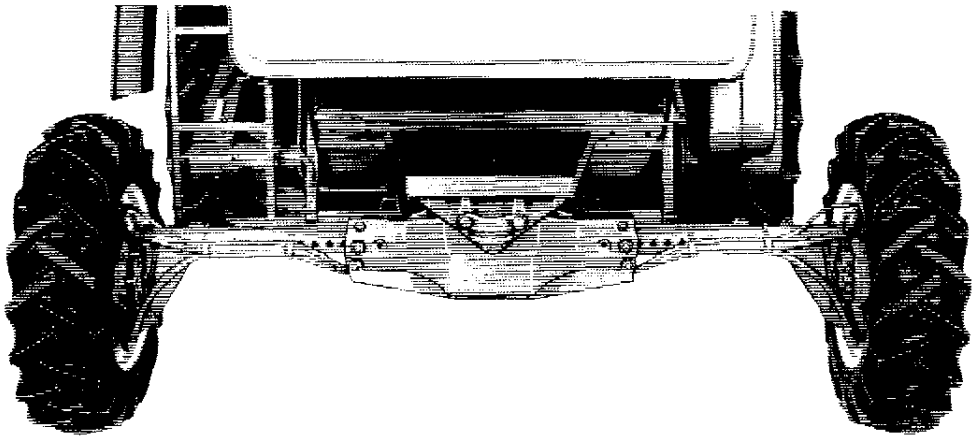
John Deere Operator's Manual

Power Rear Wheel OM-H84396

Drive For 7700 Issue C2

Hydrostatic Drive Combines



To The Purchaser

This new power rear wheel drive 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 or service. Read the Table of Contents to learn where each section is located.

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.

Study this manual carefully, keep it handy with your regular combine operator's manual, in a safe place, for future reference.

If you find that you require information not covered in this manual, see your John Deere dealer. He will answer any questions regarding the operation and service of the power rear wheel drive. He has trained mechanics who are kept informed on the best method of John Deere servicing and can give you prompt know-how service in the field or in his shop.

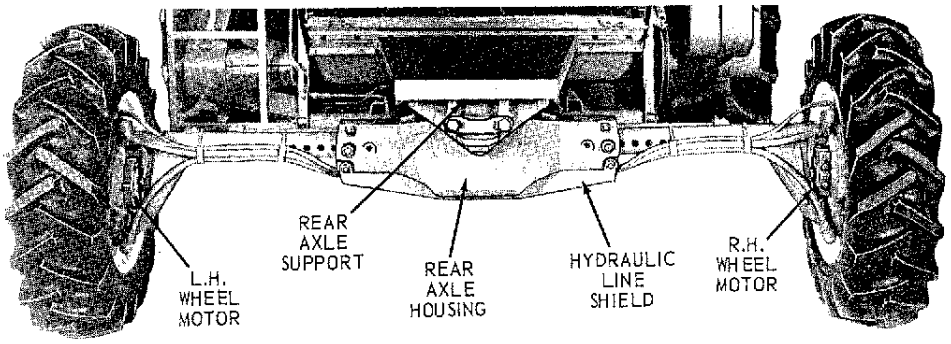
Should your power rear wheel drive require replacement parts, see your John Deere dealer where you will receive John Deere parts—accept no substitutes. John Deere parts fit properly and insure satisfactory service because they are made from original patterns and from the same material as the new machines.

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

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

Record the date purchased in the space provided on page 11. Your dealer needs this information to give you prompt, efficient service when you order parts.

Contents



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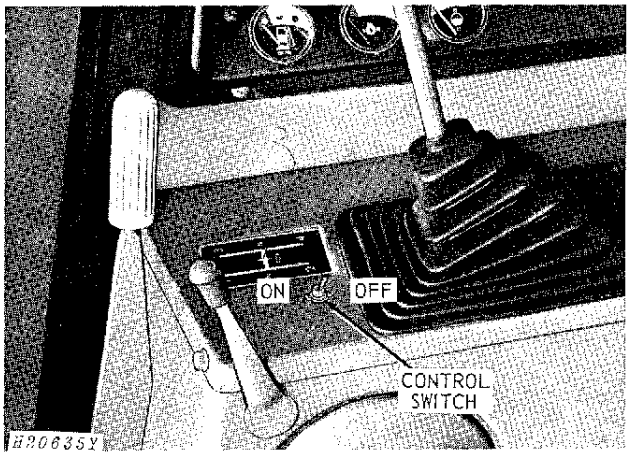
Operation

GENERAL

This rear wheel drive has been designed for use in poor traction conditions or when needed to improve steering control.



CONTROL SWITCH

To engage the power rear wheel drive, move the switch lever forward to the "ON" position. To disengage, move the switch lever rearward to the "OFF" position.

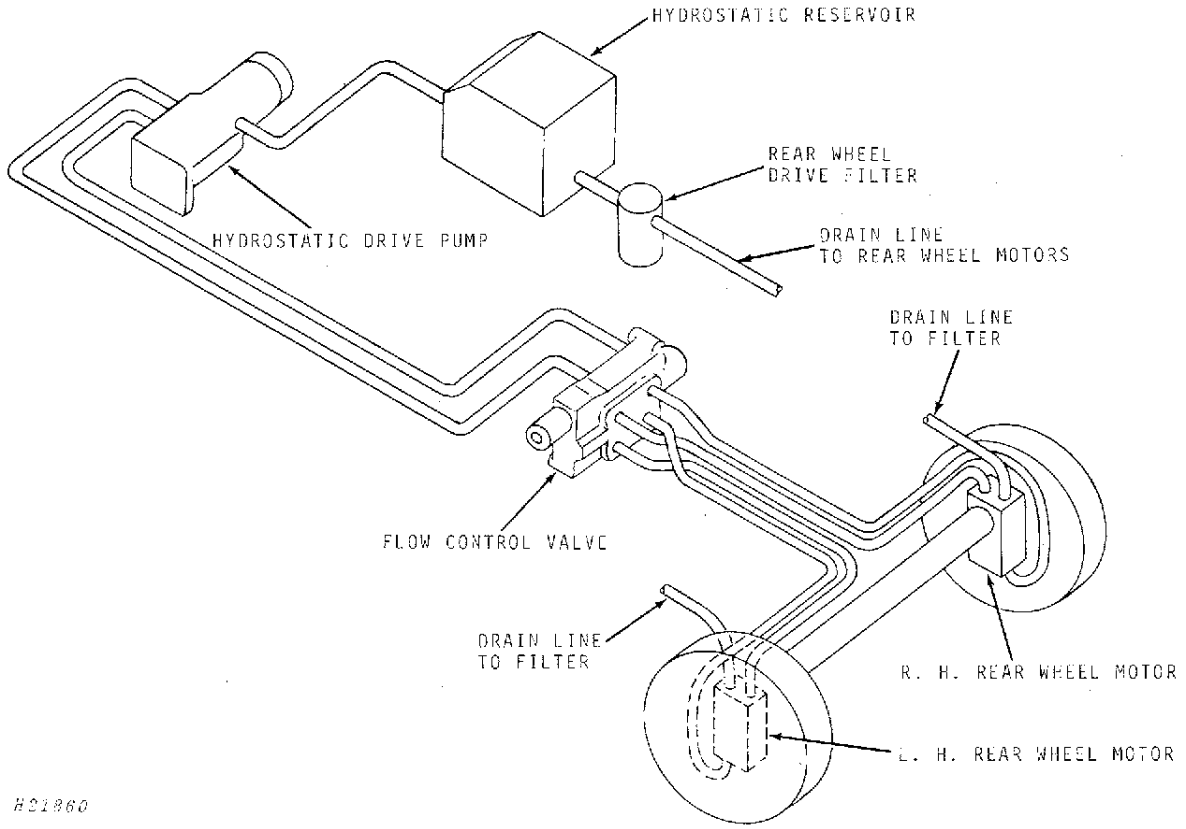
The powered wheels can be engaged "on the go" in either forward or reverse or when the combine is stopped by moving the control switch on the instrument console.

GROUND SPEEDS (MPH) WITH POWER REAR WHEEL DRIVE ENGAGED

Tire or Tracks			1st Gear		2nd Gear		3rd Gear		4th Gear	
Size	Type	Ply Rating	Forward	Reverse	Forward	Reverse	Forward	Reverse	Forward	Reverse
23.1-26*	Cleat	8	0 to 1.5	0 to .9	0 to 3.1	0 to 1.9	0 to 4.8	0 to 2.9	0 to 7.9	0 to 4.9
23.1-26**	Cane & Rice	10	0 to 1.6	0 to 1.0	0 to 3.2	0 to 2.0	0 to 5.1	0 to 3.2	0 to 8.3	0 to 5.1
24.5-32***	Cleat	10	0 to 1.5	0 to .9	0 to 3.1	0 to 1.9	0 to 4.9	0 to 3.0	0 to 8.1	0 to 5.0
24.5-32****	Cane & Rice	10	0 to 1.5	0 to .9	0 to 3.2	0 to 2.0	0 to 5.0	0 to 3.1	0 to 8.4	0 to 5.2
Tracks****			0 to .7	0 to .4	0 to 1.5	0 to .9	0 to 2.5	0 to 1.5	0 to 4.4	0 to 2.7

** Based on 25.1:1 rear wheel reduction, 12.4-24 cleat rear tires, and 11/90 final drives.*
*** Based on 25.1:1 rear wheel reduction, 12.4-24 cane and rice rear tires, and 11/90 final drives.*
**** Based on 25.1:1 rear wheel reduction, 14.9-24 cleat rear tires, and 11/104 final drives.*
***** Based on 40.6:1 rear wheel reduction, 14.9-24 cane and rice rear tires, and 11/104 final drives.*

POWER REAR WHEEL DRIVE SYSTEM



The power rear wheel drive system consists of an electro-hydraulic control valve, two rear wheel motor assemblies that contain integral planetary gearing, a fixed displacement axial piston hydraulic motor, an oil filter, and connecting hydraulic lines.

All of these items are for the power rear wheel drive system only with the exception of the axial piston motor which is a part of the hydrostatic drive system used to propel the combine.

The power rear wheel drive motors are connected in parallel through a control valve with the combine hydrostatic propulsion system. When the power rear wheel drive system is engaged, the torque (rotating power) available to the rear wheels will be proportional to the main drive wheel torque.

To engage the power rear wheel drive, the operator sends an electrical signal from the console mounted control switch to the power rear wheel drive control valve. This control valve responds by opening to allow flow of hydrostatic fluid to the rear wheel motors. The wheel motors convert this hydraulic energy into mechanical energy which in turn drives the primary gear. This gear transfers power through a gear reduction train to the secondary gear which is attached to the wheel rim, propelling the combine.

In the event of rear wheel spin out, flow limiting valves attached to the rear wheel drive control valve prevent excessive rear wheel motor speed and provide a means of maintaining flow in the main hydrostatic propulsion system.

The design of the rear wheel assemblies provides for automatic gear disengagement when the hydraulic power supply is cut off. Small flexible drain lines from each wheel motor housing route internal leakage fluid back to the hydrostatic reservoir.

Safety Suggestions

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

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

Only the operator should be allowed on the operator's platform when the combine is in operation.

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

Be sure shields and guards are in place and in good condition before starting in the field.

Be sure the gearshift lever and speed range lever on your combine are in neutral before starting the engine.

Move ground speed control to reduce speed before applying brakes. Couple brakes together (see page 24 in combine operator's manual) when transporting to avoid drawing combine to one side. Quick stops can result in combine nosing forward. Drive with care to allow controlled application of brakes at all times.

Use the hand rail when mounting the combine.

Make sure everyone is clear of the combine before starting so they cannot be struck by moving parts or caught in a drive belt or chain.

Keep combine in gear when going down hills.

Do not use the main hydrostatic drive system as a substitute for the parking brakes.

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

Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

Lubrication and Periodic Service

KEEP LUBRICANTS CLEAN

Use only high-grade lubricants which have been stored in clean containers. Wipe away all grease and dirt before removing filler caps or plugs. Wipe grease fittings clean before lubricating.

HYDROSTATIC OIL

Use only John Deere All-Weather Hydrostatic Fluid or Texaco Type F Automatic Transmission Fluid in the hydrostatic drive oil reservoir. The compostion of various brands of "Type F" automatic transmission fluids can and does vary, and the use of certain formulations labeled "Type F" may damage the hydrostatic drive unit. Therefore, we recommend only the use of John Deere All-Weather Hydrostatic Fluid or Texaco Type F Automatic Transmission Fluid.

GREASE FITTINGS

Grease fittings are provided at all points indicated in the following illustrations. If any grease fittings are missing, replace them immediately. Clean the fittings thoroughly before using grease gun.

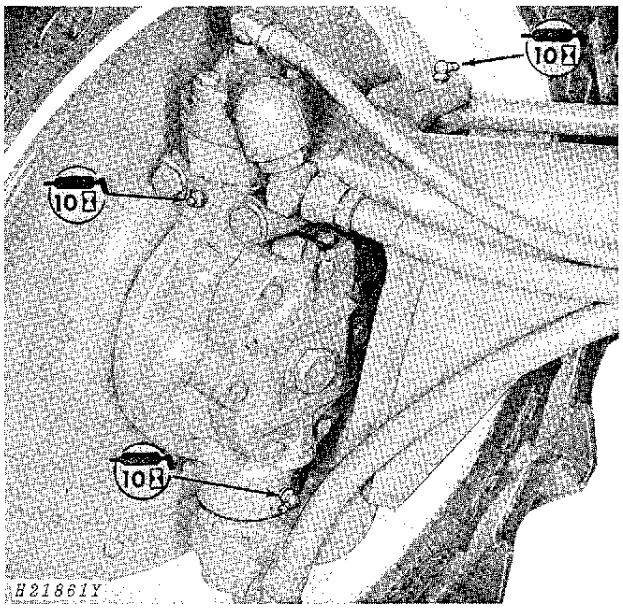
CAUTION: Never lubricate or service combine or engine while it is running.

SYMBOLS

10 H — Lubricate with John Deere Multi-Purpose lubricant or an equivalent SAE multi-purpose type grease at hourly intervals indicated on the symbols.

10-HOUR SERVICE OR DAILY

Rear Axle Spindle and Tie Rods



Steering Bell Crank, Tie Rod, and Rear Axle Pivot Pin