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**JD750**



# Put the advantages of hydrostatic drive to work for you:

Once you've operated a JD750, you'll probably wonder why it took so long to build a bulldozer that could move dirt so easily. The JD750, first introduced in 1976, is truly an operator's machine. It's quiet, comfortable, and powerful. All controls are placed in optimum positions, and they work according to your natural responses.

**Operating the JD750 is easy.** There's no need to think about upshifting or downshifting during operation. The JD750 does that for you—automatically. A unique sensing system automatically adjusts machine speed as blade loads increase, while it maintains engine rpm in the high-horsepower range. When the load lessens, the unit again automatically adjusts speed. All you have to think about is what the blade is doing. The machine takes care of the rest.

**JD750 maneuverability is exceptional.** Independent counterrotating tracks let you spot-turn within the length of the machine. Since power to the tracks is infinitely variable, you can make power turns under load, and make corner cuts with the blade while maintaining uniform traction.

**You'll never have to adjust or replace steering clutches and brakes.** The JD750 doesn't have any. Steering and braking are done hydrostatically. Multiple wet-disk parking brakes automatically lock the machine into park when the engine is stopped.

**Now's the time to find out what the JD750 Crawler Bulldozer can do for you.**



# SPECIFICATIONS

(Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with roll-over protective canopy, 18 in. (457 mm) grousers, and standard equipment.)

## Power:

(@ 2100 rpm): **SAE**

Gross . . . . . 122 hp (91 kW\*)

Net . . . . . 110 hp (82 kW) 111.5 PS

Net engine flywheel power is for an engine equipped with fan, air cleaner, water pump, lubricating oil pump, fuel pump, alternator and muffler. The gross engine power is without fan. Flywheel power ratings are under SAE standard conditions of 500-ft. altitude and 85°F. temperature, and DIN 70 020 conditions (non-corrected). No derating is required up to 10,000 feet (3000 m) altitude.

\*In the International System of Units (SI), power is expressed in kilowatts (kW).

**Engine:** John Deere 6-cylinder turbocharged diesel, valve-in-head, 4-stroke cycle.

Bore and stroke . . . . . 4.19 x 5 in. (106.4 x 127 mm)

Piston displacement . . . . . 414 cu. in. (6784 cm<sup>3</sup>)

Compression ratio . . . . . 16.2 to 1

Maximum torque @ 1300 rpm . . . . . 345 lb-ft.  
(468 Nm) (47.7 kg-m)

NACC or AMA (U.S. Tax) horsepower . . . . . 42

Lubrication . . . . . Pressure system w/full-flow filters

Main bearings . . . . . 7

Cooling . . . . . Pressurized w/thermostat and controlled bypass.

Fan . . . . . Blower

Air cleaner w/restriction indicator . . . . . Dry

Electrical system . . . . . 24 volt w/alternator

Batteries (two 12-volt) . . . Reserve capacity: 180 min. each.

## Transmission:

Cold weather starting . . . . . Disconnect clutch completely disengages hydrostatic drive and all hydraulics.

Splitter drive . . . . . Pressure-lubricated helical gears drive both hydrostatic transmissions, main hydraulic pump, winch drive shaft, and auxiliary pump drive.

Drive . . . . . Dual-Path, fully automatic, infinitely variable hydrostatic transmissions.

Speeds . . . . . Infinite from 0 to 6.5 mph (0 to 10.5 km/h) forward or reverse.

Control . . . . . Single-lever, variable-speed, forward and reverse.

# There's a JD750 for your special jobs, too

The JD750 can come equipped to handle the kinds of applications you encounter.

**For work in unstable soils** turn to the JD750 wide-track. Thirty-four inch (864 mm) track shoes reduce ground pressure to 5.1 psi (0.358 kg/cm<sup>2</sup>). It's the perfect complement to the JD750's hydrostatic transmission. The wide shoes matched with the infinite speed control of each track allows the machine to work on top of the material instead of digging in with a "dead" track every time a turn is made.

**Woods applications** are more easily handled with a number of protection options. Limb risers, roof extensions, heavy-duty grill plate, hydraulic reservoir guards, muffler collar, lockable hinged perforated side shields, and increased hose protection all help keep unwanted debris away from both the operator and the machine.

If your work requires a pipe setting machine the JD750 can still be your answer. Equipped with sideboom and 8,500 lb. (3856 kg) counterweight it features impressive lift capabilities of between 45,000 lb. (20 412 kg) upright to 10,000 lb. (4436 kg) when extended to its maximum reach of 15 ft. (4.57 m).



# Easy servicing and vandalproofing are as important as productive design

Design advantage means more than increased production in the JD750. It means you have a complete machine that includes all the features you depend on to keep it working.

Service points are easy to reach so daily checks can be done more quickly. Two conveniently located doors on the hood give access to engine oil, radiator, and air cleaner. Tip the operator's seat forward and two 12-volt batteries open up for easy inspection.



Sight gauges provide instant readings on hydraulic and hydrostatic oil levels. If operating conditions change, track adjustments can be made with a simple grease gun.

At night, the JD750 locks tight. All doors plus fuel cap and instrument panel can be locked to ensure that your machine will be ready to work again when you return. It completes the solid yet simple John Deere design.



Hinged and lockable metal covers protect JD750 instrument panel.

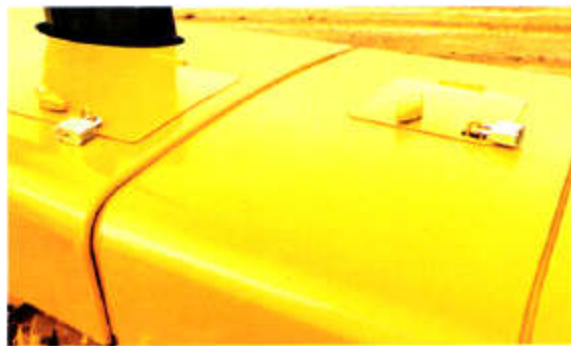
Make track adjustments with a simple grease gun.



Optional fire extinguisher is within easy reach in case of an emergency.

Air filter and engine oil may be inspected from one door on the hood.

Tool storage area and master electrical switch door can be padlocked.



Padlocks keep vandals from opening radiator and engine access doors.

Your ignition key locks transmission filter compartment.



Radiator coolant levels are checked from this door on the hood.



A lockable door protects the switch that lets you shut off all electrical power at the end of the day.



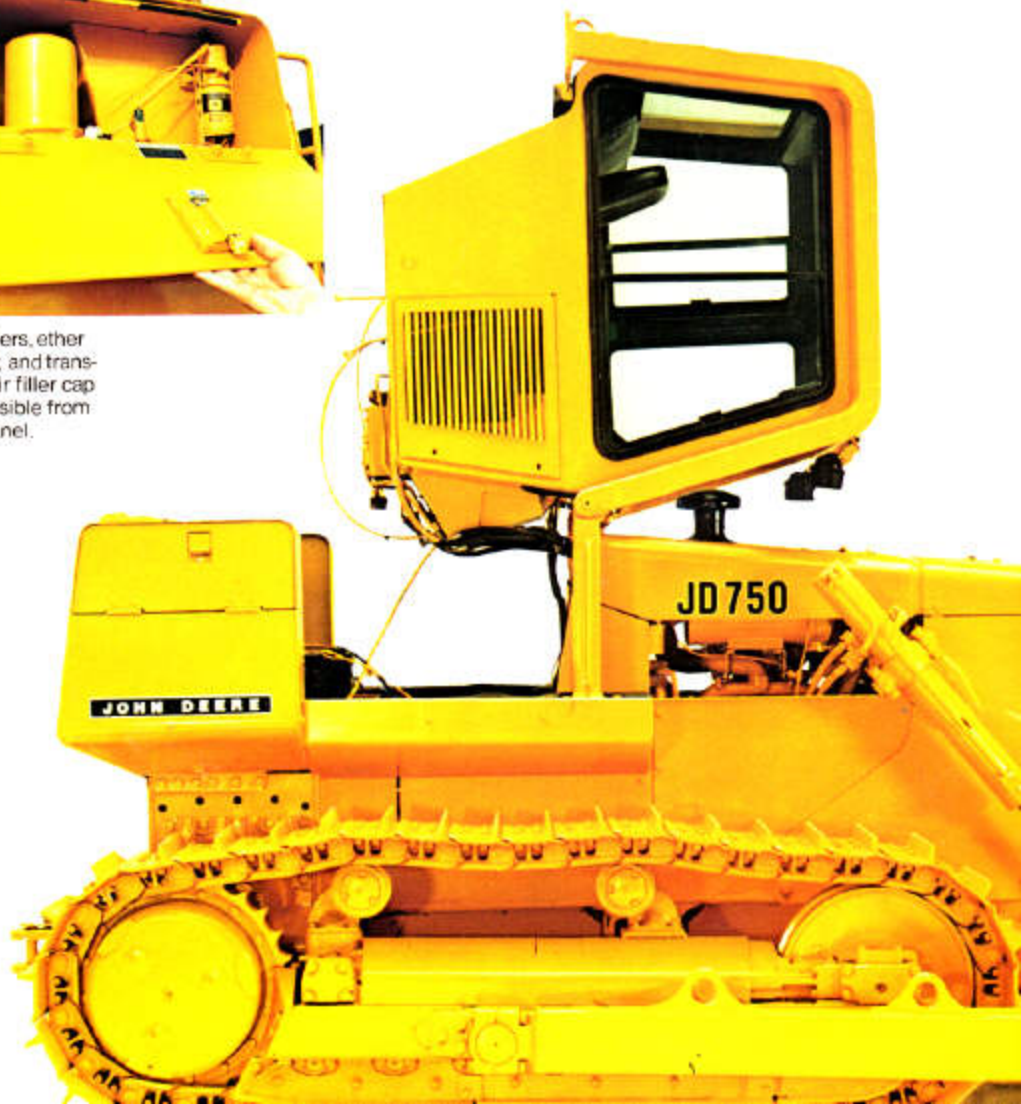
A padlock keeps vandals away from your fuel supply.



Transmission filters, ether starting canister, and transmission reservoir filler cap are easily accessible from the right rear panel.

Batteries are quickly checked by tipping the operator's seat forward.

Sight gauges give you instant readings on hydraulic and hydrostatic oil levels.



JD750 tilting cab provides easy access to drive system components.

The hydraulically tilting 10-ft. (3.05 m) straight blade is designed for maximum penetration and good rolling action of materials.



The optional all-hydraulic dozer tilts up to 17 in. (432.8 mm) and angles up to 25 degrees right or left.



Solid JD750 undercarriage rides on six permanently lubricated rollers and each track oscillates up to 10 inches (254 mm).



The optional heavy-duty ripper offers an 87½-inch (2223 mm) cut, a 21-in. (533.4 mm) penetration, and a down-pressure of 23,000 pounds (10,432 kg).

# Design Integrity— Just what you expect from John Deere

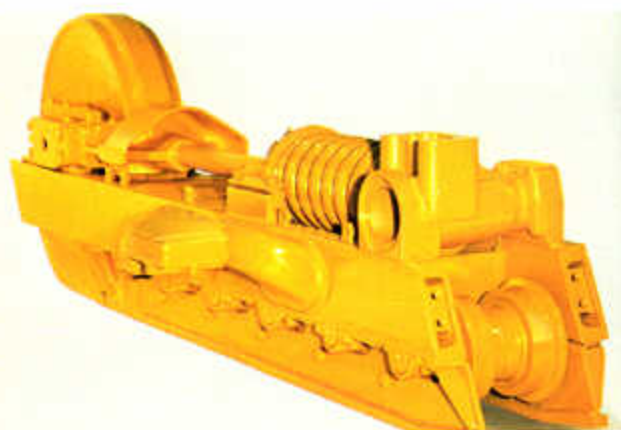
A tilting 12-ft-5.6-in. (3.80 m) blade is available for the JD750 with angle settings of up to 25 degrees right or left.

From the integral and simple design of the mainframe to the solid construction of the blade, the JD750 is engineered for tough dozer work. The mainframe is a unitized, torque-resistant, box-section assembly that not only offers maximum strength for its weight, but is also very functional. It serves as the mounting point for radiator, engine, hydraulic components, ROPS, front equalizer bar, track oscillation, transmissions, and final drive housings.

**Track frames are heavy, box welded, rolled channels** with extensive crossmember supporting. Large recoil springs provide cushioning support. It all rides on 6 permanently lubricated rollers and each track oscillates 10 inches (254 mm) to help keep operations running smooth.

**Your choice** of 10-ft. (3.05 m) straight, 12-ft-5.6-in. (3.80 m) angle blade or 10-ft-8.5-in. (3.26 m) all-hydraulic dozer helps ensure steady production up front. Rear-mounted winch, ripper, or drawbar give you options to fit the JD750 to the job.

**A solid design with a complete set of options.** Features you look for in a quality dozer—features you find in the JD750.



(Top) Optional fixed drawbar provides maximum pull of 47,500 lb. (21,550 kg) at 0.3 mph (0.48 km/h).

(Above) Track frames are heavy, box-welded, rolled channels with extensive cross-member supporting.



Rear-mounted winch develops a maximum line-pull of 60,000 lb. (27,216 kg) with baredrum.



# Operator comfort and control simplicity add to production



Fully padded armchair seat can be adjusted for height and weight and slides forward or back to comfortably center you between the controls.



Steering levers or optional pedals give you infinitely variable speed control for each track.

From the first time you step onto a JD750 you'll realize that it's designed for comfort, visibility and operating ease.

**To your left**, starting next to the seat, you find the neutral safety lock lever, forward-reverse speed control lever, automatic control valve disconnect, and throttle. Before starting, the safety lock lever must be in the up (locked) position. After setting the throttle, all you do to put the JD750 in motion is push the safety lock down and move the speed control lever ahead to go forward or pull it back to reverse. The farther you move it in either direction the faster you can go. Since braking is done hydrostatically, all you do to slow down is move the lever toward the neutral position. It's that easy.

**To your right** is the blade control and auxiliary lever for winch, ripper or other attachments. Control positions produce parallel responses in the blade or equipment. Push ahead to lower the blade, pull back to raise it; tilt the blade left or right by tilting the lever left or right. Push the lever all the way forward to float the blade.

**Steering levers or optional pedals** are centered in front of you. The levers or pedals give you independent control of each track, and when a lever is pulled all the way back or a pedal is pushed all the way down you get track counterrotation.

**For added comfort** you can equip your JD750 with optional pressurized cab air conditioning and heater.

**For demanding work day after day** you owe yourself the comfort and convenience of the JD750. Its features pay off in smoother, faster operation, which ultimately pays off in more production for you.



# John Deere Power keeps the system running smooth

Even under full load, the JD750's John Deere-built diesel engine runs quieter than other crawlers. This lower noise level is designed into the engine—not added externally with sound-suppressing materials.

The field-proved JD750 engine, also used in the JD544-B Loader, is a 6-cylinder design with 414-cubic-inch displacement, 4-stroke cycle, 4.19-inch bore and 5-inch stroke. It can work on up to 45-degree slopes and still maintain adequate lubrication. Direct injection makes highly efficient use of each tank of fuel.

**This engine is designed to run cool.** A pressurized oil spray system cools pistons and cylinder walls. Special plasma processing of the compression rings gives them superior scuffing resistance and excellent wear characteristics. In addition, the heavy-duty water pump circulates nearly 80 gpm (5 L/S) for efficient cooling under varying conditions.

**Up front, an oil-to-air oil cooler** keeps the 33-gallon (125 L) JD750 hydrostatic drive system at temperatures under 200 degrees F, (93 C) even in 125-degree (51 C) ambient temperature. Its unique design and installation permits independent removal of either the cooler or engine radiator.

**Count on cool, quiet power** to back up the JD750 on all kinds of jobs, in all kinds of conditions.



Isolation mounting of the engine to the frame cuts noise and vibration in the JD750.

A large, heavy-duty, oil-to-air oil cooler is mounted to the left of the radiator. You can remove either without disturbing the other.

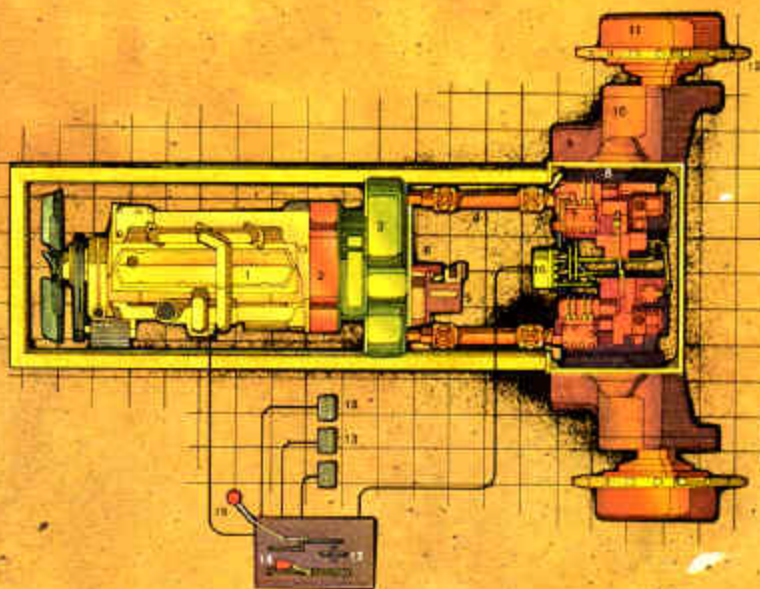


JD750 power comes from a job-proved 414-cubic-inch (6784 cm<sup>3</sup>) John Deere diesel.



The lever next to the seat lets you disconnect the hydraulic system for easier starting in cold conditions.





Independent counterrotating tracks increase maneuverability by allowing you to spot-turn the unit within its own length.

Parking brakes are automatically applied when the engine is stopped. Depressing the **center pedal (13)** also applies the parking brakes and returns the speed control lever to neutral.

Engine rpm is controlled by a **hand throttle (14)**. Normally, this is set when the operator begins work. Travel speed, which is infinitely variable, is selected by the **forward-reverse speed control lever (15)**. When the lever is in the center position, the machine is hydrostatically locked in neutral.

The **automatic control valve (16)** constantly monitors engine rpm, equipment hydraulic demands, ground speed, and tractive effort. Through this monitoring, speed and tractive effort are constantly adjusted to the load—reducing speed as the load

increases, increasing it as the load decreases—always at the optimum moment.

The **automatic control valve disconnect (17)** gives you manual control of the drive system if it should ever be necessary.

**Steering (18)** is controlled by levers or optional pedals. Pulling back on either lever or depressing a pedal slows down the hydrostatic drive on one side and allows for live power turns. Further pressure reverses the track for counterrotation and spot turning when desired.

# Here's how the system works



Infinately variable power to both tracks keeps you moving straight ahead even when you're corner-loading the blade.

The JD750 Crawler Bulldozer is designed to outproduce conventional crawler bulldozers of the same size and horsepower. This higher productivity is the result of its fully automatic Dual-Path hydrostatic drive system.

Fully automatic-drive control eliminates the need to anticipate when to shift speeds—whether the machine is under load or not. Tractive effort and speed are controlled automatically so that the machine provides optimum performance at all times.

Briefly, let's see how the Dual-Path hydrostatic drive system works. Power comes from the 110-**SAE-net-horsepower** (82 kW) turbocharged diesel engine (1). It goes through an engine cold-weather disconnect clutch (2) to the splitter drive (3). The splitter drive

transmits it through two drive shafts (4). The constant-mesh, helical-gear splitter drive is pressure lubricated and self contained. It also provides power for the equipment hydraulic pump (5) and the winch drive (6).

The driveshafts have vibration dampers to reduce torsional stress. Each shaft powers a variable-displacement hydrostatic pump (7). Each pump powers a variable-displacement hydrostatic motor (8). This combination provides speeds from 0 to 6.5 miles per hour (0 to 10.5 km/h) for each track—forward and reverse.

Power from each motor goes through the parking brakes (9) to pinion and bull gears (10), the planetary final drives (11), and out to the sprockets (12) and tracks.



**Steering:**

Fully modulated, infinitely variable lever steering for live power turns and counterrotation. Pedal steering optional. No need for steering clutches or steering brakes.

**Brakes:**

Service ..... Hydrostatic  
 Parking ..... Wet-disk brakes are automatically applied when engine is stopped, or manually applied with center foot pedal during normal operation.

**Drawbar pull:**

Maximum drawbar pull ..... 47,500-lb. (213 kN) (21 550 kg)  
 at 0.30 mph (0.48 km/h)

Usable pull will depend on traction and weight of the tractor.

**Tracks** (6-roller track frame w/front track guides and sprocket guards):

Grouser ..... 18 in. (457 mm)  
 Track shoes, each side ..... 40  
 Ground contact area ..... 3240 sq. in. (20 903 cm<sup>2</sup>)  
 Ground pressure ..... 8.95 psi (0.617 bar) (0.629 kg/cm<sup>2</sup>)  
 Length of track on ground ..... 90 in. (2.29 m)  
 Track gauge ..... 74 in. (1.88 m)  
 Oscillation ..... 10 in. (254 mm)  
 Carrier rollers ..... 2 each side  
 Adjustment ..... Hydraulic  
 Minimum ground clearance ..... 14 in. (356 mm)  
 SAE operating weight w/ROPS:  
 (Model 6525) ..... 28,985 lb. (13 148 kg)  
 (Model 6520) ..... 29,335 lb. (13 307 kg)

**Blade:**

Cutting edge ..... 3-piece, replaceable  
 Center section thickness ..... 0.75 in. (19 mm)  
 End bits, boron steel thickness ..... 0.75 in. (19 mm)  
 Total width (6525 Bulldozer) ..... 112 in. (3.05 m)  
 (6520 Angle Dozer) ..... 149.6 in. (3.80 m)

**Capacities:**

	U.S.	Liters
Cooling system	7 gal.	26.5
Fuel tank	73 gal.	276.3
Crankcase	18 qt.	17.0
Crankcase including filter	20 qt.	18.9
Splitter drive	1.5 gal.	5.7
Final drive, each:		
1st reduction	8.5 gal.	32.2
2nd reduction	3.5 gal.	13.2
Hydraulic system	33 gal.	124.9
Hydrostatic drives	33 gal.	124.9

**Hydraulic System:** Open-center

Control ..... Single-lever, 2-function control  
 Pump ..... Vane-type, 46 gpm (174 l/min. @ rated engine speed)  
 Pressure ..... 2000 psi (137.9 bar) (140.6 kg/cm<sup>2</sup>)

**Hydraulic Cylinders:**

**Model 6525:**

	Bore	Stroke
Lift, two	4.25 in. (108 mm)	31.85 in. (809 mm)
Tilt, one	5.5 in. (140 mm)	5.71 in. (145 mm)

**Model 6520:**

Lift, two	4.25 in. (108 mm)	32.83 in. (834 mm)
Tilt, two	5.5 in. (140 mm)	4.33 in. (110 mm)

Cylinder rods ..... Ground, heat-treated, chrome-plated, polished  
 Cylinder pivot pins ..... Hardened steel (replaceable bushings)

**Standard Equipment:**

Air cleaner restriction indicator • Bottom guards • Cigarette lighter • Suspension seat with armrests • Electric hour-meter • Enclosed alternator with solid state regulator • Ether starting aid • Front idler shields • Horn • Key switch • Master electrical disconnect • Muffler • Pushbutton starting • ROPS canopy with seat belt • Seated, counterbored track links and bushings • Seated rollers and idlers • Single-lever bulldozer control with hydraulic tilt and float position • Single lever speed and direction control • Toolbox • Transmission neutral lock with starter safety switch • Vandal protection

**Special Equipment:**

Air conditioner • Brush screens • Cab with pressurizer and heater • Fire extinguisher • Fixed drawbar • Front pull hook • Hydraulics for rear-mounted equipment • Oil sampling test kit • Pedal steering • Precleaner • Selector valve • Ripper • Windshield washer • 16-in. (406 mm) grouser shoes • 20-in. (508 mm) grouser shoes • 22-in. (558 mm) grouser shoes • Engine coolant heater

