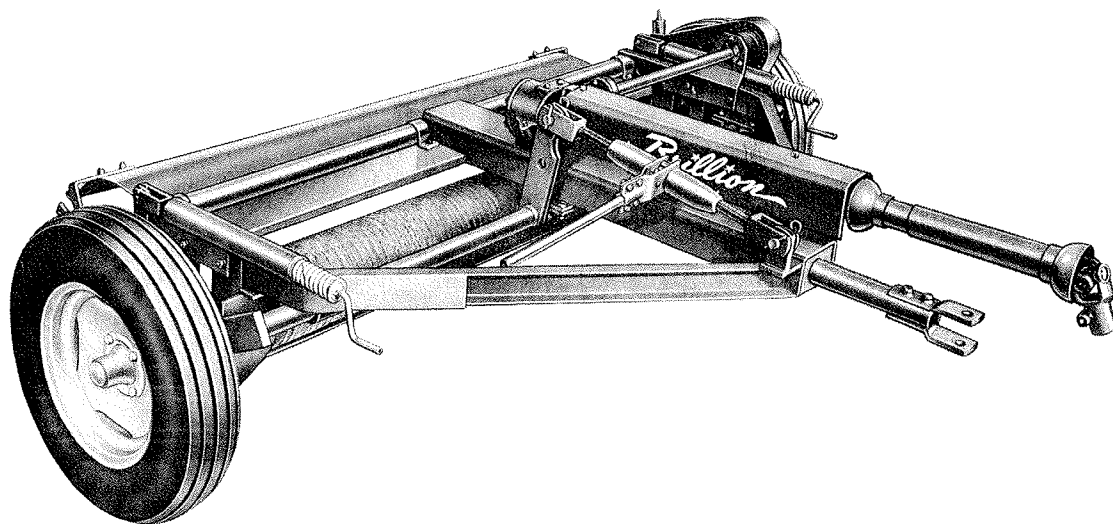


OPERATOR'S MANUAL

Brillion

MODEL HC-2

HAY CONDITIONER



BRILLION IRON WORKS, INC.
BRILLION, WISCONSIN

8C-937

Brillion

**MODEL HC-2
HAY CONDITIONER**

The Brillion Hay Conditioner 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.

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BRILLION MODEL HC-2
HAY CONDITIONER SPECIFICATIONS

Over-all width-----103-3/4 inches
Over-all length-----81 inches
Maximum height (6.70-15 tires)-----31 inches
Weight (less tires & tubes)-----980#
Hitch-----Trail-behind

Wheels
 Tread Width-----8 Ft. - 3/8 Inches
 Tire Size-----15 Inches
 Wheel Bearings-----Tapered Roller

Drive-----Power-Take-Off
 Drive Shaft Bearings-----Self-aligning pre-lubricated ball bearings

Pickup Width-----Up to 7' Mower

Lower Roll-----6-5/8 In. diameter
 slatted steel
 Bearings-----Self-aligning ball bearings with re-lubrication feature

Upper Roll-----8 In. diameter fabric reinforced rubber.
 Bearings-----Self-aligning ball bearings with re-lubrication feature

Gear Box
 Gears-----Heat treated alloy steel-machine cut

 Bearings-----Tapered Roller
 Lubrication-----Continuous Oil Bath

Overload Protection-----Friction slip clutch

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BRILLION MODEL HC-2 HAY CONDITIONER

Your conditioner is shipped to you almost fully assembled. You receive as separate assemblies, (1) axle assembly, (2) screw jack assembly, (3) fluffer, (4) power-take-off shaft bundle, (5) bag assembly and (6) wheels.

SETTING UP INSTRUCTIONS

Open the bag assembly and lay the parts out, being careful not to lose any of the parts. Separate the bundles and lay these parts out, also.

With the conditioner assembly resting on the skids, block up the hitch so that the frame is approximately level.

Attach the axle assembly to the conditioner assembly with the three red axle bearings using $\frac{1}{2}$ " x $1\frac{1}{4}$ " long cap screws, with lock washers and nuts on the underside. Draw the nuts up tight.

After mounting tires and tubes on the wheels, bolt the wheels to the wheel hubs using the bolts provided. Draw these bolts up tight.

Attach the screw jack between the frame anchor and the axle lift arm, using the pins provided.

Attach the power-take-off hitch-joint assembly to the drive shaft following these steps, (1) remove the protective tape from the drive shaft, (2) remove the roll pin from the drive shaft yoke on the

P.T.O. hitch-joint assembly, (3) slide the drive shaft yoke onto the shaft, positioning the pin hole in the yoke with the pin hole in the shaft, (4) reinsert the roll pin and wire in place, and (5) tighten the set screw over the key.

Attach the loose drive shaft shield to the conditioner using a 3/8" x 1" long cap screw with nut and lockwasher at the gear box end and a 3/8" x 3/4" long cap screw with lockwasher in the tapped hole at the bearing pedestal.

From the bag assembly, select the two green deflector shields. These are attached to the inside rear of the side plates using a 3/8" x 3/4" long cap screw and lockwasher in the tapped hole. Through each of the lower holes insert a 3/8" x 1-1/2" long cap screw with the head on the inside. On the outside of the side plates, install the 3/8" long bushing over the 3/8" x 1-1/2" long cap screw, assemble the 16" long slotted flat braces over the bushings and fasten in place with a 3/8" flat washer, lockwasher and nut in that order. Draw the nuts up tight. The deflector shields are correctly installed when they will deflect ejected hay inward toward the center of the conditioners line of travel.

Now assemble the fluffer to the rear frame tube by placing the fluffer under the tube and attaching with the four green clamps, using 5/16" x 3/4" long carriage bolts with the heads to the under side of the fluffer. The fluffer is correctly positioned when the

clearance between the sides of the cut-out in the fluffer and the frame center channel is the same on both sides of the channel.

Attach the formed fluffer adjusting brackets on the top side of the curved part of the fluffer, with the arms extending downward, using 5/16" x 3/4" long carriage bolts with the heads on the under side of the fluffer. Complete the assembly by connecting the slotted braces to the adjusting brackets, using the 1/2" x 1 1/4" long carriage bolts with the head on the inside of the formed bracket, and the 1/2" flat washer on the outside of the slotted brace, fastening with the lockwasher and nut.

OPERATING INSTRUCTIONS

The Brillion HC-2 hay conditioner will operate behind any tractor with standard ASAE power-take-off and drawbar hitch. (To check this, the horizontal distance from the end of the power-take-off shaft to the center of the hitch pin hole in the drawbar should be 14". The vertical distance from the ground to the top of the drawbar hitch plate should be from 13" to 17".) The tractor should ALWAYS be operated so that the power-take-off is operating at standard 530-550 rpm speed.

The conditioner must be operated following directly behind the mowing tractor and traveling in the same direction as the mower.

The conditioner height should be adjusted so that the lower roll is as high as possible above the ground, and still get good pick-

up.

Spring pressure on the upper roll should be set so that the stems are just cracked. Generally, slightly more pressure is required for grasses than for legumes. However, the appearance of the conditioned hay must determine the setting. Damaged leaves and shredded stems indicate excessive spring pressure. Slight over conditioning is seen when the leaves of legume plants are bruised and appear dark. Proper conditioning can be obtained by reducing the spring pressure somewhat when the slight over conditioning is observed.

ADJUSTMENTS

Roll Spacing: Clearance between the upper and lower rolls is set at the factory from 1/64 inch to 1/32 inch. This should be maintained by adding or removing shims on the roll-arm stops located on each side of the machine.

Roller Chain: To adjust the tightness of the roller chain, take up or loosen the nut on the idler adjusting bolt until the rubber pads are compressed about 1/8" from their free height. This should give the proper tension on the chain.

Fluffer: The fluffer is adjusted by loosening the nut on the 1/2" carriage bolts, raising or lowering the fluffer, and then re-tightening the nut.

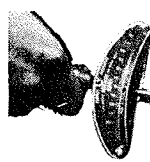
Slip Clutch: The slip clutch is adjusted at the factory and should require little or no adjustment. If, after long use, excessive slippage is noted, loosen the two set screws in the hex nut on the clutch and tighten the nut 1/6 turn, then retighten the set screws.

MAINTENANCE

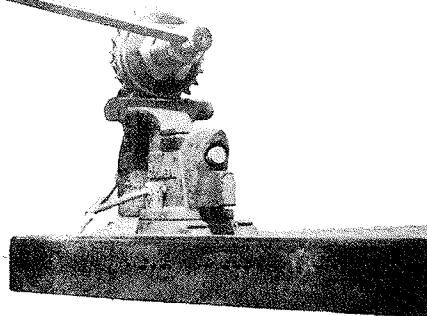
Lubrication: Regular lubrication will increase the life of your hay conditioner and reduce wear. Use only good quality lubricants and lubricate as follows:

Roll bearings (4)	Grease every 50 hours
Universal joints in P.T.O. Drive (2)	Grease every 10 hours
Drive chain	Brush on oil every 5 hours
Telescoping drive shaft	Grease every 10 hours
Repack wheel bearings	Every 100 hours
Gear box - check oil level (SAE 140)	Every 100 hours

Slip Clutch: When it becomes necessary to replace the slip clutch facings, remove the complete clutch-sprocket assembly from the drive shaft. Dis-assemble, replace the facings and re-assemble. To get the correct clutch setting, clamp the sprocket in a bench vise, apply a torque wrench with a square socket on the end of the clutch hub and adjust nut until a torque of 150 foot-pounds is indicated. Tighten the set screws in the nut, and re-install the assembly on the drive shaft. (see figure page 9)



Clamp sprocket in bench vise. Apply torque wrench with square socket on end of clutch and adjust nut until proper torque is indicated.

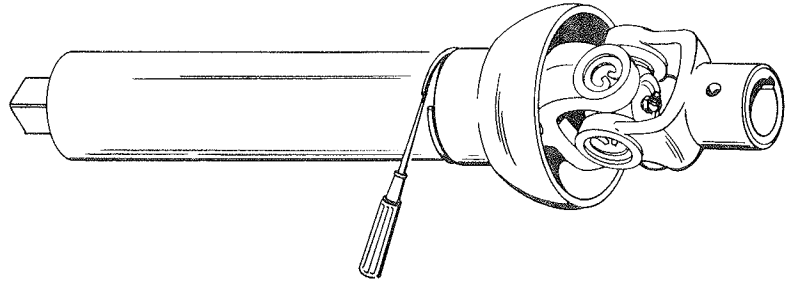


SETTING SLIP CLUTCH

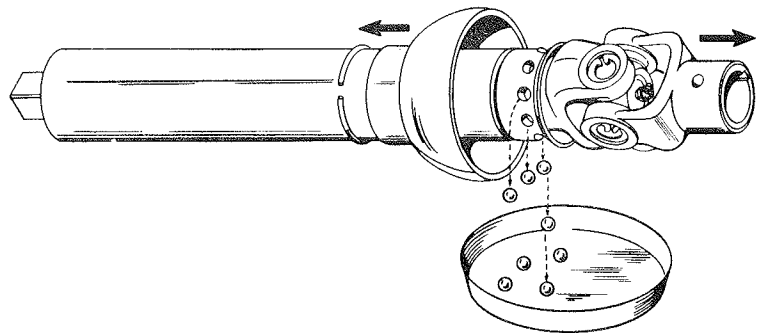
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INSTRUCTIONS FOR REMOVING
QUICK DETACHABLE FREE WHEELING GUARD

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

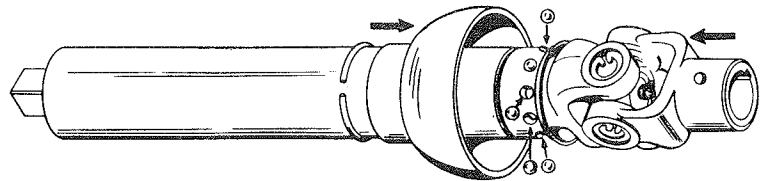
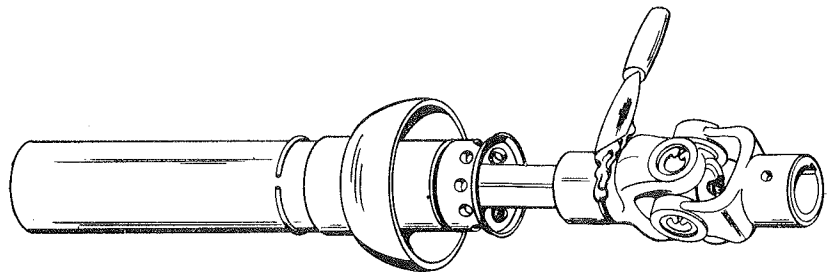


2. Hold assembly over container so that balls will not be lost and slide bell away from joint toward opposite end of tube. If balls do not drop out, slide tube away from joint, forcing balls from cage.



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.

WARNING - DO NOT POUND BELL TO REMOVE JOINT ASSEMBLY.

U. S. Patent #2,919,562 & 2,923,140

