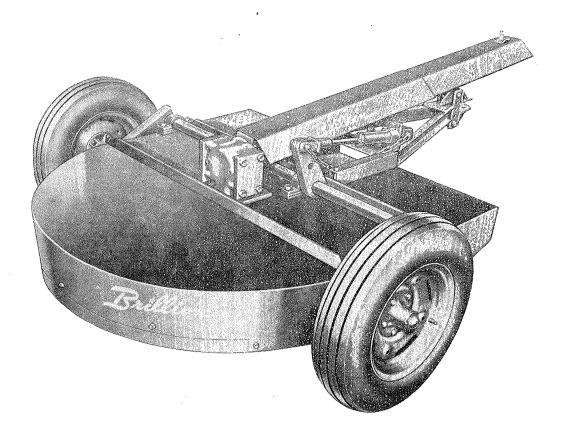
OPERATOR'S MANUAL

500 ROTARY SHREDDERS



BRILLION IRON WORKS, INC.

Brillion, Wisconsin, U. S. A.



SURE-SHRED 60 ROTARY SHREDDER MODELS

RS-60 RS3-60 RSPA-60 RSPB-60

The Brillion Sure Shred 60 Rotary Shredder is constructed with the best materials and workmanship available. The machine is factory adjusted, as near as possible, to assure proper field operation.

Many future difficulties can be avoided by following the operating and maintenance instructions and by
correctly adjusting and lubricating the machine accordingly.

Study the Operators Manual and follow carefully the instructions regarding adjustments before operating the machine.

LOCATION REFERENCE

"Right" and "Left", "Front" and "Rear" refer to the operators "Right" and "Left", "Front" or "Rear" when he faces the same direction as the machine is traveling.

SHREDDER SPECIFICATIONS

Width of Cut was was was was no own pay the state of the	5 Feet	2.00 ×
Height of Cut we see an	RS-60, RS: RSPA-60, F	3-60: Adjustabl e 0-10 in. RSPB-60: Adjustable 2-10 in.
Blades and that the set s and s	Two blade	ted alloy steel types available s reversible
Overload Protection Shear Pin protected to 40 H.P.		
General subsections and the first section can see that the subsection can be subsection for the subsection $General Subsection $	run in oil	ted alloy steel. Machine cut, l bath. Step up P.T.O. speed 15 gear ratio.
Bearings வைவையை வைவை வைவை வைவை வை	Input Shaf Output Sha P.T.O. Sha Sealed Bal Universal Wheel Hub	ing It - Ball Bearing It - Timken Tapered Roller Shim Adjusted If Support - RS3-60 Only Il Bearing - No lube required Joints - Needle Bearing - RS-60 & RS3-60 Only Timken Tapered Roller Nut Adjusted eel - RSPA-60, RSPB-60 Only Durex Bearing
P.T.O. Drive Shaft	RS-60 RS3-60 RSPA-60 RSPB-60	Medium Duty-2 joint, needle bearing, telescoping. Medium Duty - 3 joint, needle bearing telescoping. Medium duty-2 joint, needle bearing, shielded, telescoping 1-3/8 tractor spline. Same as RSPA-60 except for 1-1/8 tractor spline.
. $H1tch$ and the case the the case and the	of tractor	-60: Adjusts to drawbar height SPB-60: 3-point pickup.
Wheel-Size		
Frame		
Shredder Weight		754 lbs. 774 lbs. SPB-60 670 lbs.

SETTING UP INSTRUCTIONS

The Sure-Shred 60 Shredder comes in four models. These setting up and operating instructions cover all four models. In setting up and operating your shredder, refer only to as much of the instructions as pertains to the particular model you have.

Page and part numbers used in the setting up instructions refer to the repair parts catalog.

RS-60

Your pull type, 2 universal joint, Sure-Shred-60 Shredder comes almost completely assembled. The drawbar is attached to the top of the shredder housing using the bolts provided, making certain that the cylinder mounting lug is in the uppermost position as shown on Page 2. Next attach the P.T.O. Shield Support Bracket (Page 8, #7) to the gear box by removing the two uppermost bolts at the front of the gear box and bolting the bracket in place. Attach the P.T.O. Shaft to the gear box by aligning the pin hole in the gear box yoke with the pin hole in the gear box input shaft and inserting the shear pin. Complete the assembly by inserting the P.T.O. Spacer (Page 8, #22) into the gear box yoke and securing with the washer and bolt provided in the bag assembly. Setting up is completed by the addition of the P.T.O. Shield which is attached to the P.T.O. Support Bracket by positioning the shield over the stud on the support bracket and securing in place with the hairpin cotter attached. RS3-60

Your pull-type, 3 universal joint, Sure-Shred 60 Shredder comes almost completely assembled. The drawbar is attached to the top of

the shredder housing, using the bolts provided, making certain that

Now attach the P.T.O. Shield Support Bracket (Page 10, #7) to the gear box by removing the two uppermost bolts at the front of the gear box and bolting the bracket in place. Attach the P.T.O. shaft to the gear box by aligning the pin hole in the gear box yoke with the pin hole in the gear box input shaft and inserting the shear pin. Next insert the P.T.O. spacer (Page 10, #9) into the gear box yoke and secure with the washer and bolt provided. Now assemble the tubular drive shaft (Page 10, #11) into the P.T.O. Bearing Carrier Assembly (Page 16 #1), locking it in place with the tractor tube and joint assembly. Complete this assembly by screwing in the socket head set screw, making sure to turn it down tight and locking it in place with the jam nut provided. Now the P.T.O. Shields can be installed. Attach the rear P.T.O. Shield (Page 10, #6) to the P.T.O. support bracket on the gear box by positioning the rear shield over the stud, then securing in place with the hairpin cotter provided. Next, the front shield assembly (Page 10, #5) is attached to the P.T.O. bearing support by removing the bolt which supports the bearing, positioning the front shield support bracket over the support yoke, and reinserting the bolt. Do not draw the elastic stop nut up tight, since there must be some freedom to permit flexing of the unit while in operation.

RS-60 - RS3-60

BRILLION HYDRAULIC CYLINDER (Optional)

If the Brillion Hydraulic Cylinder is used, attach the yoke on the pump end of the cylinder to the mounting lug on the drawbar with the chain toward the right side of the machine. The upper yoke on the cylinder should then be connected to the outer hole in the axle lift arm. When properly installed, the pump handle should point upward.

TRANSPORT KIT (Optional)

If the tractor operated hydraulic cylinder is used, then the transport bracket (Page 12, #17) should be attached to the shredder housing as shown with the bolts provided. The transport links (Page 12, #16) are attached to the transport bracket with the bolt provided. The transport links are then attached to the lower hole in the axle lift arm with the transport pin. THE TRANSPORT PIN SHOULD BE REMOVED BEFORE THE CYLINDER IS OPERATED.

RSPA-60 - RSPB-60

Your 3-point pick-up Sure-Shred-60 Shredder comes almost completely assembled. The first step in assembly is to attach the 3-point pick-up frame (Page 4, #2) to the shredder housing as shown on page 4, using the bolts provided. Next, attach the two frame braces (Page 4, #3) from the pick-up frame to the shredder housing, also using the bolts provided. Next, assemble the adjustment bracket (page 4, #8) to the two holes at the top rear of the shredder housing, the narrow side to the rear, with the bolts provided. Now remove the two upper rear bolts from the gear box mounting bracket, being careful not to lose the pipe spacers (Page 4, #10) attached. Then position the height adjustment arm assembly over the two holes in the mounting bracket. Insert the two pipe spacers and replace the two bolts removed. Now, referring to Page 15, install the wheel and fork assembly, placing special washer, #1, over the caster wheel shaft. Next, slide the caster wheel shaft up through the bushings in the height arm adjustment assembly. Then place the flat washer provided over the shaft, turn down the slotted nuts until it is drawn up firmly, BUT NOT SO TIGHT THAT THE CASTER WHEEL WILL NOT CASTER FREELY. Insert the cotter pin through a slot in the slotted nut and secure.

Now the shielded P.T.O. Assembly can be attached to the gear box by aligning the pin hole in the gear box yoke with the pin hole in the gear box yoke with the pin hole in the gear box input shaft and inserting the shear pin. The assembly is completed by inserting the P.T.O. spacer (Page 14, #13) into the gear box yoke and securing with the washer and bolt provided in the bag assembly.

OPERATING INSTRUCTIONS

CUTTING RANGE

The height of out on the RS-60 and RS3-60 is controlled by adjusting the remote controlled hydraulic cylinder, or the manual lift cylinder, to the desired position. When shredding most crop residue or brush, the machine should be operated with the hood a minimum distance above the ground: however, proper clearance should be maintained so that the blades do not strike the ground. For general operation, keep the bottom edge of the hood 3-4" above ground level. The cutting height can be adjusted from ground level to 10" above the ground.

BLADES

The machine, as you receive it, is equipped with two suction blades. These blades are reversible, each blade having two cutting edges. When the blades become worn, they can be turned over to provide a new cutting edge. Never attempt to use the suction blades when working in Brush above i" in diameter. When working in Brush up to 2" in diameter, flat cutting blades should be used in their place.

LOWER REAR PLATE ASSEMBLY (Optional)

The lower rear plate assembly is used when shredding grass crops.

It is not recommended for use in crop residues or in shredding prunings or brush. This plate can improve the cutting or shredding on most jobs. When clipping pastures, it is desirable to have the plate in place.

This will retain the material long enough for it to receive the maximum cutting before being discharged from the machine and also produce an even cover of clippings on the cut-over area.

The front of the shredder is provided with a baffle to prevent cut material from being thrown toward the operator. In extreme operations, a heavy piece of belting can be attached to the baffle for added protection.

OVERLOAD PROTECTION

A shear pin is provided in the drive train to protect the machine from damage due to striking an obstacle. Extra pins are provided with the machine and replacements can be secured through your dealer. DO NOT USE HARDENED PINS OR BOLTS.

(Types of Operations)

Pasture Clipping - For best results, the suction blade should be used for pasture clipping. Cutting height for this type of operation is dependent on field conditions and type of clipping desired. For most purposes, the height of 4-8" above the ground should prove satisfactory. Forward speed of travel will vary according to the stand of grass to be cut.

Stalk & Vine Shredding - When shredding crop residue, the suction blade should also be used. Since the suction blades will provide suction to pick-up the fallen stalks and crop residue, bringing it into contact with the blades, the shredder should be set to a height of 2-6"

above the ground. The forward speed of travel will be determined by the operator. In most instances, the range of $2\frac{1}{2}$ - 5 MPH should prove to be satisfactory.

Brush Chopping - The suction blades can be used in chopping brush up to 1" in diameter. However, in chopping brush between 1-2" in diameter, the suction blades should be replaced with a set of flat cutting blades. Flat cutting blades are available to you from your Brillion dealer. It is not recommended that this machine be used for chopping brush heavier than 2" in diameter. Height of cut and forward speed for shredding brush are best left to the operator. A little experimenting will determine the proper operating speed and cutting height.

Orchard Prunings - Orchard prunings should be shredded with the suction type blade. Most satisfactory results will be received by running the front of the shredder somewhat higher than the rear of the shredder. This will permit the shredder to pass over the windrowed prunings. The height of the machine above the ground will be determined largely by the amount of prunings in the windrow.

Generally, two passes over a windrow will provide sufficient shredding.

ADJUSTMENTS

RS-60

The only adjustment provided on the RS-60 is the drawbar adjustment. This adjustment is made by removing the bolts from the adjustable hitch plate assembly and sliding the drawbar up or down in the adjustable hitch plate assembly. The adjustment will enable you to maintain the desired level of the machine when in operation.

RS3-60

Two adjustments are provided in this machine. The first adjustment is in the drawbar. The adjustable hitch plate assembly may be
moved up or down on the drawbar according to the desired height of
operation, that is, the leveling of the machine in operation.

The other adjustment is in the P.T.O. Bearing Carrier Support. Here, the adjustment is made by backing off the set screw in the support tube assembly and raising or lowering the support shaft assembly to maintain the P.T.O. train in a straight line.

RSPA-60 - RSPB-60

The only adjustment provided on the 3-Point Pick-Up Shredder is in the height adjustment arm. This adjustment is made by removing the bolt from the adjustment bracket and sliding the height adjustment arm up or down to the desired level of operation.

LUBRICATION

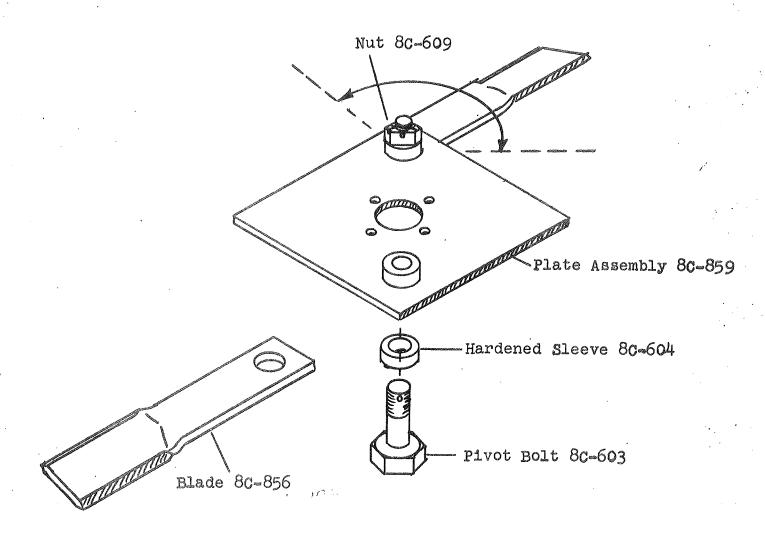
Gear Box - Check oil level every 50 hours of operation, adding oil if necessary. The oil level is determined by removing the oil plug on the left hand side of the gear case. Filling is done through the plug at the top of the gear case. Do not carry a higher oil level than is indicated. When adding oil, use #140 gear oil for summer or #90 oil for winter use.

All Grease Fittings - Use a good quality grease, lubricate for free operation every 50 hours of operation.

Wheel-Bearings - Wheel bearings have been packed at the factory.

They should be repacked yearly with a good grade of wheel bearing grease.

Swinging Blade Conversion Kit Part No. 8C-857

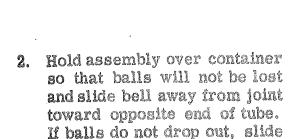


Installation Instructions

Remove the 4 bolts which fasten the present rigid-blade mounting plate on the output shaft of the gearbox. Remove the rigid blade plate, and clean up the flange on the output shaft. Install the swinging blade assembly using the same four bolts IF THEY ARE IN GOOD CONDITION. If they are not in good condition, order Brillion part number 60-433 for replacement.

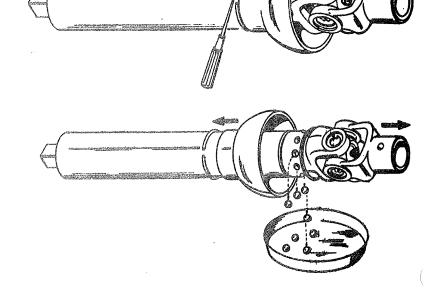
INSTRUCTIONS FOR REMOVING QUICK DETACHABLE FREE WHEELING GUARD

1. Use screw driver or sharp pointed tool to remove snap ring from groove at back of bell.



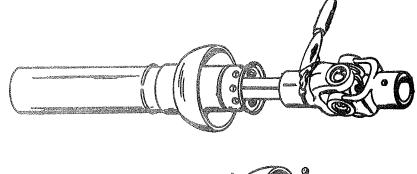
tube away from joint, forcing

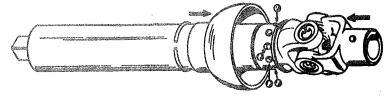
balls from cage.



INSTRUCTIONS FOR ASSEMBLING QUICK DETACHABLE FREE WHEELING GUARD

- 3. Fill raceway in yoke with grease.
- 4. Slide tube with bell and snap ring over raceway. Insert balls through holes into raceway where grease will hold them in place. Slide bell over balls. Slide snap ring into groove.





Grease joints, telescoping shafts and guard regularly. This Quick Detachable Free Wheeling Guard is the finest guard built. It is provided for your protection.

Form 4D-200 9C-544 9C-636

1D-626

8C-658

9C-494

5C-103

6C-727