

OPERATOR'S MANUAL

1D-626

Brillion

OFFSET

112" ROTARY SHREDDER

MODEL RSS-112

Model RSS-112-07

BRILLION IRON WORKS, INC.
BRILLION, WISCONSIN

Brillion

**OFFSET
112" ROTARY SHREDDER**

1D-626

Your Brillion Off-Set Rotary Shredder is built with the best material and workmanship available. All machines are adjusted at the factory to assure proper mechanical operation.

You can avoid many future difficulties by following the operating and maintenance instructions and by correctly adjusting and lubrication the machine when necessary.

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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.

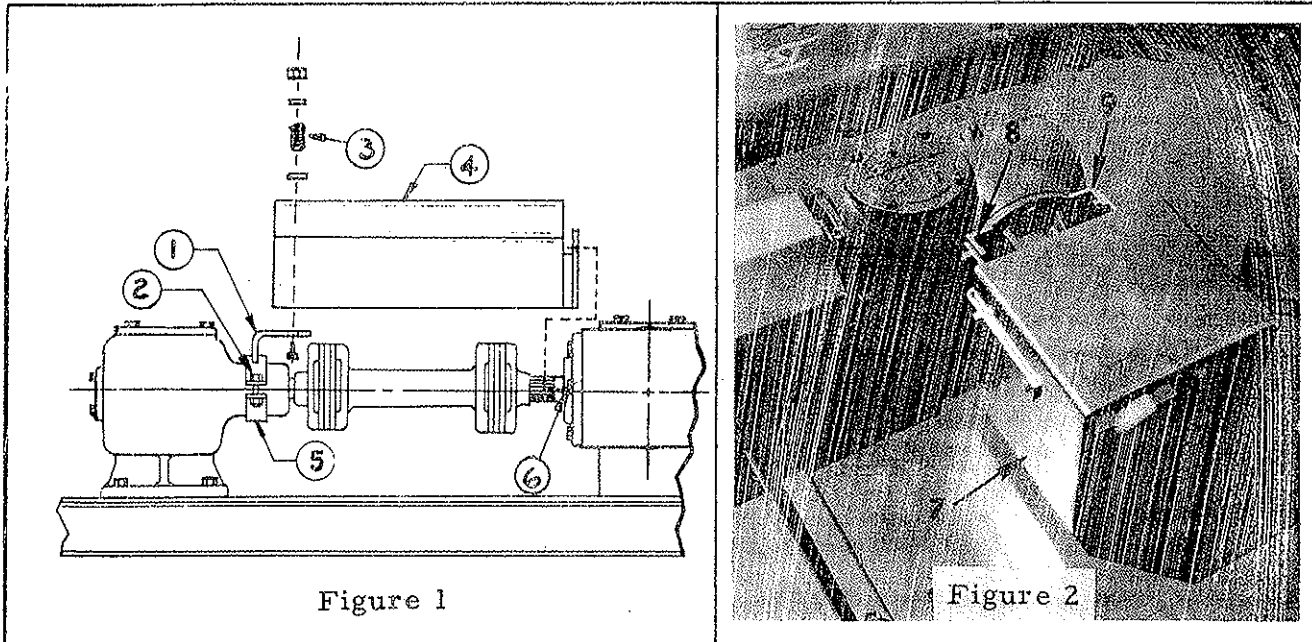
SAFETY INSTRUCTIONS



Federal regulations require that at the time of initial assignment and at least annually thereafter, each employee shall be instructed in the safe operation and servicing of all equipment which he will be operating. This instruction shall cover the following safe operating practices:

1. Keep all guards and shields in place when machine is in operation.
2. Stop engine, disengage PTO and wait for all movement to stop before servicing, adjusting, cleaning, or unclogging machine.
3. Keep hands and feet away from machine openings and moving parts when operating.
4. Do not allow anyone but operator to ride tractor or equipment.
5. Make sure everyone is clear of machine before starting engine, engaging PTO or operating machine.
6. Run PTO at proper PTO speed for this machine. Refer to tractor Operator's Manual for proper engine speed to obtain proper PTO speed.
7. If servicing or adjusting require the temporary removal of any shield, wait until all movement has stopped before attempting to lift or remove shield.
8. Block machine up when working under the machine. Do not rely on hydraulic cylinders to support machine or machine parts.
9. Do not transport machine at speeds where the operator loses control. Do not exceed 20 mph under any conditions.

ASSEMBLY INSTRUCTIONS
FOR
ATTACHING THE SHIELDS TO RSS-112 ROTARY SHREDDER



To assemble the shields to the shredder, begin by attaching the #1 and #5 support clamp and clamp to the outer gear housing, as shown in Figure 1 above, using the #2 $3/8 \times 1-1/4$ " long bolts, lockwashers, and nuts provided. Do not draw these capscrews up tight at this time. Next, remove two of the #6 gearbox flange capscrews from the gearbox, as shown in Figure 1, and place the #4 shield in position. Bolt the shield to the gearbox flange by replacing the two #6 capscrews previously removed. Next, slide the #1 and #5 clamps under the #4 shield until the slot in the shield centers over the hole in the #1 support clamp. Insert the $3/8 \times 2-1/4$ " long capscrew from the bottom upward; assemble a flat washer, the #3 spring, another flat washer, and lock nut, as illustrated in Figure 1. Do not draw up tight; rather allow a little looseness for slight movement in operation of machine. Now tighten the #2 capscrews.

Next, refer to Figure 2 for assembly of the #7 P. T. O. shield. Remove the two gearbox flange capscrews for mounting the #8 and #9 L. H. angle and R. H. angle. Assemble these angles to the gearbox, as shown, using the longer $3/8 \times 1-1/4$ " long capscrews provided. Do not draw up tight at this time. Next, attach the shield assembly to these angles, as shown in Figure 2, using the capscrews just removed from the gearbox and the lock nuts provided. Draw up on the lock nuts but allow just enough looseness to pivot. Complete the assembly by tightening the gearbox flange capscrews.



SAFETY INSTRUCTIONS

Keep these shields in place while operating. Before removing or lifting the shields for servicing or adjusting, make sure all movement has stopped.

Brillion RSS-112

OFFSET ROTARY SHREDDER

Specifications

Width of Cut	112 inches
Blades	½" x 3" Heat-Treated Alloy Steel
Blade Mounting	Swinging blades pivot on hardened forged steel shoulder bolts, mounted on 1½" thick x 4" wide steel blade arms.
Hood	Heavy sheet steel, angle iron, and channel, electrically welded into one unit. Removable steel wedge deflector.
Drives	All shaft mounted on Timken tapered roller bearings. Oil bath lubrication. Gears are forged, alloy steel, heat-treated.
P.T.O. Drive Shaft	Heavy duty - needle bearing, with 3/8" shear pin coupler.
Hitch	Adjusts to fit drawbar height of tractor.
Lift	Manual Brillion Ratchet Jack #7C-841. Or tractor hydraulic.
Wheel Size	15 x 4½" Rim.
Weight	1650#

1D-626

DESCRIPTION

RSS-112 ROTARY SHREDDER

This model of shredder has been designed for use in shredding row crops, pasture clipping and orchard work. The unit is offset so that there will be an approximate 86" from the tractor drawbar, permitting the shredder to operate under overhanging tree limbs.

ASSEMBLY INSTRUCTIONS

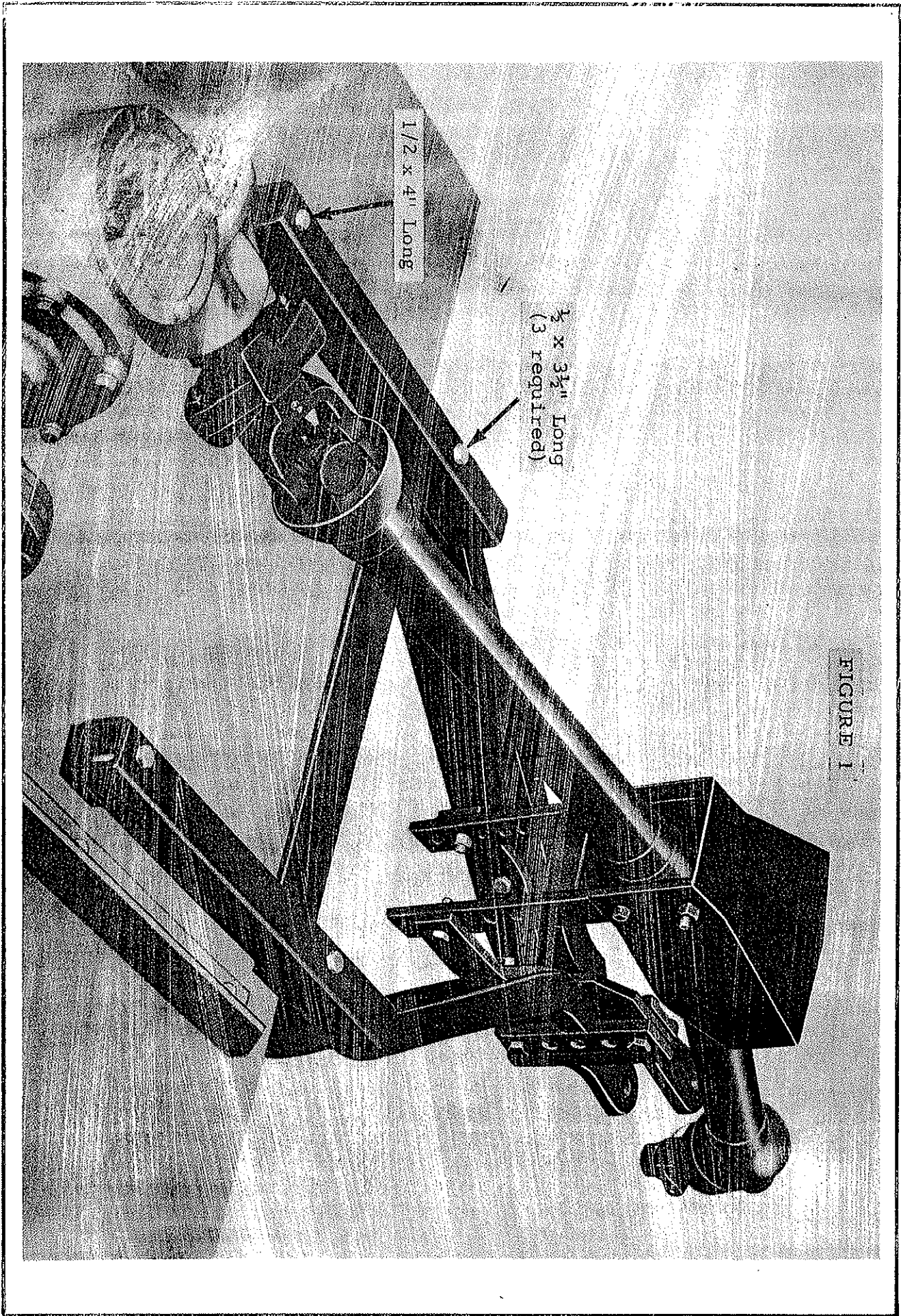
The shredder is shipped in five basic assemblies. All fasteners are already in the holes, or attached to the assemblies, in which they are to be used.

Begin assembly by bolting the drawbar to the left (top side) of the hood. (Refer to figure 1).

Next, separate the axle arms and small bag of attaching parts. Attach the axle arms to the lift shaft using the (8) 3/4 - 10 N. C. x 3" long hex head bolts, nuts and lockwashers. The (8) wheel bolts found in the bag, are to be used to attach the wheels to the hubs.

The next step will be to attach the tie rod to the hood top. Remove the bolt (1/2 - 13 N. C. x 1-1/2" long) found in the bracket at each end of the tie rod. Attach the bracket on the (long) bent end of the rod, to the "right hand" front corner of the hood. Then attach the bracket on the opposite (short) bent end of the rod, to the "left hand" rear corner of the hood. Now bolt the rod support to the top angle of the machine using the two 1/2 - 13 N. C. x 1-1/4" long bolts. After this has been done, the 5/8 - 11 hex nuts at the threaded ends of the rods can be drawn up just tight enough to keep the hood from sagging at the right hand front corner. This can be adjusted more, if needed, after the shredder has been attached to the tractor.

Attach the P. T. O. to the splined shaft on the left hand gear box, making sure to pin the shear flange hub to the shaft, with the pin provided. (Refer to Figure 1 for assembly of 3 joint P. T. O. and supporting components.)



OPERATING INSTRUCTIONS

Before using the machine, add oil to the two gear boxes. These boxes are shipped without oil. Use #140 oil in summer and #90 oil in winter. Fill the main drive box to the level indicated on the dip stick, and the opposite box to the level indicated on the slant cover on the gear box. Do not over-fill the gear boxes, as this will result in overheating. The P.T.O. universal joints should also be greased before operating the machine.

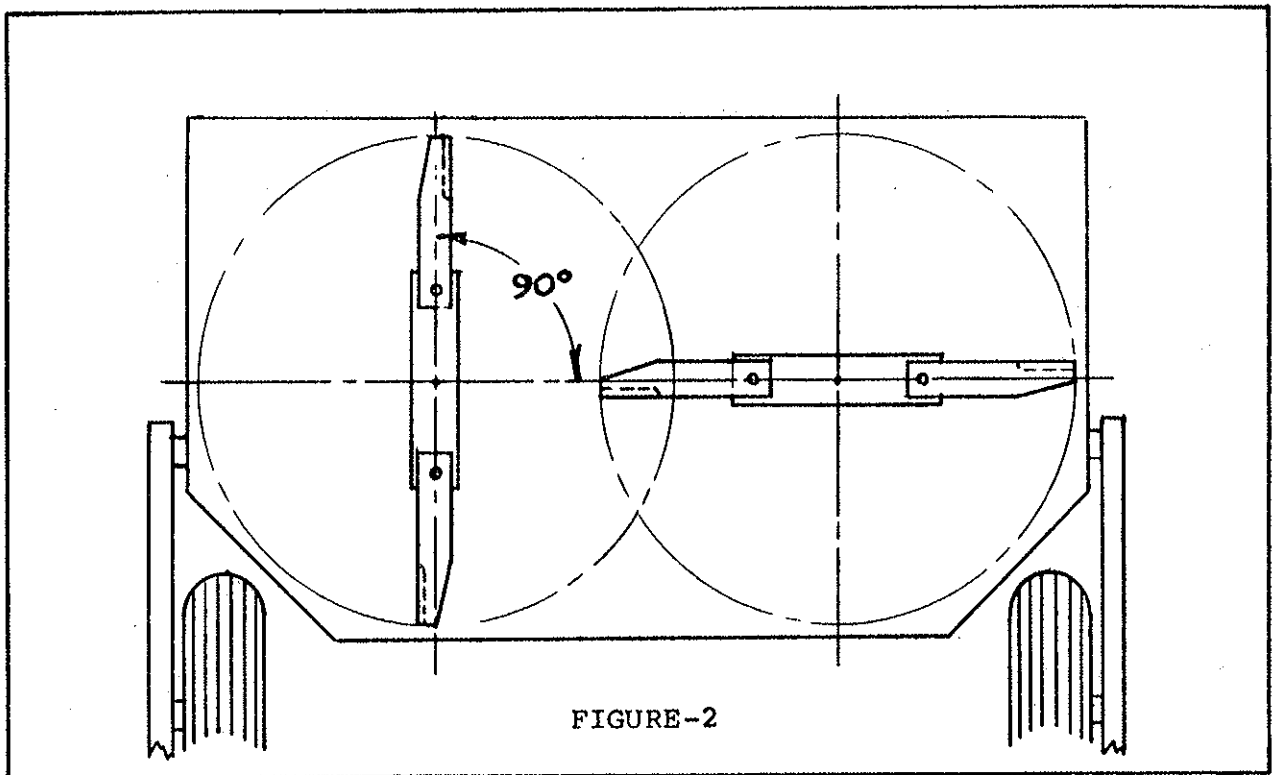
The wheels can be mounted forward at the side of the machine, or to the rear and inside. When set in the latter position, the wheels will not run down uncut materials. (This position being desirable for orchard work and pasture clipping)

A removable "wedge type of deflector" is provided at the rear center of the hood; when using the machine for pasture clipping, row crop shredding, or orchard clipping, the deflector should remain in position. When using the machine in heavier rough work, it may be well to remove this deflector.

With the deflector in place, the machine is set to shred and spread the cut material evenly outward from center. When the deflector is removed, the cut material will tend to windrow at the rear center of the machine. Should the latter be desired, the deflector can be detached by removing the (2) bolts at the right and left side of the rear center opening in the rear channel member of the hood. The bolt in the forward point of the wedge will also have to be removed.

MAINTENANCE

In servicing the shredder, it may become necessary to remove one or both of the drives, from the hood. In re-assembly, it will be necessary to synchronize the two sets of blades, so as to keep them from striking one another, and to provide the maximum overlap of cut. To set the blades correctly, position them as shown in the following illustration, then slide the flexible coupling nubs, connecting the two drives, onto the spline shafts of the drive boxes.



Shear Pin Coupler

The drive train of the shredder is protected by a shear pin unit, coupled to the P. T. O. drive shaft. In replacing the shear pins, use 3/8" x 2-1/4" long machine bolts. These can be purchased from any hardware store. Never use hardened bolts, as this could result in overloading of the drives and P. T. O. shaft.

Slip Clutch (Optional)

The multiple disc clutch is intended to protect the shredder and tractor against shock and overload damage. It also eliminates the downtime created by replacing shear pins. If the clutch runs hot during normal operation of the tractor, draw up 1/6 turn on each of the (12) adjusting screws. Continue to operate and recheck for heating. Do this until excessive slippage and heating are eliminated.

Periodic adjustment will be necessary to compensate for wear on the clutch facings.

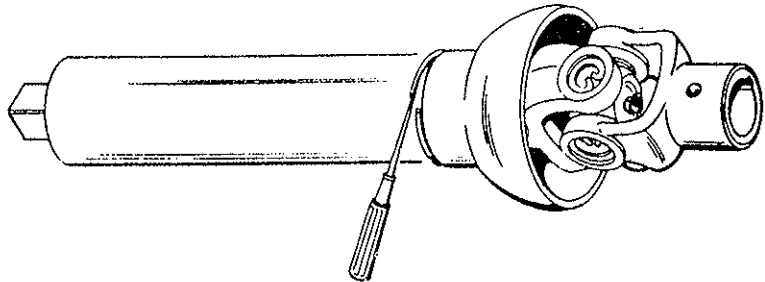
Operate the shredder level or slightly low in the front. The adjustable drawbar hitch can be moved to the desired position to accomplish this.

This machine has been designed to be as maintenance free as possible. Check the oil level every 50 hours of operation; add oil if necessary. Lubricate all grease fittings every 50 hours of operation.

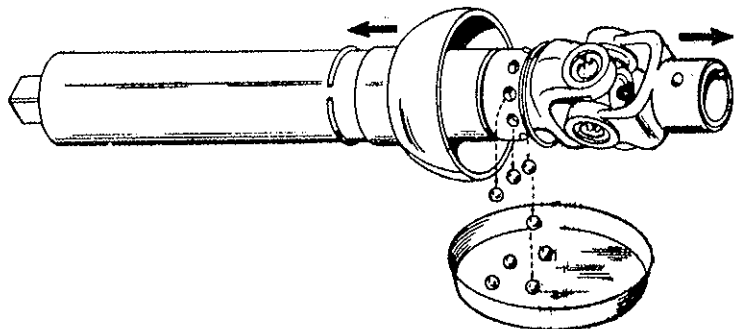
The wheel bearings have been packed at the factory and should be packed yearly with a good grade of wheel bearing grease.

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.

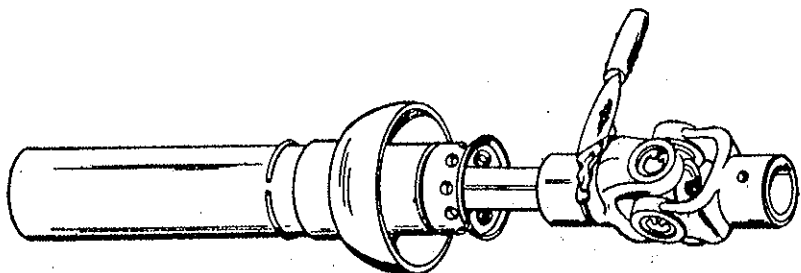


2. Hold assembly over container so that balls will not be lost and slide bell away from joint toward opposite end of tube. If balls do not drop out, slide tube away from joint, forcing balls from cage.

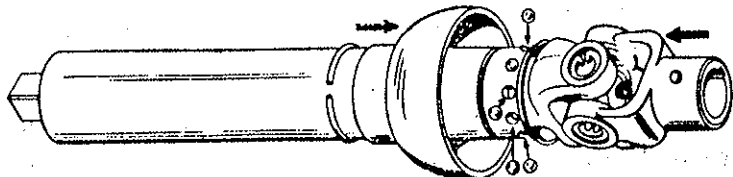


INSTRUCTIONS FOR ASSEMBLING
QUICK DETACHABLE FREE WHEELING GUARD

3. Fill raceway in yoke with grease.



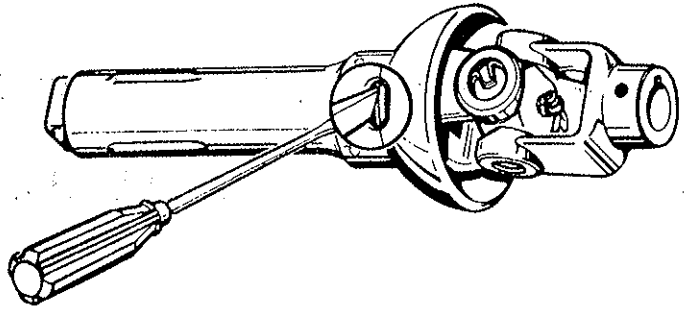
4. Slide tube with bell and snap ring over raceway. Insert balls through holes into raceway where grease will hold them in place. Slide bell over balls. Slide snap ring into groove.



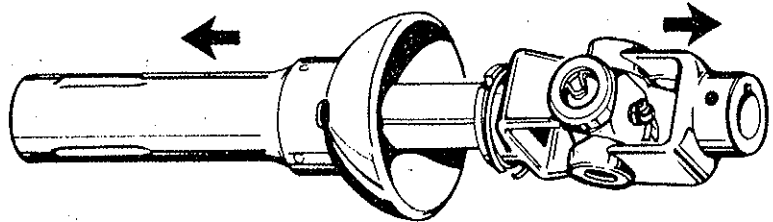
Grease joints, telescoping shafts and guard regularly. This Quick Detachable Free Wheeling Guard is the finest guard built. It is provided for your protection.

Instructions for Removing Nylon Quick Detachable Free Wheeling Guard

1. Insert screw driver in slot in bell and push snap ring downward and forward out of groove toward large opening of bell.

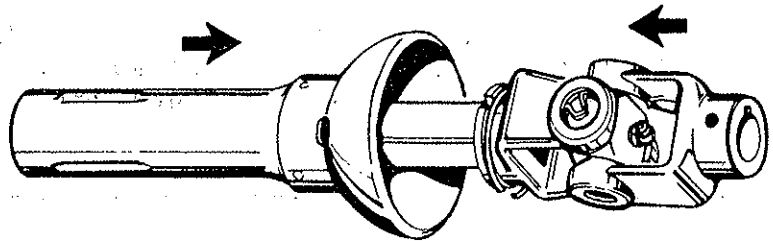


2. Slide guard off of joint.

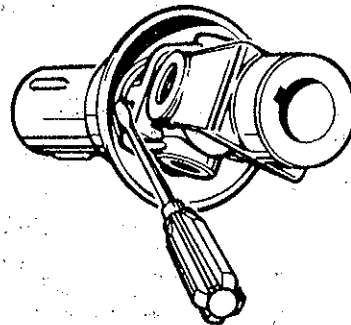


Instructions for Assembling Nylon Quick Detachable Free Wheeling Guard

1. Slide snap ring over joint hub.



2. Insert nylon bearing in groove of joint hub.



3. Slide joint assembly into guard. With screwdriver, push snap ring into groove.

WARNING - DO NOT POUND BELL TO REMOVE JOINT ASSEMBLY.

INSTRUCTION SHEET
for ASSEMBLY OF SPLINED YOKE w/ SET SCREW
to SPLINED SHAFT

- 1 - Loosen the lock nut (B) in the yoke (F) and back off the set screw (A) with the Hex Allen wrench provided.
- 2 - Align the set screw in the yoke, with the tapered hole (C) in the splined shaft.
- 3 - Slide the splined yoke (F) on the splined shaft (E) until it rests against the bearing at (D).
- 4 - Now turn the set screw (A) down tight into the tapered hole (C). This will cause the yoke (F) to be clamped against the bearing at (D) to eliminate the end play of the yoke on the shaft.
- 5 - Lock the set screw by holding it with the Hex Allen wrench, drawing down tight on the hexagon lock nut. This will prevent loosening of the set screw and joint on the splined shaft.

SPLINED JOINT & SHAFT ASSEMBLY

