

NO. 114-A ROUGHAGE MILL AND FEED GRINDER



JOHN DEERE

OPERATORS MANUAL NO. 114-A ROUGHAGE MILL AND FEED GRINDER

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LITHO IN THE U.S.A.
ENGLISH



TO THE PURCHASER

The successful operation of your mill, which is designed to give you many years of satisfactory service, depends upon the care given it and how it is operated.

Dull knives and hammers will not do good work but cause unsatisfactory service and expense. **KEEP KNIVES SHARP.**

The object of this Manual is to assist in setting up this mill correctly and to aid the user in operating it to the best advantage. See that the operator follows these instructions.

A mill incorrectly assembled or improperly operated cannot produce the best results.

Greasing is important. Use the type of grease recommended.

LOCATION REFERENCES

“Right” refers to the pulley side of mill and “Left” to the fan side.

SERIAL NUMBER

Always give the SERIAL number of your mill when ordering PARTS. This number is located on the body under the small feed table.

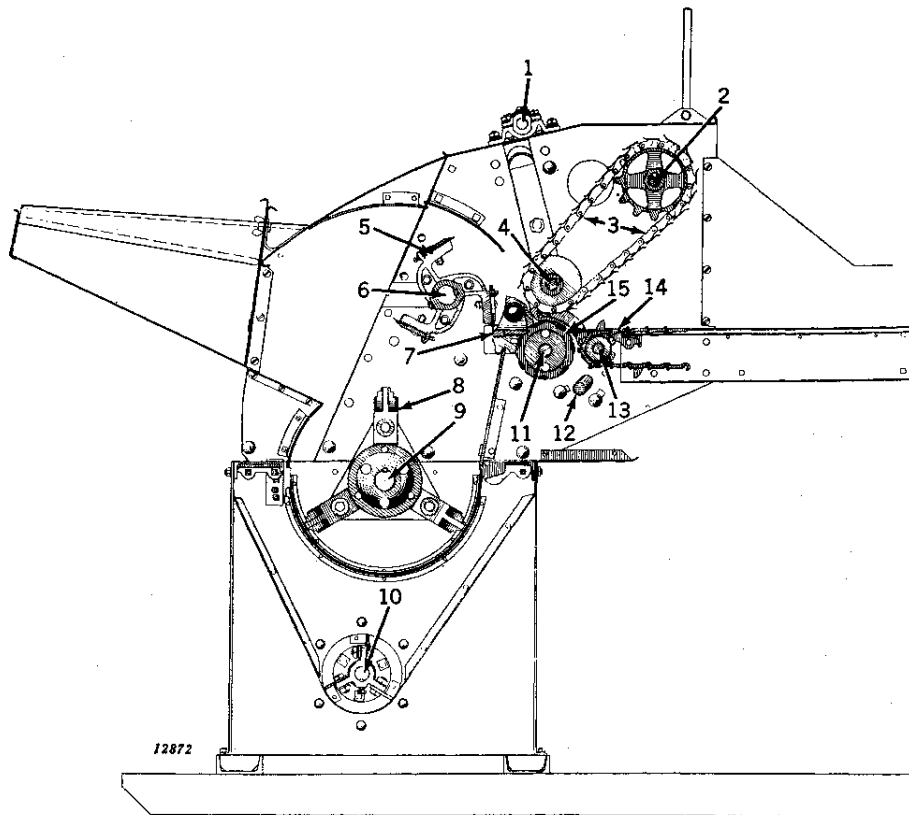
<p>The Serial Number of your Mill is.....</p> <p>Date Purchased.....19.....</p>

KEEP THIS MANUAL FOR FUTURE USE.

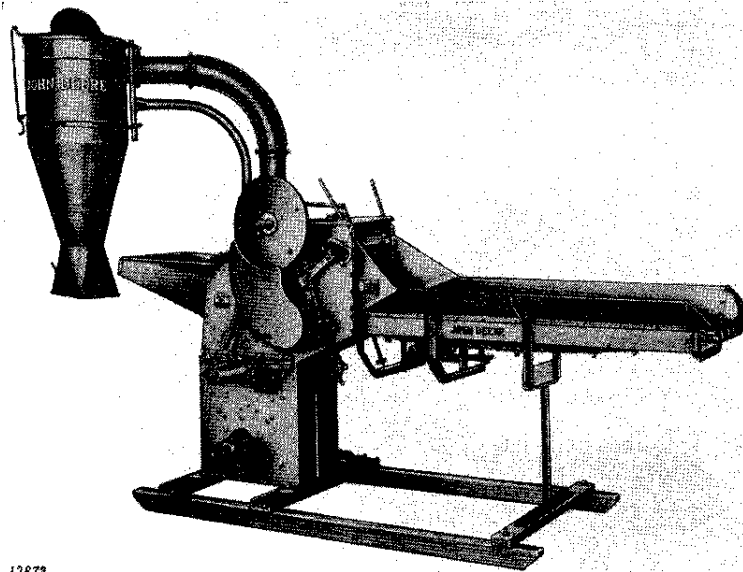
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TABLE OF CONTENTS

	<i>Page</i>
OPERATING INSTRUCTIONS	8-20
Anchor Stakes	8
Before Starting Mill	9
Bearings	11
Belt for Driving Mill	8
Chains	5
Chopping Dry Roughage	15
Chopping Roughage and Adding Grain	15
Clogged Feed Throat	15
Cutting Hay	15
Drive Pulley	8
Hammers	11
Knife Grinder	13
Lubrication	5-7
Molasses Pump	18-20
Preparing Green Ensilage	16
Replacing and Adjusting Knives	14
Shear Bar and Combing Bar	12
To Adjust Governor	9
To Adjust Fan Drive Belt	10
To Adjust Governor Drive Belt	9
To Adjust Compressor Web	14
To Vary Length of Cut	16
To Use as Hammer Mill Only	17
To Change Screens	10
To Sharpen Knives	13-14
SETTING-UP INSTRUCTIONS	21-31
Blower Pipes	24-25
Drive Belts	23
Drive Pulley	23
Feed Collector and Support	26
Grain Shield	31
Guards	23
Hay Roll Attachment	27
Knife Grinder	22
Molasses Pump	28-29
Secondary Shear Bar	30-31
Small Grain Hopper	23
Traveling Feed Table	21
CORRECT PULLEY SIZES FOR MILL	31-32
SCREENS TO USE FOR VARIOUS MATERIALS	34
INFORMATION ON V-BELT MAIN DRIVES	33
SPACE REQUIREMENTS FOR MILL	35-36
PARTS LIST AND ILLUSTRATIONS	37-76
NUMERICAL INDEX OF PARTS	77-80

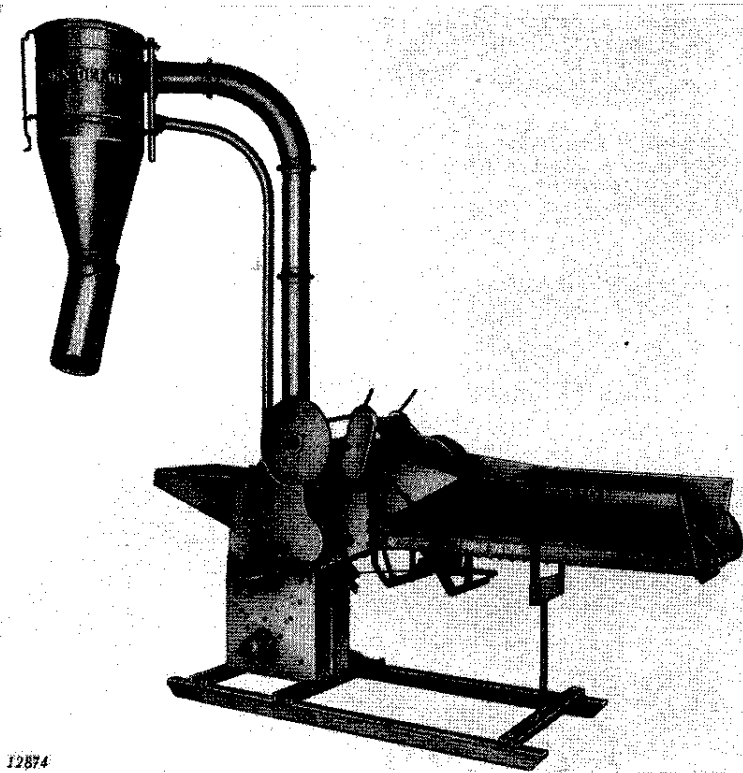


1. Governor Shaft.
2. Compressor Web Shaft.
3. Compressor Web.
4. Idler Roll Shaft.
5. Cutterhead.
6. Cutterhead Shaft.
7. Shear Bar.
8. Hammers on Rotor.
9. Rotor Shaft.
10. Blower Fan Shaft.
11. Feed Roll Shaft.
12. Jack Shaft.
13. Conveyor Shaft.
14. Feed Table Conveyor Chains.
15. Feed Roll.



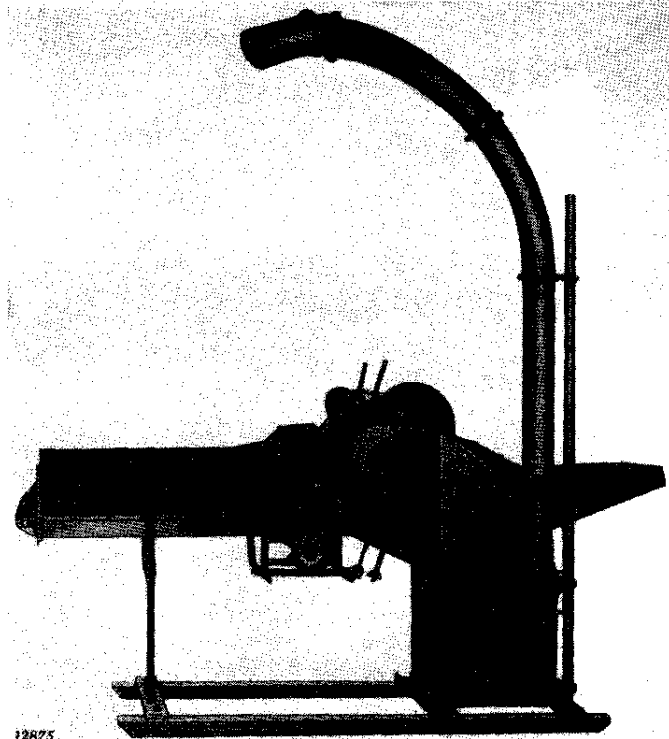
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John Deere No. 114-A Roughage Mill with Sacking Equipment



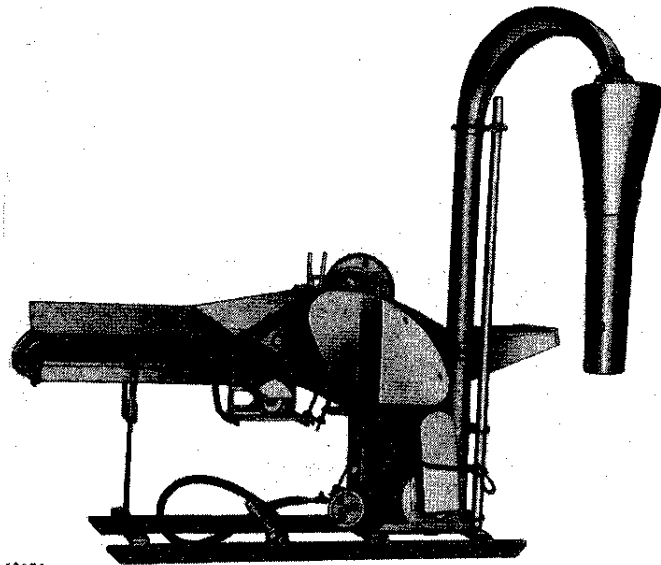
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John Deere No. 114-A Roughage Mill with Wagon Box Equipment, Hay Roll, and Sideboards



12875

John Deere No. 114-A Roughage Mill with 45° Elbows, Adjustable Distributing Elbow and Sideboards, for Blowing Feed into Mows or Self-Feeders



12876

John Deere No. 114-A Roughage Mill Equipped with Deflector, Flexible Spouting, Molasses Pump, and One Sideboard

LUBRICATION

GENERAL

The economical and efficient operation of any machine is dependent upon regular and proper lubrication of all moving parts.

The bearings on this mill are a close fit to give longer life. Best results can be obtained by using a high grade of gun grease of the type listed below, which is suitable for all bearings on the mill. Too much gun pressure on the ball bearings will cause them to heat.

Wipe dirt from fittings before greasing.

Lubricate all parts thoroughly but avoid excessive lubrication. Excessive lubrication will allow the excess lubricant to collect dirt.

If a grease fitting becomes lost, replace it immediately.

Keep governor parts well oiled.

USE BEST GREASE

THESE HIGH-GRADE BEARINGS REQUIRE IT FOR SATISFACTORY SERVICE

Have your oil dealer get from his Manufacturer the recommended Grade of his grease that conforms to the following specifications:

Character of Grease	Lime Soap Base	Soda Soap Base
Soap Content	9 to 12%	15 to 20%
Dropping Point (A.S.T.M.)	175° Fahrenheit Minimum	300° Fahrenheit Minimum
Excess Acid or Alkali	Substantially Neutral	Substantially Neutral
Viscosity of Oil, Saybolt Universal, at 100° Fahrenheit	200 Seconds Minimum	300 Seconds Minimum

The grease shall be a well-manufactured product composed of suitable soap and refined mineral oil.

The grease shall contain no fillers, abrasives or harmful perfumes and shall be free from corrosive matter.

It is important that the grease must not decompose or become fluid at the operating temperature of the bearing.

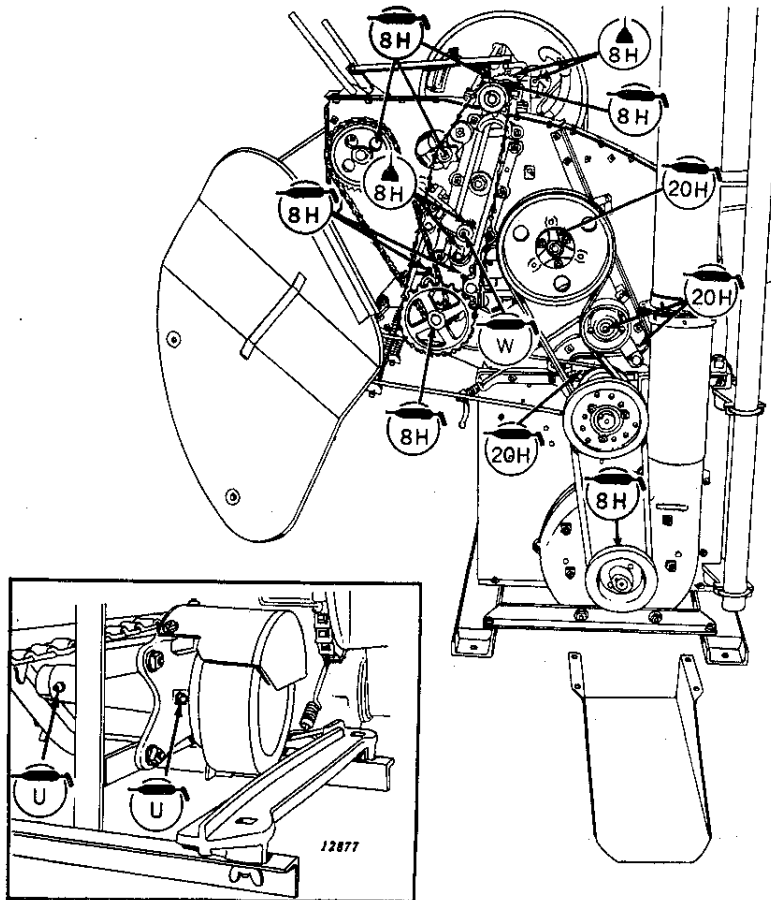
CHAINS






When roller drive chains become dirty, they should be washed with kerosene or gasoline, then apply a very light high-grade oil.

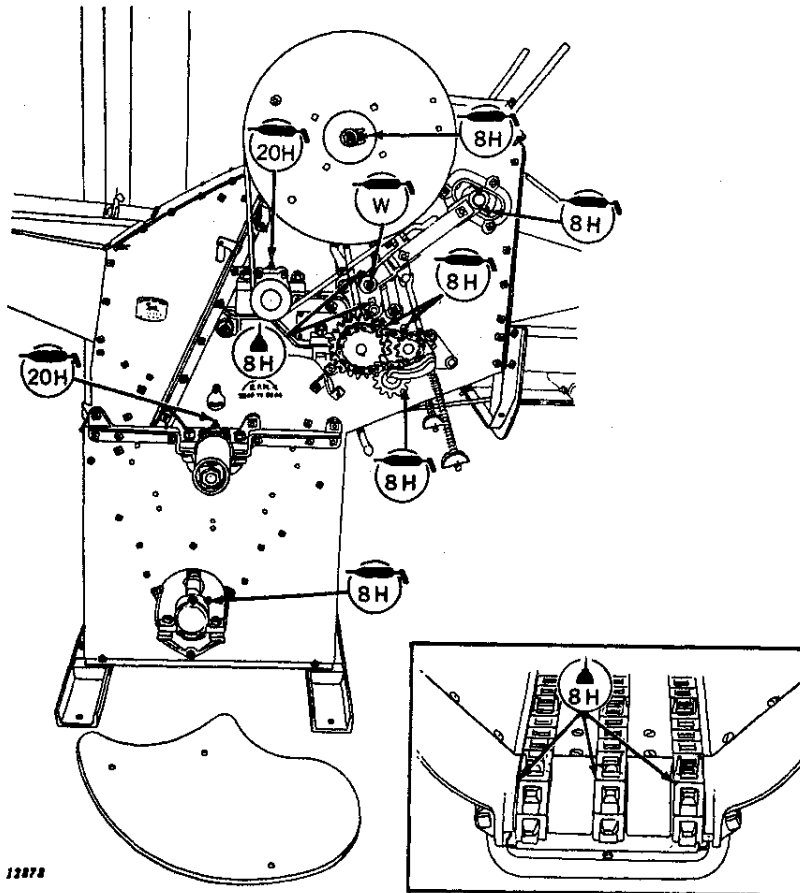
Always wipe off excess oil to prevent dirt accumulating on chains.

LUBRICATION CHARTS

See the following charts for location of grease fittings and oil holes:



SYMBOLS	
	Grease every 8 hours of operation.
	Grease every 20 hours of operation.
	Grease weekly.
	Grease each time used.
	Oil every 8 hours of operation.



SYMBOLS



Grease every 8 hours of operation.



Grease every 20 hours of operation.



Grease weekly.



Grease each time used.



Oil every 8 hours of operation.

OPERATING INSTRUCTIONS

The mill should be set either permanently or put on skids so it can be moved from one location to another. In either case, the mill must be anchored solidly before the power is applied.

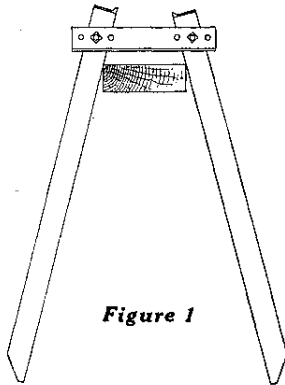


Figure 1

ANCHOR STAKES

Since rigid fastening is necessary to properly operate the mill, we have available steel anchor stakes which are very satisfactory. The part number is J15479C. The stakes are supplied as "extras" when ordered. Two stakes, J15479C, should be used on the pulley side and one on the opposite side, to hold the mill down firmly in alignment with the tractor pulley. Each stake should be driven at an angle to within a couple of inches of top of skid. Then bolt on the crossbar and finish driving both sides, Figure 1.

BELT

When using a tractor, a 50-foot endless hammer mill belt, not less than 6 inches wide, should be used. A longer belt will be found more practical.

Do not use a sticky belt dressing, as it collects on the pulleys and increases the pulley size, causing vibration and loss of speed.

A thin liquid dressing stops slippage and preserves and softens belts. Ask your John Deere dealer about a suitable belt dressing.

To prevent a belt from whipping when it is used in windy conditions, drive a stake about halfway between the mill and the tractor. Place it so it just clears the belt when the mill is not being operated.

If there is belt slippage, check the belt for tension, alignment, and stiffness. Then use belt dressing, as directed above, and be sure the mill is firmly anchored. Be sure the tractor speed is right.

DRIVE PULLEY

If pulley is changed on mill, use a wood block to drive on the pulley until it is against the spacer outside of bearing. Always use a new square lock washer and screw the nut tight as possible with a long-handled wrench. Then lock the nut by bending over a corner of the square washer.

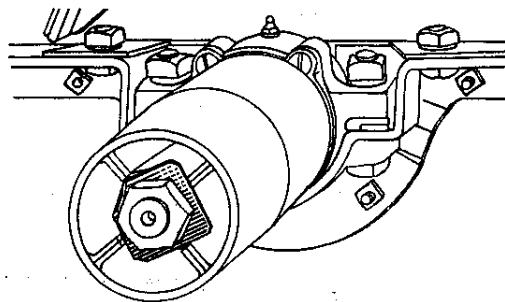


Figure 2

BEFORE STARTING THE MILL

1. Check the traveling feed table and rotor housing for tools and other objects that may cause trouble.

2. To check the conveyor chains in feed table, use a box wrench on the collar at end of governor shaft to turn it. The conveyor chains in feed table should run with just enough tension to keep the chains from climbing the sprockets.

These sprockets on shaft at outer end of feed table need oiling often.

3. Open rotor hood. The cutterhead, rotor and fan shafts have all been run and tested at the factory and left there in correct adjustment. To check these adjustments for damage in shipment, revolve rotor by hand. Examine interior of mill body closely and remove any foreign objects.

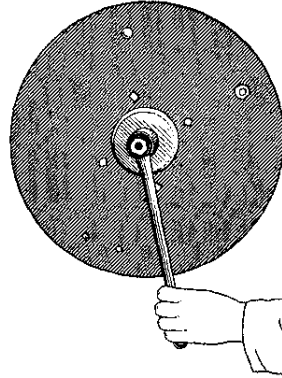


Figure 3

START MILL SLOWLY

Run mill slowly to make sure all drives are correct and bearings do not heat up.

TO ADJUST THE GOVERNOR

The governor must be adjusted so it will stop the feed table when the mill pulley speed drops below the recommended speed of 2800 R.P.M. when working under load.

If the governor does not cut out soon enough, loosen lock wing nut on inside of bracket and tighten outside nut one-half turn. Check results after every half-turn adjustment. In the event traveling feed table cuts out too soon, loosen the outside wing nut a half-turn and follow up with the lock nut.

Be sure both wing nuts are tight when the final adjustment is made.

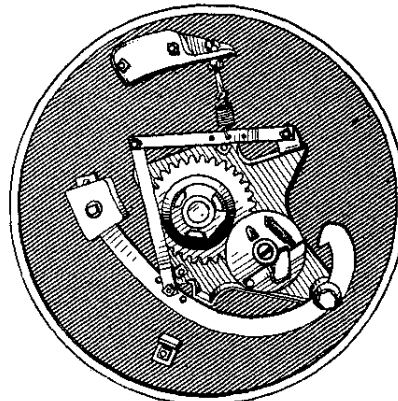


Figure 4

TO ADJUST GOVERNOR DRIVE BELT

To tighten the governor drive belt, raise the governor shaft bearings and lengthen drive chain on the other side, if necessary.

The extra steel washers on bearing bolts should be put under the bearings, to raise the governor shaft.

TO ADJUST FAN DRIVE BELT

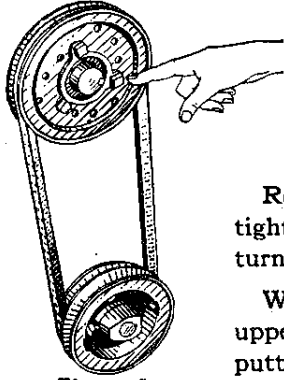


Figure 5

When the belt becomes stretched, remove the three bolts in adjustable drive sheave but not the belt. Be sure to note which set of inside pads were seated. Turn the outside plate to the next lower pads.

Replace the bolts, turning sheave so the bolt to be tightened is below the shaft. Turn each nut up two turns at a time, until each bolt is tightened equally.

When all adjustments have been secured on the upper sheave, additional adjustment can be had by putting belt on outer two-step sheave and moving upper sheave out on shaft to line up with lower sheave, turning the outside plate of the upper sheave to a higher set of pads. This will give you eight adjustments on the belt.

Always follow this method in changing or tightening belt so as to avoid damage to belt. V-Belts should never be forced over the outside of sheaves.

TO CHANGE SCREENS

Tilt rotor hood back and remove breaker bar.

Slide screen out of screen guides.

Sometimes damp materials become packed in the screen guides making

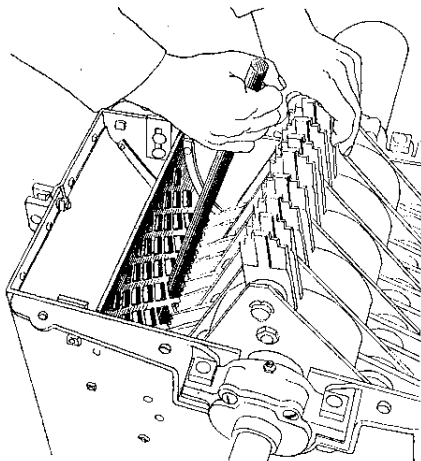


Figure 6

the screens hard to remove. In this case use a bar inserted in the center of the screen about halfway around so a hammer can bump the bar. Now rock the rotor shaft to jar the screen a few times, then the screen can be pulled out readily. This method will not ruin the original form of the screen.

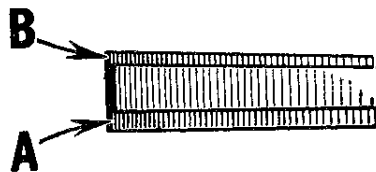


Figure 7

Insert the new screen and replace the screen lock with wide offset "A" down on screens except those that are $3/32$ " thick or less. On these lighter screens put the narrow side "B" down on the screen.

Close the rotor hood and tighten firmly.

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