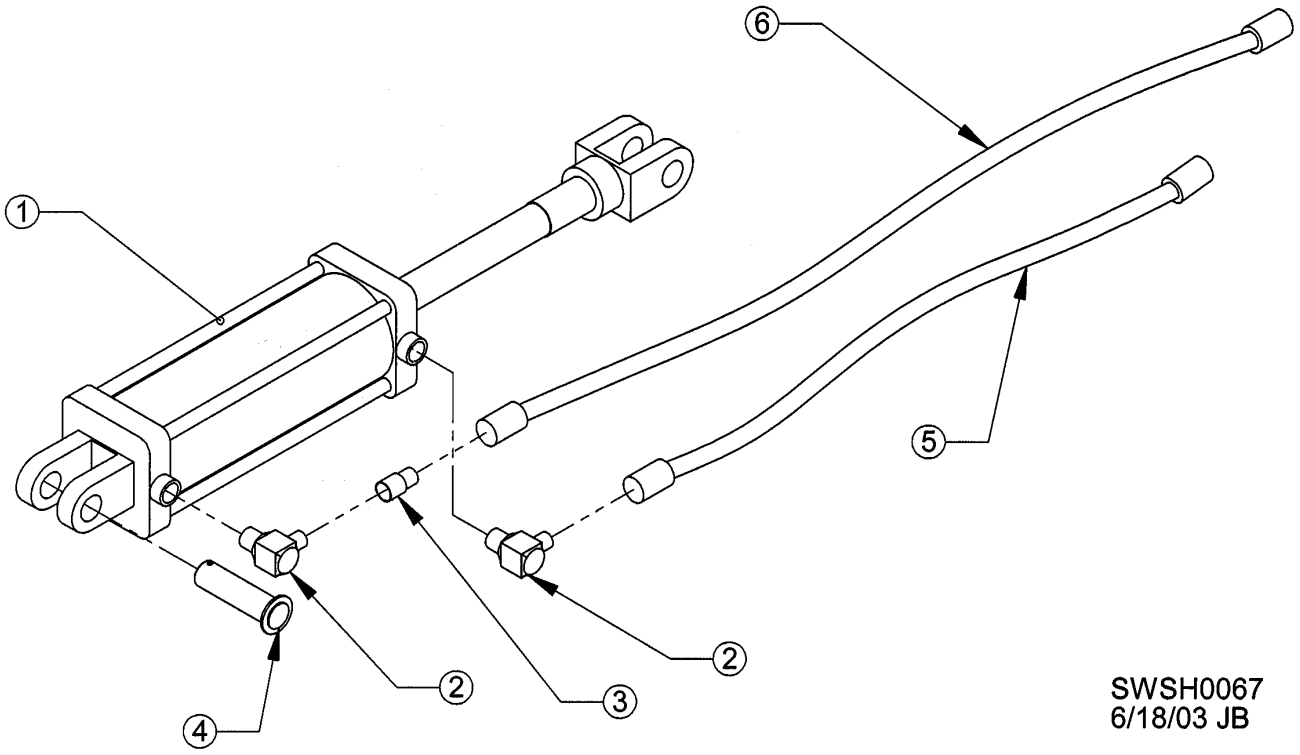
REF. #	DESCRIPTION	QTY	COMP. #
1	Adapter Weldment	1	S18432
2	Upper pin 3-Point	1	W510574
3	Lynch Pin 7/16”	4	J15481
4	Roll pin, 1/2 x 2-3/4”	2	J1475
5	Top Linkage-Long	2	S18434
6	Top Linkage-Short	1	S18433
7	Screw, 1-8 x 3.5 HHCS Gr. 5	3	J0910
8	Nut, Top Lock, 1-8	5	J1061
9	Washer, flat, 1”	17	J1132
10	Screw, 108 x 4.5” HHCS, Gr. 5	2	J0913
11	Pin, Upper, 3-Point, CATII	1	S18460
13	Bushing, Split, 1-1/4 x 1 x 3/4”	4	J00691
14	Parking Stand	1	S18460
15	Pin, Bent Hitch, 1/2 x 2-1/2”	1	J15382
16	Pin, Lower, 3-Point, CATIII	2	S18457

PULL TYPE HITCH - S18446



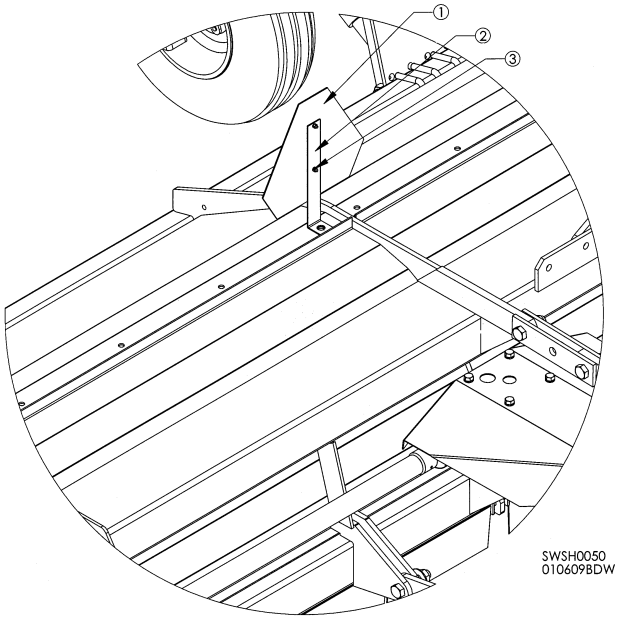
REF. #	DESCRIPTION	QTY	COMP. #
1	Pull Type Hitch Weldment	1	S1910
2	Screw, 1-8 x 4.5", HHCS Gr. 5	2	J0913
3	Nut, Top Lock, 1-8	3	J1061
4	Washer, Flat, 1"	15	J1132
5	Clamp, Hydraulic Hose (2)	1	R121848
6	Bushing, 1-1/4" x 1" x 3/4, Split	2	J00691
7	Jack Assembly W/Brackets	1	J8205
8	Safety Chain	1	J1799
9	Cylinder Stop	1	S16840
10	Hitch Pin, 1 x 5	1	M3301
11	Lynch Pin, 5/16"	2	J1548
12	Nut, Hex, 3/8-16, PLT Lock	3	J1025
13	Screw, 1-8, 3", PLT	1	J0909
14	Chain Plated, 3/16", 18" Long	1	S7051

CYLINDER KIT FOR PULL TYPE WITH HOSES



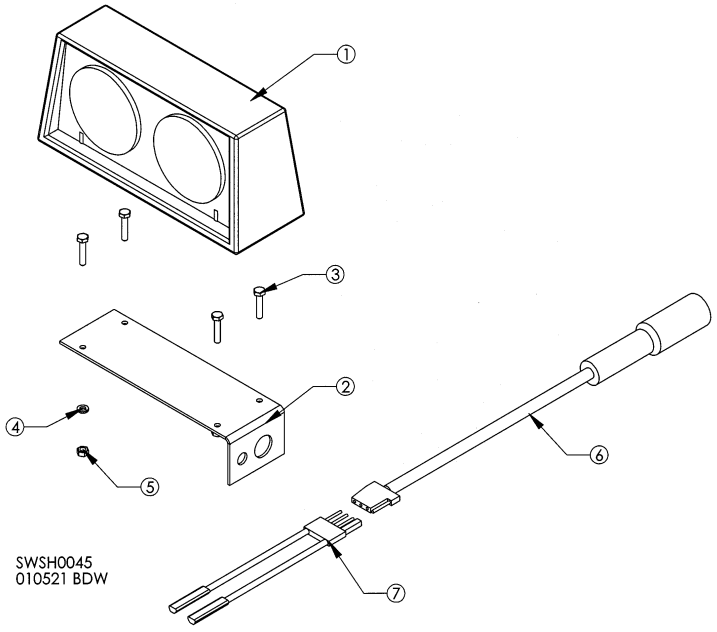
REF. #	DESCRIPTION	QTY	COMP. #
1	Cylinder, 3-1/2” x 8”	1	J7107
2	Elbow, 90° 1/2” MIP x 3/4-16MJIC, 1208	2	J71021
3	Restrictor, 3/4”	1	J71028
4	Cylinder Pin, 1” Diameter x 3-1/16 (3.5 x 8S)	1	J7172
5	Hose, Hydraulic, 3/8” x 6’, w/ Fittings	1	S1905
6	Hose, Hydraulic, 3/8” x 7’ w/Fittings	1	S1906

SLOW MOVING VEHICLE SIGN ASSEMBLY - S18901



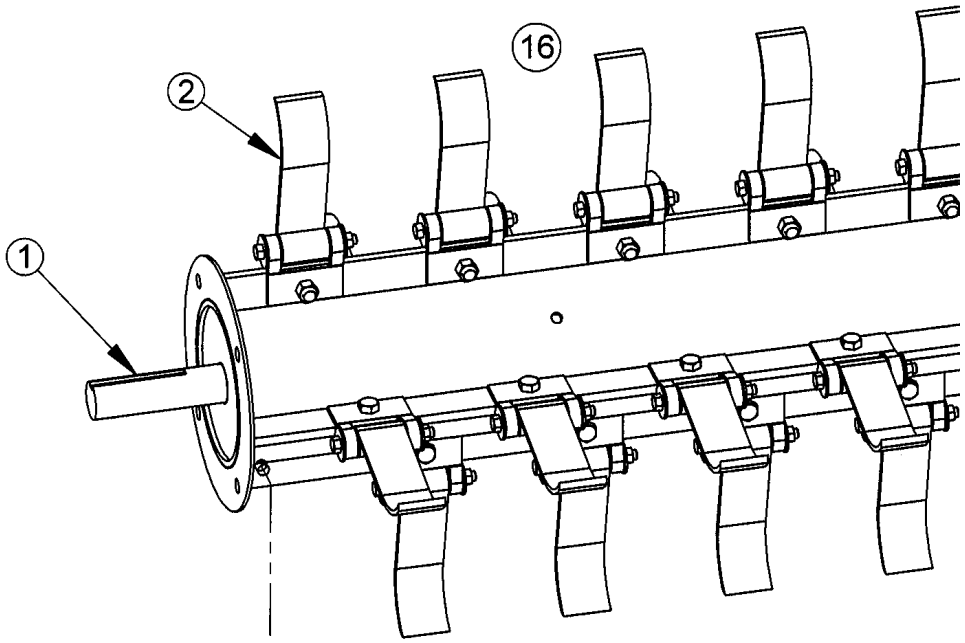
REF. #	DESCRIPTION	QTY	COMP. #
1	Slow Moving Sign	1	J2250
2	Bracket	1	W2247
3	Bolt, 1/4”-20 x 3/4”	2	J0505
	Nut, Hex, 1/4” - 20	2	J0990
	Lockwasher, Split, 1/4”-20	2	J1195

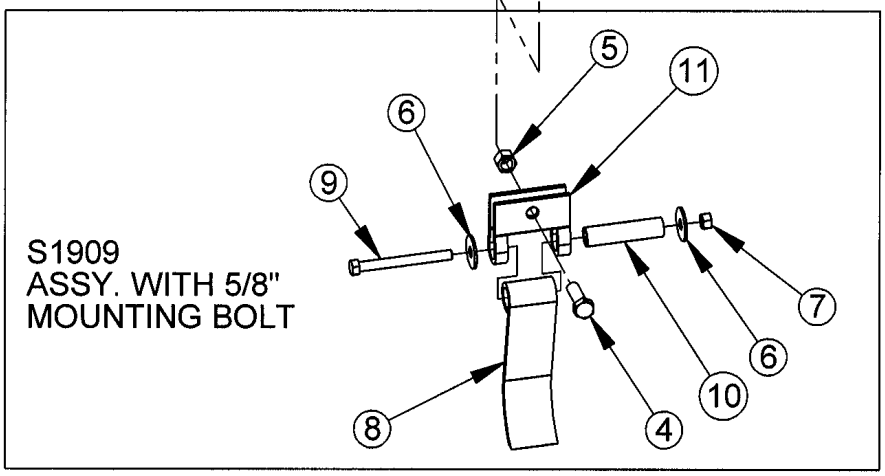
LIGHT KIT WITH BRACKET - S5248

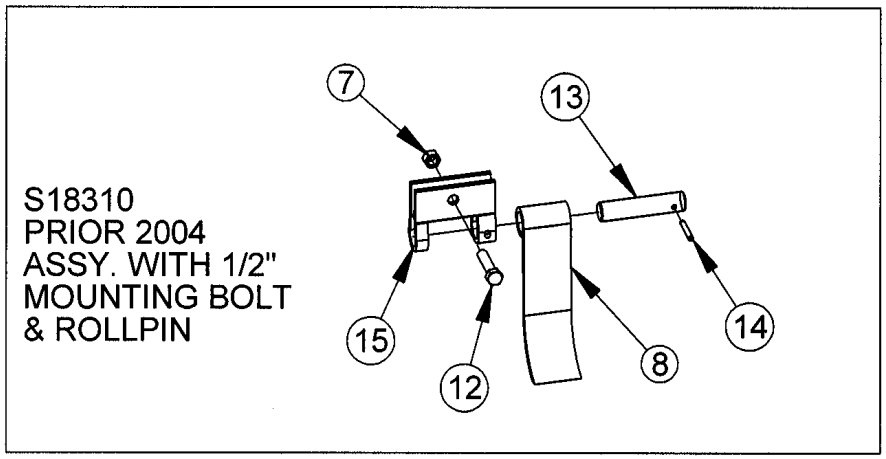


REF. #	DESCRIPTION	QTY	COMP. #
1	Lamp, Dual, Ag, Light, RH	1	J5914
1	Lamp, Dual, Ag, Light, LH	1	J5913
2	Bracket, Light	2	S121533
3	Screw, 1/4 - 20, 1.25, PLT, SL, FHMS	4	J0510
4	Washer, Lock, 1/4” PLT	4	J1195
5	Nut, Hex, 1/4 - 20	4	J0990
6	Cable, Fesroon, W/7-Pin, 10’ Long	1	J5919
7	Harness, Wishbone, 15’	1	J5916

ROTOR ASSEMBLY
CUPPED KNIVES







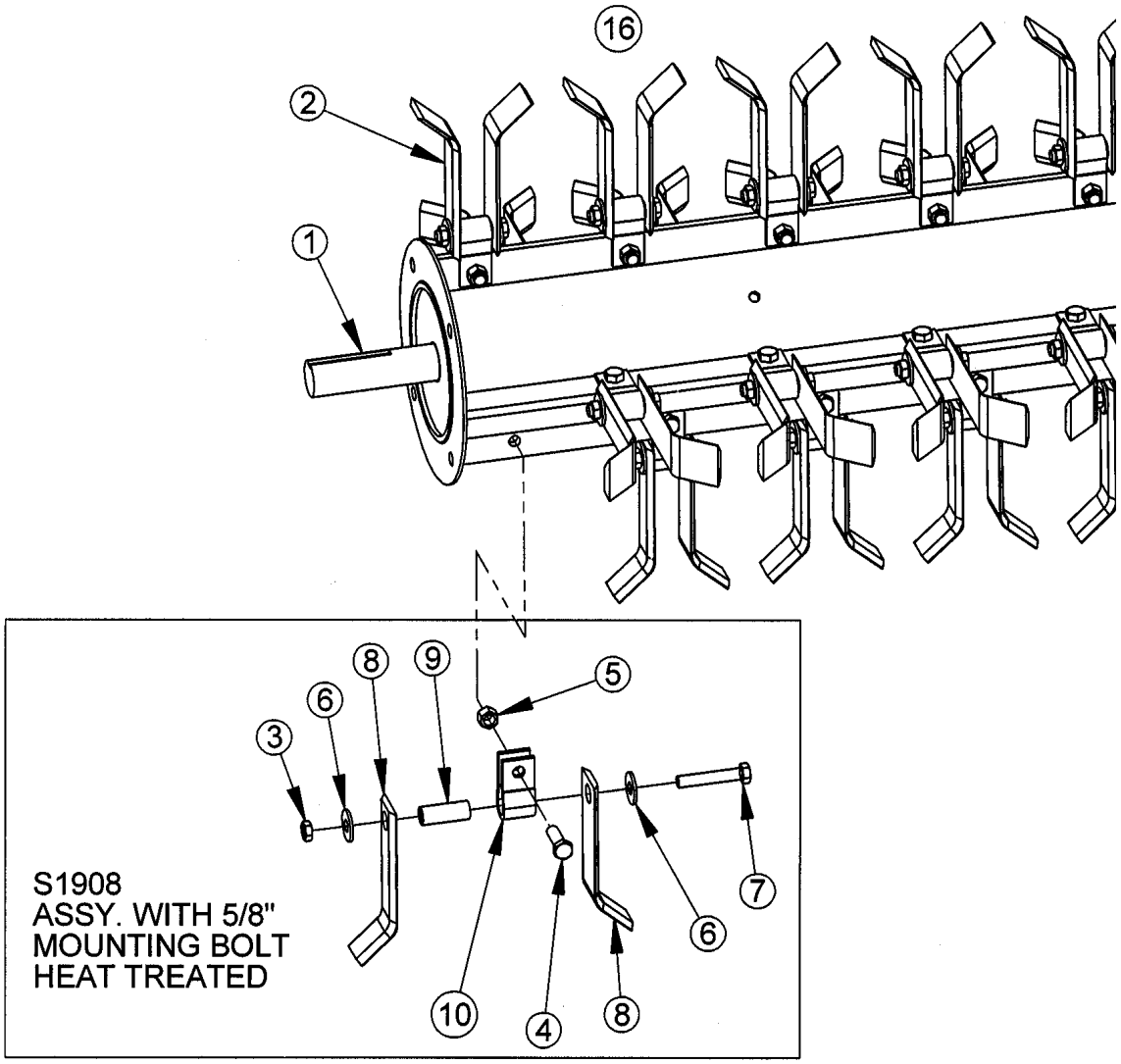
SWSH0064
040716 KH

ROTOR ASSEMBLY CUPPED KNIVES

(Quantities are per rotor)

		12Ft.		15Ft.		20Ft.		25Ft.	
REF. #	**DESCRIPTION**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**
1	Rotor Weldment	1	S16550	1	S16535	1	S16562	1	S16567
2	8” Cup Knife Assembly	68	S1909	38	S1909	50	S1909	66	S1909
4	Screw, 5/8-11 x 2, Gr. 8 HHCS	68	J0789	40	J0789	52	J0789	68	J0789
5	Nut, 5/8-11 Top Lock, Gr. C	68	J10473	40	J10473	52	J10473	68	J10473
6	Washer, Flat, 1/2 x 1-5/8 PLT	136	J1126	76	J1126	100	J1126	132	J1126
7	Nut, Lock, 1/2-13	68	J1042	38	J1042	50	J1042	66	J1042
8	Hammer 8”, Cupped	68	J8257	38	J8257	50	J8257	66	J8257
9	Screw, 1/2-13, 5", PLT Split Gr.5, HHCS	68	J0760	38	J0760	50	J0760	66	J0760
10	Hammer Bushing	68	S18308	38	S18308	50	S18308	66	S18308
11	Knife Clamp, Cup, 5/8” Bolt	68	S18306	38	S18306	50	S18306	66	S18306
12	Screw, 1/2-13, 2-1/4”, Gr. 8, HHCS	68	J0744	38	J0744	50	J0744	66	J0744
13	Pin, Single Knife	68	S18304	38	S18304	50	S18304	66	S18304
14	Pin, Roll, Spiral, 1/4 x 1-3/4”	68	J1486	38	J1486	50	J1486	66	J1486
15	Clamp, Cup Knife Mount, 1/2” Bolt	68	S18303	38	S18303	50	S18303	66	S18303
16	Rotor Assembly, Cup (Left)	1	S16551	1	S16536	1	S16563	1	S16568
16A	Rotor Assembly, Cup (Right)	0	-----	1	S16537	1	S16564	1	S16569

ROTOR ASSEMBLY
HEAT TREATED SIDE SLICE KNIVES



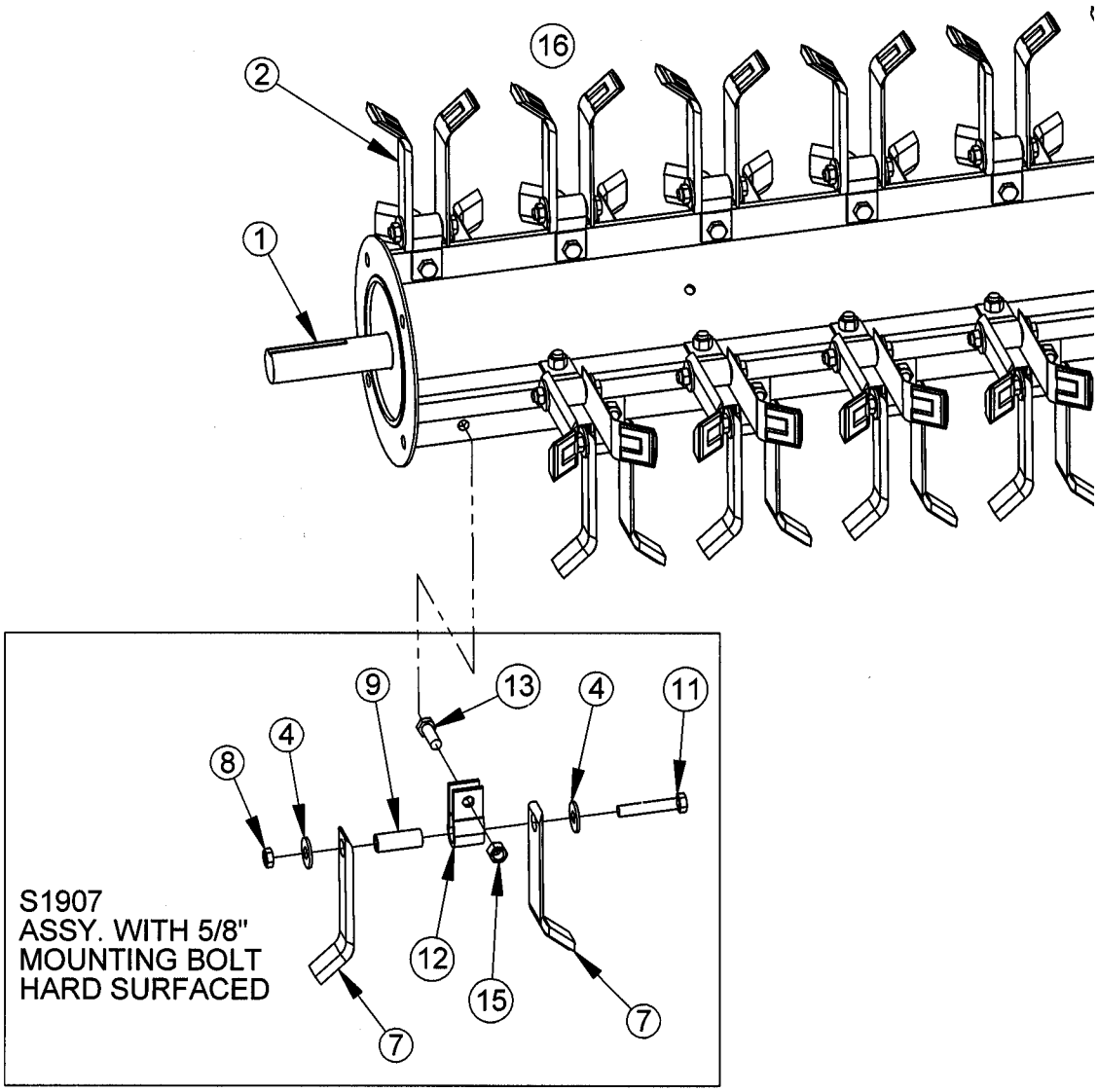
SWSH0065
040715 KH

ROTOR ASSEMBLY HEAT TREATED SIDE SLICE KNIVES

(Quantities are per rotor)

		12Ft.		15Ft.		20Ft.		25Ft.	
REF. #	**DESCRIPTION**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**
1	Rotor Weldment Shredder	1	S16550	1	S16535	1	S16562	1	S16567
2	Knife Assy, 8”HT TR, w/clamp, 5/8” Bolt	68	S1908	40	S1908	52	S1908	68	S1908
3	Nut, Lock, 5/8 Thin, Gr. C	68	J10471	40	J10471	52	J10471	68	J10471
4	Screw, 5/8-11 x 2, Gr. 8, HHCS	68	J0789	40	J0789	52	J0789	68	J0789
5	Nut, 5/8-11 Top Lock, Gr. C	68	J10473	40	J10473	52	J10473	68	J10473
6	Washer, Flat, 5/8”	136	J1129	80	J1129	104	J1129	136	J1129
7	Screw, 5/8-11 x 3-1/2”	68	J0795	40	J0795	52	J0795	68	J0795
8	Hammer Side Slicer 8”	136	J8256	80	J8256	104	J8256	136	J8256
9	Hammer Bushing	68	S16487	40	S16487	52	S16487	68	S16487
10	Knife Clamp, Side slice, for 5/8” bolt	68	S18307	40	S18307	52	S18307	68	S18307
11	Nut, Lock, 1/2-13	68	J1042	40	J1042	52	J1042	68	J1042
12	Screw, 1/2-13, 2-1/4”, Gr. 8, HHCS	68	J0744	40	J0744	52	J0744	68	J0744
13	Screw 5/8-11 x 3-3/4”	68	J0797	40	J0797	52	J0797	68	J0797
14	Knife Clamp, Side Slice	68	S18305	40	S18305	52	S18305	68	S18305
15	Nut, Toplock, 5/8-11, Gr. 5	68	J1047	40	J1047	52	J1047	68	J1047
16	Rotor, Assy, Heat Treated Side Slice	1	S16552	2	S16538	2	S16565	2	S16570

ROTOR ASSEMBLY
HARD SURFACED SIDE SLICE KNIVES



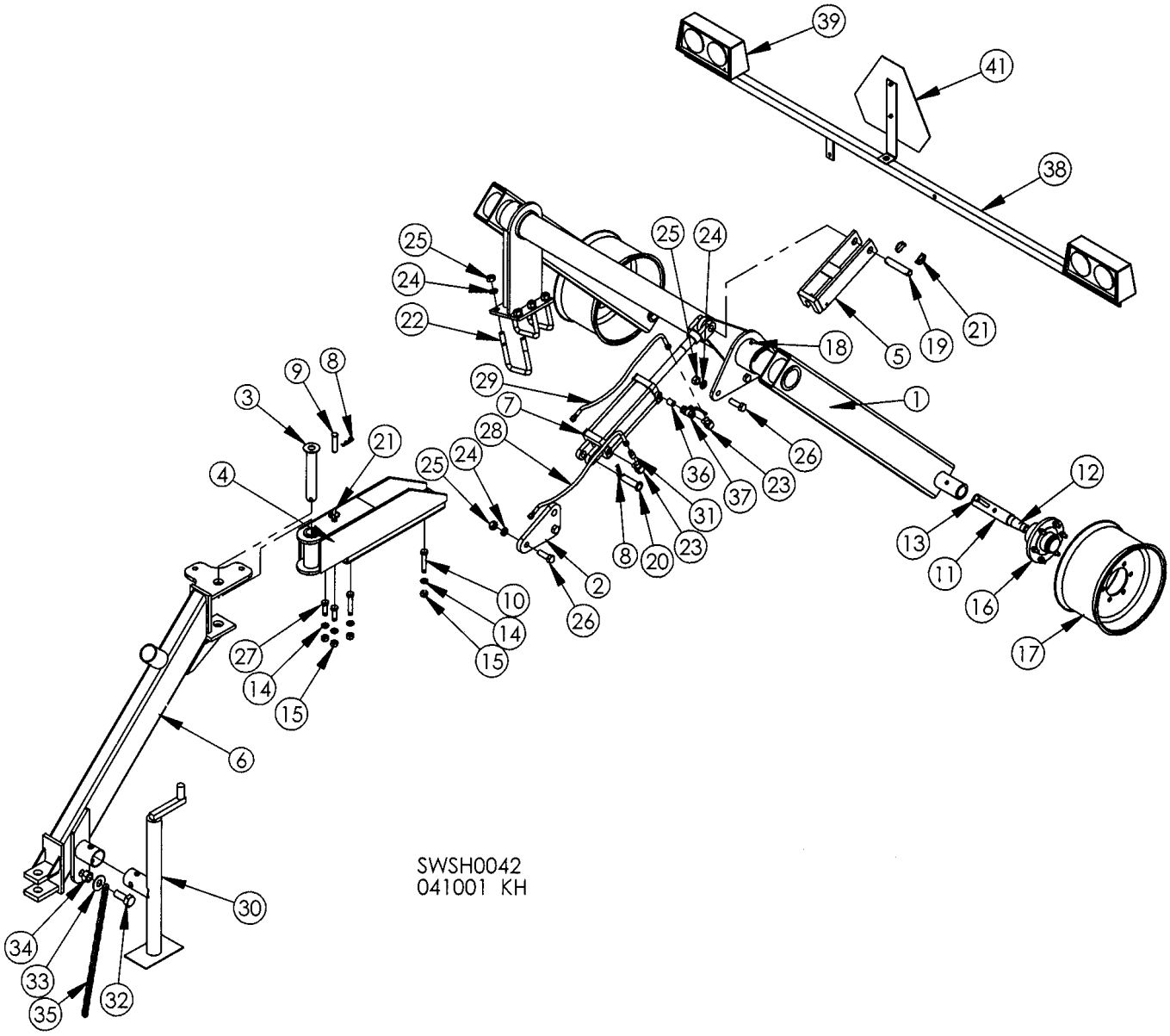
SWSH0066
040715 KH

ROTOR ASSEMBLY HARD SURFACED SIDE SLICE KNIVES

(Quantities are per rotor)

		12Ft.		15Ft.		20Ft.		25Ft.	
REF. #	**DESCRIPTION**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**	**QTY**	**COMP. #**
1	Rotor Weldment	1	S16550	1	S16535	1	S16562	1	S16567
2	Knife Assy, 8” HD SFCD, w/clamp 5/8” Bolt	68	S1907	40	S1907	52	S1907	68	S1907
3	Screw, 5/8-11 x 3-3/4”	68	J0797	40	J0797	52	J0797	68	J0797
4	Washer, Flat, 5/8”	136	J1129	80	J1129	104	J1129	136	J1129
5	Nut, Lock, 1/2-13	68	J1042	40	J1042	52	J1042	68	J1042
6	Screw, 1/2 - 13, 2-1/4”, Gr. 8, HHCS	68	J0744	40	J0744	52	J0744	68	J0744
7	Hammer 8”, SS , Hard Surface	136	S16540	80	S16540	104	S16540	136	S16540
8	Nut, Lock, 5/8 Thin, Gr. C	68	J10471	40	J10471	52	J10471	68	J10471
9	Hammer Bushing	68	S16487	40	S16487	52	S16487	68	S16487
10	Knife Clamp, Side Slice, for 1/2" bolt	68	S18305	40	S18305	52	S18305	68	S18305
11	Screw, 5/8 - 11 x 3-1/2”	68	J0795	40	J0795	52	J0795	68	J0795
12	Knife Clamp, side Slice, for 5/8” Bolt	68	S18307	40	S18307	52	S18307	68	S18307
13	Screw, 5/8 - 11 x 2, Gr. 8, HHCS	68	J0789	40	J0789	52	J0789	68	J0789
14	Nut, 5/8 - 11 Top Lock, Gr. C	68	J10473	40	J10473	52	J10473	68	J10473
15	Nut, Toplock, 5/8-11, Gr. 5	68	J1047	40	J1047	52	J1047	68	J1047
16	Rotor, HRDSRFD, Sidslcr, Assembly	1	S16533	2	S16539	2	S16566	2	S16574

END TRANSPORT KIT - S18451

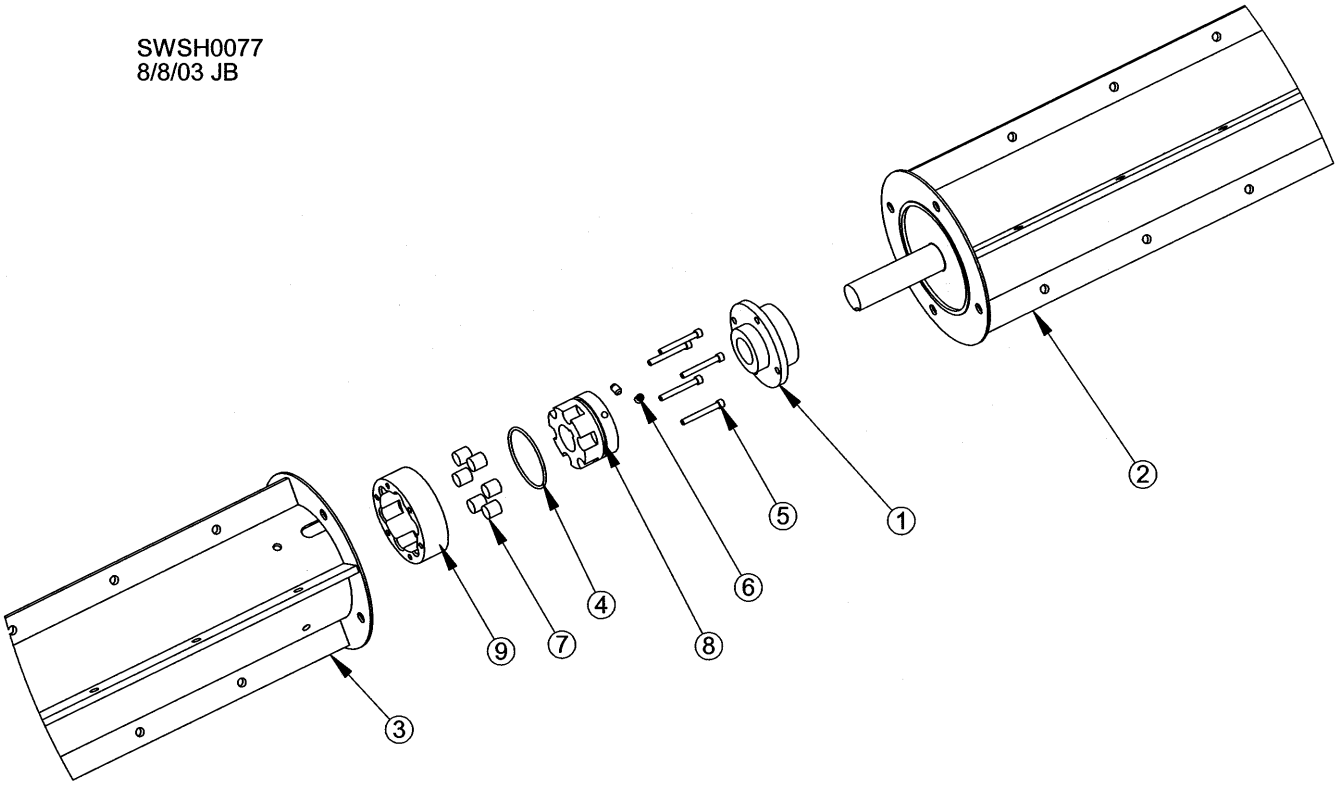


END TRANSPORT KIT - S18451

REF. #	DESCRIPTION	QTY	COMP. #
1	Wheel lift End Pull	1	S18465
2	Cylinder Anchor	1	S18468
3	Hitch Pivot Pin Weldment	1	S18472
4	Hitch Anchor Weldment	1	S18470
5	Cylinder Stop	1	S16840
6	Tongue Weldment	1	S18471
7	Cylinder, 3-1/2” x 8”	1	J7107
8	Clip, Hair Pin, .120 x 2.50, 07 - 20	2	J5412
9	Pin, Picker, 3/4”, 2-1/2” PLT	1	J1570
10	Screw, 5/8 - 11 x 3-1/2”	2	J0795
11	Spindle	2	S15394
12	Nut, Lock, 1/2 - 13	2	J1042
13	Screw, 1/2-13, 3.25	2	J0752
14	Washer, Lock, 5/8, PLT, Split	4	J1218
15	Nut, 5/8-11	4	J1046
16	Hub Assembly Complete	2	J7280
17	Rim, 5H-14 x 8, Wheel	2	J7276
18	Zerk, Drive In, Grease, 1/4”	2	J3605
19	Hitch Pin, 1 x 5”	1	M3301
20	Cylinder Pin, 1” X 3-1/16” (3.5x8S)	1	J71072
21	Lynch Pin, 7/16”	3	J15481
22	U-Bolt, 3/4-10 x 4 x 5-3/4”	3	J07148
23	El 90D 1/2MIP x 3/4-16MJIC,1208	2	J71021
24	Lock Washer, 3/4”	11	J1220
25	Nut, 3/4 - 10, PLT	11	J1051
26	Screw, 3/4 - 10, 2.25 Gr. 5 HHCS	5	J0807
27	Screw, 5/8 - 11 x 2	2	J0789
28	Hydraulic Hose Assembly for 9 Ft.	1	S18906
29	Hydraulic Hose Assembly for 10 Ft.	1	S18907
30	Jack Assembly w/Brackets	1	J8205
31	Restrictor, 3/4”	1	J71028
32	Screw, 1-8, 2.5, PLT, Gr. 5 HHCS	1	J0908
33	Washer, Flat, 1"	1	J1132
34	Nut, Top Lock, 1-8	1	J1061
35	Safety Chain	1	J1799
36	Nipple, 1/2" Close, Sch 80	1	J2407
37	Valve, 1/2", Ball, ITT 1550	1	J6082
38	Light Bracket Weldment	2	S1912
39	Light Kit, End Transport	1	S1913
41	SMV Sign Assy.	1	S18901

ROTOR/COUPLING ASSEMBLY

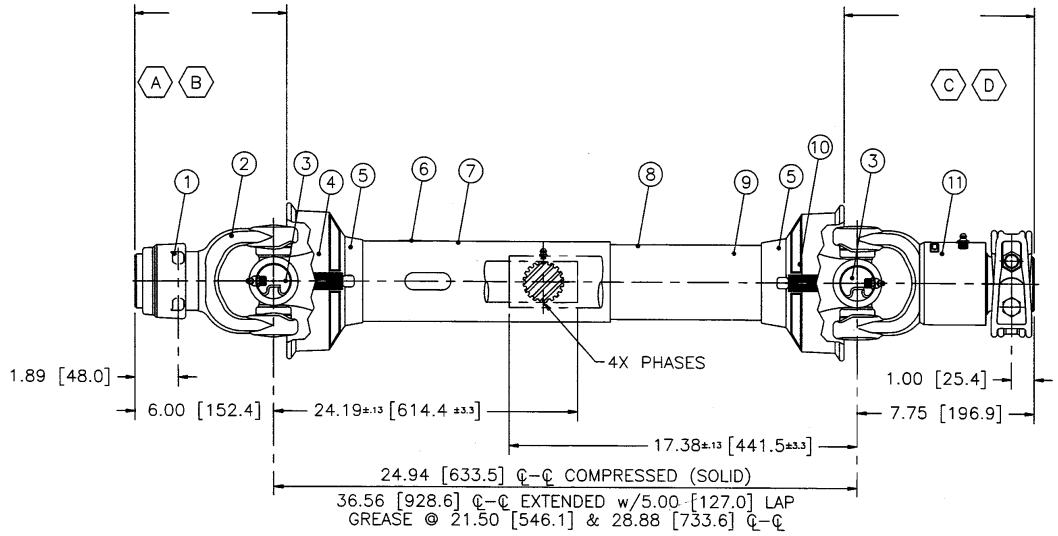
For 15' Shredder with Single Side Drive (Prior 2003)



REF. #	DESCRIPTION	QTY	COMP. #
1	Bearing, 2", Piloted Flange	1	J00495
2	Rotor Weldment, Left Hand	1	S16531
3	Rotor Weldment, Right Hand	1	S16532
4	O-Ring	1	J3552
5	Socket Head Bolt, 3/8-16NC x 3"	6	J0659
6	Setscrew, 1/2", 3/4"Allen Head	2	J1087
7	Nylon Bushing	6	D1412
8	Coupling, Inside	1	S17032
9	Outside Coupling	1	S17032

PTO Driveline - J72601

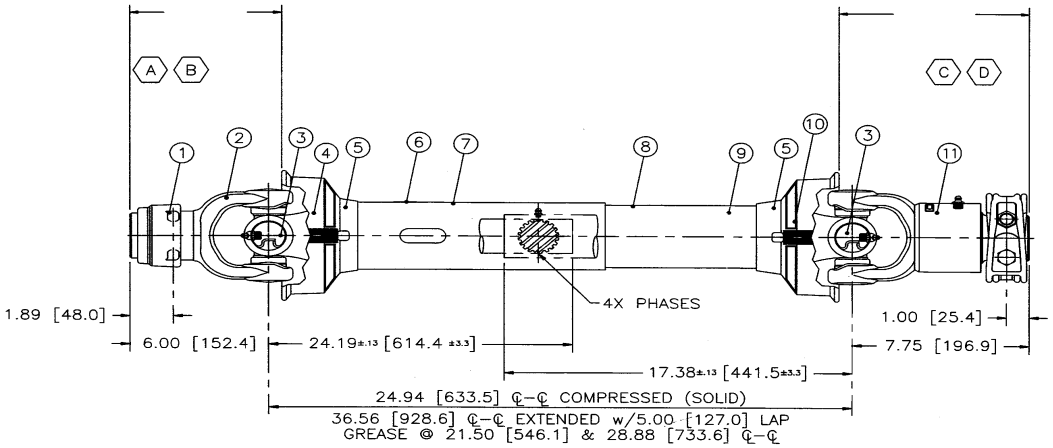
Mounted Shredder, 1-3/8” 1000RPM, Overrunning Clutch



REF. #	DESCRIPTION	QTY	COMP. #
1	Kit, Repair Safety Slide Lock	1	J7409
2	Yoke, Assembly, Safety Slide Lock	1	J72605
3	Kit, 55R, Cross & Bearing	2	J7423
4	Yoke & Shaft (1.69-20 Spline)	1	J7433
5	Nylon Repair Kit	2	J7416
6	Safety Sign	1	J7418
7	Outer Guard - 97-20449	1	J7477
8	Guard Inner - 96-20449	1	J7478
9	Safety Sign	1	J7421
10	Yoke, Tubed & Slip Sleeve	1	J7430
11	Clutch, Overrunning, 39-10039	1	J7472
A	Joint & Shaft Half Assembly/W/Guard	1	J7431
B	Joint & Shaft Half Assembly	1	J7432
C	Joint & Tube Half Assembly W/Guard	1	J7428
D	Joint & Tube Half Assembly	1	J7429
	Not Shown, Kit, Overrunning Clutch Repair	1	J7474

PTO Driveline - J7260

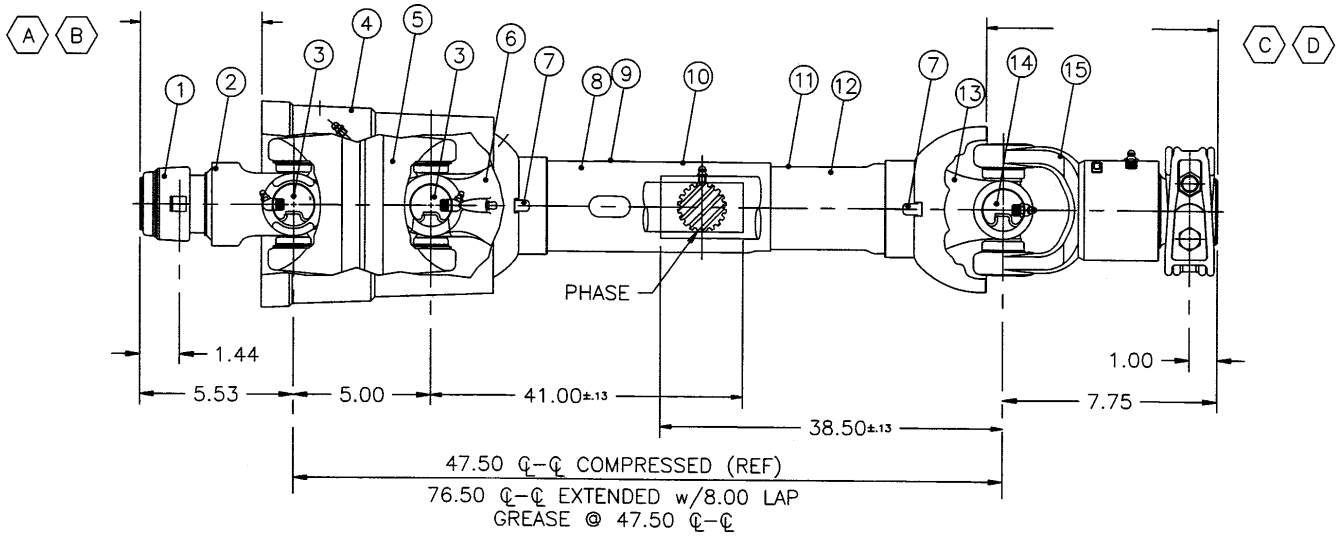
Mounted Shredder, 1-3/4” 1000RPM, Overrunning Clutch



REF. #	DESCRIPTION	QTY	COMP. #
1	Kit, Repair Safety Slide Lock	1	J7408
2	Yoke, Assembly, Safety Slide Lock	1	J7458
3	Kit, 55R, Cross & Bearing	2	J7423
4	Yoke & Shaft (1.69-20 Spline)	1	J7433
5	Nylon Repair Kit	2	J7416
6	Safety Sign	1	J7418
7	Outer Guard - 97-20449	1	J7477
8	Guard Inner - 96-20449	1	J7478
9	Safety Sign	1	J7421
10	Yoke, Tubed & Slip Sleeve	1	J7430
11	Clutch, Overrunning, 39-10039	1	J7472
A	Joint & Shaft Half Assembly/W/Guard	1	J7434
B	Joint & Shaft Half Assembly	1	J7435
C	Joint & Tube Half Assembly W/Guard	1	J7428
D	Joint & Tube Half Assembly	1	J7429
	Not Shown, Kit, Overrunning Clutch Repair	1	J7474

PTO Driveline - J7356

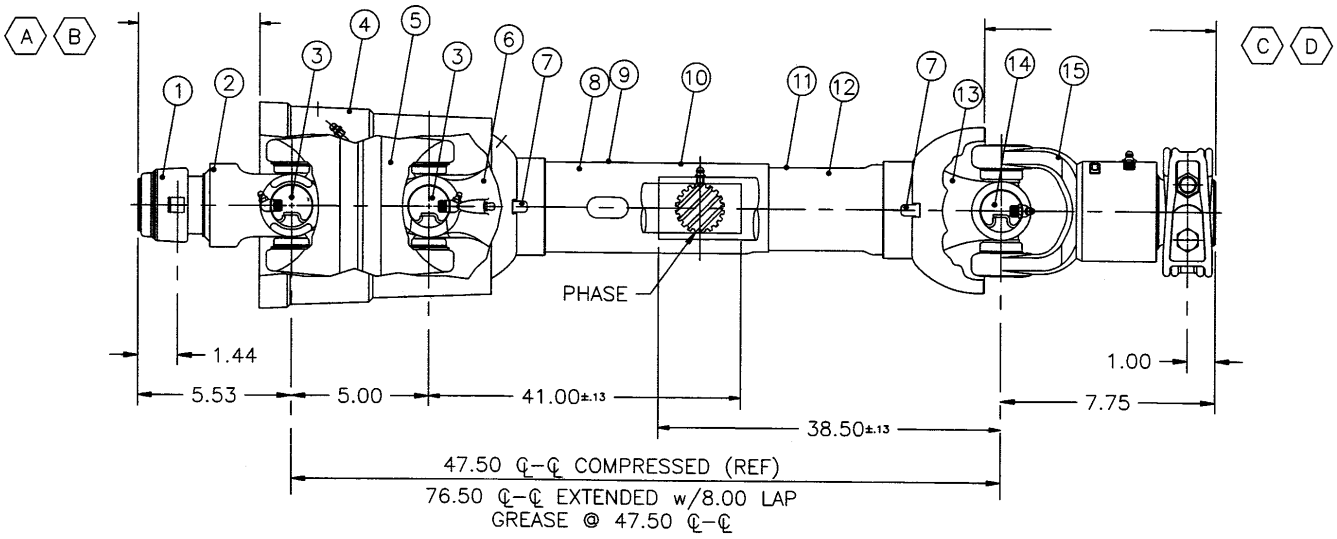
Pull Type, 1-3/8” 1000RPM, Overrunning Clutch, CV Joint



REF. #	DESCRIPTION	QTY	COMP. #
1	Kit, Repair Safety Slide Lock	1	J7409
2	Yoke, Assembly, Safety Slide Lock	1	J7411
3	Kit, Cross & Bearing, Cat. 6	2	J7412
4	Ext., Bell w/Nylon Centralizer	1	J7413
5	Housing, CV Center Assembly	1	J7414
6	Yoke & Shaft	1	J7415
7	Kit, Nylon Repair, Weasler PTO	2	J7416
8	Centralizer	1	J7417
9	Safety Sign	1	J7418
10	Guard, Outer, Steel	1	J7419
11	Guard, Inner, Steel	1	J7420
4, 10, & 11	Guard Set, Inner & Outer, Plastic	1	J7437
12	Safety Sign	1	J7421
13	Sleeve, Yoke, Tube & Slip	1	J7422
14	Kit, 55R, Cross & Bearing	1	J7423
15	Clutch, Overrunning, 39-10039	1	J7472
A	Half, joint, & shaft, Assembly, w/Guard	1	J7404
B	Half, Joint, & Shaft Assembly		J7405
C	Half, Joint, & Tube Assembly w/ Guard		J7402
D	Half, Joint & tube Assembly		J7403
Not Shown	O/R Clutch Repair Kit		J7474

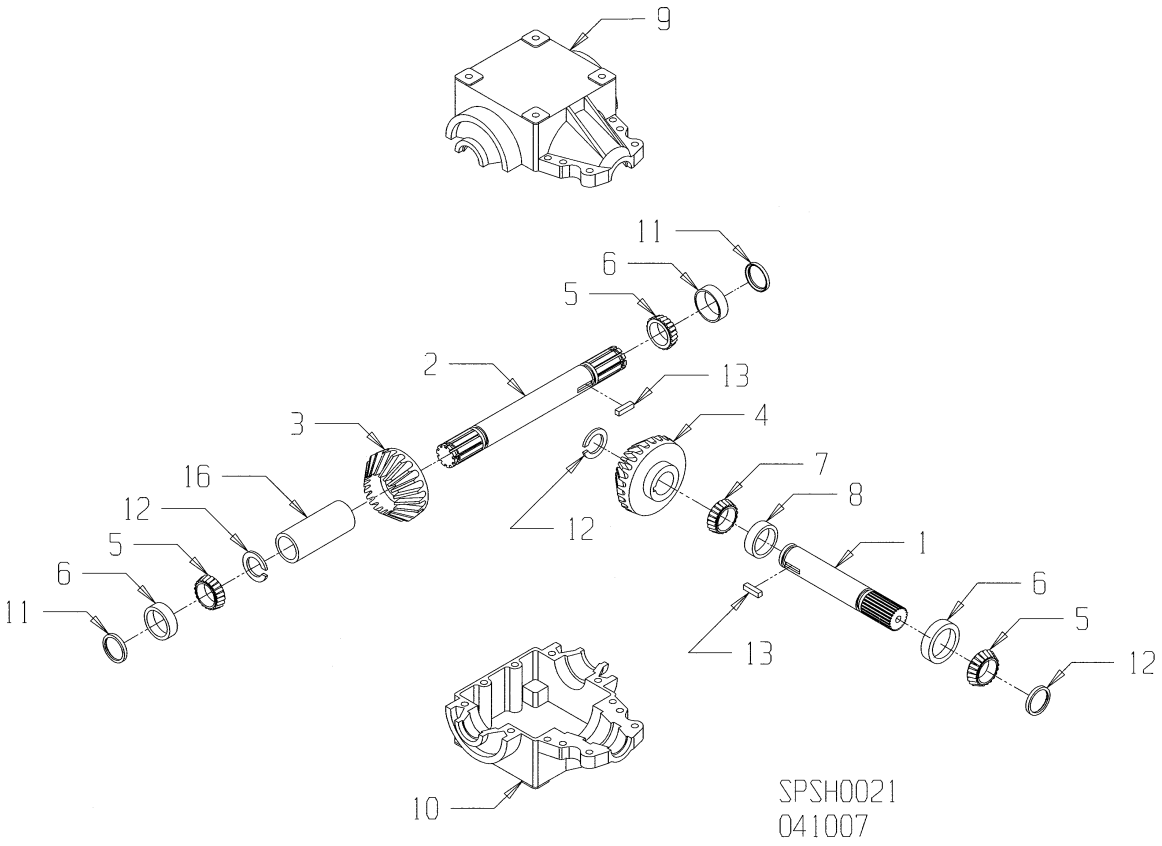
PTO Drive-Line - J7355

Pull Type, 1-3/4” 1000RPM, Overrunning Clutch, CV Joint



REF. #	DESCRIPTION	QTY	COMP. #
1	Kit, Repair Safety Slide Lock	1	J7408
2	Yoke, Assembly, Safety Slide Lock	1	J7410
3	Kit, Cross & Bearing, Cat. 6	2	J7412
4	Ext., Bell w/Nylon Centralizer	1	J7413
5	Housing, CV Center Assembly	1	J7414
6	Yoke & Shaft	1	J7415
7	Kit, Nylon Repair, Weasler PTO	2	J7416
8	Centralizer	1	J7417
9	Safety Sign	1	J7418
10	Guard, Outer, Steel	1	J7419
11	Guard, Inner, Steel	1	J7420
4, 10, & 11	Guard Set, Inner & Outer, Plastic	1	J7437
12	Safety Sign	1	J7421
13	Sleeve, Yoke, Tube & Slip	1	J7422
14	Kit, 55R, Cross & Bearing	1	J7423
15	Clutch, Overrunning, 39-10039	1	J7472
A	Half, joint, & shaft, Assembly, w/Guard	1	J7400
B	Half, Joint, & Shaft Assembly		J7401
C	Half, Joint, & Tube Assembly w/ Guard		J7402
D	Half, Joint & tube Assembly		J7403
Not Shown	O/R Clutch Repair Kit		J7474

SUPERIOR GEARBOX-J8500



Note: Always order parts with Remlinger #

REF. #	DESCRIPTION	SUPERIOR #	MARLISS #	REMLINGER #
1	Pinion Shaft	600100-80	325066	J8516
2	Cross Shaft	600112-40	325067	J8517
3	Gear - Small	651020	325068	J8519
4	Gear - Large	651030	325069	J8520
5	Bearing Cone 25581	625581	702071	J0112
6	Bearing Cup25520	625520	702070	J0106
7	Bearing Cone 3782	603782	702072	J0109
8	Bearing Cup 3720	603720	702073	J0108
9	Top Cast	610004-8	430002	J8513
10	Bottom Cast	610003-6	430003	J8514
11	Seal TC-1.75-2.437-.312	617285	702074	J6989
12	Retaining ring	603493	325070	J3593
13	Key	600200	128076	J3616
14	Dip Stick-Air/Oil Separator (NOT SHOWN)	6P3020	------	J8521
15	Bolt	438225	601256	J0652
16	Spacer	600101-5	123604	J8518
17	Bushing (NOT SHOWN)	4003VB	------	J8509