

310E



THE 14-FOOT 310E

We gave it our best effort...

When we set out to build a better backhoe loader there was no need to start with a clean sheet of paper. After all, our backhoes were already loaded with good ideas - many of which you'll still find in the 310E.

Instead, we started with a clean sheet of steel. Using high-tech, state-of-the-art design and manufacturing tools, John Deere engineers focused their efforts on improving the basic structures that most impact performance. The result? A versatile 14-foot digging machine with substantial backhoe lift, crowd power, stability, and strength.

But we didn't stop there. The 71-hp 310E is also more nimble. Transport and cycle speeds are quick, and productivity and mobility have been enhanced.

Now it's your turn. Spend a few moments reading this brochure to get acquainted with the 310E. Then go to your John Deere dealership for a hands-on demo. You'll be amazed at how user-friendly the 310E is - at a price that's just as comfortable.

Stronger and more productive than the 310P it replaces, the 310E is the next backhoe ruler in the 14-foot class. And that's all the reason you'll ever need.



The big idea behind the 310E's backhoe design

Backhoes are basically used for trenching, right? Oh sure, they also backfill, load, and tackle other tasks, but they're primarily used for digging. That's why the 310E incorporates several ideas found on our larger tracked machines.

With excavator-style boom, bucket, and high-pressure hydraulics, the 310E is an extremely competent backhoe. Slide behind the controls and you'll discover that boom lift, crowd power, and swing torque have increased noticeably. Hydraulics are also smoother, enabling you to do your best work.

The Power Curve™ boom provides smooth and consistent control throughout the entire digging arc. What's more, it provides additional reach both far and near. For less repositioning and better visibility up-close. Makes loading trucks easier, too.

But it's not just the shape of the boom that makes this backhoe different. A unique bucket link lets you go from power-dig to track-loading position without leaving the seat or pulling a pin.

The 310E's exclusive bucket linkage provides 100 degrees of rotation, making bucket and attachments a lot more. What's more, excavator-style control architecture makes you a lot more comfortable when working backhoe.



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Here's why the 310E's loader is the best on any backhoe

The same kind of forward-thinking behind the 310E's heavy-duty backhoe is also evident up front.

Loader arms are laser cut, box constructed of high-tensile steel, and robot welded for superior strength and consistent quality. A large-diameter reinforced cross tube adds rigidity and resists torsional stress.

The raised knee provides exceptional reach, enabling you to dump in the center of most trucks for quicker and easier loading.

Smooth combined function indexing and an optimum lift-to-crowd reach make filling the bucket nearly effortless. The single bucket cylinder utilizes the piston-end for powerful breakout, and the rod end for fast dumping. Coupled with the refined linkage, you've got better bucket control for smooth cycles with less spillage. Makes grading easier as well.



Bucket knee indicator is within your line of sight. Nearly 100% automatically welded, it's self-protecting, yet easily accessible. Adjusts with working and load on the attachment.

A 20-degree loading angle gives the 310E a 17-foot 8-inch loading reach for easy access in close quarters.



Autolife manufacturing front wheel drive provides extra power and traction to keep the bucket loaded regardless of the job's conditions.



No more straining the bucket in an attempt to position the load. Hydraulic reach enables the 310E to dump in the center of the load for easier loading and less spillage.



Smart-tilt one touch lever puts breakout control at the lower end of the bucket in the palm of your right hand.

Transmission disconnect switch shifts 4th engine gear to the appropriate low-backer mode.

Single bucket volume and loader arms that swing outward combine to give an unobstructed view of the work ahead.

An exclusive quick-attach system enables you to swap out loader buckets and attachments with a 10-minute turn.

Nothing runs like a Deere, because nothing is built like one

Don't let its competitive price fool you. There's nothing light-duty about the 310E. From its heavy-duty high-swing PowerFlex™ diesel to its rebound wet-disk brakes, the 310E comes equipped, not stripped. Traditional John Deere features like these make it a reliable, long-time performer. And an excellent value.

Positioned securely in the one-piece high-strength unitized frame, powertrain components are isolated from shock-load stress, yet can be individually removed to decrease downtime. In fact, E-Series reinforcements have reduced the 310E's repair time by as much as 22 percent.

Looking for a competitively priced backhoe that has what it takes over the long haul? The 310E is manufactured to exacting quality standards in an ISO 9001-certified North American factory, so you can rest assured you're getting the best. When you know how it's built, you'll choose a 310E.

Light torque-reactor seats and aggressive steering let the 310E maneuver fast and allow close work. More than 80 gears allows a 20-percent fuel flow forward for better shifting operations.

Five-mounting cross-axle cylinder head, specially shaped pistons and reinforced valve stems make the 310E's engine the most reliable power source for maximum power output and top-end efficiency.

The 4-speed high-mechanical roller with maintenance & overhaul directly in the engine for superior access. It's mounted with a single strap, standard torque converter and electrically actuated converter for smooth starts.

Advanced PowerFlex diesel means more of maximum torque available at low RPM for off-road applications — or the 310E can go to work in standard mode.

4.5 l. PowerShift diesel packs a whopping 23 percent torque reserve. 2007's new, 5th-generation PowerShift 4.5 l. diesel means more torque, more power and more additional horsepower at 1,800 rpm. For extra power when you need it.

Over-engineered fuel-injection pump means good working characteristics with low effort for smooth control. Fuel-air mixing and readings adjust automatically and keep fuel.

Fully enclosed wet-disk parking brake automatically engages whenever the engine stops. Efficient wet-disk brake and air-actuated 310E wet-disk brake system is the 310E wet-disk brake system. Plus, it never needs adjusting.

Four air bearings are self-aligning so you'll never need to adjust the frequently-maintained service yoke.



Advanced components, with cast-iron cylinder head, aluminum head for reduced weight and of maintenance. High torque provides high compression. Five-litre diesel engine superior off-road.

Powerful fuel-injection distributor built over three years and are made in a casting of both the long life and trouble-free performance.

Self-aligning wet-disk brake system so they require less effort and no maintenance. Four air-bearings lubricated wet-disk brake yoke and yoke for maintenance-free in traffic.



How the 310E makes an operator's job less like work

Nobody works harder at making an operator's job easier than John Deere. Even in its basic attire, the 310E's operator station is decked-out with an array of features that help an operator be his best.

The comfortable high-back contoured vinyl seat provides firm thigh and back support. Up-front one-hand controls allow smooth, simultaneous slide and reseat. A full suspension base is available, or for the ultimate in comfort, opt for the cab and fabric covered, fully adjustable, suspension armchair seat with lumbar support.

Short-throw, fingertip-actuated electric reverse lever lets you shuttle between forward, neutral, or reverse without taking your hands off the steering wheel. Coupled with a fully synchronized 4-speed transmission, smooth, quick cycles are routine.

When it comes to visibility, the 310E is clearly the leader. Its compact forward console, single bucket cylinder, and divergent loader arms give a good view of the corners and bottom of the bucket. Narrow-post ROPS design keeps side visibility unobstructed as well.

Little "extras" are yours for no extra. There's a place for securing your thermos and for cradling your coffee cup, an inside mirror, and automatic park brake, too.



Low-effort effort/reseat seat lets you reposition the seat without leaving the seat. Fully adjustable suspension armchair seat with lumbar support.

A flip of a switch in all 4 takes to engage or disengage the secondary PTO. Independent of the service brakes, 4 automatically engages whenever the engine starts.



Electric mirror or optional mirror provides clear visibility. Submeter at a glance from either operating position. Climate air heater and hot steering. Spillover and automatic parking brake warnings, and absolute maximum PTO work. Turbo for 50% more horsepower and automatic charge for easy start in cold air.

Bucket/lower loader is within easy reach of right, multi-actuated ROPS pedals after virtually unobstructed visibility.

Large self-aligning steering wheel, contoured seat, and up-front one-hand controls allow easy operation and visibility.



All new 70 HP engine, the 310E's will be the absolute smoothest. All 4 PTOs are available. All power windows and electric mirror system and 4's also for best view.



Reduced downtime is no accident with the 310E

Keeping you, as well as your machine, on the job and productive is a high priority at John Deere. That's why we build in so many features to help keep an operator out of harm's way.

When you're talking safety, words like "acceleration" and "speed" probably don't come to mind. That is, unless your backhoe spends much time in traffic. A tighter torque converter match, revised gearing, and better balance let the 310E accelerate quicker and travel faster. Together with its straight-stopping self-equalizing brakes, this feature gives you the confidence and ability to take your show on the road.

From bypass-start protection to automatic park brake, fan guard to neutral-start reverse - no other backhoe offers so much. In the 310E, you'll find safety isn't just an afterthought, but an integral and important part of the overall design.

Any engine, transmission, and cooling system checks can be made through a sliding door on the right side-vent and a large hinged door atop the hood.

Periodic maintenance is also simple. Thanks to a hood-side lift-back, service access to engine, oil and fuel filters, and a host of other service equipment is convenient. Think.



Using an air-filtration system during other checks, the sliding door provides easy ground-level access to engine and transmission systems, engine oil, and fuel filter.



This sliding door provides a quick, unobstructed view ahead of the backhoe's fuel tank.



Each electrical circuit has its own fuse to 90% simplify located fuse resets. Major maintenance and service items.



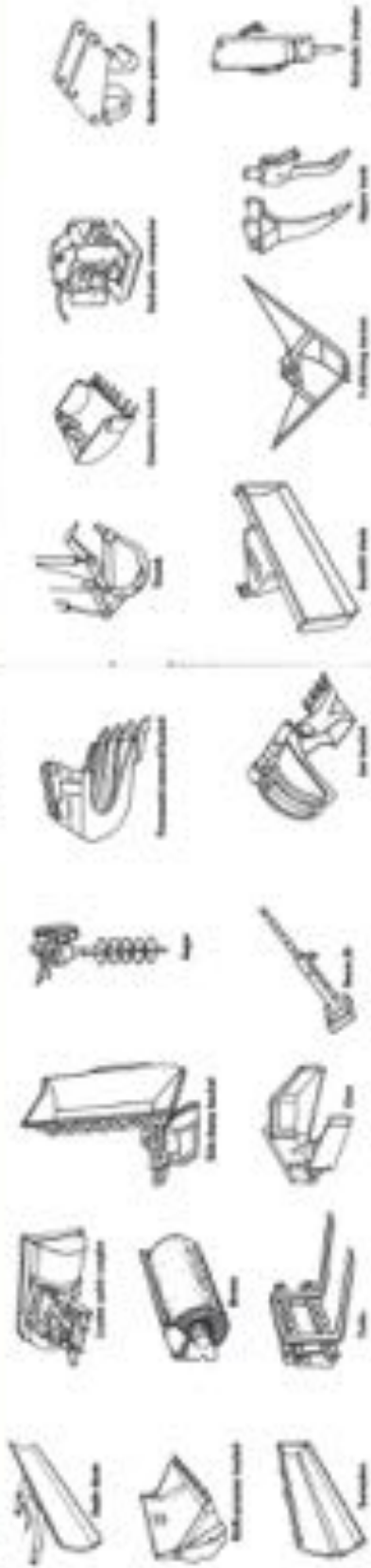
We've got what it takes to keep you working

With its heavy-duty loader, excavator-style backhoe, and enhanced hydraulic system, it doesn't take a lot of expensive options to widen the appeal of your 310L.

Start with a loader or backhoe quick-coupler that lets you change attachments in seconds. Add a "wet kit" to deliver high-flow hydraulic power out back. Or even a solenoid-controlled low-flow auxiliary valve for hand-held or cylinder-actuated attachments. What you have now is a highly versatile machine that can handle virtually any hydraulically-powered attachment. And there are plenty from which to choose.

But regardless of how many "beds and windows" it may have, an backhoe is any better than the support behind it. That's why every 310L is backed by a large network of dealers with well-stocked parts inventories, factory-trained technicians, and comprehensive support programs. Add a one-year warranty, historically high resale value and low owning and operating costs and the options for retaining a job Deere 310L are better than ever.

Scan this page for an idea of the kind of attachments available. Then get your hands on a 310L. And get to work.



ENGINE	LOADS	OPERATOR'S STATION	SEATS AND SEAT BELTS
John Deere Model 4040 - 4.3 liter, 71 SAE net hp naturally aspirated, isolation mounted	Excavator bucket coupler for "C" and "D" series John Deere buckets, Case buckets, and Cat buckets	Welder design ROPS/POPS canopy with molded roof isolation mounted (Conforms to SAE J1040)	Non-suspension vinyl swivel seat without armrests
John Deere Model 4045T - 4.3 liter, 71 SAE net hp altitude-compensating turbocharged, isolation mounted	Intermittent dependent, 24 8 in. extension	Isolation-mounted ROPS/POPS canopy with molded roof	Suspension vinyl swivel seat with armrests and lumbar support
Vertical open-engine oil filter	Auxiliary location valve for awnings, flumes, etc.	Left-hand/right-hand access	Suspension fabric swivel seat with armrests and lumbar support
Spin-on John Deere fuel filter with water separator	Auxiliary location valve for formers, compactors	Die-resistant steps and ergonomically located handholds	Air suspension vinyl swivel seat with armrests and lumbar support
Dirt-water engine oil cooler	SAE controlled fuel transfer device valve	Coat hook	Air suspension fabric swivel seat with armrests and lumbar support
Anti-dive - (411) - (27°)	LOADS	Full in-coverage and Thermo® built-in heaters	2-in. seat belt with retractors
Coolant recovery tank	Hydraulic self leveling	Full in Operator's Manual storage compartment with manual	2-in. seat belt with retractors
Separative belt with automatic belt tensioner	Return-to-dig feature	Interior rearview mirror	Cab
Suction-type cooling fan	Single-lever control with electric clutch cutoff switch	Subtle rearview mirrors	Headliner
Enclosed safety fan guard	Bucket level indicator	Road throttle with fuel economy setting at 1,130 rpm	Dome light
Overlayment dry-type air cleaner with evaporator valve and pressure	Under boom service lock	Suspended foot throttle	Left cab door
Muffler, underfoot with tunnel and exhaust stack	Auxiliary loader hydraulics with two-lever control	Rear	Front safety glass
Electric water cooling aid	Under front coupler	Key-start switch with electric fuel shutoff	Two front and one rear windshield wipers
Engine coolant heater, 1.200 watts	Less bucket, with bucket pins	Hourmeter, illuminated electric	Front windshield wiper
POWER TRAIN	Heavy-duty bucket with 98 lugs, pre-punched for bolt on cutting edge	Tachometer/hourmeter, illuminated electric	Fresh air intake heater (Optional power window 4020)
Transmission with powershift-reverse-awhinger converter	Heavy-duty buckets with bolt-on cutting edge, steel plates, and 98 lugs		Bulbs: 121 / 1000 hours
Fully synchronized four forward, two reverse speeds / isolation mounted to machine	Multi-purpose buckets with bolt-on cutting edge, steel plates, and 98 lugs		Air conditioning
Transmission oil cooler	HYDRAULIC SYSTEM		3,000 Bulbs: 121 / 1000 output / 12C free / 12A relay - 2000
Vertical spin-over-transmission filter	20 gpm (7.6 L/min.) gear pump, open-center system		55-amp alternator
Electric forward-neutral-reverse control lever with neutral safety switch interlock	Independent hydraulic reservoir		35-amp alternator
Electric clutch cutoff on gearshift and loader levers	Hydraulic oil cooler		400W/60 watt-hour end radio
Differential lock, electric, foot-actuated	"U" ring face seal connectors		OVERALL VEHICLE
Planetary final drives	16 screw-retro-style air filter		One-piece unitized construction machine
Hydraulic service brakes	ELECTRICAL		Vehicle insulation, two front and one rear
Mount, wet multi-disc, self-adjusting and self-expanding (Conforms to SAE J1402)	12-volt system		Remove grease tank for front axle
Parking/emergency brake with electric switch control	60-amp alternator		Rigid-mounted front bumper
Spring applied, hydraulic self-released wet multi-disc / Independent of service brakes (Conforms to SAE J1402)	Single battery with 120-min. reserve capacity and 700 CCA		Front counterweights
Hydraulic power steering with emergency manual mode	Dual batteries with 30-min. reserve capacity and 1,300 CCA		400 lb. (181 kg)
Non-powered front axle	Positive terminal battery cover		550 lb. (250 kg)
Mechanical front-wheel drive	Block-type multi-fused circuits		600 lb. (268 kg)
Electric cutoff control (Disk shaft guard) / Locked axle	By-pass when safety cover on starter		1,100 lb. (502 kg)
Tires	LIGHTS		1,400 lb. (635 kg)
16-1/2 R3 front tires	Two front halogen through-work lights, 20,000 candlepower each		Fuel tank, 26 gal. (100 L), ground-level fueling
16-1/2 R3 front tires	Two additional front halogen work lights, 22,500 candlepower each		Engine auto-shutdown with safety service access door
12 R3.5 tractor front tires	Two rear halogen work lights, 20,000 candlepower each		Front grille screen
14.5-20 R3 rear tires	Two front and two rear turn signal flashing		Vandal protection for instrument panel, engine access doors, and fuel tank
14.5-20 R3 rear tires	Two rear stop and tail		Reverse warning alarm
16.5-20 R3 rear tires	Two rear reflectors		Switchable to 9° (USA) or 11° (EU)
Rear wheel covers for use with off-road	Auxiliary beacon		Cent. restraint seat belt
BACKHOE	OPERATOR'S STATION		Rear fender extensions
Backhoe with standard dipperstick, 44 in. 3-in. digging depth	Welder design ROPS/POPS canopy with molded roof isolation mounted (Conforms to SAE J1040)		Front fenders*
Backhoe controls	Left-hand/right-hand access		26V system
Two-lever (Dress) controls	Die-resistant steps and ergonomically located handholds		Rental hook/lift
Three-lever (Excel) controls	Coat hook		Special color paint*
Four-lever (Flex) controls	Full in-coverage and Thermo® built-in heaters		Quarter panel*
SAE excavator two-lever controls	Full in Operator's Manual storage compartment with manual		
Backhoe transport lock lever	Interior rearview mirror		
Swing lock pin stored in operator's station	Subtle rearview mirrors		
Stabilizer valve with two-direction anti-dive valves	Road throttle with fuel economy setting at 1,130 rpm		
Parking stabilizers	Suspended foot throttle		
With 4-in. pads	Rear		
With reversible pads	Key-start switch with electric fuel shutoff		
Stabilizer cylinder spools	Hourmeter, illuminated electric		
Backhoe buckets	Tachometer/hourmeter, illuminated electric		
Less bucket, with bucket pins			
Standard duty with 98 lugs			
Heavy duty with 98 lugs			

KEY: ● Standard equipment ■ Optional or special equipment

*See your John Deere dealer for further information.



Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan at standard conditions per SAE J1349 and DIN 70100 using No. 1 oil fuel at 20.3 MPa gauge. No loading is required up to 1,000 feet (300 m) altitude. With optional altitude compensating turbocharger 11,000 feet (3300 m). Gross power is without cooling fan.

Specifications and design/production changes without notice. Minor variations, specifications and accessories with SAE standards. Except where otherwise noted, these specifications are based on a unit with 11.5, 24, 10.99 for rear tires, 11-11.5, 9.99 front tires, 11.00 in. (28 in.) wheel track, 24 in. x 12.00 in. R 202 tire and 0.10 in. (2.5 mm) ballast weight.

