

## JOHN DEERE 700 AND 750 GRINDER-MIXERS



### **OPERATORS MANUAL**

JOHN DEERE 700 AND 750 GRINDER-MIXERS

OMN159290 G2 English

OMN159290 G2

LITHO IN THE U.S.A. 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 facing the power source for the Grinder-Mixer.

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 36. 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 700 and 750 GRINDER-MIXER

#### PREDELIVERY CHECK LIST

The grinder-mixer is completely factory-assembled except for some parts that were removed for shipping purposes and the attachments shown in the assembly section.

After assembly has been completed, inspect the grinder-mixer to be sure it is in good running order before delivering it to the customer. The following check list is a reminder of points to inspect. Check off each item as it is found satisfactory or after correct adjustment has been made.

| each item as it is found satisfactory or after correct adjustment has been made. |  |  |  |
|--|--|--|--|
|  | Nuts on all bolts have been checked to be sure they are tightened to torque specified on page 23. All cotter pins have been spread.                    |  |  |
|  | All grease fittings have been lubricated and gear housings packed with grease. See page 21 and 22.   |  |  |
|  | Drive belts and chains have been checked for proper adjustment. See pages 17 through 20.   |  |  |
|  | Slip clutches are adjusted properly. See page 18.  |  |  |
|  | Tires have been properly inflated. See page 15.  |  |  |
|  | All shields are in place and in good condition. The spinner shields on the PTO shaft must rotate freely.   |  |  |
|  | Tractor remote cylinder operating lever stop is installed correctly if grinder-mixer is equipped with a variable speed auger feeder. See page 4 and 5. |  |  |
|  | Tractor drawbar is adjusted properly. See page 4.  |  |  |
|  | With tractor at full throttle run grinder-mixer for 5 minutes to make sure it functions properly.  |  |  |
|  | This grinder-mixer has been checked and to the best of my knowledge, is ready for delivery to the customer.  |  |  |
| (Date Set Up)  |  |  |  |
|  |  |  |  |
| (Signature of Set-Up Man)  |  |  |  |

#### **OWNER REGISTER**

|   | me   |  |  |
|---|--|--|--|
| Post Office   |  |  |  |
| CountyState   |  |  |  |
| Grinder-Mixer Model No.   |  |  |  |
| Grinder-Mixer Serial No   |  |  |  |
| Date 5010   |  |  |  |
|   | DELIVERY CHECK LIST  |  |  |
| The following check list is a reminder of very important information which should be conveyed to the customer at the time the grinder-mixer is delivered. Check off each item as it is fully explained to the customer. |  |  |  |
|   | The importance of keeping all shields in good condition and in place, and keeping PTO shaft spinner shields rotating freely.   |  |  |
|   | The customer has been advised of the proper operating speed of the grinder-mixer.  |  |  |
|   | The operator's manual has been given to the customer and all operating adjustments and operation has been fully explained to him using the manual as a guide.  |  |  |
|   | The customer has been advised of all the safety precautions he must observe while using this grinder-mixer and the caution decals on the grinder-mixer have been reviewed with him.  |  |  |
|   | When transporting the grinder-mixer on a road or highway at night or during the day, accessory lights and devices should be used for adequate warning to operator's of other vehicles. In this regard, the customer has been told to check local governmental regulations. |  |  |
|   | To the best of my knowledge, this grinder-mixer has been delivered ready for use and the customer has been fully informed as to proper use and care in operating the grinder-mixer.  |  |  |

(Signature)

(Date Delivered)

Insert for OM-N159290 Issue G-2 Litho in U.S.A.

#### **AFTER-SALE CHECK LIST**

The following is a suggested list of items to be checked at a dealer-customer mutually agreeable time during the first operating season.

Check with the customer as to the performance of the Grinder-Mixer. Make certain he understands the proper operating adjustments.

If possible, run the Grinder-Mixer to see if it is functioning properly.

Acquaint the customer with any special attachment which will help him to do a better job.

Go over entire Grinder-Mixer for loose or missing bolts.

Check for broken or damaged parts.

Check to see that all safety shields are in place.

Check with the customer to ascertain if the recommended periodic lubrication has been performed.

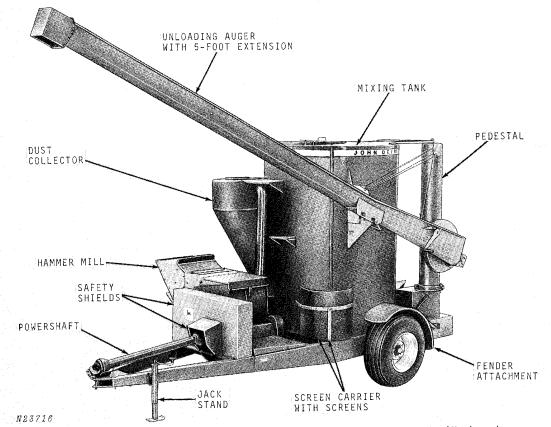
Review the operator's manual with the customer and stress the importance of proper lubrication and safety precautions.



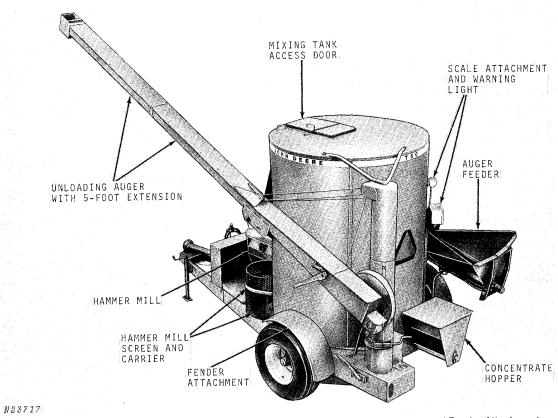
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#### 2 Identification Views



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 grindermixer 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.

Additional attachments for special operations are illustrated on page 25 and 26.

#### 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 23.

All bolts used in the grinder-mixer are "highstrength" 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 15 for recommended care of tires and inflation pressures.

#### Lubrication

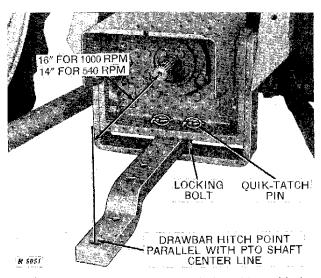
Lubricate the grinder-mixer at regular intervals as instructed on page 21 and 22.

#### 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 page 25 and 36 for instructions.

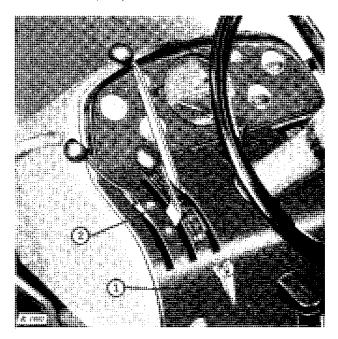
#### Remote Cylinder Lever Lock

(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

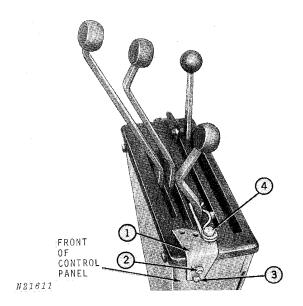


- 1. Remove tractor cowl. Using the template (Dir. 540) provided with this operator's manual, locate the lever lock holes and drill two 1/4-inch holes in the tractor dash.
  - 2. Install the lever lock as shown. Replace cowl.

To hold the lever in operating position, push lever forward, and rotate lever lock into position to secure lever. To release lever lock, rotate away from lever.

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 and 4620 Tractors

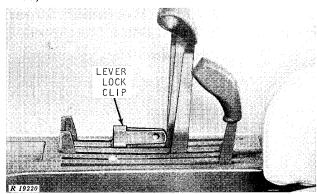


- 1. Place bracket over front edge of control panel housing with approximately 1/8-inch clearance between bracket and lock control panel. Position bracket so adjusting holes on top side of bracket are in alignment with the selective control valve levers. Then mark location for drilling holes. Drill two 7/32-inch holes in housing front.
- 2. Insert self-tapping screw, through upper hole in bracket, place washer on screw, and attach to control panel housing.
- 3. Insert remaining self-tapping screw, through lower hole in bracket and attach to control panel housing.
- 4. Attach spring locking pin in desired location with cap screw and washer provided.

To place lever in operating position, push lever forward until secured by spring locking pin. To release the lever to neutral position, pull the lever rearward from spring locking pin.

NOTE: The lever lock must be removed when operating other implements which require regular detent action. To remove the lever lock, remove tractor cowl and remove the two bolts securing lever lock. Replace cowl.

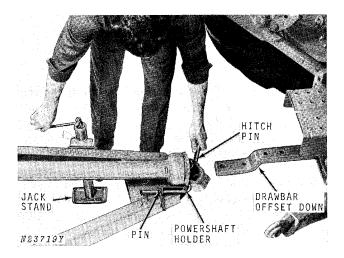
Installing Remote Cylinder Lever Lock on 4030, 4230, 4430, and 4630 Tractors



To keep the lever in the fast retract position, install a lever lock clip. To do so, 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 and push the stop down to lock the clip in place. To remove the clip, raise the float lockout stop first; then slide the clip rearward.

### 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 provided. Secure hitch pin with spring locking pin.



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

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