

John Deere 1530 Tractor



JOHN DEERE

TECHNICAL MANUAL

John Deere
1530 Tractor

TM4280 (01Mar73) English

John Deere Waterloo Works
TM4280 (01Mar73)

LITHO IN U.S.A.
ENGLISH



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Group 5

SPECIFICATIONS

SERIAL NUMBERS

The engine serial number is stamped into the name plate at the lower right of the front cylinder block.

NOTE: If ordering engine parts, indicate all digits of the serial number on the name plate.

The name plate showing the tractor serial number is located on the right-hand side of the front support.

NOTE: If ordering tractor parts, (excluding engine parts), indicate all digits of the serial number on the name plate.

MODEL NUMBERS

The injection pump, injection nozzles, the alternator, starter and the hydraulic pump have model numbers to facilitate identification of different makes of a given unit.

SPECIFICATIONS

ENGINE

Number of cylinders	3
Cylinder liner bore	102 mm (4.02 in.)
Stroke	110 mm (4.33 in.)
Displacement	2690 cm ³ (164 cu.in.)
Compression ratio	16.2 : 1
Maximum torque at 1500 rpm	17.0 mkp (123 ft.lbs.)
Firing order	1 - 2 - 3
Valve clearance (engine hot or cold)	
Intake valve	0.35 mm (0.014 in.)
Exhaust valve	0.45 mm (0.018 in.)

Fast idle	2650 rpm
Slow idle	650 rpm
Working speed range	1500 to 2500 rpm
PTO power* (at 2500 rpm engine speed and 650 rpm powershaft speed)	46 HP (34.3 kw)

ENGINE CLUTCH

Dual dry disk clutch, foot-operated

Single dry disk clutch with torsion damper (isolator), foot-operated (on tractors with independent PTO)

ELECTRICAL SYSTEM

Batteries	2 x 12 volts, 55 ampere-hours
or	1 x 12 volts, 70 ampere-hours
Starter	12 volts, 4 HP
Alternator	14 volts, 28 amps.
Battery terminal grounded	negative

* With the engine run in (more than 100 hours of operation) and having reached operating temperature (engine and transmission); measured by means of a dynamometer. Permissible variation $\pm 5\%$.

TRANSMISSION

Type Collar shift

Gear selections 8 forward and 4 reverse

Shifting 4 speeds each in high, low, and reverse ranges. Park lock included.

HI-LO SHIFT UNIT

Hydraulically controlled reduction gear which can be shifted under load, with "wet" multiple disk clutch and "wet" multiple disk brake. Allows reduction of the individual gear speeds by 21 %.

DIFFERENTIAL AND FINAL DRIVES

Planetary reduction gear and differential with spiral bevel gears.

DIFFERENTIAL LOCK

Hand or foot operated; spring-loaded out of engagement.

PTO

Type Rear 540 rpm continuous-running or independent

Power Shaft Speeds

Engine Speed in rpm	PTO shaft speed in rpm
650	169
2067	538
2075	540
2500	650
2650	689

HYDRAULIC SYSTEM

Closed center, constant pressure system; also includes rockshaft, power steering and selective control valves.

Stand by oil pressure 156 to 160 kp/cm²
 (2220 to 2280 psi)

Pump 8-piston pump driven by the engine

POWER STEERING

The steering system is a "closed center" type incorporated by the hydraulic system and supplied with oil by the hydraulic pump. It is connected to the front wheels by means of a steering linkage.

MANUAL STEERING

The manual steering is a recirculating ball bearing, worm and nut type. A number of steel balls between ball nut and steering wheel shaft provide for positive engagement of steering wheel and steering linkage.

HYDRAULIC BRAKES

The disk brakes run in an oil bath and are hydraulically controlled.

CAPACITIES

	Ltr.	US.gals.	Imp.gals.
Fuel tank	62.5	16.5	13.75
Cooling system	10.5	2.75	2.3
Engine crankcase incl. filter	5.7	1.5	1.25
Transmission-hydraulic system			
Dry system	36.0	9.5	7.9
At service intervals	28.0	7.4	6.2
Belt pulley	1.1	0.3	0.25

TRAVEL SPEEDS

See Operator's Manual

FRONT AND REAR WHEELS

For tire sizes, treads, inflation pressure and weights see Operator's Manual.

DIMENSIONS AND WEIGHTS

See Operator's Manual.

Group 10

PREDELIVERY, DELIVERY AND AFTER-SALES INSPECTIONS

PREDELIVERY INSPECTION

Every new JOHN DEERE tractor leaves the factory in such a condition that it can be delivered to the customer after a minimum of service.

To promote complete customer satisfaction, proper predelivery service including mending of possible shipping damage and giving the finishing touches to the tractor, are of prime importance to the dealer.

A tag pointing out the factory-recommended procedure for predelivery service is attached to

every new tractor before it leaves the factory. The reverse side of this tag is filled in by the factory after the tractor has undergone a thorough inspection prior to shipping.

After completing the factory-recommended dealer checks and services listed on the predelivery tag, remove the tag from the tractor and file it with the shop order for the job. The tag will then serve as a basis for certifying that the unit has received the proper predelivery service.

TEMPORARY TRACTOR STORAGE

Service	Specifications	Reference
<p>Check radiator for coolant loss and antifreeze protection (gravity of anti-freeze and rust inhibitor mixture)</p> <p>IMPORTANT: When the tractor is delivered, red cable is not connected to alternator terminal "B+". Further, the alternator three-terminal plug is not connected. Connect cable and plug before operating tractor for the first time.</p> <p>If the tractor is to be operated for a short time without battery (using a slave battery for starting), do not, under any circumstances, interrupt the circuit by switching off the starter switch before stopping the engine by means of fuel pump shut off cable. Further, it is recommended to use additional current (lights) whilst engine is running. Insulating tape on battery cable end leading to starting motor should not be removed. If this advice is disregarded, damage to alternator and regulator may result.</p>	<p>Coolant level should be mid-way between radiator core and bottom edge of filler neck</p> <p>.....</p>	<p>Operator's manual</p> <p>Section 40, group 10</p>
<p>Remove batteries. Drain electrolyte and store batteries</p>	<p>Store at room temperature</p> <p>.....</p>	<p>.....</p>
<p>Reduce shipping pressure of tires</p>	<p>.....</p>	<p>Operator's manual</p>
<p>Cover tractor and tires for protection and cleanliness</p>	<p>.....</p>	<p>.....</p>

BEFORE DELIVERING TRACTOR

Service	Specifications	Reference
COOLING SYSTEM		
Check radiator for coolant loss	Coolant level should be midway between radiator core and bottom edge of filler neck.	Operator's manual
Check gravity of antifreeze and rust inhibitor mixture	.....	Operator's manual
ELECTRICAL SYSTEM		
IMPORTANT: When the tractor is delivered, red cable is not connected to alternator terminal "B+". Further, the alternator three-terminal plug is not connected. Connect cable and plug before operating tractor for the first time.	.....	Section 40, group 10
If the tractor is to be operated for a short time without battery (using a slave battery for starting), do not, under any circumstances, interrupt the circuit by switching off the starter switch before stopping the engine by means of fuel pump shut off cable. Further, it is recommended to use additional current (lights) whilst engine is running. Insulating tape on battery cable end leading to starting motor should not be removed.		
If this advice is disregarded, damage to alternator and regulator may result.		
If the batteries are to be installed in the tractor, remove insulating tape on terminal of battery cable. This is to be done if the tractor was shipped with dry-charged batteries or without batteries.	.....	.....
Connect batteries in the proper polarity (negative to ground). If they are improperly connected, the rectifier diodes will be immediately destroyed.	.....	Section 40, group 10
First connect positive (+) cable and then ground (-) strap of each battery. Only then start tractor engine.	.....	Section 40, group 10

BEFORE DELIVERING TRACTOR - Continued

Service	Specification	Reference
TIRES AND WHEELS		
Check tire inflation pressure	Operator's manual
Retighten wheel bolts	Section 80, group 15 and Operator's manual
LUBRICATION		
Check crankcase oil level	Top mark on dip stick	Operator's manual
Check transmission-hydraulic system oil level	Operator's manual
Lubricate all lubrication points on the tractor	Operator's manual
ENGINE		
Check air cleaner	Operator's manual
Fill fuel tank and start engine	Capacity: 62.5 liters (13.75 Imp.gals. = 16.5 U.S.gals.)	Operator's manual
Check lighting system, indicator lights and instruments for proper operation	Operator's manual
Check if speed control linkage moves easily	Section 20, group 40
Check engine idle speeds	Section 20, group 40
Check injection timing	Section 30, group 15
OPERATION		
Check clutch pedal adjustment	Approx. 25 mm (1 in.) clutch pedal free travel	Section 50, group 5
Check operation of Hi-Lo shift unit	Section 50, group 10
Shift transmission through all speeds	Operator's manual
Check differential lock operation	Operator's manual
Check PTO operation	Operator's manual
Check 3-point hitch operation	Operator's manual
Check hydraulic system operation	Section 70, group 5
Check brake system	Section 60, group 15

BEFORE DELIVERING TRACTOR - Continued

Service	Specifications	Reference
Check steering operation	Section 60, group 10
Check seat operation	Operator's manual
Check operation of remote hydraulic cylinder (if equipped)	Section 70, group 5
GENERAL		
Tighten accessible nuts and attaching screws	Section 10, group 20
Attach roll gard (if equipped)	Tighten cap screws cross-wise 1. Step = 7 mkp (50 ft.lbs.) 2. Step = 41.5 mkp (300 ft.lbs.)	Section 80, group 20
Clean tractor and touch up paint

DELIVERY INSPECTION

A thorough discussion of the operation and service of the tractor at the time of its delivery helps to assure complete customer satisfaction.

Proper delivery should be an important phase of the dealer's program.

It is a well-known fact that many complaints have arisen simply because the owner was not shown how to operate and service his new tractor properly. Therefore, enough time should be devoted, at the customer's convenience, to introducing him to his new tractor and explaining to him how to operate and service it.

Using the tractor operator's manual as a guide, be sure that the owner understands the following points properly.

1. Adjusting the seat
2. Operation of control levers and instruments
3. Starting and shutting off the engine
4. The importance of the tractor break-in period
5. Use of counterweights and proper inflation pressure as well as filling of tires with water and calcium chloride, if required
6. Operating the complete hydraulic system
7. Operating the power shaft and belt pulley (if equipped)
8. The importance of the safety rules
9. The importance of lubrication and periodic service

AFTER-SALES INSPECTION

In the interest of the purchaser and the dealer an after-sales inspection should be carried out by the dealer after the first 100 hours of using a new John Deere tractor.

The purpose of this inspection is to make sure that the customer is receiving satisfactory performance from his tractor. At the same time, the inspection should reveal whether or not the tractor is being operated, lubricated and serviced properly.

Through this inspection a needless volume of service work can be eliminated by preventing

minor difficulties from developing into serious problems later on. It also will promote stronger dealer-customer relations and give the customer an opportunity to ask questions that may have arisen during the first few days of use.

Thereby the dealer has the further opportunity of promoting the possible sale of other new equipment.

The following inspection program is recommended:

BUY NOW

**Then Instant Download
the Complete Manual
Thank you very much!**