

# **95 SELF-PROPELLED COMBINES (SERIAL NO. 95-4101 AND UP)**

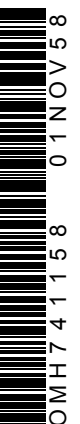


## **OPERATORS MANUAL 95 SELF-PROPELLED COMBINES (SERIAL NO. 95-4101 AND UP)**

OMH741158 (01NOV58) English

**OMH741158 (01NOV58)**

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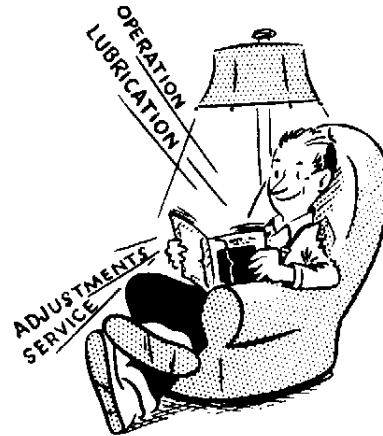


## TO THE PURCHASER

The self-propelled combine you have just purchased was designed and manufactured to the traditionally high quality standards of all John Deere Farm Equipment. Your combine has been thoroughly inspected and tested, not only at the factory, but at your dealer's by a trained John Deere Serviceman. We are confident that you will receive years of dependable, economical service from your John Deere 95 Self-Propelled Combine.

If you should find that you require information not covered in this manual, consult your John Deere dealer. He will be glad to answer any questions that may arise regarding the operation and handling of the combine. He has trained mechanics who are kept informed on the best methods of John Deere Combine servicing, and can give you prompt know-how service in the field or in his shop.

STUDY THIS MANUAL CAREFULLY, KEEP IT HANDY, IN A SAFE PLACE, FOR FUTURE REFERENCE.



### KEEP YOUR COMBINE A JOHN DEERE COMBINE

Genuine John Deere Parts fit properly and insure satisfactory service because they are made from the original patterns and from the same materials as used in new machines. Should your combine require replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere Parts—accept no substitutes.

### LOCATION REFERENCE

“Right-hand” and “left-hand” sides are determined by facing in the direction the Combine will travel when in use.

“Clockwise” refers to parts turning to the right like the hands of a clock. “Counter-clockwise” refers to parts turning to the left.

### Engine Reference Only.

Timing gear end of the engine is referred to as the “front;” flywheel end as the “rear.”

## SERIAL NUMBERS

Your combine, cutting platform, axle, engine and ScourKleen (optional equipment) have serial numbers.

When ordering parts, always bring with you the model and serial numbers as given on the serial number plates. By doing so, you will assist your John Deere dealer in giving you prompt, efficient service.

Record the serial numbers in the spaces provided on this page. It is a good plan to also copy the serial numbers down on a card to be carried in your billfold for quick reference.

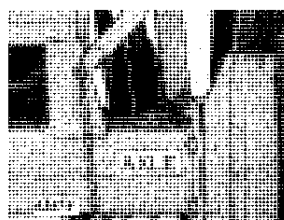
The combine serial number is on a plate located on the support bracket at the rear end of the fuel tank.

The engine serial number is on a plate located on top of the flywheel housing.

The axle serial number is on the top, left-hand end of the axle tube.

The cutting platform serial number is on a plate located on the outside of the right-hand platform divider.

The ScourKleen (optional equipment) serial number is on a plate located on the discharge end of the ScourKleen.



Combine Serial No.....

Engine Serial No.....

Axle Serial No.....

Cutting Platform Serial No.....

ScourKleen Serial No.....

Date Purchased.....

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Thank you very much for reading.

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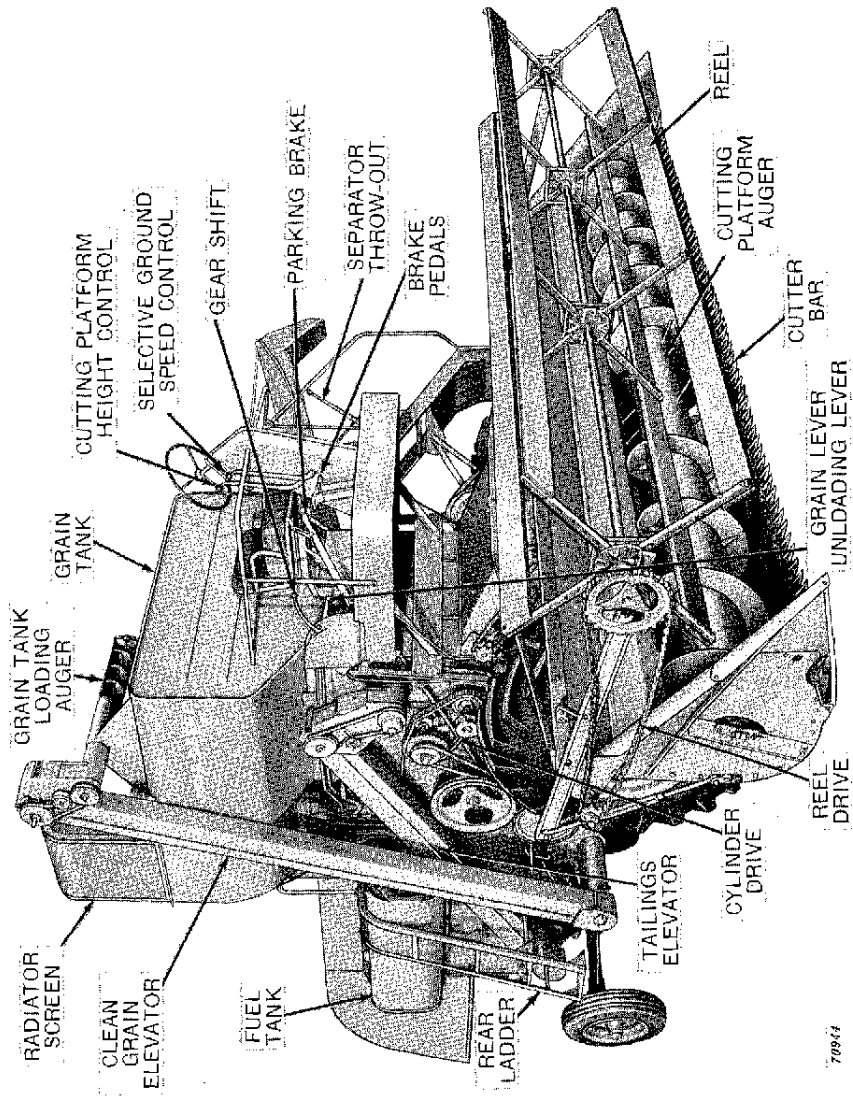
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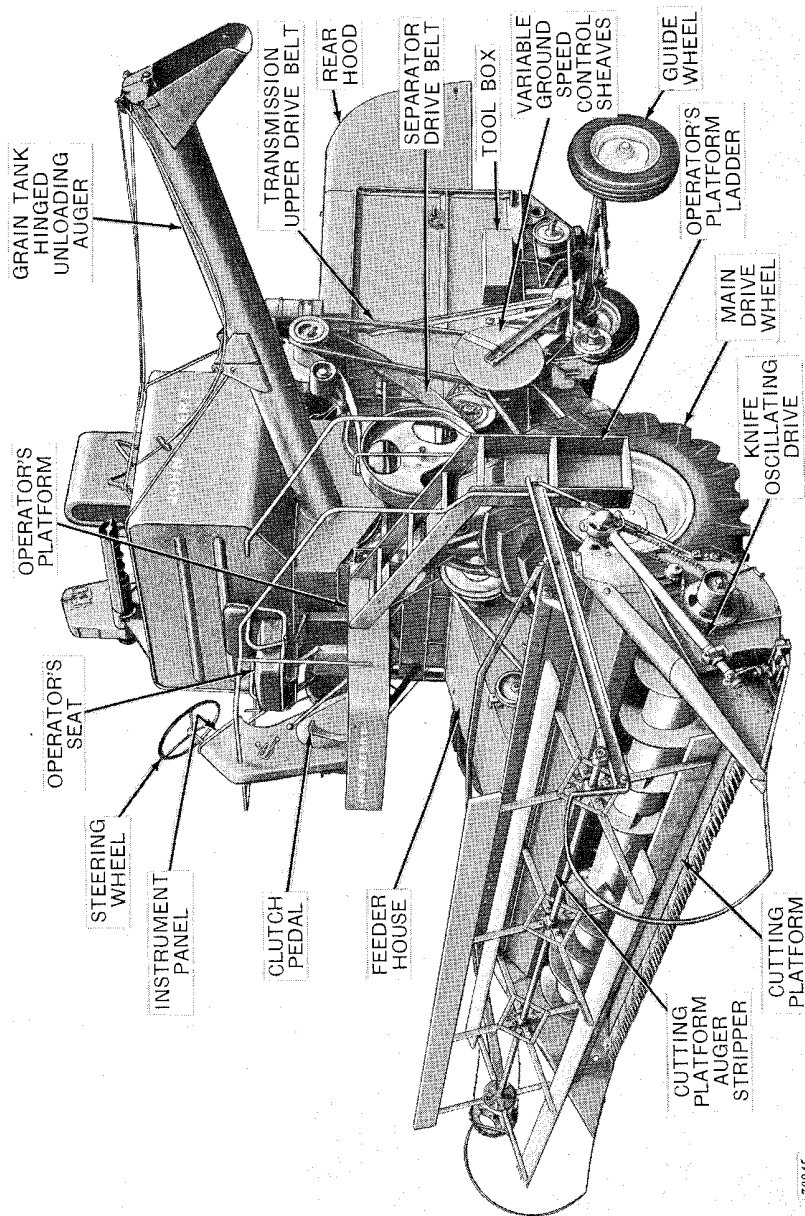
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*Right-Hand Front View—John Deere 95 Grain Tank Combine*



*Left-Hand Front View—John Deere 95 Grain Tank Combine*



## SPECIFICATIONS

### COMBINE

|                                 |                                                                 |                                                                                                        |
|---------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| <b>Cutter Bar</b>               |                                                                 | Diameter.. 22 In.                                                                                      |
| Width of Cut                    | 14 Ft., 16 Ft., or 18 Ft.                                       | Number of Bars..... 8 Rasp-Bars or 10 Spike-Tooth Bars (5 Bars with 19 Teeth and 5 Bars with 20 Teeth) |
| Length of Cutter Bar            | 13 Ft. 6 In. or 15 Ft. 6 In. or 17 Ft. 6 In.                    | Drive..... Roller Chain                                                                                |
| Type of Knife Sections          | Heavy-Duty Over-Serrated                                        | Speed Range 196 rpm to 1190 rpm                                                                        |
| <b>Reel</b>                     |                                                                 | <b>Concave</b>                                                                                         |
| Drive.....                      | Chain                                                           | Type..... 12-Bar Open Type or Spike-Tooth Type                                                         |
| No. of Slats                    | 4 Regular 3, 6, or 8 Special                                    | Width..... 40-In.                                                                                      |
| Dia. of Reel                    | 31-3/8 In. or 42 In.                                            | <b>Beater (Behind the Cylinder)</b>                                                                    |
| Speed Range                     | 19.1 rpm to 45 rpm                                              | Type..... Drum (Spiked Type with Removable Covers)                                                     |
| <b>Cutting Platform</b>         |                                                                 | Width..... 40 In.                                                                                      |
| Type of Feed                    | Auger                                                           | Diameter.. 12 In.                                                                                      |
| Range of Cutting Height (Grain) | (15 - 26 Tires).... 2-1/2 In. Below Wheel Level to 35 In. Above | Speed..... 680 rpm                                                                                     |
| Range of Cutting Height (Rice)  | (18 - 26 Tires).... 2-1/2 In. Below Wheel Level to 38 In. Above | <b>Separator</b>                                                                                       |
| Height Control                  | Hydraulic (2 Rams)                                              | Type..... Grain Conveyor, Straw Walker                                                                 |
| <b>Cutting Platform Auger</b>   |                                                                 | Width..... 40 In.                                                                                      |
| Diameter..                      | 18 In.                                                          | Length of Separating Surface..... 140 In. (Straw Walker Pans Extended)                                 |
| Dia. of Auger Tube              | 10 In.                                                          | Area of Separating Surface..... 5,600 Sq. In.                                                          |
| Type of Auger Fingers           | Round Retracting                                                | <b>Grain Conveyor</b>                                                                                  |
| <b>Cylinder</b>                 |                                                                 | Type..... Slat                                                                                         |
| Type.....                       | Rasp-Bar or Spike-Tooth                                         | Drive..... Chain                                                                                       |
| Width.....                      | 40 In.                                                          | Speed Range V-Belt                                                                                     |
|                                 |                                                                 | <b>Cleaning Fan</b>                                                                                    |
|                                 |                                                                 | Type..... 5-Bladed Undershot                                                                           |
|                                 |                                                                 | Drive..... V-Belt                                                                                      |
|                                 |                                                                 | Speed Range 602 rpm to 858 rpm                                                                         |
|                                 |                                                                 | <b>Chaffer</b>                                                                                         |
|                                 |                                                                 | Type..... Adjustable, No. 2 No. Choke, Corn, or Petersen Adjustable                                    |
|                                 |                                                                 | Width..... 38-1/2 In.                                                                                  |
|                                 |                                                                 | Length..... 48-1/2 In.                                                                                 |
|                                 |                                                                 | Area..... 1,867-1/4 Sq. In.                                                                            |

**COMBINE—Continued****Sieve**

Type..... Adjustable  
 Width..... 38-1/2 In.  
 Length..... 45 In.  
 Area..... 1,732-1/2 Sq. In.

**Chaffer Extension**

Type..... Adjustable  
 Width..... 38-1/2 In.  
 Length..... 12 In.  
 Area..... 462 Sq. In.

**Total Clean-  
ing Area of  
Chaffer, Sieve  
and Chaffer  
Extension...**

4,061 Sq. In.

**Straw Walkers**

Number.... Four  
 Width..... 9-1/2 In.  
 Length..... 115 In.  
 Area..... 4,370 Sq. In.  
 Number of  
 Steps.... Five  
 Drive..... V-Belt  
 Bearings... Oil-Soaked Maple  
 Extension  
 Pans..... One on Each Walker

**Grain Tank**

Capacity... 60-Bushel, Ap-  
 prox. (Type and  
 Condition of Crop  
 Will Determine  
 Actual Volume)

Capacity  
 with Grain  
 Tank Ex-  
 tensions  
 (Special  
 Equip-  
 ment).... 70-Bushel

Type of Un-  
 loading .. Hinged Auger

**Brakes**

Type..... Individual, Mechan-  
 ical Disk-Type

**Transmis-  
sion.....**

Automotive—4  
 Speeds Forward, 1  
 Reverse

**WEIGHTS**

Grain Com-  
 bine with  
 16-Ft.  
 Cutting  
 Platform. 10,000 Lbs. (Approx.)

Rice Com-  
 bine with  
 16-Ft.  
 Cutting  
 Platform. 11,500 Lbs. (Approx.)

**TIRE SIZES****Main Wheels**

Grain..... 13-26 (8-Ply Rating)  
 Cleat

Grain and  
 Soybean 15-26 (6-Ply Rating)  
 Cleat or Low Pro-  
 file

Grain..... 18-26 (8-Ply Rating)  
 Low Profile or  
 Cleat

Rice..... 18-26 (8-Ply Rating)  
 Rice

**Guide Wheels**

Corn..... 6.00-16 (4-Ply Rat-  
 ing) Rib Imple-  
 ment

Grain..... 6.50-16 (4-Ply Rat-  
 ing) Rib Imple-  
 ment

Rice and  
 Soybean 7.50-18 (4-Ply Rat-  
 ing) Skid Ring

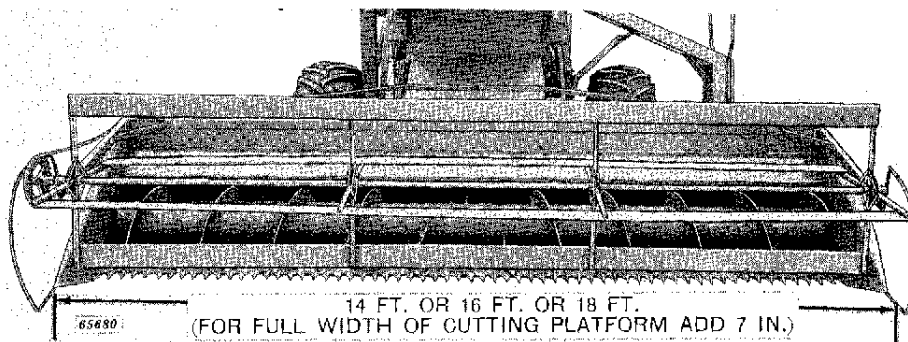
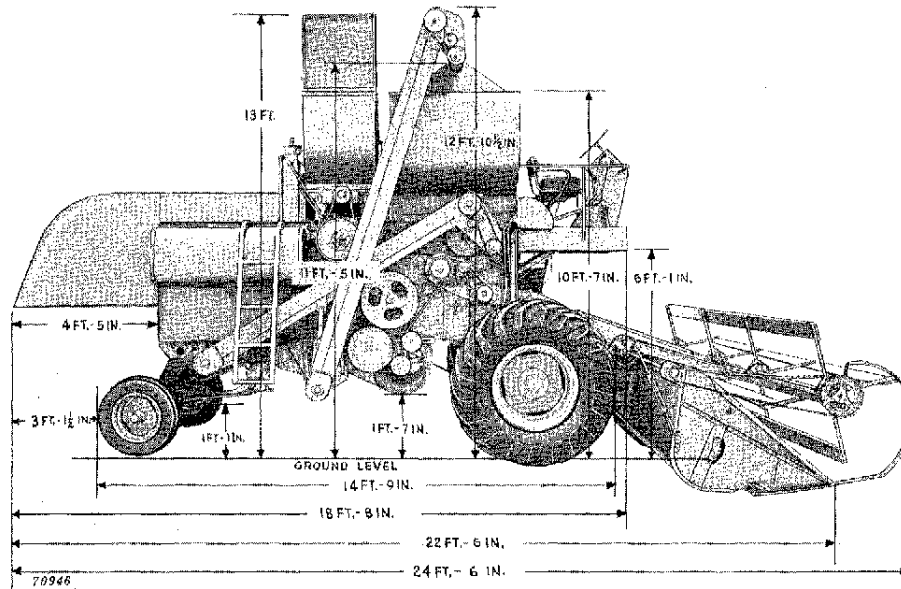
Rice Crawler 7.50-20 (4-Ply Rat-  
 ing) Rib Imple-  
 ment

Grain..... 9-16 (4-Ply Rating)  
 Low Profile

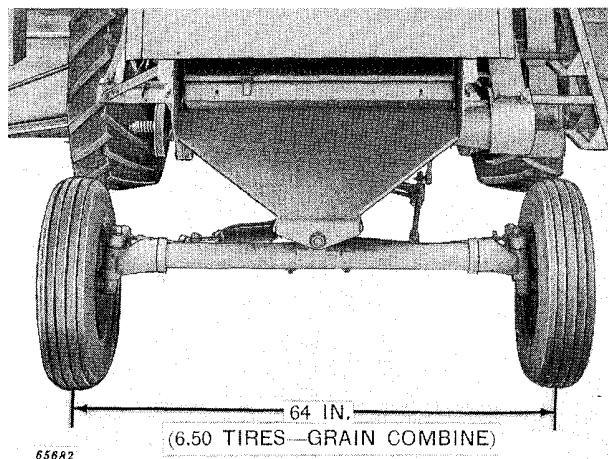
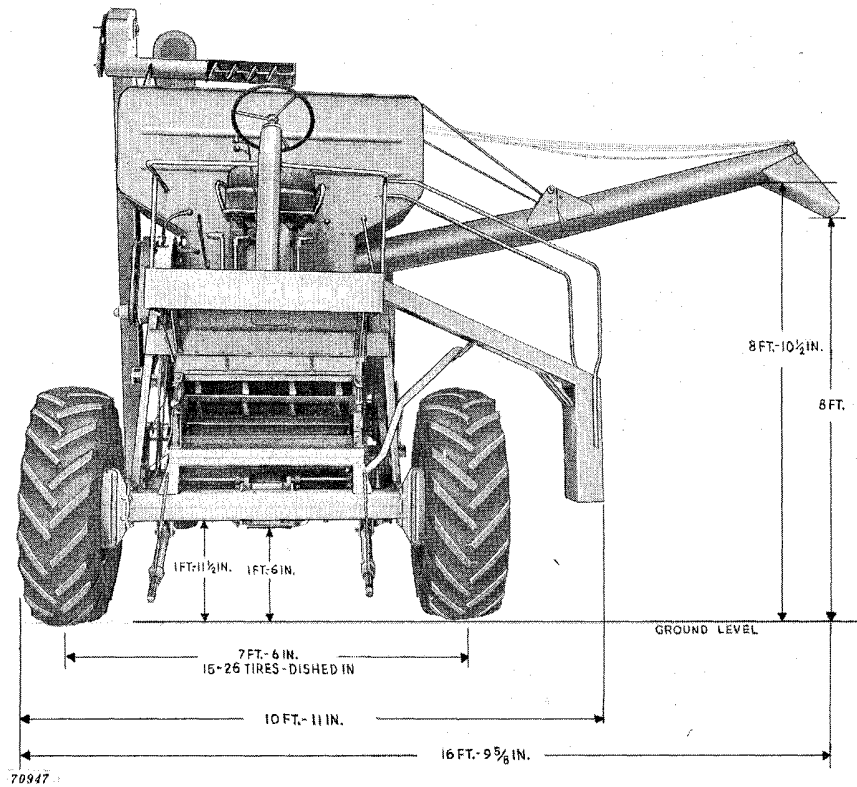
**WHEEL TREAD**

| Com-<br>bine           | Tire Size          | c/c Wheel<br>Tread |
|------------------------|--------------------|--------------------|
| Grain..                | 15-26 (Dished In)  | 90 Inches          |
|                        | 18-26 (Dished In)  | 89 Inches          |
|                        | 6.50-16            | 63-1/4 Inches      |
|                        | 9-16               | 65-1/4 Inches      |
| Corn...                | 13-26 (Dished In)  | 80 Inches          |
|                        | 13-26 (Dished Out) | 93-3/4 Inches      |
|                        | 6.00-16            | 61 Inches          |
| Soybean                | 15-26              | 99 Inches          |
|                        | 7.50-18            | 67-1/2 Inches      |
| Rice...                | 18-26 (Dished In)  | 98 Inches          |
|                        | 7.50-18            | 67-1/2 Inches      |
| Rice<br>Crawler Tracks |                    | 99 Inches          |
|                        | 7.50-20            | 65-7/8 Inches      |

## COMBINE DIMENSIONS—OVER-ALL



COMBINE DIMENSIONS—OVER-ALL—Continued



## SELECTIVE GROUND SPEED CONTROL RANGE

## 13-26 TIRES—GRAIN DRIVE

|               | (Min.)  | (Max.)    |
|---------------|---------|-----------|
| 1st Gear..... | .73 to  | 1.63 mph  |
| 2nd Gear..... | 1.46 to | 3.26 mph  |
| 3rd Gear..... | 2.96 to | 6.64 mph  |
| 4th Gear..... | 5.92 to | 13.28 mph |
| Reverse.....  | 1.86 to | 4.18 mph  |

## 15-26 TIRES—RICE DRIVE

|               | (Min.)  | (Max.)    |
|---------------|---------|-----------|
| 1st Gear..... | .67 to  | 1.50 mph  |
| 2nd Gear..... | 1.34 to | 3.00 mph  |
| 3rd Gear..... | 2.72 to | 6.10 mph  |
| 4th Gear..... | 5.44 to | 12.20 mph |
| Reverse.....  | 1.71 to | 3.84 mph  |

## 15-26 TIRES—GRAIN DRIVE

|               | (Min.)  | (Max.)    |
|---------------|---------|-----------|
| 1st Gear..... | .80 to  | 1.79 mph  |
| 2nd Gear..... | 1.60 to | 3.58 mph  |
| 3rd Gear..... | 3.25 to | 7.29 mph  |
| 4th Gear..... | 6.50 to | 14.58 mph |
| Reverse.....  | 2.05 to | 4.59 mph  |

## 18-26 TIRES—RICE DRIVE

|               | (Min.)  | (Max.)    |
|---------------|---------|-----------|
| 1st Gear..... | .76 to  | 1.71 mph  |
| 2nd Gear..... | 1.52 to | 3.42 mph  |
| 3rd Gear..... | 3.10 to | 6.96 mph  |
| 4th Gear..... | 6.20 to | 13.92 mph |
| Reverse.....  | 1.95 to | 4.38 mph  |

## 18-26 TIRES—GRAIN DRIVE

|               | (Min.)  | (Max.)    |
|---------------|---------|-----------|
| 1st Gear..... | .83 to  | 1.85 mph  |
| 2nd Gear..... | 1.66 to | 3.70 mph  |
| 3rd Gear..... | 3.36 to | 7.55 mph  |
| 4th Gear..... | 6.72 to | 15.10 mph |
| Reverse.....  | 2.12 to | 4.75 mph  |

## TRACKS—RICE DRIVE

|               | (Min.)  | (Max.)   |
|---------------|---------|----------|
| 1st Gear..... | .41 to  | .92 mph  |
| 2nd Gear..... | .82 to  | 1.84 mph |
| 3rd Gear..... | 1.66 to | 3.73 mph |
| 4th Gear..... | 3.32 to | 7.46 mph |
| Reverse.....  | 1.05 to | 2.35 mph |

## CAPACITIES (Approx.)

|                                                          |                  |
|----------------------------------------------------------|------------------|
| Fuel Tank.....                                           | 40 U. S. Gallons |
| Cooling System<br>(Radiator).....                        | 6 U. S. Gallons  |
| Engine Crankcase.                                        | 4 U. S. Quarts   |
| Oil Filter.....                                          | 1 U. S. Quart    |
| Air Cleaner.....                                         | 1 U. S. Quart    |
| Cutting Platform<br>Lift and Variable<br>Speed Hydraulic |                  |

|                                                                                                |                |
|------------------------------------------------------------------------------------------------|----------------|
| unit (Including<br>Hydraulic Oil<br>Lines and Cyl-<br>inders).....                             | 8 U. S. Quarts |
| Power Steering Hy-<br>draulic Unit (In-<br>cluding Hy-<br>draulic Oil Lines<br>and Cylinders). | 2 U. S. Quarts |

## ENGINE

|                               |                                                                                                                                                     |                               |                                                                                                  |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------|
| Make of Engine                | John Deere—<br>HB-217-G                                                                                                                             | Valve Arrange-<br>ment.....   | Valve-in-Head (Ro-<br>tators on Exhaust<br>Valves)                                               |
| Bore.....                     | 3-5/8 In.                                                                                                                                           | Valve Clear-<br>ance Intake . | .015-In.(When Cold)                                                                              |
| Stroke.....                   | 3-1/2 In.                                                                                                                                           | Exhaust....                   | .015-In.(When Cold)                                                                              |
| Brake Horse-<br>power.....    | 80                                                                                                                                                  | Make of Gover-<br>nor.....    | Pierce                                                                                           |
| Number of Cyl-<br>inders..... | 6                                                                                                                                                   | Make of Car-<br>buretor.....  | Zenith (Dual Down<br>Draft Type)                                                                 |
| Piston Dis-<br>placement...   | 217 Cu. In.                                                                                                                                         | Spark Plug....                | Champion H-10 or<br>Auto-Lite AL-7 or<br>AC-45L Gap .025-<br>In. Head Range<br>1200° to 1500° F. |
| Max. Load<br>Speed.....       | 2500 rpm                                                                                                                                            | Electrical Sys-<br>tem.....   | 12-Volt (Two 6-Volt<br>Batteries)                                                                |
| Firing Order..                | 1-5-3-6-2-4                                                                                                                                         | Cooling Sys-<br>tem.....      | Water Pressure<br>Type                                                                           |
| Crankcase ....                | Cast Integral with<br>Block                                                                                                                         | Type of Fuel..                | Gasoline (Regular<br>Grade)                                                                      |
| Type of Lubri-<br>cation..... | Force Feed by Gear<br>Pump to All Con-<br>necting Rods,<br>Main Bearings,<br>Governor, and Oil<br>Pump Drive. Oil<br>Strainer in Bot-<br>tom of Pan |                               |                                                                                                  |

## SPECIAL EQUIPMENT AVAILABLE

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(Specifications and design subject to change without notice.)

## LUBRICATION

Replace all missing or damaged grease fittings immediately.

### BEARINGS.

Lubricate at all grease fittings thoroughly, with a good grade of gun grease, until grease oozes out of bearing. This assures that the bearing is full, and also flushes out dirt that may have accumulated in the bearing. However, avoid excessive lubrication. Excessive lubricant that has dropped onto belts should be wiped off immediately to avoid belt slippage.

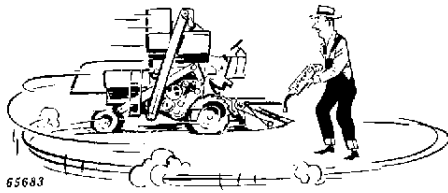
Two types of sealed bearings are used on this combine. One type is a sealed for life bearing which requires no lubrication; the other type is pre-packed at the factory and will require yearly lubrication.

To lubricate bearings where a pipe plug is provided in bearing housing, remove the pipe plug and insert a 1/8-inch diameter slotted grease fitting (JD7805); the slotted fitting allows the bearing housing to be filled to capacity without blowing out seals due to pressure building up. Then remove grease fitting and replace pipe plug.

Where no end cap or pipe plug is provided in bearing housing, it will be necessary to pull bearing housing from shaft to repack bearing with new grease. Clean bearing with a safe solvent and pack with new grease. Replace bearing housing.

### LUBRICATION OF LINKAGES.

When lubricating the combine, make a practice of putting a few drops of oil on all clevises, linkages, and other moving parts. This will make them work easier and prolong their life.



*The Combine Will Respond to Regular Lubrication*

The economical and efficient operation of any machine depends on regular and proper lubrication of all moving parts with a quality lubricant. This is especially true of farm equipment which must operate in hot, dusty conditions over rough ground. Neglected lubrication quickly leads to reduced efficiency, heavy draft, wear, breakdown and replacement of parts.

Use a clean container for storing and handling all lubricants. See that only clean lubricants go into the working parts of your combine.

### LUBRICATION CHARTS.

All lubrication points will be found in the lubrication charts that follow.

For the 4, 8, 40, and 150 Hour Lubrication Points, use a good grade of gun grease. For the 300 Hour, use a high-temperature ball or roller bearing grease of medium consistency. Do not use regular gun grease.



**CAUTION: Never Attempt to Lubricate Combine or Engine While Engine Is Running.**

Wipe dirt from grease fittings and grease gun nozzle before greasing.

### LUBRICATION OF CHAINS.

Chains should be lubricated at frequent intervals. A good grade of light machine oil should be used. A paint brush is a good instrument for applying oil to chains. **CAUTION: Do not oil chains when operating in sandy conditions. Sand will stick to the oiled chain and act as an abrasive.**

### KNIFE LUBRICATION.

The amount of lubricant to use on a knife depends on the conditions in which the work is being done. When the grain is being topped and the cutter bar is carried some distance from the ground, liberal lubrication with engine oil is permissible. In many conditions where the cutter bar must operate close to the ground, it is better not to use oil except for a small amount on the knife holders.

### TRANSMISSION AND FINAL DRIVE LUBRICATION.

Lubrication of transmission, differential, and final drives is entirely automatic. It starts and stops with combine operation. The transmission, differential and final drive gears are partially submerged in SAE 90 oil. When the gears revolve, oil is carried up to all moving parts, completely bathing gears, shafts, and bearings.

Changing seasons and temperatures, together with heating and cooling of the gear cases, cause condensation and eventually an accumulation of sludge in the main transmission case. This breaks down the lubricating qualities of the oil; therefore, the transmission oil should be changed regularly.

Each spring the transmission and final drives should be drained, cleaned with a safe cleaning solvent, and refilled with new SAE 90 oil.

### Weight of Oil (For Transmission, Differential, and Final Drive)

| Unit                      | Viscosity | Capacity                 |
|---------------------------|-----------|--------------------------|
| Transmission-Differential | SAE 90    | 10 U. S. Pints           |
| Final Drive               | SAE 90    | 4-1/2 U. S. Pints (Each) |

### ENGINE LUBRICATION.

#### Types of Crankcase Oil.

The engine of your combine has a force-feed pressure lubricating system—one of the finest it is possible to produce. Do not handicap it by trying to save money with inferior oil. High-grade oils withstand heat and wear for a longer time. Inferior oils soon become thin and lose their lubricating qualities. Some inferior oils contain traces of sulphur, which in itself is not harmful, but in the presence of certain products of combustion, will form acids which will attack metal surfaces. It pays to buy only nationally-known brands of oil.

It is impossible to determine from the appearance of an oil whether it is best suited to your engine and service conditions. The petroleum industry markets several types of crankcase oils. These types have been defined by the American Petroleum Institute as follows:



**Service ML**—Oil suitable for service typical of gasoline and other spark ignition engines operating under light loads and favorable service conditions.

**Service MM**—Oil suitable for service typical of gasoline and other spark ignition engines operating under moderate to severe service conditions.

**Service MS**—Oil suitable for service typical of gasoline and other spark ignition engines operating under unfavorable or severe types of service conditions.

For average service conditions, oil specified "For Service MM" is recommended for use in your combine engine.

For exceptionally severe service, combinations of heavy loads and high temperatures, or low temperature start and stop service, it may be possible to extend engine life by use of oils specified "For Service MS."

In some cases, where owners have had successful experience with certain brands of oils now specified "For Service ML," it will be possible to continue use of these oils but, due to the wide variations likely to be encountered among various brands, their use cannot be generally recommended.

### Weight of Oil.

Your John Deere Combine was made with the same precision as a fine automobile, with clearances between bearing surfaces as fine as a ten-thousandth part of an inch. If oil is expected to lubricate these surfaces, it first must get there. Therefore, weight of viscosity of the oil is very important.

Using oil of the wrong weight can result in loss of power, excessive fuel consumption, and undue wear on moving parts.

In a new engine it is important to use the oil specified in the temperature-oil weight chart below. **IMPORTANT: Follow the engine break-in instructions given on this page and page 36.**

| Season       | Engine Crankcase, Air Cleaner, and Hydraulic Systems |
|--------------|------------------------------------------------------|
| Above 32° F. | SAE 20 or SAE 10W-30                                 |
| Below 32° F. | SAE 10-10W or SAE 5W-20                              |

### Capacities:

|                                                                       |                |
|-----------------------------------------------------------------------|----------------|
| Crankcase Oil Capacity.....                                           | 4 U. S. Quarts |
| Oil Filter Capacity.....                                              | 1 U. S. Quart  |
| Cutting Platform Lift and Variable Drive Hydraulic Unit Oil Capacity* | 8 U. S. Quarts |
| Power Steering Hydraulic Unit Oil Capacity.....                       | 2 U. S. Quarts |
| Air Cleaner.....                                                      | 1 U. S. Quart  |

\*This includes hydraulic oil lines and cylinders.

### HYDRAULIC UNITS.

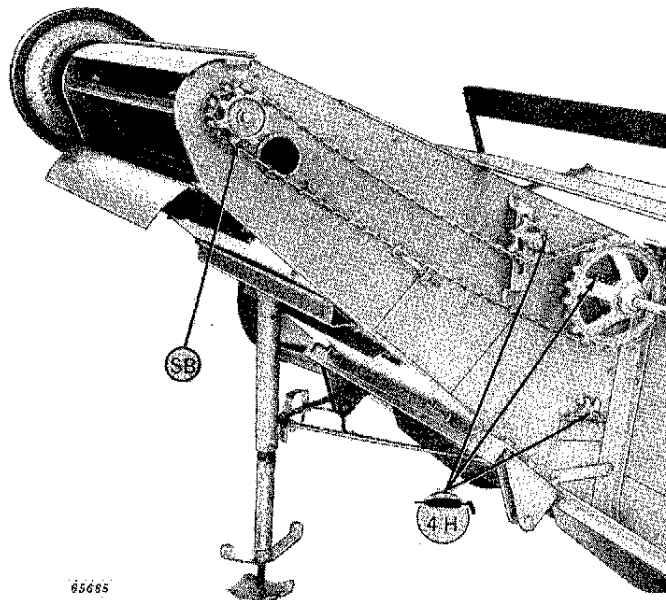
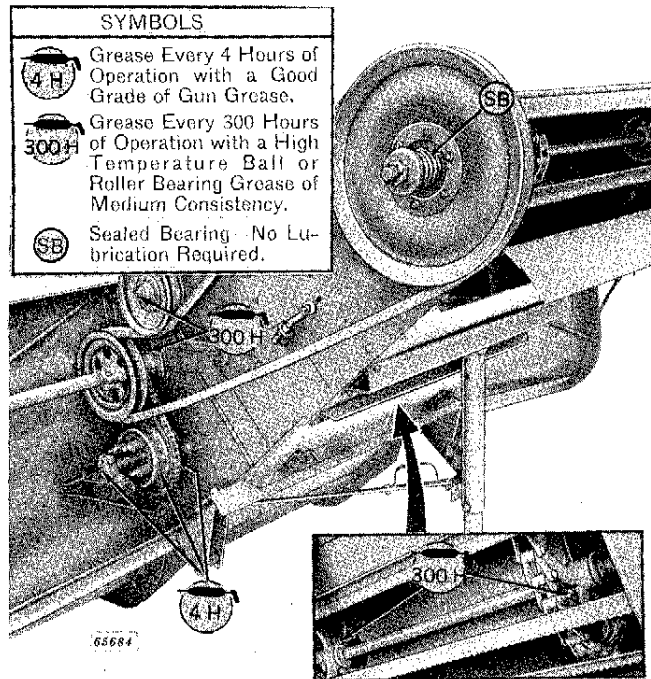
A premium grade of engine oil is recommended for use in the hydraulic units. Check oil level daily. Be certain the cutting platform is lowered to the ground when checking or adding oil. In the power steering hydraulic unit oil reservoir, automatic transmission fluid-type "A" may be used.

### ENGINE BREAK-IN.

The engine on your new combine is shipped from the factory with a special break-in oil in the crankcase. After 150 hours of operation, this oil must be drained from the crankcase and oil filter and replaced with 5 quarts of oil no heavier than SAE 10W or SAE 5W-20.

Drain and replace oil every 150 hours of operation thereafter. Use 10W or SAE 5W-20 weight oil for the first 600 hours of operation; then use the correct oil as specified above, depending on the temperature. For further break-in instructions on the engine, see page 36.

## CUTTING PLATFORM





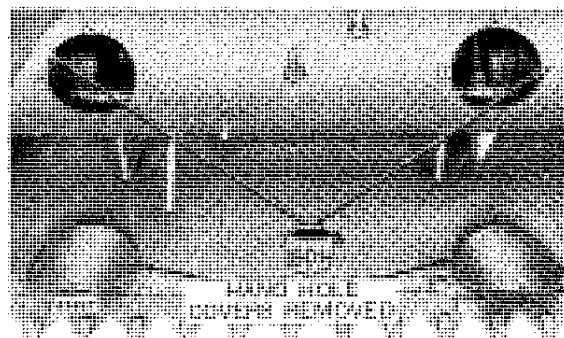
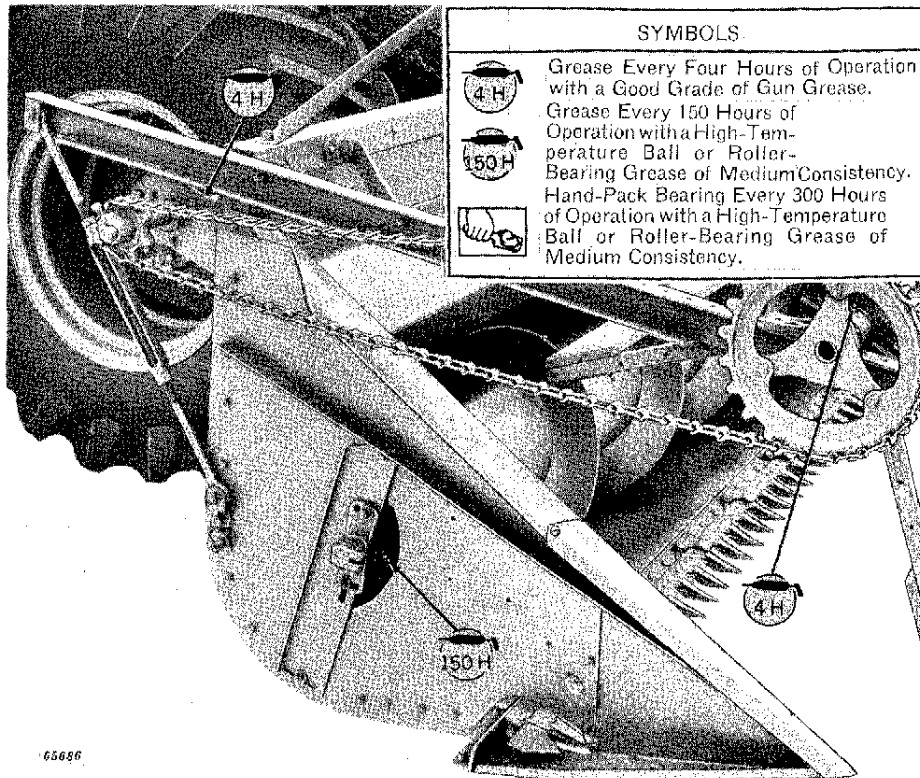
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## CUTTING PLATFORM—Continued



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