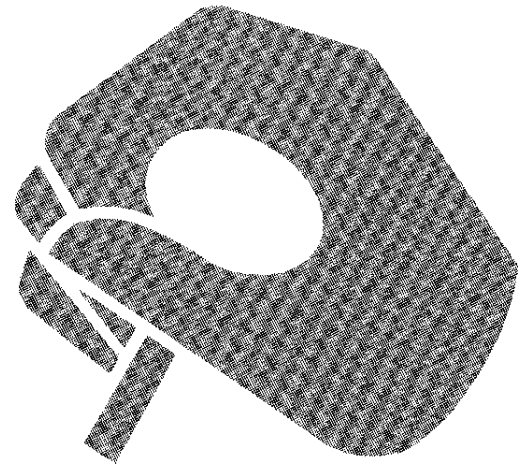


**510
Round Baler**

**OPERATORS
MANUAL**



John Deere Ottumwa Works
OME61920 Issue E1
LITHO IN U.S.A. (REVISED)



To the Purchaser

Your new round baler was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the information in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or service. Read the Table of Contents to learn where each section is located. Use the alphabetical index for fast reference.

Like any precision machine your baler will require some attention at regular intervals. Use your manual as a guide to service your machine the right way. For additional information or special servicing not covered in this manual, see 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.

Because John Deere sells its products world-wide, U.S. units of measure are shown with their respective metric equivalents throughout this operator's manual. These equivalents are the SI (International System) Units of Measure.

"Right-hand" and "left-hand" sides are determined by facing in the direction the baler will travel when in use.

Record your baler serial number in the space provided on page 48. Your dealer needs this information to give you prompt, efficient service when you order parts. If your baler requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

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



JOHN DEERE 510 ROUND BALER

PREDELIVERY CHECK LIST

After the baler has been completely set-up, inspect it to be sure it is in good running condition 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 proper adjustment is made.

If baler must be run empty for more than several minutes, raise gate so upper and lower belts are not contacting.

- Baler has been assembled properly. (See page 43).
- Roll has been installed in gate. (See page 43).
- Check all hydraulic hoses and connections for oil leaks.
- Baler has been lubricated. (See page 26.)
- Gate opens and closes freely. (See page 12.)

(Date set up)

OWNER REGISTER

Name

Rural Route #

City State Zip

Serial No.

Operator's Manual No. OM-E61920

Date Sold

- PTO shield is properly installed. (See page 43.)
- Drive chains have been adjusted properly and lubricated. (See pages 26 and 34.)
- Drive slip clutch has been checked for specified adjustment. (See page 16.)
- Tire pressures have been checked. (See page 48.)
- Pickup release has been properly adjusted. (See page 21.)
- Lower belt tension springs have been adjusted to proper spring tension (See page 19.)
- Upper belt tension has been checked. (See page 17.)


(Signature)

DELIVERY CHECK LIST

The following check list is a reminder of very important information which should be conveyed directly to the customer at the time the baler is delivered. Check off each item as it is fully explained.

- Advise customer that damage to the baler can result when baling with gate in unlatched position.
- Advise the customer that the life expectancy of this, like any other machine, is dependent on regular lubrication as described in the operator's manual.
- Give the operator's manual to the customer and explain all operating adjustments and lubrication fully.
- Advise customer to daily inspect and adjust lower belts for the first 200 to 300 bales.
- Explain proper bale handling procedures.

(Date delivered)

- Explain proper ASAE standard dimensions for PTO hookup.
- Advise customer of safety precautions that must be observed while using this baler.
- Advise the customer never to discharge bales on sloping ground and if moving bales with a tractor loader, the loader **MUST** have a grapple.
-  When the baler is transported on a road or highway at night or during the day, accessory lights and devices should be used for adequate warning to operators of other vehicles. Various safety lights and devices are available from your John Deere dealer. In this regard, tell customers to check local governmental regulations.
- Advise the customer to set the front and rear wheels out on the tractors having adjustable-tread width to avoid driving over hay.

(Signature)

AFTER-SALE CHECK LIST

It is suggested the following items be checked sometime during the first season's operation.

- Go over entire machine for loose or missing bolts.
- Check spring tension on lower belt.
- Check belt lacings for proper wear.
- All chains are properly tightened.
- All safety shields are in place.
- Check for broken or damaged parts.
- If possible, run the baler to see if it is functioning properly. See page 12.
- A good quality twine is being used and is threaded properly.
- Check operating adjustments. If possible, inspect wraps on a few bales.
- Review the entire operator's manual with the customer and stress the importance of proper and regular lubrication and safety precautions.

(Date checked)

(Signature)



Contents

- Safety Suggestions 2
- Identification View 4
- Operation 5
- Storage25
- Lubrication.....26
- Service28
- Trouble Shooting35
- Special Equipment.....42
- Assembly43
- Specifications48
- Index.....49



Safety Suggestions

! The safety of the operator was one of the prime considerations in the minds of John Deere engineers when this baler was designed. Shielding, simple adjustments, and other safety features were built into the baler wherever possible.

You can make your farm a safer place to live and work if you observe the safety suggestions given. Study these suggestions carefully and insist that they be followed by those working with you and for you.

All machinery should be operated only by responsible persons who have been delegated to do so.

Before servicing, adjusting, or removing material from the baler, always:

1. Disengage all power.
2. Shut off engine.

Due to the weight and the rolling tendency of round bales, exercise care whenever moving bales.

Stand clear of baler at all times when machine is operating.

Do not attempt to pull hay or twine from pickup when machine is running.

Never hand-feed twine or hay into the baler.

To prevent injury or damage from a rolling bale, discharge bales on level ground or in such a manner that the bale will not roll.

If using a tractor loader to move bales, the loader **MUST** be equipped with a grapple to prevent bale from rolling down loader frame onto tractor operator.

Clothing worn by the baler operator should be fairly tight and belted. Loose jackets, skirts or sleeves should never be worn because of the danger of getting into moving parts.

Be especially careful when operating on hillsides. The baler may tip sideways if it strikes a hole, ditch, or other irregularity.

Keep hands, feet, and clothing away from moving parts.

Do not allow anyone to stand near the rear of the baler when it is discharging a bale.

Never clean, oil, or adjust the baler when it is running.

Do not operate this machine without proper shielding over the powershaft and universal joints. Hook-up shields must rotate freely.

Check to make sure hookup is securely latched by pulling rearward on shield bell. Do not pull on collar as this will release latch.

Use an open end wrench to turn the hex. gear case output shaft to aid in servicing or unclogging baler.

1. Disengage and shut off all engine and/or motor power before servicing or unclogging machine.

2. REMOVE wrench and CLOSE shield before operating baler.

To prevent injury from accidental operation of rear gate or from fall of gate in the event of hydraulic system failure:

1. Stay clear of gate while it is being raised and lowered.

2. Be sure that bystanders are clear before operating gate.

3. Engage gate position stop before working on or around gate in raised position.

Improper use of front-end loaders to handle round bales can result in injury to the tractor operator from:

- a) the bale rolling back down the loader boom into the operator's station or-
- b) a tractor roll-over accident caused by instability when the bale is not carried low.

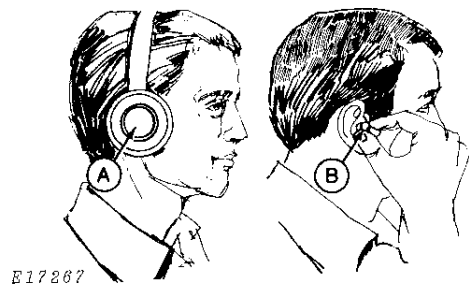
⚠ WARNING: Exercise extreme caution when using a front-end loader to handle round bales. Be careful and prevent bodily injury.

1. Even when using proper equipment, handling round bales can be hazardous. Follow the instructions shown in this manual and on the decals attached to the loader and round bale clamp.
2. Do not handle round bales with the loader unless the specially designed John Deere round bale clamp is installed. Without the clamp, the bale can fall on the operator when the loader is raised.
3. To avoid handling and stability problems, do not exceed the manufacturers rated capacity of the front-end loader.
4. The tractor must be equipped with a roll-over protective structure to prevent operator injury in case of a tractor roll-over accident.
5. The tractor must have maximum rear ballast per wheel and maximum tread width. See your tractor operator's manual.
6. Reduce the tractor ground speed. Carry the bale as low as possible and maintain adequate visibility and ground clearance at all times.
7. Jerky operation causes tractor-loader instability. Operate the loader controls smoothly.
8. When handling round bales on a slope, approach the bale with the tractor facing uphill.
9. Never use the tractor-loader to stop a rolling bale.

To limit the damage in case of fire, attach a 2-1/2 gallon (9.5 l) pressurized water fire extinguisher in an easily accessible location (see page 5). This should not replace the fire extinguisher that is recommended for the tractor.

When you are exposed to any noise which is objectionable or uncomfortable, it is recommended that you wear a suitable hearing protective device (such as ear muffs or plugs.)

Be alert, the life you save could be your own.



A—Earmuffs
B—Earplugs

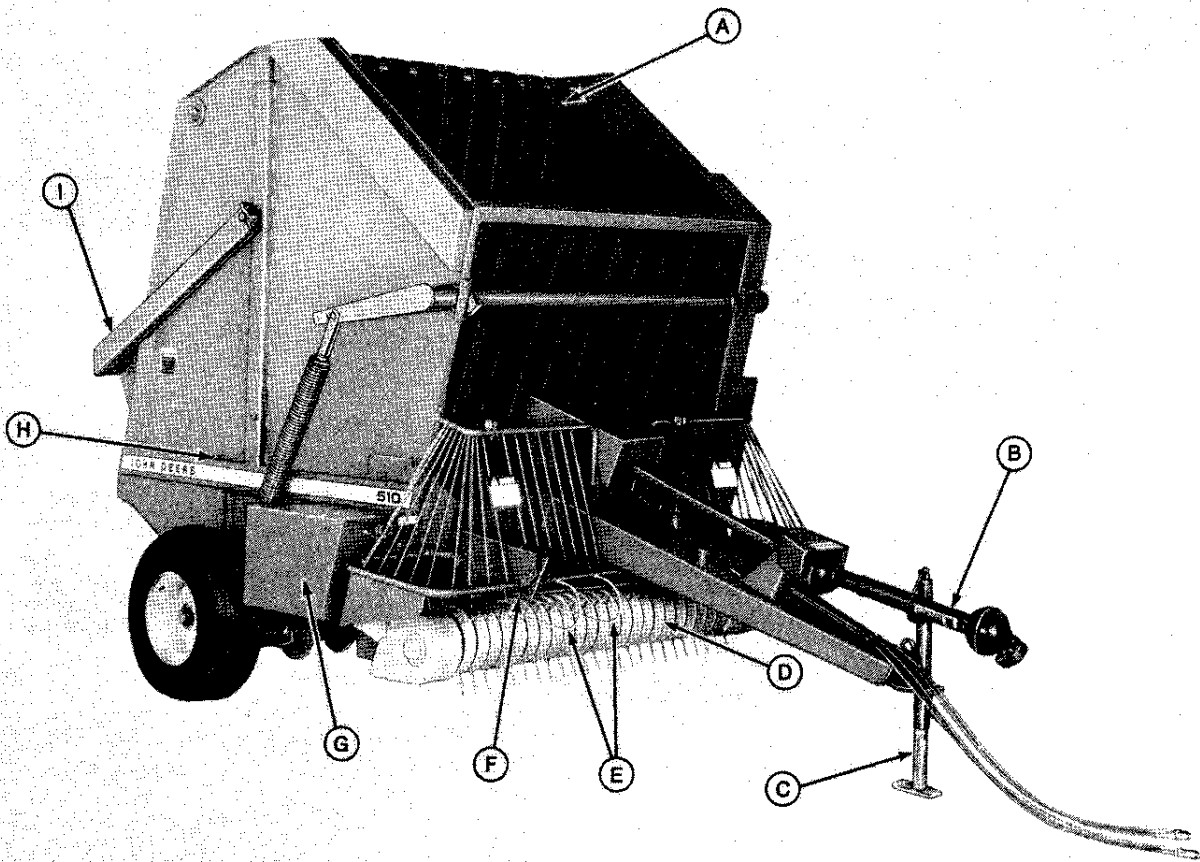
Prolonged exposure to loud noise can cause impairment or loss of hearing.

Hearing protective devices (such as ear muffs or plugs) can effectively protect against loud noise.

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When sealing tire beads on rims, never exceed 35 psi or maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead, and reinflate.

Detailed agricultural tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and Tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.



E14999

A—Upper Belts
 B—PTO Powr-Gard™ Hookup
 C—Jack Stand

D—Pickup
 E—Compressor Rods
 F—Twine Tube

G—Twine Box
 H—Storage Position for Lock-Out Pin
 I—Gate

Right Front View of John Deere 510 Round Baler



Operation

PREPARING THE BALER

The Operator

The degree of satisfaction given by your baler is directly dependent upon the care given by the operator. Once the baler has been adjusted to meet the crop condition, the rest is up to the operator.

Understand the Function of All Working Units

This baler is built to handle a wide range of conditions. Field conditions vary from year to year, from day to day, and even from hour to hour. Different varieties of crops present widely different baling problems. A careful study of the adjustments on your baler, and what they accomplish under different conditions, will allow you to reap the many benefits and economies that a baler can provide.

Before starting your baler in the field, be sure you are thoroughly familiar with the function of each working unit. Study the illustrations carefully and become familiar with the adjustments necessary to obtain best results.

Lubrication

Check to see that your baler has been lubricated according to lubricating instructions, pages 26 and 27.

Inflating Tires

Proper inflation is essential to the long life of a tire. Lack of air pressure allows the tire to slip on the rim and buckles the side walls, resulting in torn valve stems and uneven tread wear. Too much pressure causes undue strain on tire structure and may result in ruptures due to impact with stones, roots, or ruts. It also causes excessive tread wear and allows tire to cut in more on wet ground.


Keep valve caps screwed finger-tight onto valve stems. This will prevent dust, fine gravel, mud, and other foreign material from accumulating in the valve core and permitting the compressed air to escape.

Keep wheel bolts tightened to 55 ft-lbs (75 Nm) (7.5 kgm) torque.

Check tire pressure frequently and inflate or deflate tires to obtain 28 psi (1.7 bar) (193 kPa).

Attaching a Fire Extinguisher

There is a risk of fire in the operation of round balers due to the flammable nature of the crop especially when the material is dry. This risk can be minimized by practicing the following suggestions:

1.  **CAUTION: Disengage PTO and shut off engine before doing any work on the baler.**
2. Remove all crop material accumulated on the ends of the rollers, the main chain drive area behind the left-hand access door and pickup drive area.
3. Check periodically for overheated machine components, bearings, etc.
4. Twine wrappage can cause overheated parts and should be removed immediately.
5. Check periodically for foreign material lodged in feed rolls.
6. Always discharge bale when baler is stopped for any length of time.
7. Do not allow the PTO slip clutch to continually slip for a long period of time.

To limit the damage in case of a fire, attach a 2.5 gallon (9.5 l) pressurized water fire extinguisher in an easily accessible location. This type of extinguisher is the most effective on grass and hay fires. Recharge according to fire extinguisher manufacturer's recommendations.

IMPORTANT: This should not replace the fire extinguisher that is recommended for the tractor. Water should never be used for electrical or fuel fires. A suggested mounting location is shown on the following page.

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