

# John Deere 47 Farm Loader



## OPERATORS MANUAL

John Deere 47  
Farm Loader

OMC19032 Issue E7 English

John Deere Welland Works  
OMC19032 Issue E7

LITHO IN U.S.A.  
ENGLISH



## TO THE PURCHASER

This manual contains operating, servicing, and lubricating instructions for the John Deere 47 Farm Loader.

The 47 Loader will give many years of satisfactory service, if properly operated and maintained. Make this manual your guide and do what it recommends. These instructions have been written specifically for this loader—other loaders may operate differently. Do not rely on advice from others not familiar with this loader. If additional information is needed, see your John Deere dealer.

Lubrication is very important. Refer to the Lubrication Chart on page 20.

When in need of parts, see your John Deere dealer. He is equipped to provide genuine John Deere parts and service.

Right- and left-hand references are determined by standing at the rear of the tractor-loader combination and facing the forward direction of travel.



Before you forget, fill in the information below. Keep this manual in a convenient place for future reference.

JOHN DEERE 47 FARM LOADER

Date Purchased. . . . .19. . . . .

Loader Serial No. . . . .

*(To be filled in by the purchaser)*

## DESCRIPTION

The John Deere 47 Farm Loader has been designed for use with John Deere 1020 and 2020 HU, LU, and RU Tractors, and 2510 Row-Crop Tractor.

The 47 Loader may be equipped with either a mechanically or hydraulically controlled bucket.

Two buckets are available: a 41-inch 7-tine bucket, or a 60-inch materials bucket. Attachments are available to increase both buckets to 80 inches in width for handling snow, cobs, or other light, bulky materials.

The power for operating the loader is derived from the tractor hydraulic system.

Raising or lowering the boom, as well as operating the hydraulically controlled bucket, is accomplished by operating the tractor remote cylinder operating levers, or the independent Gresen valve levers.

For a loader equipped with a mechanically controlled bucket on 1020 or 2020 Tractors, either the tractor must be equipped with at least one selective control valve or an independent

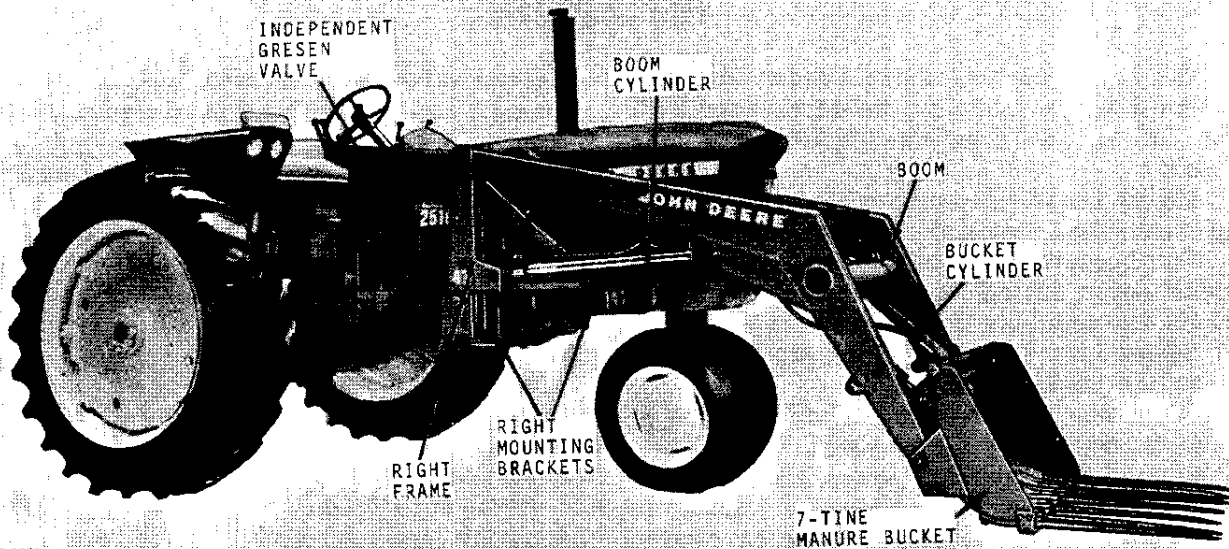
Gresen valve must be used. The 2510 Tractor must be equipped with a least one selective control valve.

For a loader equipped with a hydraulically controlled bucket on 1020 or 2020 HU and RU Tractors, the tractor must be equipped with either two selective control valves or an independent Gresen valve. The 1020 and 2020 LU Tractors must be equipped with an independent Gresen valve. (The LU Tractors are available with single selective control valves only.) The 2510 Tractor must be equipped with either two selective control valves or one selective control valve and an independent Gresen valve.

If the 2510 Tractor is equipped with only one selective control valve and you want to use another tractor valve rather than an independent Gresen valve for operation of the hydraulically controlled bucket, a second selective control valve and breakaway couplers may be installed on the tractor. See your John Deere dealer.

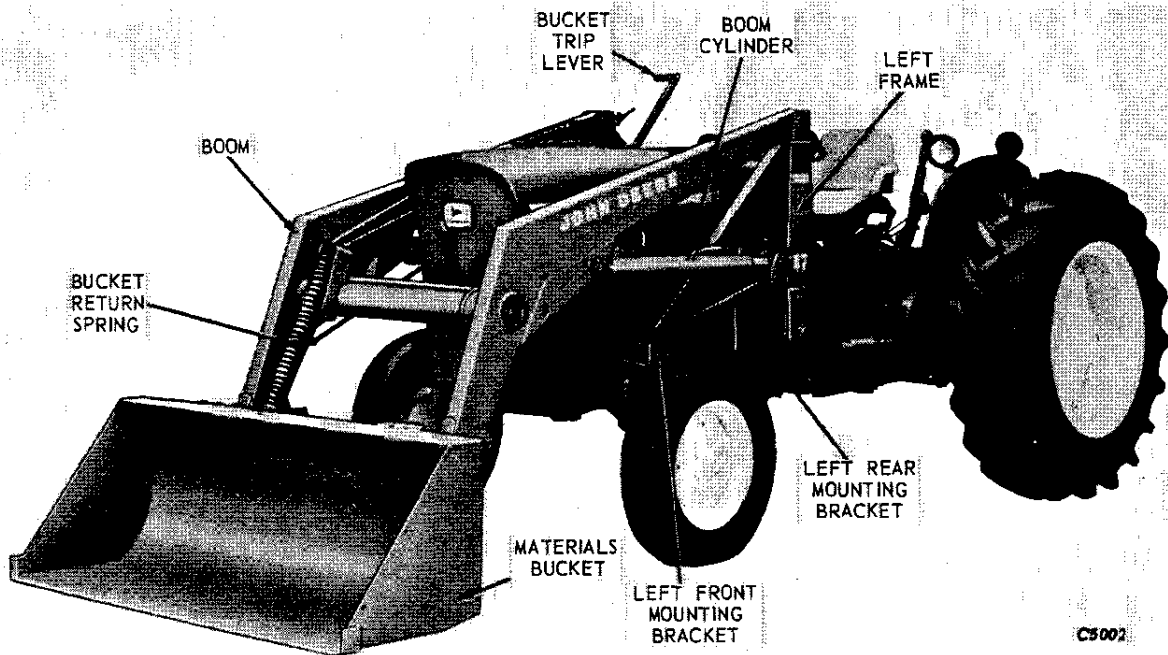
## CONTENTS

	Page
DESCRIPTION . . . . .	1
IDENTIFICATION VIEWS . . . . .	2
SPECIFICATIONS . . . . .	3
OPERATION . . . . .	4-16
Preparing and operating the tractor . . . . .	4
Operating loader controls . . . . .	5-9
Operating loader . . . . .	10-11
Safety suggestions . . . . .	11
Detaching loader . . . . .	12-13
Attaching loader . . . . .	13-16
EXTRA EQUIPMENT . . . . .	16-19
LUBRICATION . . . . .	20
SERVICE . . . . .	21
OPERATING DIFFICULTIES . . . . .	22



C 0659

*John Deere 47 Farm Loader with Hydraulically Controlled 7-Tine Manure Bucket and Operated by Independent Gresen Valve on John Deere 2510 Row-Crop Tractor*



C5002

*John Deere 47 Farm Loader with Mechanically Controlled 60-Inch Materials Bucket on John Deere 2020 RU Tractor*

## SPECIFICATIONS

Tractors . . . . .	John Deere 1020 and 2020 HU, LU, and RU and 2510 Row-Crop
Tractor Hydraulic Equipment Required . . . . .	For Mechanically Controlled Bucket: 1020 or 2020 HU, RU, and LU Tractors must be equipped with at least one selective control valve or an independent Gresen valve. 2510 Tractor must be equipped with at least one selective control valve. For Hydraulically Controlled Bucket: 1020 or 2020 HU and RU Tractors must be equipped with either two selective control valves or an independent Gresen valve. 1020 or 2020 LU Tractors must be equipped with an independent Gresen valve. (LU Tractors are available with single selective control valves only.) 2510 Tractors must be equipped with either two selective control valves or one selective control valve and an independent Gresen valve.
Lift and Bucket Cylinders . . . . .	Double Action
Bucket Control . . . . .	Mechanical or Hydraulic
Bucket . . . . .	60-Inch Materials 41-Inch 7-Tine Manure
Weight (with 60-Inch Hydraulically Controlled Bucket) . . . . .	929 Pounds - Loader for 1020 Tractor 930 Pounds - Loader for 2020 Tractor 935 Pounds - Loader for 2510 Tractor
Over-All Length (with 7-Tine Bucket on John Deere 2020 Tractor . . .	15 Feet 8 Inches
Rated Breakaway Capacity at Ground Level (On John Deere 1020 Tractor) . . . . .	2000 Pounds
(On John Deere 2020 and 2510 Tractors) . . . . .	3000 Pounds
Rated Lift Capacity (On John Deere 1020 Tractor) . . . . .	1400 Pounds
(On John Deere 2020 or 2510 Tractors) . . . . .	2000 Pounds
Lift Height to Heel of Bucket . . . . .	9 Feet 6 Inches
Penetration Below Ground Level . . . . .	Approximately 7 Inches
Optional Equipment:	
Stands	60-Inch Materials Bucket Attachments:
Extension Hoses for Quik-Tatch Mounting	Tines with Cover
Bucket Level Indicator	Bottom Sheet Extension with Sides
Scraper Blade	80-Inch Utility Bucket
Crane Attachment	Side Cutting Edges
7-Tine Bucket Attachments:	Spring for Relatching
Bottom Sheet Extension with Sides	
Spill Sheet	
80-Inch Utility Bucket	
Spring for Relatching Utility Bucket	

*(Specifications and design subject to change without notice.)*

## OPERATION

### PREPARING AND OPERATING THE TRACTOR

#### WHEEL SPACING

##### Front Wheels

The loader may be operated on a tractor with either a single front wheel, dual front wheels, or wide front axles. Use heavy-duty front tires regardless of front wheel equipment used.

If operated on tractors with dual front wheels, set the wheels for widest wheel tread. This eliminates the accumulation of mud between the tires.

If operated on tractors with adjustable wide front axles, set the axle in the narrowest position.

##### Rear Wheels

Use the widest rear wheel tread setting possible.



Where barn doors or gates limit the rear wheel tread, extra precaution must be taken when operating loader due to decreased stability.

#### BALLAST

Front end weight should not be used.

The following chart lists combinations of rear ballast recommended to provide adequate tractor and loader stability. Because of weight transfer when the loader is mounted on the tractor, some of these ballast recommendations may exceed the maximum total ballast given in the tractor operator's manual.

Any of the cast-iron weights recommended for your tractor may be used to arrive at the necessary ballast given in the chart. Be sure weight is distributed equally on each rear wheel.

#### TIRE INFLATION

Refer to your tractor operator's manual for correct tire inflation pressures.

Increased tire inflation in front tires is necessary for loader operation.

#### COLD WEATHER STARTING

To assure smooth operation in cold weather, raise and lower the boom several times to warm the oil in the hydraulic system. A load in the bucket will speed the warm-up operation.

#### ENGINE SPEED

When operating the loader under average conditions, drive the tractor at reduced throttle in third gear.

#### CHECKING OIL LEVEL

Check the oil level in the tractor hydraulic system daily. Refer to your tractor operator's manual for instructions. Keep oil supply up to proper level.

Before checking oil supply, operate the loader all the way up and down three or four times and return bucket to ground. Stop tractor engine and then check oil supply. If oil level is low, add oil as instructed in the tractor operator's manual.

Tractor	Recommended Ballast per Rear Wheel	
	47 Loader Only	47 Loader and 78 or 80A Blade
1020 RU	*Liquid + 4 Cast-Iron Weights + 78 or 80A Rear Blade or Equivalent Weight at 3-Point Hitch	*Liquid + 4 Cast-Iron Weights
1020 HU	*Liquid + 4 Cast-Iron Weights	*Liquid + 2 Cast-Iron Weights
2020 RU	*Liquid + 4 Cast-Iron Weights	*Liquid + 2 Cast-Iron Weights
2020 HU	*Liquid + 4 Cast-Iron Weights	*Liquid + 2 Cast-Iron Weights
2510 Row-Crop	No Liquid + 1 Cast-Iron Weight	No Ballast Required

\*Tires filled to valve stem level, using a solution of 3-1/2 pounds of calcium chloride (CaCl<sub>2</sub>) per gallon of water. Solution is slush free at -12°F. and solid at -52°F.

## LEVER ADJUSTMENT FOR FLOAT POSITION

### *John Deere 2510 Tractor*

When using tractor selective control valves to operate the loader on 2510 Tractors, adjust the tractor inner control lever rod for float position. See your tractor operator's manual adjusting instructions.

When using the independent Gresen valve on loaders used with 2510 Tractors, the inner control lever rod must *not* be in float position. See your tractor operator's manual.

### *John Deere 1020 and 2020 Tractors*

When using tractor selective control valves to operate the loader on 1020 or 2020 Tractors, the lever stop plate on top of the selective control valve for boom must be installed in the float position. See your tractor operator's manual.

## ADJUSTING SPEED OF BOOM OPERATION

Faster loader operation can be obtained by adjusting the metering valve on the selective control valve counterclockwise, to near maximum flow. Refer to your tractor operator's manual for this adjustment.



**CAUTION:** Before using remote cylinder with other machines, the metering valve should be readjusted according to instructions in your tractor operator's manual.

**NOTE:** This adjustment requires a wrench and screw driver. For convenience in making this adjustment, Metering Valve Assembly with Lever AR39747, is available to replace the metering valve. When using AR39747, no tools are required for adjusting the metering valve on the selective control valve.

## OPERATING LOADER CONTROLS

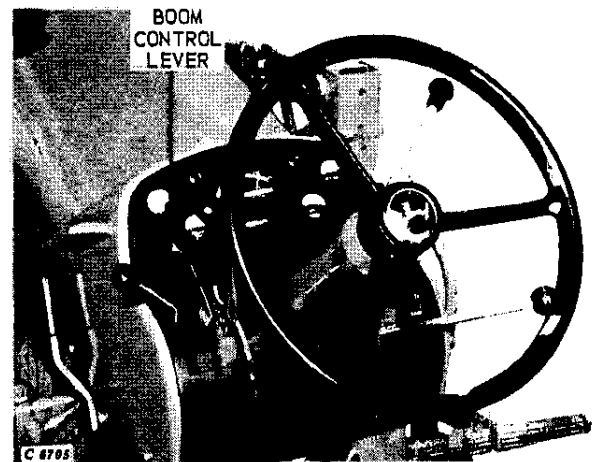
For a loader equipped with a mechanically controlled bucket on John Deere 1020 or 2020 Tractors, either the tractor must be equipped with at least one selective control valve or an independent Gresen valve must be used. The 2510 Tractor must be equipped with at least one selective control valve.

For a loader equipped with a hydraulically controlled bucket on 1020 or 2020 HU and RU Tractors, the tractor must be equipped with either two selective control valves or an independent Gresen valve. The 1020 and 2020 LU Tractors must be equipped with an independent Gresen valve. (The LU Tractors are available with single selective control valves only.) The 2510 Tractor must be equipped with either two selective control valves or one selective control valve and an independent Gresen valve.

## BOOM CONTROL

### Loader Using Tractor Selective Control Valves

#### *John Deere 2510 Tractor*

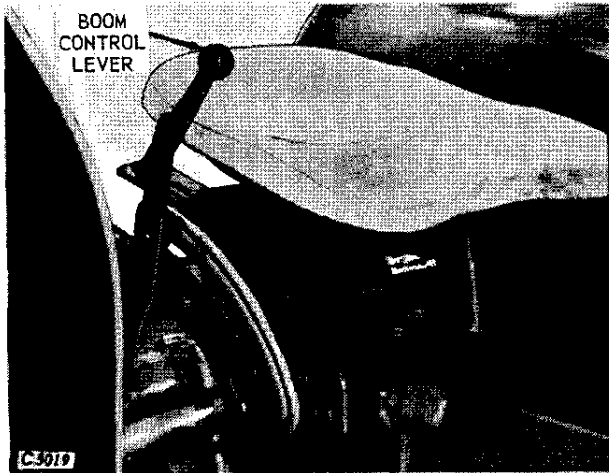


The remote cylinder operating lever at the immediate left of the rockshaft control lever, controls the raising and lowering of the boom.

## 6 Operation

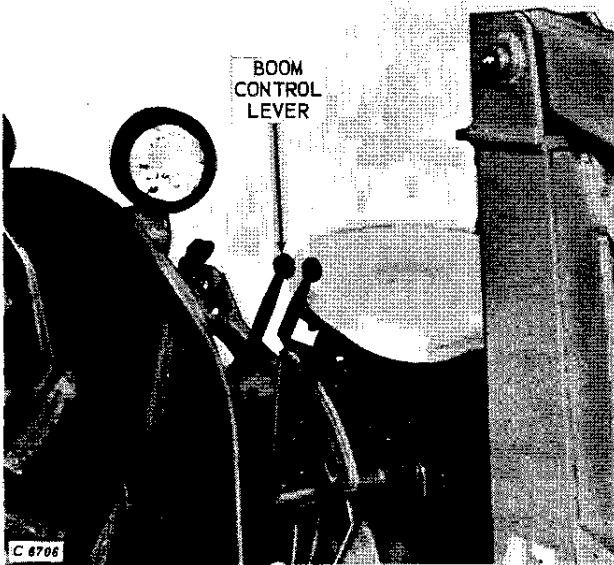
### BOOM CONTROL—Continued

#### John Deere 1020 and 2020 Tractors



Tractor Equipped with One Selective Control Valve

When the tractor is equipped with only one selective control valve, the single lever is located near the right side of the tractor seat. This lever is used to control the raising and lowering of the boom.



Tractors Equipped with Two Selective Control Valves

When the tractor is equipped with two selective control valves, the remote cylinder operating lever farthest from the tractor seat controls the raising and lowering of the boom.

The boom control lever on each of the three tractors has six positions.

1. *Neutral.* Move lever to center position of the quadrant. Boom will remain in position.

2. *Slow raise of boom.* Move the lever rearward one-quarter of its travel. The lever must be held in this position until the desired height of bucket is reached.

3. *Fast raise.* Move lever rearward to the first lock position. The lever will remain in this position until the boom reaches the extreme raised position, at which time the lever will return to neutral position. The loader will remain in this position.

4. *Slow descent of boom.* Move the lever forward one-quarter of its travel. The lever must be held in this position until the boom has lowered to desired height.

5. *Fast descent of boom.* Move the lever all the way forward. The lever will remain in this position until it is manually disengaged or the cylinder rods are fully retracted, at which time the lever will automatically return to neutral position.

6. *Float.* (John Deere 2510 Tractor Only) Move the lever all the way rearward to a sixth position to permit "floating" action of the loader. This position may be used to secure "ground-hugging" bucket action when digging at the extreme bottom of a pile. It may be used to advantage when leveling or cleaning feed yards with the blade attachment.

*NOTE: It may be necessary to change the position of the inner control lever rod on the tractor before the float position can be used. See your tractor operator's manual.*

*Float.* (John Deere 1020 and 2020 Tractors) Move the lever all the way forward to a sixth position to permit "floating" action of the loader. This position may be used to secure "ground-hugging" bucket action when digging at the extreme bottom of a pile. It may be used to advantage when leveling or cleaning feed yards with the blade attachment.

It may be necessary to change the stop plate on the tractor before the float position can be used. See your tractor operator's manual.

*NOTE: Adjust the lift cylinder operating lever only to obtain float position. Do not adjust the bucket operating lever for float position.*



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