

John Deere 22 Roller Mill



OPERATORS MANUAL

John Deere
22 Roller Mill

OMC13976 I2 English

OMC13976 I2

LITHO IN U.S.A.
ENGLISH





to the purchaser

This manual contains operating, lubricating, and servicing instructions for the John Deere 22 Roller Mill.

The roller mill is sturdily constructed to give many years of satisfactory service. However the successful operation and long life of the roller mill depends on the proper operation and the care given it. Read this manual carefully and follow the instructions. By doing so you may save much time and expense. If additional information is needed see your John Deere dealer.

Lubrication is very important. Refer to the Lubrication Chart.

When in need of new parts or service, consult your John Deere dealer. He is equipped to provide genuine John Deere replacement parts, and his servicemen have the training and experience to service your equipment efficiently.

Location references

References made in this manual to the right-hand and left-hand side of the roller mill have been determined by standing at the rear of the machine, facing toward the hitch or driven side of the machine.

Serial number identification

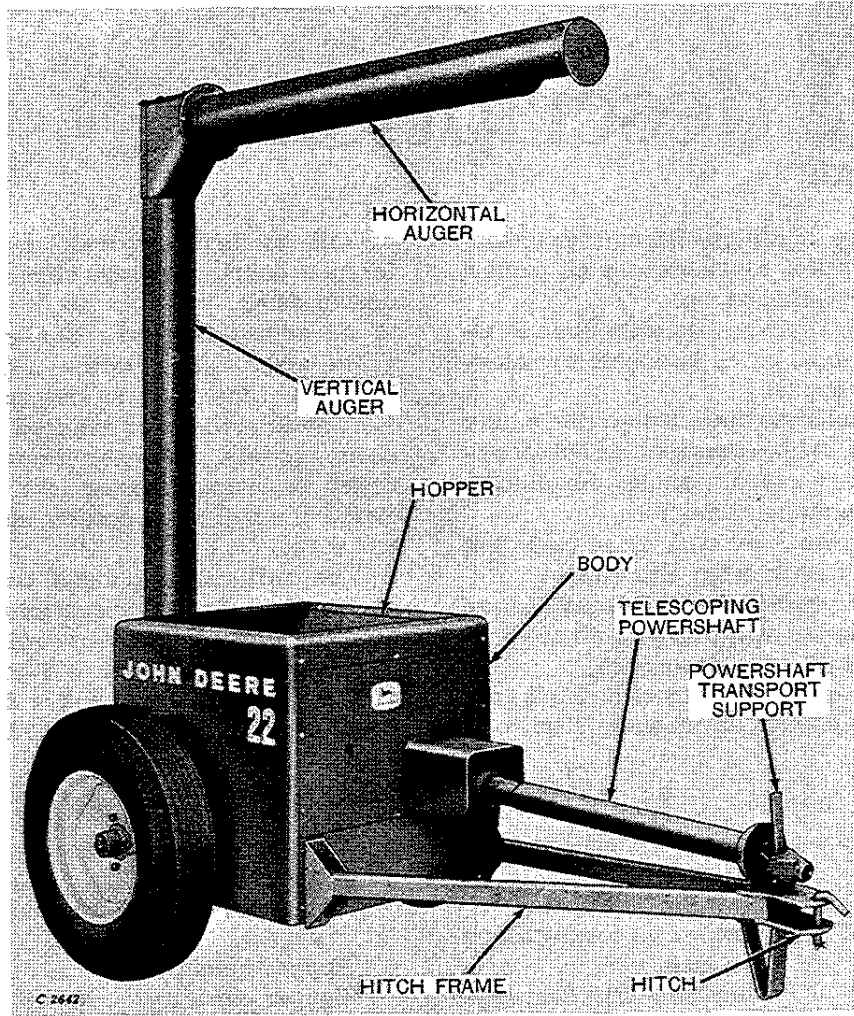
The serial number of your roller mill is located on the inside of the rear hopper sheet. Record this number in the space below for reference when requesting information or ordering parts.

Roller Mill Serial No.

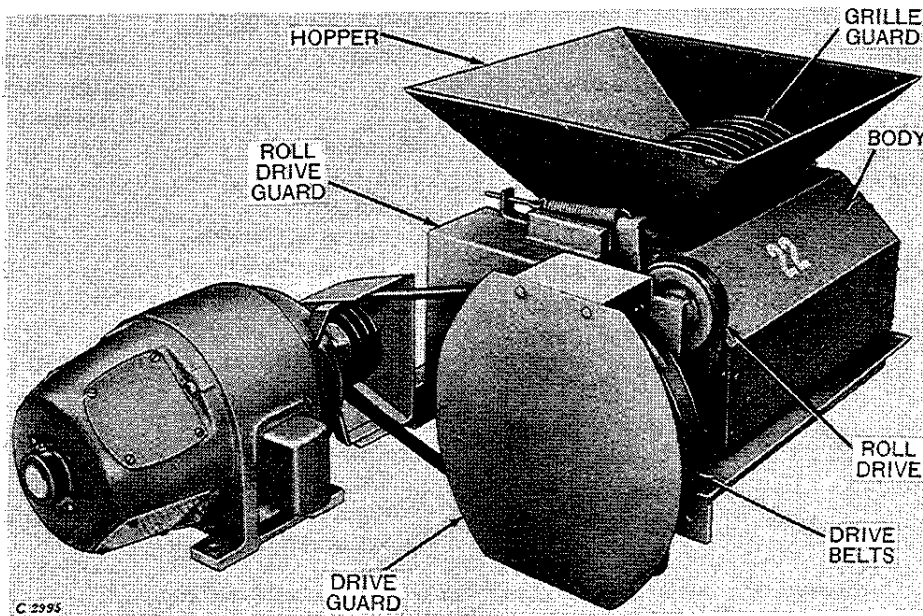
Date Purchased

Contents

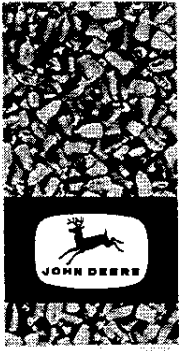
	Pages		Pages
IDENTIFICATION VIEWS	1	Transporting	6
DESCRIPTION	2	Unhitching from Tractor	6
SPECIFICATIONS	2	Adjustments	
OPERATION		Drive Belt and Chain	7
Portable and Stationary Mills	3-4	Slip Clutch	7
Rolls	3	Extra Equipment	
Feed Gate	4	Magnet Attachment	8
Hopper Agitator	4	Hopper Extension	8
Hopper Grille Guard	4	Safety Suggestions	8
Portable Mill	5-6	LUBRICATION	9
Preparing the Tractor	5	SERVICE	
Hitching to Tractor	5	Changing Rolls	10-15
Tractor Controls	5	ASSEMBLY	16-19
Vertical and Lateral Augers	6		



John Deere 22 Portable Roller Mill



John Deere 22 Stationary Roller Mill



description

The John Deere 22 Roller Mill rolls or crushes shelled corn, milo, soybeans, wheat, barley, and other types of small grain.

The roller mill is furnished either as a PTO-driven portable model or as an electric-motor-driven stationary model.

The portable mill may be transported easily and set up quickly for on-the-spot feed processing. The stationary model can be installed in any convenient permanent location.

When PTO-driven, the mill drive parts are protected by a 4-disk friction slip clutch.

The rolls are protected by a shear pin and when PTO-driven, the mill drive parts are protected by a 4-disk friction slip clutch.

The two rolls may be set from 0 to 3/8 inch apart to vary the degree of crushing. The roll-

er mill is furnished with any one of three differently corrugated sets of rolls: coarse, medium, or fine.

An adjustable feed gate regulates the flow of grain and a chain driven agitator eliminates bridging of the grain in the hopper.

A steel grille over the feed gate keeps hands, scoop shovels, and other large objects out of the rolls. A magnet attachment is available for catching small steel objects such as nails, bolts, and wire.

The mill rolls up to 300 bushels of oats per hour with fine rolls or cracks up to 650 bushels of shelled corn with coarse rolls.

The portable mill has a 7-foot vertical auger with a clean-out door and a 5-foot lateral delivery auger that swivels 360 degrees.

Specifications

ROLLS 10-inch diameter, 20 inches long

TYPES OF ROLLS . . Fine—14 corrugations per inch
 Medium—10 corrugations per inch
 Coarse—6 corrugations per inch

PORTABLE MILL:
 Drive V-belt and heavy-duty roller chain powered by tractor PTO

Delivery Augers . . 7-foot vertical auger, 5-foot lateral auger, both 6-inch diameter

Wheels 14-inch steel wheels for 7:50 x 14-inch to 9:50 x 14-inch auto or implement tires

Dimensions:
 Length 93-5/8 inches
 Height 93-1/4 inches
 Width 46-1/8 inches

Clearance under lateral auger 86-1/8 inches
 Delivery radius of lateral auger 68-1/2 inches
 Hopper height 34-3/4 inches
 Hopper capacity 1-1/2 bushels
 Ground clearance 6 inches
 Total weight with tires 958 pounds

STATIONARY MILL:
 Drive V-belt and heavy-duty roller chain powered by 5 to 10 h.p. electric motor

Dimensions:
 Length 39 inches
 Height 26 inches
 Over-all width 23-7/8 inches
 Hopper length 24-3/4 inches
 Hopper width 24 inches
 Hopper capacity 1-1/2 bushels
 Weight (without driven sheave) . . 484 pounds

EXTRA EQUIPMENT
 V-belts and Drive Sheave for Electric Motor
 Drive (Stationary Mill only)
 Hopper Extension (3-1/2 bushels)
 Magnet Attachment

(Specifications and design subject to change without notice.)

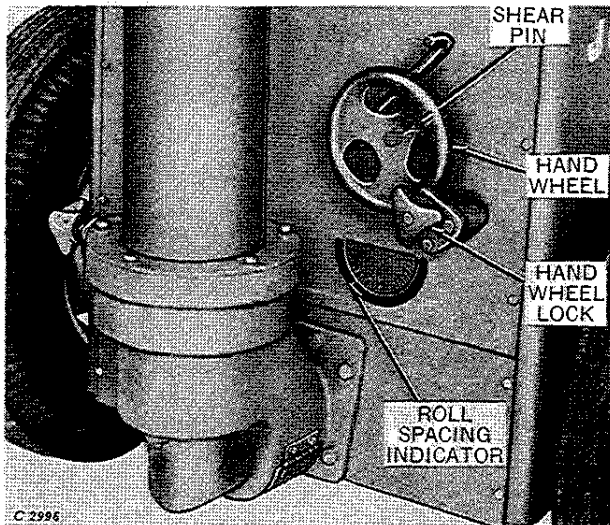


operation

Portable and stationary mills

Rolls

Roll spacing



To adjust the roll spacing, first loosen the hand lock nut at the rear of the roller mill and then turn the hand wheel. Turning the hand wheel to the right reduces the roll spacing; turning the hand wheel to the left increases the roll spacing.

When the mill is to be operated with close roll spacing, the rolls must be *slightly open before starting the mill in operation*. As the grain begins to flow through the rolls, adjust the roll spacing to the desired width. When the proper roll spacing has been obtained, tighten the hand nut to lock the rolls in the desired position.

Before emptying the hopper completely, open the rolls slightly. This will prevent the rolls from touching when they are rotating. **Never operate the roller mill with the rolls touching.**

The roll spacing scale with a graduated dial is provided so the desired roll spacing for a particular type of grain may be easily reset.

A cotter pin is provided at the inner side of the hand wheel hub to protect the rolls from overload or metal particles. This pin will shear under these conditions and allow the rolls to separate. If the pin shears, it **must** be replaced with an 1/8 x 1-1/2-inch cotter pin. Loosen hand wheel lock and reset rolls before operating the mill.

If the rolls become locked and the hand wheel cannot be turned to loosen the rolls, apply a wrench to the hex-shaped hand wheel hub and free the rolls. Reset the rolls before operating the mill.

Types of rolls

The roller mill is furnished with one of three different sets of rolls installed in the mill: coarse, medium, or fine. The type of rolls used depends on the type of grain to be rolled. The three types of rolls are:

Coarse Rolls - 6 corrugations per inch.

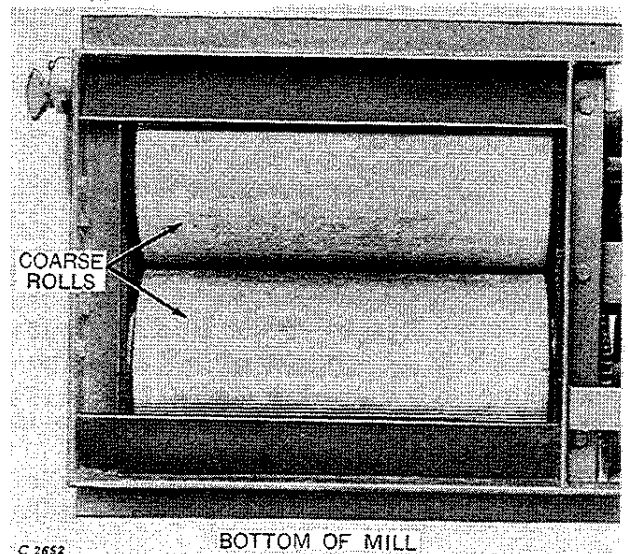
These rolls are used when shelled corn is to be rolled almost exclusively. Other types of grain may be rolled but at reduced quality.

Medium Rolls - 10 corrugations per inch.

These rolls are used for rolling milo and other small grains. These rolls are especially useful when you intend to roll various types of grain rather than one particular grain.

Fine Rolls - 14 corrugations per inch.

These rolls are used when oats, barley, or wheat are to be rolled almost exclusively. These



BOTTOM OF MILL

4 operation

Types of rolls—continued

rolls do an outstanding job of flattening and finishing this type of grain. Other types of grain may be rolled but at reduced capacity.

As the number of corrugations per inch on the rolls is increased the capacity of the mill is decreased. Therefore, it is desirable to use rolls as coarse as possible which will do a satisfactory rolling job.

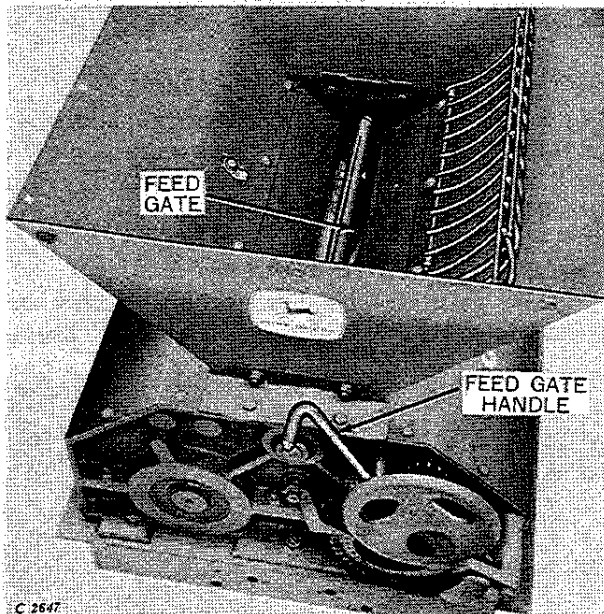
The quality of the rolled product delivered by the roller mill is not completely dependent upon the sharpness or depth of the roll corrugations.

The primary indication that the rolls are becoming worn will be a noticeable loss of capacity. This capacity loss will be due to worn roll corrugations pulling less grain into and through the rolls.

When the rolls become worn they can be re-corrugated one or two times before it is necessary to replace them.

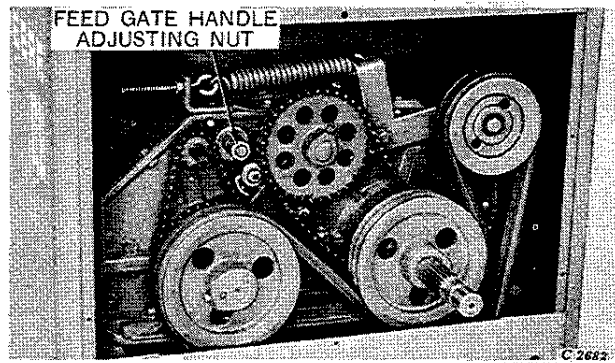
The life of the rolls is dependent upon the cleanliness of the grain being rolled as well as the care taken to prevent the rolls from touching while the mill is being operated.

Feed gate



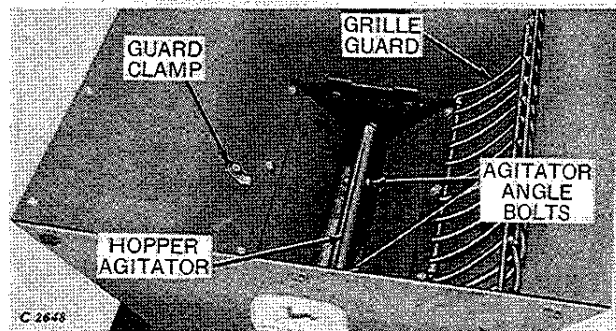
The feed gate control handle, located between the roll adjusting hand wheel and the rear of the mill, is moved right or left to open and close the feed gate. With the handle in the full right position, the feed gate is completely open. With the handle in the full left position, the feed gate is completely closed.

An adjusting nut to increase or decrease the tension of the feed gate handle is provided at the



front of the mill. Remove the front sheet and tighten the adjusting nut if the feed gate does not remain in the desired location during the rolling operation.

Hopper agitator



The hopper agitator located in the lower section of the hopper is designed to prevent bridging of grain and assure a free flow of material into the rolls at all times.

When rolling free flowing grains, such as shelled corn, the two sheet metal angles which bolt to the agitator shaft may be removed for maximum capacity operation.

Hopper grille

The hinged hopper grille is secured with a cap screw, lock washer, and a clamp. To raise the grille loosen the cap screw and rotate the clamp. The grille may now be raised.

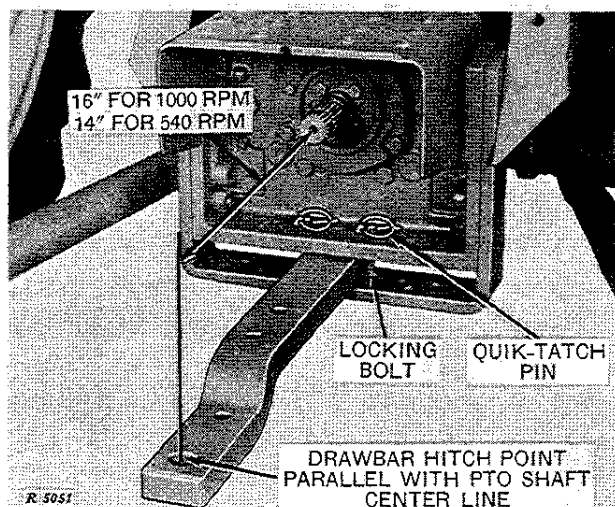


Do not raise the grille while the roller mill is operating. Before opening the grille, disengage, disconnect, and shut down all power sources, including the tractor, and wait until the rolls have come to a complete stop.

A magnet attachment which protects the rolls from small steel objects is available as extra equipment. See page 8.

Portable mill

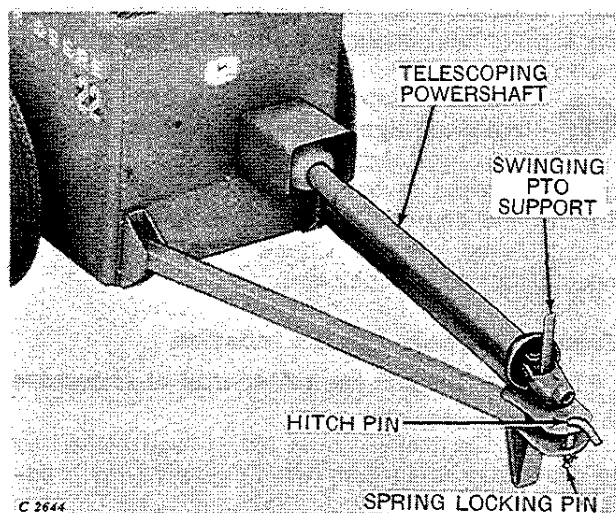
Preparing the tractor



To adjust the tractor drawbar to the proper position for power take-off operation, see your tractor operator's manual.

The correct distance between the end of the powershaft and the center of the hitch pin hole is shown in the illustration above.

Hitching to tractor



Back the tractor into position and insert the hitch pin through the hitch plates and drawbar and secure with spring locking pin.

Connecting powershaft

The PTO operating speed of the tractor and roller mill must be the same. The tractor half

of the powershaft will be equipped with six splines for 540 rpm operation or 21 involute splines for 1000 rpm operation.

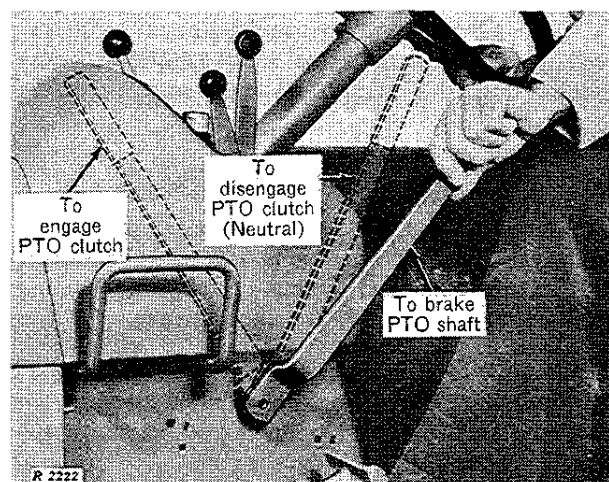
Normally the roller mill is equipped for 540 rpm operation. If the roller mill is to be used with a tractor equipped for 1000 rpm PTO operation, change the tractor half of the powershaft to a powershaft equipped with a 21 involute splined yoke.

When the mill is being operated by a tractor with a 1000 rpm PTO speed, operate the tractor at a throttle setting that will produce a reading of 950 to 1500 rpm on the tractor speed hour meter. This throttle setting will deliver the correct crushing roll speed of 500 to 750 rpm. Do not operate the roller mill a full 1000 rpm PTO speed.

After making the connection, check to be sure that the powershaft spinner shields are free to operate. Hardening of the paint may cause the shields to be frozen on the shaft temporarily.

When transporting, the powershaft must be disconnected from the tractor and placed on the swinging support.

Tractor controls



PTO Clutch Lever Operating Positions for John Deere 3010 and 4010 Series Tractors

The portable roller mill is operated by the tractor power take-off and is controlled by the tractor power take-off control lever.

For other John Deere tractors or other types of tractors than those illustrated, refer to your tractor operator's manual for proper power take-off operation.

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com