

700 AND 750 GRINDER MIXER



JOHN DEERE

OPERATORS MANUAL 700 AND 750 GRINDER MIXER

OMN159324 B3 English

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ENGLISH





To the Purchaser

This new Grinder-Mixer was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, adjustments, lubrication, service, attachments, trouble shooting, assembly, or specifications. Read the Table of Contents to learn where each section is located.

"Right-hand" and "left-hand" sides are determined by standing behind the machine and facing in the direction that the machine will be towed when transporting.

In addition to the equipment furnished with your Grinder-Mixer, attachments are available to help you do a better job in special grinding operations. These are described in the attachments section of this manual and can be purchased from your John Deere dealer.



This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

Record your Grinder-Mixer serial number in the space provided on page 44. Your dealer needs this information to give you prompt, efficient service when you order parts or attachments. If your Grinder-Mixer requires replacement parts, go to your John Deere dealer.

The warranty on this Grinder-Mixer appears on your copy of the purchase order which you should have received from your dealer when you purchased the Grinder-Mixer.



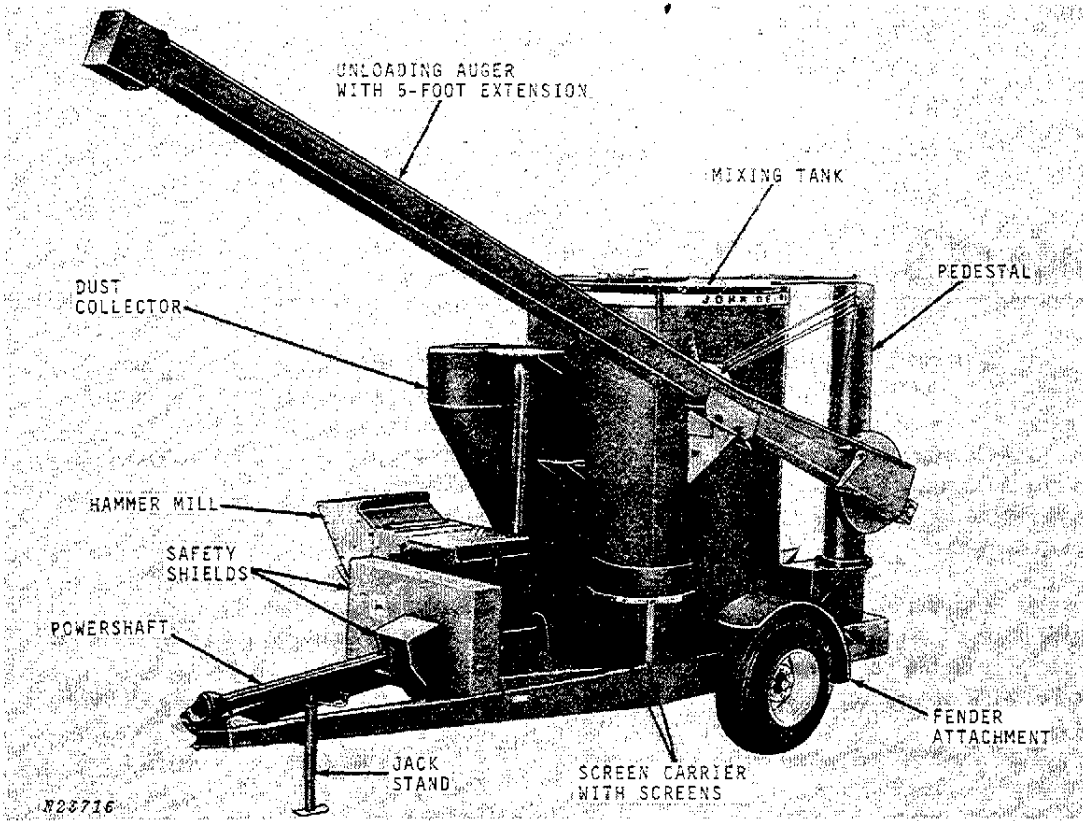
John Deere 750 Grinder-Mixer Equipped with Hay Attachment



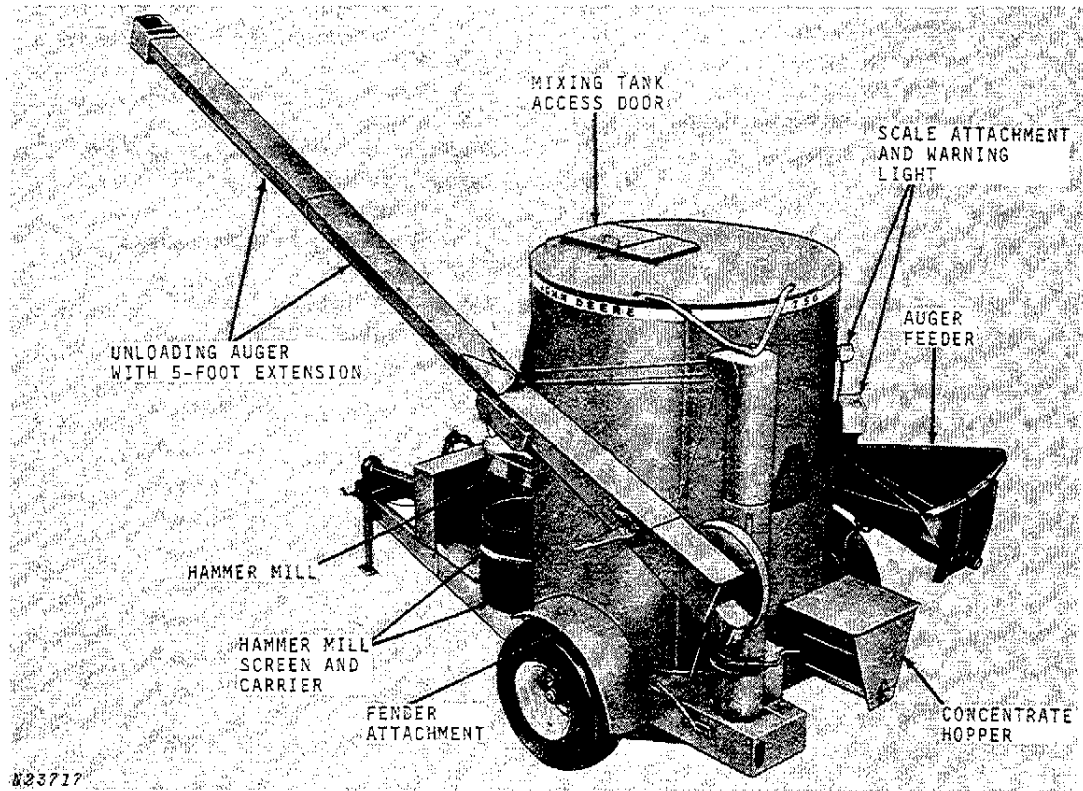
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2 Identification Views



John Deere 700 Grinder-Mixer Equipped with Unloading Auger Extension and Fender Attachment



John Deere 750 Grinder-Mixer Equipped with Optional Hydraulic Auger Feeder, Scale, and Fender Attachments



Operation

INTRODUCTION

The grinder-mixer is a portable feed grinder and mixer. The grinder-mixer is shipped from the factory with either a 540 or 1000 rpm PTO drive. A 540 rpm PTO drive is designed for use with tractors having a maximum of 90 horsepower. A 1000 rpm PTO drive is designed for use with tractors having a maximum of 150 horsepower.

⚠ CAUTION: Never operate 540 rpm grinder-mixer with 1000 rpm tractor.

All types of grain, as well as hay, can be ground with the grinder-mixer. A concentrate hopper with bag opener located at the rear of the grinder-mixer allows you to add concentrate prior to grinding. After concentrate is added, grain is fed into the hammer mill where it is ground until it can pass through the screen. From the hammer mill, the bulk of the ground feed goes directly into the horizontal auger which carries it to the mixing tank. A suction fan takes off the air pressure in the hammer mill and delivers the fine ground feed through the dust collector into the horizontal auger.

After the grinding operation is performed, the hammer mill can be disengaged and the mixing tank auger can be continually run to mix the feed as it is transported to the feed lot or unloading area.

⚠ CAUTION: Never attempt to engage or disengage the drive on the grinder-mixer while the tractor is running. Disengage tractor PTO lever, shut off tractor engine and make sure the powershaft on the grinder-mixer has stopped before performing any operational adjustment on the grinder-mixer.

The unloading auger pivots 225 degrees on its pedestal and will unload the tank at the rate of 22 bushels per minute.

The feed level or quantity in the mixing tank is visible through the three safety glass windows staggered along the side of the mixing tank. Mounting steps at the front of the tank give access to the door on top of the tank.

Your grinder-mixer may be equipped with the optional hydraulically driven auger feeder. The auger feeder drive is operated by the tractor hydraulic system. The drive speed can be varied from 0 to 150 rpm by positioning the variable speed lever on the auger feeder. The auger feeder is spring balanced for ease in handling and will operate through a 120 degree pivot arc.

The hay grinding attachment is a factory installed option. This attachment makes it possible to power feed the whole bale of hay or straw into the grinder-mixer.

The twine on the bales may be removed or left on the bale as the operator desires.

The hay attachment is available with or without the feeder auger.

Additional attachments for special operations are illustrated on page 31 and 33.

PREPARING THE GRINDER-MIXER

Bolts and Nuts

Before starting to operate the grinder-mixer, check to be sure that all nuts on bolts are tight and that all cotter pins are spread. After the grinder-mixer has been operated several hours, check to be sure that bolts are tightened to the torque specifications in the chart on page 28.

All bolts used in the grinder-mixer are "high-strength" bolts, and when replaced, bolts of equal or higher strength should be used. "High-strength" bolts are identified by three radial dashes on the bolt head.

Tire Inflation

Check tires for proper inflation pressure. See page 19 for recommended care of tires and inflation pressures.

Lubrication

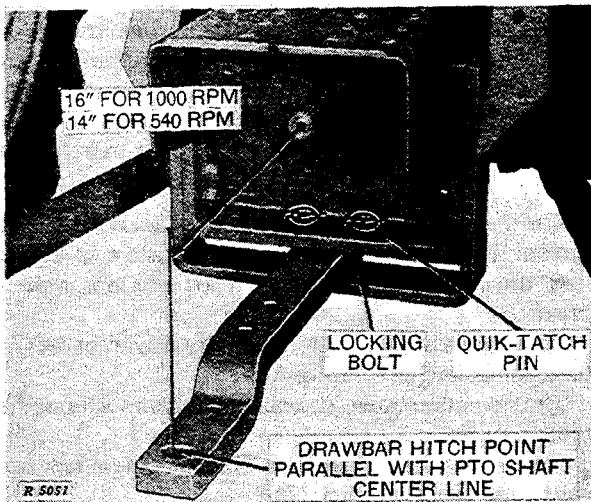
Lubricate the grinder-mixer at regular intervals as instructed on pages 22 and 23.

PREPARING THE TRACTOR

The 700 or 750 Grinder-Mixer may be used with tractors having either a 540 or 1000 rpm PTO drive provided the grinder-mixer is equipped with the same speed drive.

A 540 rpm PTO must be limited for use with tractors having a maximum of 90 horsepower. A 1000 rpm PTO can be used with tractors having a maximum of 150 horsepower.

Adjusting Tractor Drawbar



Place the drawbar in the extended position with the hole in the end of the drawbar 14 inches (540 rpm operation) or 16 inches (1000 rpm operation) from the end of the PTO shaft.

Lock the drawbar in its crossbar, parallel with the centerline of the powershaft. Place the locking pins on either side of the drawbar.

IMPORTANT: If the tractor has an offset drawbar, the offset should always be down for PTO work. Possible damage to the powershaft universal joints on the grinder-mixer can be avoided if the drawbar adjustment is made before attaching and operating the grinder-mixer.

Front End Ballast

Provide sufficient front end ballast to stabilize the front end of the tractor when operating on uneven terrain or other adverse conditions. See your tractor operator's manual for front end ballast information.

Tractor Hydraulic System

When the Grinder-Mixer is equipped with the optional hydraulic variable speed auger feeder and will be operated on a tractor equipped with an open center hydraulic system, refer to pages 31 and 45 for instructions.

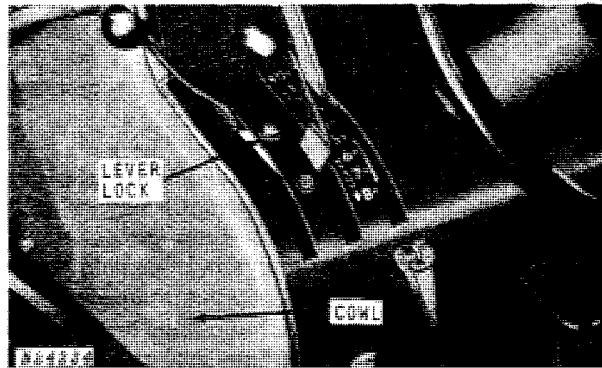
Remote Cylinder Lever Lock

(For Tractors Equipped with a Closed Center Hydraulic System)

If your grinder-mixer is equipped with the optional hydraulic auger feeder, a remote cylinder lever lock is provided and should be installed on the tractor before operating the hydraulic auger feeder.

The lever lock keeps the lever in operating position during operation of the hydraulic auger feeder.

Installing Remote Cylinder Lever Lock on 3020 Tractors Below Serial No. 123,000, 4020 Tractors Below Serial No. 201,000, and 5020 Tractors



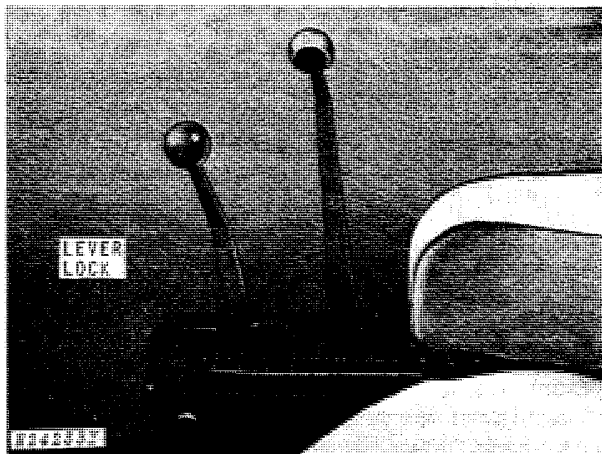
Remove tractor cowl and install lever lock as shown. Replace cowl.

Push lever forward past the lever lock to hold it in the operating position. Pull lever to the left and toward the rear past the lever lock to stop the hydraulic motor.

To remove clip, remove tractor cowl and unbolt clip. Replace cowl.

NOTE: The lever lock must be removed when operating other implements which require regular detent action.

Installing Remote Cylinder Lever Lock on 2520 and 3020 Tractors Serial No. 123,000 and above, 4000 and 4020 Tractors Serial No. 201,000 and above, and all 4320, 4520, 4620, and 6030 Tractors

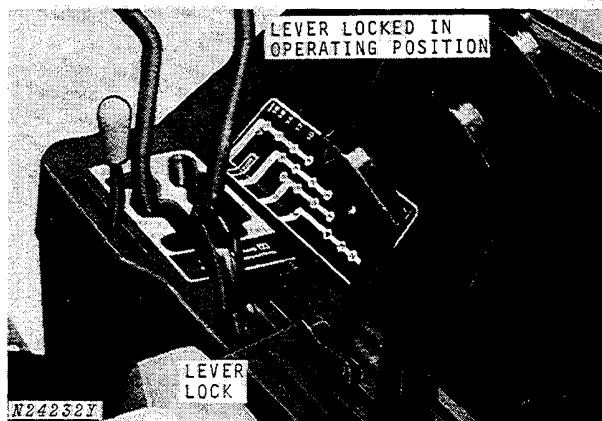


Insert front hook of clip into hole in console, then push rear tab down into front of slot in console.

Push lever forward into lever lock to operate motor.

To remove clip, pull tab up and out of slot in console, then unhook from hole in console.

4230, 4430, and 4630 Tractors



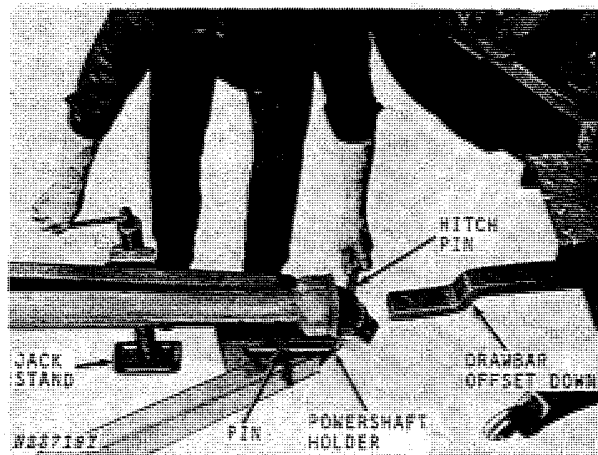
Squeeze the clip together slightly and insert it in the quadrant slot just behind the float lockout stop. Raise the stop slightly and slide the clip forward into position, then push the stop down to lock the clip in place.

Push the lever forward into the lever lock to operate the hydraulic motor.

To remove the clip, raise the float lockout stop first, then slide the clip rearward and remove it from the stop.

ATTACHING GRINDER-MIXER TO TRACTOR

Grinder-Mixer Without Hydraulic Auger Feeder or Electronic Scale Attachment



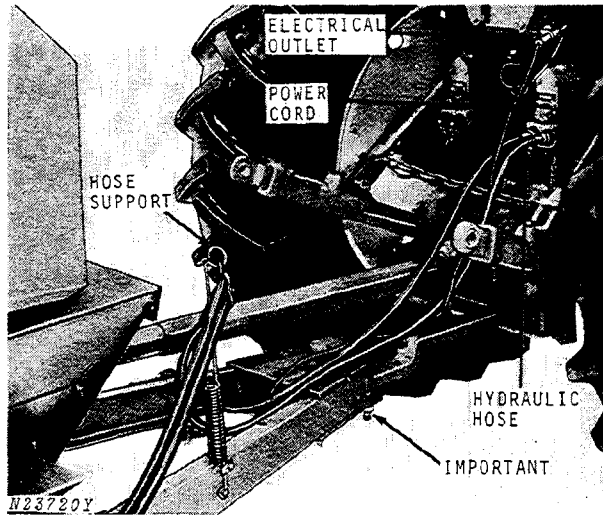
Back the tractor up to the hitch. Use the jack stand to raise or lower the grinder-mixer hitch into position to engage the tractor drawbar. Insert the hitch pin. Secure hitch pin.



CAUTION: Do not transport grinder-mixer until the spring locking pin is installed in the hitch pin.

ATTACHING GRINDER-MIXER TO TRACTOR—Continued

Grinder-Mixer With Hydraulic Auger Feeder and Electronic Scale Attachment



Back the tractor up to the hitch. Use the jack stand to raise or lower the grinder-mixer hitch into position to engage the tractor drawbar.

IMPORTANT: If the grinder-mixer is equipped with the electronic scale attachment, a hitch pin no larger than 3/4-inch diameter can be used. Obtain a 3/4-inch diameter hitch pin from your John Deere dealer.

Install and secure the hitch pin.

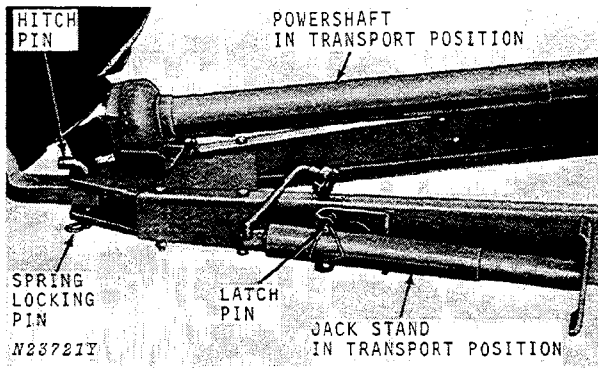
CAUTION: Never transport a grinder-mixer until the hitch pin is secured in position.

Plug the electronic scale attachment power supply cord into the electrical outlet on the tractor.

Plug the hydraulic auger feeder hydraulic hoses into the tractor outlets as shown. Make sure hoses are plugged so the auger feeder rotates in the proper direction for feeding material into the hammer mill.

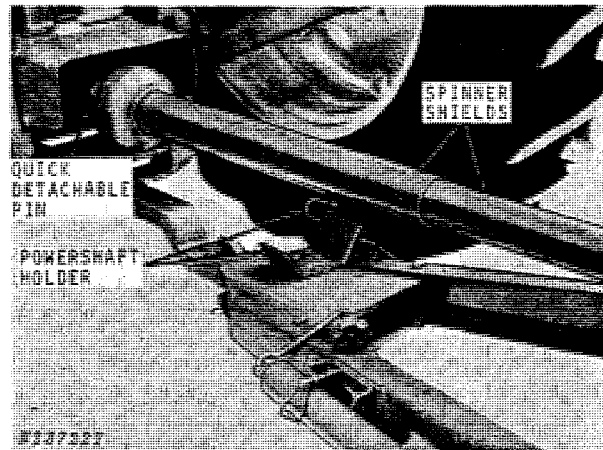
NOTE: Complete installation and operating instructions are included with the electronic scale attachment.

Jack Stand



Crank the jack stand until weight from the grinder-mixer hitch is removed from the stand. Pull out on spring-loaded latch pin and rotate jack stand into its transport position as shown above.

Connecting Powershaft



The PTO operating speed of the tractor and grinder-mixer must be the same. The tractor half of the powershaft is equipped with six splines for 540 rpm operation or 21 splines for 1000 rpm operation.

CAUTION: Never operate 540 rpm grinder-mixer with 1000 rpm tractor.

Connect the powershaft to the tractor power take-off shaft. After making the connection, check to be sure the spinner shields are free to rotate.

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