



JOHN DEERE

CONSTRUCTION EQUIPMENT DIVISION

BACKHOES



MODEL NO.

310G 310SG



G-SERIES



CHANGE

With nearly 30 percent more tinted glass, the G-Series' spacious walk-through cabs offer virtually unobstructed all-around visibility. Entryways are wider, legroom more generous, pedal and lever efforts are even easier. So is daily servicing. Their reshaped hoods tilt forward for convenient wide-open same-side service access. Literally loaded with owner- and operator-endorsed enhancements, the new 310G and 3105G offer all of this and more.

Backed by an extensive dealer network, exclusive CounterParts™ promise, SECURE® and StructurAll™ warranties, the G-Series Backhoes will open your eyes. Read on and you'll see what we mean.

MODEL NO.

310G 310SG



**YOUR
OUTLOOK**

310G

All the backhoe you may ever need

Don't let its competitive price fool you. There's nothing light-duty about the 310G. From its high-torque wet-sleeve POWERTECH[®] diesel to its inboard wet-disc brakes, this backhoe comes equipped, not stripped. With many of the same features found on our bigger backhoes, the 74-hp 310G is the value leader in the 14-foot class.

Its fully synchronized torque-converter transmission with electrically actuated reverser has four forward and reverse gears from 3.6 to 27 mph. For nimble maneuverability on jobsites. And fast transport in-between.

Mechanical front-wheel drive is available. So is a spacious state-of-the-art cab, extendable dipperstick, and a wide variety of comfort, convenience, and productivity features found throughout this brochure.





MODEL NO.

310SG

Exceed your expectations



310SG

Need a 14-foot backhoe with extra ability? Check out the 310SG. Weighing in at 13,500-plus pounds, it's larger than its 310G sibling. More powerful, too. A turbocharged Deere POWERTECH[®] diesel delivers 84 hp and a whopping 38-percent torque rise. You get extra hydraulic muscle at both ends, too. Its 36-gallon-per-minute tandem-pump-powered open-center hydraulic system delivers increased loader and backhoe breakout and lift capacity.

Speaking of extras, the 310SG can be equipped with more options, too. Upgrade yours with limited-slip mechanical front-wheel drive, and a state-of-the-art cab with multi-position tilt steering wheel and air-suspension armchair seat.

OPERATOR STATION

Wrap your eyes around the G-Series



Repositioned brake pedals provide more floor space, enhanced power-assist valve ensures low-effort braking.

Directional vents on both sides of the cab increase defrosting, heating, and cooling efficiency.

With nearly 30 percent more tinted glass, the G-Series' spacious walk-through cab has even more of what it takes to help your operators be their best. Forward visibility is virtually unobstructed. Repositioned ROPS posts, floor-to-ceiling glass doors, and an expansive curved windshield provide a panoramic view of the work ahead.

The view to the rear is just as revealing. Hinged side windows and a three-piece stacking rear window further open-up the jobsite around you.

It's not just operators of cab-equipped backhoes who benefit from G-Series advances. The forward placement of the operator station, restyled hood, narrow ROPS posts, underhood air cleaner, and shortened bucket cylinder all contribute to visibility that's clearly superior.

Getting to work has never been easier. Convenient handholds, large non-skid steps, and wide entryways welcome you aboard. And generous leg room and simultaneous slide-and-swing seat make it easy to turn your attention from loader to backhoe.



Work at night? Exclusive optional light package provides unsurpassed all-around illumination. Reduces glare from the exhaust, hood, and backhoe boom.

Park brake automatically engages whenever the engine stops. Effective on all four wheels (with MFWD), it also neutralizes the reverser, preventing brake drive-through.


Electronic monitor and optional gauges can be read at-a-glance from either operating position. Ignition, MFWD, ride control, and park brake switches and climate controls are all close-at-hand.

Conveniences include a coat hook, beverage holders, numerous headliner and side console storage compartments, and 12-volt power outlets.

Available full-suspension seat with flip-up armrests and foot controls adjusts eight ways. Standard non-suspension seat features the same sculpted deep-cushioning and simultaneous slide and swing.



Cover all the angles



180-degree side swing enables you to spot trucks more closely and work with ease in tight quarters.

Rearward-angled stabilizers and 60-ton cylinders provide rock-solid stability. Reversible pads flip over for work on soft or hard surfaces.

Go ahead - place pipe, bust-up blacktop, or dig deep. With excavator-style boom, bucket, and hydraulics, the 310G and 310SG are more than up to the task.

Crowd power, swing torque, and boom and dipperstick lift are impressive. High-pressure hydraulics are powerful and quick. And easy-to-operate controls smoothly blend functions, enabling your operators to do their best.

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

BACKHOE



...acing pipe? Both backhoes deliver
...enty of lift. Buckets come
...quipped with lift eyes for added
...venience.

...om starts wide at the base and
...arrows through the line-of-sight
... outstanding visibility.

...cket link provides 190-degrees of
...tation, going from power-dig to truck
...ading without pulling a pin.

Boom and dipperstick are box-constructed of high-strength steel for heavy-duty durability without excess weight. Forked top and bottom and large pins provide extra beef in these high-stress areas.



Lever-actuated boom lock secures the backhoe for smooth transport. Easily adjusted rubber bumper ensures that the boom stays snug and rattle-free.

Two-lever controls are standard, Case or Ford-style controls are available. Smooth response and low-effort are yours regardless of which you choose.



Available quick coupler lets you change buckets and attachments easily. Accommodates Cat, Case, and Deere D-and E-Series buckets.

Extendable dipperstick adds 3½ feet of digging depth and reach. Outer-box design grasps objects between the bucket and gripper teeth while retracting or extending.



LOADER

Lift large, load easy



Boom is constructed of high-tensile steel for superior strength without excess weight. Continuous-curve box-section design eliminates the need for additional plating in the knee area.

Curved knee provides exceptional reach, enabling the G-Series to easily dump to the center of most trucks. Accommodates the 310SG's tall front tires, too.

Low-effort loader control has a thumb-activated transmission disconnect switch that diverts full engine power to the hydraulics for faster cycles.

Mechanical front-wheel drive provides extra power and traction to heap the bucket regardless of what's underfoot.



Available quick coupler lets you go from bucket to forks or other attachment with a flick of a switch.


Tight torque-converter match, impressive torque reserve, smooth combined-function metering, and optimum lift-to-crowd match make these aggressive and responsive loading tractors. Makes grading easier, too.

C-shape bucket backwall fills easily and resists packing. Long lip retains more material. Bolt-on cutting edge, full-length skid shoes, and built-in lift eyes are included.

Optional ride control functions as a shock absorber, smoothing out the ride with full bucket loads.



It takes guts to build a backhoe this good



Deere-built 4.5 L diesel packs an impressive torque reserve and delivers its rated power at a low 2,000 rpm. (Standard turbocharger on 3105G, available on 310G).

Individually replaceable, spin-cast, wet-type engine cylinder liners dissipate heat for reduced ring wear and oil breakdown.

Available industrial-strength MFWD axle features a unique offset differential for superior ground clearance. Axle is totally sealed to keep out contaminants.

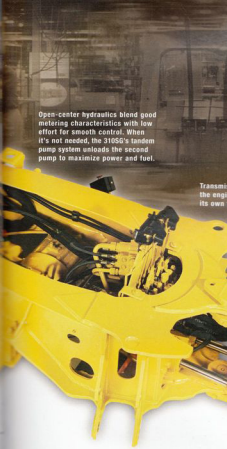
Positioned securely in the one-piece high-strength unitized frame, components are isolated from shock-load stress, yet can be removed individually to speed repair.

Not all backhoes have what it takes to deliver a long-term commitment. Get to the heart of the matter and you'll discover the differences that make the G-Series your best choice.

From heavy-duty wet-sleeve Deere-built diesels to their inboard planetary final drives, these backhoes are loaded with traditional John Deere durability features.

Looking for a dependable co-worker and a smart long-term investment? Deere backhoes are manufactured to exacting quality standards in an ISO9001-certified North American factory. When you know how they're built, you'll choose a Deere.

POWERTRAIN/COMPONENTS



Open-center hydraulics blend good metering characteristics with low effort for smooth control. When it's not needed, the 310SG's tandem pump system unloads the second pump to maximize power and fuel.

Transmission is mounted directly to the engine for superior balance, has its own filter for long life.


Planetary final drives distribute loads over three gears and are sealed in a cooling oil bath for long life and trouble-free performance.

Wet-disc brakes self-adjust and are fully modulated so they require less effort and no maintenance.

Rear axle bearings are self-lubricating so you'll never need to grease this frequently overlooked service point.

Independent of the service brakes, the fully enclosed wet-disc parking brake never needs adjustment.

SERVICE



We sweat the details
so you won't have to

Hood tilts forward for wide-open ground-level access to engine and transmission dipsticks and fill tubes, air filter pre-cleaner, engine coolant reservoir, and fuel filter.

Daily service checks and fluid additions are all accomplished on the same side. A sight gauge reveals hydraulic fluid levels at a glance. The relocated fuel tank's larger opening accepts 2-inch fuel nozzles.

Easy-access fuses and breakers, vertical spin-on filters, axle pivot grease bank – a long list of standard features help simplify service.



Swing frame allows wide-open access to the hydraulic valve and Cardura-covered hoses. External boom cylinder and hoses are also easy to service. Flat-face O-ring-seal couplings virtually eliminate leaks.



Easy-tilt hood. Same-side ground-level daily service access. Extended service intervals. The G-Series Backhoes are loaded with enhancements. Not even seemingly insignificant items escaped the scrutiny of product planners and engineers determined to make the G-Series Deere's best backhoes ever. We sweat the small stuff so your people will spend less time getting them ready for work. And more time getting work done.




Nobody backs you or your backhoe better

Regardless of whether you run one backhoe or a fleet full, John Deere dealers support your efforts with a comprehensive lineup of ongoing programs that help control costs, increase profits, and reduce stress.

Total Repair Cost Management is part of John Deere's proactive fix-before-fail machine maintenance strategy that gives you the tools to avoid downtime and help protect your cash flow. It covers the full life span of your new backhoe and can be applied to other non-Deere equipment, as well.

CUSTOMER SUPPORT



Support you can count on

The G-Series come equipped with a 12-month SECURE[®] warranty. SECURE[®]-Extended lets you lengthen your coverage. Backed by John Deere, it's backed at all Deere construction equipment dealers.

Preventive maintenance contracts let you lock-in costs and help avoid downtime by ensuring that critical maintenance work gets done on time, and at your convenience.

Exclusive StructuralAll[™] warranty insures mainframes, beams, and dippersticks for a full three years, regardless of hours.

Certified Customer Support Advisors know the total repair cost management concept inside and out, and can help you implement a maintenance and repair strategy that's just right for you.

The CounterParts[™] promise ensures that the G-Series backhoe parts you need will be at a participating CounterParts dealer when you need them, or they're free.

Customer Personal Service gives you up-to-the-minute on-line info about O & A costs, preventive maintenance, and parts specs. Enables you to order parts and tech manuals, too.

Got a large fleet? The DeereTrax[™] tracking system quickly and accurately pinpoints the location of your equipment and monitors its hours of operation. It's available for non-Deere machines, too, including your on-highway vehicles.

310G 310SG

BACKHOE LOADERS

SPECIFICATIONS



Engine	310G	310SG
Type	John Deere 4045G naturally aspirated standard / John Deere 4047T altitude-compensating turbocharger optional	John Deere 4047T turbocharger
Maximum rated power	79 SAE gross hp (58 kW) / 74 SAE net hp (55 kW) @ 2,000 rpm	89 SAE gross hp (66 kW) / 84 SAE net hp (62 kW) @ 2,000 rpm
John Deere 4047T with altitude-compensating turbocharger	82 SAE gross hp (61 kW) / 79 SAE net hp (58 kW) @ 2,000 rpm	N/A
Cylinders	4	4
Displacement	276 cu. in. (4,524 L)	276 cu. in. (4,524 L)
Fuel consumption, typical	1.1 to 1.9 gal./hr. (4.2 to 7.2 L/hr)	1.3 to 2.2 gal./hr. (4.9 to 8.7 L/hr)
Torque rise	26 percent	38 percent
With altitude-compensating turbocharger	34 percent	N/A
Maximum net torque	223 lb.-ft. (302 Nm)	273 lb.-ft. (369 Nm)
With altitude-compensating turbocharger	232 lb.-ft. (315 Nm)	N/A
Lubrication	pressure system with spin-on filter and cooler	pressure system with spin-on filter and cooler
Air cleaner	dual stage dry type with safety element, evaporator valve, and pre-cleaner	dual stage dry type with safety element and pre-cleaner
Electrical system	12 volt with 65-amp alternator	12 volt with 65-amp alternator
Suction-type cooling fan		

Transmission

Four-speed, helical cut gear, collar-shift transmission synchronized in all gears with hydraulic reverse

Torque converter, single stage, dual phase with 2.6:1

shift ratio..... 11 in. (280 mm)

Travel speeds with 19.5L-24 rear tires

	Forward	Reverse
Gear 1	3.8 mph (6.2 km/h)	4.0 mph (6.4 km/h)
PowerShift		
Gear 2	5.9 mph (9.5 km/h)	6.8 mph (11.0 km/h)
PowerShift		
Gear 3	14.4 mph (23.2 km/h)	16.1 mph (25.9 km/h)
PowerShift		
Gear 4	24.4 mph (39.3 km/h)	27.2 mph (43.8 km/h)
PowerShift		

11 in. (280 mm)

Forward	Reverse
3.8 mph (6.2 km/h)	4.0 mph (6.4 km/h)
5.9 mph (9.5 km/h)	6.8 mph (11.0 km/h)
14.4 mph (23.2 km/h)	16.1 mph (25.9 km/h)
19.8 mph (31.8 km/h)	16.8 mph (26.7 km/h)
24.4 mph (39.3 km/h)	27.2 mph (43.8 km/h)
24.8 mph (39.8 km/h)	N/A

Final Drives

Heavy-duty, ribbed planetary final drives evenly distribute shock loads over three gears

Brakes

Power-assisted, hydraulic wet disc, mounted ribbed, self-adjusting and self-equilibrating

Capacities

Fuel tank (with ground level loading)	36 gal. (136 L)	36 gal. (136 L)
Engine coolant	17 gal. (78 L)	17 gal. (78 L)
Engine oil (including filter)	9 gal. (8.5 L)	9 gal. (8.5 L)
Torque converter and transmission	15 gal. (54 L)	15 gal. (54 L)
Hydraulic system	24 gal. (91 L)	24 gal. (91 L)
Rear axle	3.5 gal. (13 L)	3.5 gal. (13 L)
Mechanical front-wheel drive axle	2.3 gal. (8.5 L)	2.3 gal. (8.5 L)

Steering

Hydraulic power steering and emergency steering conform to ISO 8018

Non-powered axle

Curve turning radius with brakes	11 ft. 9 in. (3.57 m)	11 ft. 9 in. (3.57 m)
Without brakes	13 ft. 3 in. (4.04 m)	13 ft. 3 in. (4.04 m)
Bucket clearance circle with brakes	21 ft. 6 in. (6.61 m)	21 ft. 6 in. (6.61 m)
Without brakes	24 ft. 7 in. (7.53 m)	24 ft. 7 in. (7.53 m)
Steering wheel turns, stop to stop	2.0 to 2.0	2.0 to 2.0

Mechanical front-wheel drive

Curve turning radius with brakes	10 ft. 11 in. (3.34 m)	10 ft. 11 in. (3.34 m)
Without brakes	13 ft. 8 in. (4.17 m)	13 ft. 8 in. (4.17 m)
Bucket clearance circle with brakes	20 ft. 9 in. (6.37 m)	20 ft. 9 in. (6.37 m)
Without brakes	25 ft. 3 in. (7.74 m)	25 ft. 3 in. (7.74 m)
Steering wheel turns, stop to stop	2.5	2.5
Axle oscillations (stop to stop, both sides)	22 degrees	22 degrees

Axle ratings (SAE J43)

Front	17,240 lb. (7805 kg)	16,860 lb. (8555 kg)
Rear	12,610 lb. (5720 kg)	12,670 lb. (6200 kg)

Hydraulic System

System	open center	open center
Pressure		
Backhoe	3,625 psi (25,000 kPa)	3,625 psi (25,000 kPa)
Loader	2,750 psi (19,000 kPa)	3,000 psi (20,700 kPa)
Pump	gear type	gear type, tandem with unloader

Hydraulic System (continued)		310G	310SG	
Flow @ 2,300 gpm		28 gpm (108 L/min)		
Backhoe			36 gpm (136 L/min)	
Loader			28 gpm (106 L/min)	
Max. return oil		10-micron, spin-on enclosed replaceable element	10-micron, spin-on enclosed replaceable element	

Cylinders	310G			310SG		
	Boe	Stroke	Act	Boe	Stroke	Act
Loader boom (2)	3.15 in. (80 mm)	21.1 in. (536 mm)	1.87 in. (50 mm)	3.15 in. (80 mm)	21.1 in. (536 mm)	1.87 in. (50 mm)
Loader bucket (1)	3.54 in. (90 mm)	25.2 in. (744 mm)	1.87 in. (50 mm)	3.54 in. (90 mm)	25.2 in. (744 mm)	1.87 in. (50 mm)
Backhoe boom (1)	4.33 in. (110 mm)	32.3 in. (821 mm)	2.25 in. (58 mm)	4.72 in. (120 mm)	31.3 in. (796 mm)	2.26 in. (58 mm)
Backhoe crowd (1)	4.33 in. (110 mm)	22.3 in. (566 mm)	2.25 in. (58 mm)	4.52 in. (115 mm)	23.3 in. (607 mm)	2.48 in. (63 mm)
Backhoe bucket (1)	3.15 in. (80 mm)	35.1 in. (892 mm)	1.87 in. (50 mm)	3.54 in. (90 mm)	31.3 in. (810 mm)	2.26 in. (58 mm)
Backhoe swing (2)	3.15 in. (80 mm)	12.2 in. (310 mm)	1.77 in. (45 mm)	3.54 in. (90 mm)	10.9 in. (278 mm)	1.87 in. (50 mm)
Backhoe extendable dipperstick (1)	2.48 in. (63 mm)	41.8 in. (1062 mm)	1.26 in. (32 mm)	2.36 in. (60 mm)	40.3 in. (1026 mm)	1.77 in. (45 mm)
Backhoe stabilizer (2)	3.15 in. (80 mm)	19.7 in. (500 mm)	1.87 in. (50 mm)	3.54 in. (90 mm)	19.7 in. (500 mm)	1.87 in. (50 mm)
Steering (1) non-powered axle	1.87 in. (50 mm)	9.49 in. (241 mm)	3.88 in. (99 mm)	1.87 in. (50 mm)	9.49 in. (241 mm)	3.88 in. (99 mm)
Steering (1) MWD	2.56 in. (65 mm)	8.27 in. (210 mm)	1.42 in. (36 mm)	2.56 in. (65 mm)	8.27 in. (210 mm)	1.42 in. (36 mm)

Tires	310G		310SG	
	Rear	Front	Rear	Front
With non-powered front axle	16.9-24, 8 PR 84	11-15, 8 PR 73	16.9-24, 8 PR 84	11-15, 8 PR 73
	17.5L-24, 10 PR 84	11-15, 8 PR 73	16.9L-24, 8 PR 84	11-15, 12 PR 73
With mechanical front-wheel-drive	16.9-24, 8 PR 84	11-16, 12 PR 80	16.9L-24, 8 PR 84	12-16.5, 8 PR 80
	18.5L-24, 8 PR 84	12-16.5, 8 PR 80		

SAE Operating Weights	
Standard	12,800 lb. (5800 kg)
Cab add	580 lb. (263 kg)
Mechanical front-wheel-drive with tires add	370 lb. (168 kg)
Extendable dipperstick excluding required counterweight add	440 lb. (200 kg)
Optional 400-lb. counterweight add	400 lb. (181 kg)
Optional 600-lb. counterweight add	600 lb. (272 kg)
Optional 250-lb. ball-on counterweight add	250 lb. (113 kg)
Backhoe bucket-coupler add	130 lb. (60 kg)

See backhoe and loader performance data for bucket weights.

Loader Buckets	310G		310SG	
	Width	Heaped Capacity	Width	Heaped Capacity
Heavy-duty long lip*	36 in. (914 mm)	1.00 cu. yd. (0.76 m ³)	36 in. (914 mm)	1.23 cu. yd. (0.96 m ³)
Heavy-duty long lip**	36 in. (914 mm)	1.12 cu. yd. (0.86 m ³)	36 in. (914 mm)	1.38 cu. yd. (1.06 m ³)
Heavy-duty long lip	36 in. (914 mm)	1.25 cu. yd. (0.96 m ³)	36 in. (914 mm)	1.49 cu. yd. (1.13 m ³)
Multipurpose**	32 in. (813 mm)	1.18 cu. yd. (0.91 m ³)	32 in. (813 mm)	1.38 cu. yd. (1.06 m ³)

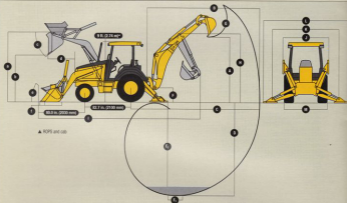
*Pre-drilled for auxiliary cutting edge.
 **With auxiliary cutting edge and ball shoes standard.

Backhoe Performance	310G		310SG	
	With Standard Backhoe*	With Extendable Dipperstick**	With Standard Backhoe*	With Extendable Dipperstick**
Digging force, bucket cylinder	11,100 lb. (49.9 kN)	11,211 lb. (49.9 kN)	11,860 lb. (53.3 kN)	12,138 lb. (54.1 kN)
Digging force, crowd cylinder	7,000 lb. (31.2 kN)	6,762 lb. (30.2 kN)	6,500 lb. (29.3 kN)	7,798 lb. (34.7 kN)
Swing arc	180 degrees	180 degrees	180 degrees	180 degrees
Operator control	two levers	right foot treadle	two levers	right foot treadle
Bucket rotation	190 degrees	190 degrees	190 degrees	190 degrees
Stabilizer angle rearward	18 degrees	18 degrees	18 degrees	18 degrees
Leveling angle	14 degrees	14 degrees	14 degrees	14 degrees

*Backhoe specifications are with 24-in. x 6.0-cu. ft. (610 mm x 0.18 m³) bucket.
 **Backhoe specifications are with 24-in. x 7.5-cu. ft. (610 mm x 0.21 m³) bucket.

Backhoe Buckets	310G		310SG	
	Width	Capacity	Width	Capacity
Standard duty	18 in. (457 mm)	4.6 cu. ft. (0.13 m ³)	24 in. (610 mm)	7.3 cu. ft. (0.21 m ³)
Heavy duty with lift lip	24 in. (610 mm)	6.5 cu. ft. (0.18 m ³)	12 in. (305 mm)	3.3 cu. ft. (0.09 m ³)
	12 in. (305 mm)	2.8 cu. ft. (0.11 m ³)	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)
	18 in. (457 mm)	5.1 cu. ft. (0.14 m ³)	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)
	24 in. (610 mm)	7.5 cu. ft. (0.21 m ³)	24 in. (610 mm)	8.8 cu. ft. (0.25 m ³)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	36 in. (914 mm)	16.0 cu. ft. (0.45 m ³)
Severe duty with lift lip	18 in. (457 mm)	4.6 cu. ft. (0.13 m ³)	24 in. (610 mm)	7.3 cu. ft. (0.21 m ³)
	24 in. (610 mm)	6.5 cu. ft. (0.18 m ³)	36 in. (914 mm)	12.3 cu. ft. (0.35 m ³)
	30 in. (762 mm)	10.0 cu. ft. (0.28 m ³)	36 in. (914 mm)	16.0 cu. ft. (0.45 m ³)

310G Backhoe Loader



Lift Capacity with Quick-Coupler/Forks

310G

A ¹ Maximum height	5,880 lb. (2671 kg)
B ² Maximum reach	5,575 lb. (2530 kg)
C ³ At ground line	7,210 lb. (3274 kg)
D ⁴ Below ground line	4.4 ft. (13.4 mm) to bottom of tire / 2.7 ft. (81.3 mm) to top of tire

Bucket	310G			310SG		
	With Standard Bucket*	With Extendable Operator†	Extend†	With Standard Bucket*	With Extendable Operator†	Extend†
	Retracted	Retracted	Retracted	Retracted	Retracted	Retracted
A Loading height, truck loading position	19 ft. 11 in. (6.03 m)	11 ft. 1 in. (3.38 m)	13 ft. 11 in. (4.24 m)	11 ft. 5 in. (3.40 m)	11 ft. 7 in. (3.53 m)	14 ft. 1 in. (4.29 m)
B Reach from center of swing pivot	17 ft. 10 in. (5.44 m)	16 ft. 1 in. (5.01 m)	21 ft. 5 in. (6.53 m)	16 ft. 5 in. (5.06 m)	16 ft. 7 in. (5.09 m)	21 ft. 11 in. (6.68 m)
C Reach from center of rear axle	21 ft. 4 in. (6.50 m)	21 ft. 7 in. (6.58 m)	24 ft. 11 in. (7.59 m)	21 ft. 9 in. (6.63 m)	22 ft. 1 in. (6.73 m)	26 ft. 4 in. (7.92 m)
D Maximum digging depth	14 ft. 5 in. (4.34 m)	14 ft. 5 in. (4.39 m)	17 ft. 11 in. (5.46 m)	14 ft. 6 in. (4.42 m)	14 ft. 11 in. (4.55 m)	18 ft. 9 in. (5.61 m)
E Digging depth (GAE)						
(1) 2-ft. (610 mm) flat bottom	14 ft. 2 in. (4.32 m)	14 ft. 4 in. (4.37 m)	17 ft. 10 in. (5.44 m)	14 ft. 4 in. (4.37 m)	14 ft. 9 in. (4.50 m)	18 ft. 5 in. (5.56 m)
(2) 4-ft. (1240 mm) flat bottom	12 ft. (3.66 m)	12 ft. 4 in. (3.68 m)	17 ft. 6 in. (5.30 m)	12 ft. 4 in. (3.66 m)	12 ft. 9 in. (3.78 m)	17 ft. 6 in. (5.30 m)
F Ground clearance, minimum	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)	12 in. (305 mm)
G Bucket rotation	180 degrees	180 degrees	180 degrees	180 degrees	180 degrees	180 degrees
H Transport height	11 ft. 3 in. (3.43 m)	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)	11 ft. 6 in. (3.51 m)	11 ft. 2 in. (3.40 m)	11 ft. 5 in. (3.48 m)
I Overall length, transport	23 ft. 3 in. (7.09 m)	23 ft. 3 in. (7.09 m)	23 ft. 3 in. (7.09 m)	23 ft. 6 in. (7.16 m)	23 ft. 6 in. (7.16 m)	23 ft. 6 in. (7.16 m)
J Stabilizer width – transport with ROPS	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)	7 ft. 2 in. (2.18 m)
K Stabilizer spread – operating	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)	10 ft. 2 in. (3.10 m)
L Stabilizer overall width – operating	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)	11 ft. 7 in. (3.53 m)
M Width over tires	81.7 in. (2.07 m)	81.7 in. (2.07 m)	81.7 in. (2.07 m)	80 in. (2.10 m)	80 in. (2.10 m)	80 in. (2.10 m)

*Bucket specifications are with 34-in. x 6.5-cu. ft. (818 mm x 0.18 m³) bucket.

†Bucket specifications are with 34-in. x 7.5-cu. ft. (818 mm x 0.21 m³) bucket.

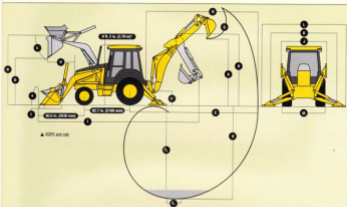
310G Loader Performance with Bucket Options

	1,00-cu. yd. (27.92 m³) Heavy-Duty Long Lip	1,12-cu. yd. (33.87 m³) Heavy-Duty Long Lip	1,25-cu. yd. (38.86 m³) Heavy-Duty Long Lip	1,12-cu. yd. (33.86 m³) Multipurpose	1,15-cu. yd. (35.71 m³) Multipurpose	1,29-cu. yd. (38.86 m³) Multipurpose
Operator control	single lever	single lever	single lever	single lever	single lever	single lever
Breakout force	8,100 lb. (36.0 kN)	7,900 lb. (35.4 kN)	7,800 lb. (33.8 kN)	7,120 lb. (31.7 kN)	7,170 lb. (31.8 kN)	7,120 lb. (31.7 kN)
Lifting capacity, full height	5,000 lb. (2251 kg)	5,000 lb. (2251 kg)	5,250 lb. (2381 kg)	5,100 lb. (2313 kg)	5,100 lb. (2313 kg)	5,100 lb. (2313 kg)
A Height to bucket lip at max. maximum	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)	11 ft. 1 in. (3.38 m)
B Dump clearance, bucket at 45 degrees	8 ft. 10 in. (2.69 m)	8 ft. 10 in. (2.69 m)	8 ft. 2 in. (2.50 m)	8 ft. 4 in. (2.50 m)	8 ft. 4 in. (2.50 m)	8 ft. 6 in. (2.59 m)
C Bucket dump angle, maximum	45 degrees	45 degrees	45 degrees	45 degrees	45 degrees	45 degrees
D Reach at full height, bucket at 45 degrees	30.0 in. (762 mm)	30.2 in. (767 mm)	31.9 in. (809 mm)	32.2 in. (818 mm)	32.2 in. (818 mm)	32.2 in. (818 mm)
E Rollback angle at ground level	40 degrees	40 degrees	40 degrees	40 degrees	40 degrees	40 degrees
F Digging depth below ground, bucket level	6.3 in. (160 mm)	6.9 in. (175 mm)	7.8 in. (197 mm)	7.8 in. (197 mm)	7.8 in. (197 mm)	7.8 in. (197 mm)
Raising time to full height	5.2 sec.	5.2 sec.	5.2 sec.	5.2 sec.	5.2 sec.	5.2 sec.
Bucket dump time	1.1 sec.	1.1 sec.	1.1 sec.	1.1 sec.	1.1 sec.	1.1 sec.
Bucket lowering time (power down)	1.9 sec.	1.9 sec.	1.9 sec.	1.9 sec.	1.9 sec.	1.9 sec.

310SG Loader Performance with Bucket Options

	1,25-cu. yd. (38.86 m³) Heavy-Duty Long Lip	1,39-cu. yd. (40.81 m³) Heavy-Duty Long Lip	1,19-cu. yd. (36.81 m³) Heavy-Duty Long Lip	1,29-cu. yd. (38.86 m³) Multipurpose	1,39-cu. yd. (40.81 m³) Multipurpose
Operator control	single lever	single lever	single lever	single lever	single lever
Breakout force	8,817 lb. (39.2 kN)	8,800 lb. (39.0 kN)	8,375 lb. (37.2 kN)	8,320 lb. (37.3 kN)	8,300 lb. (36.9 kN)
Lifting capacity, full height	5,247 lb. (2381 kg)	5,100 lb. (2300 kg)	5,000 lb. (2270 kg)	5,000 lb. (2270 kg)	5,000 lb. (2270 kg)
A Height to bucket lip at max. maximum	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)	11 ft. 2 in. (3.40 m)
B Dump clearance, bucket at 45 degrees	8 ft. 2 in. (2.50 m)	8 ft. 6 in. (2.64 m)	8 ft. 7 in. (2.62 m)	8 ft. 7 in. (2.62 m)	8 ft. 7 in. (2.62 m)
C Bucket dump angle, maximum	45 degrees	45 degrees	45 degrees	45 degrees	45 degrees
D Reach at full height, bucket at 45 degrees	30.0 in. (762 mm)	30.1 in. (769 mm)	32.2 in. (818 mm)	32.2 in. (818 mm)	32.2 in. (818 mm)
E Rollback angle at ground level	40 degrees	40 degrees	40 degrees	40 degrees	40 degrees
F Digging depth below ground, bucket level	5.9 in. (147 mm)	6.1 in. (156 mm)	7.3 in. (185 mm)	7.3 in. (185 mm)	7.3 in. (185 mm)
Raising time to full height	4.9 sec.	4.9 sec.	4.9 sec.	4.9 sec.	4.9 sec.
Bucket dump time	1.1 sec.	1.1 sec.	1.1 sec.	1.1 sec.	1.1 sec.
Bucket lowering time (power down)	1.9 sec.	1.9 sec.	1.9 sec.	1.9 sec.	1.9 sec.

3105G Backhoe Loader

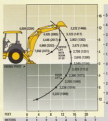


Lift Capacity with Quick-Coupler/Forks 3105G

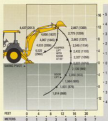
A ¹ Maximum height	4,170 lb. (1,897 kg)
B ¹ Maximum reach	4,191 lb. (1,901 kg)
C ¹ At ground line	4,233 lb. (1,921 kg)
D ² Below ground line	4.4 in. (112.7 mm) to bottom of fork / 2.7 in. (68.3 mm) to top of fork

*Lift capacities are over-end values in lb. (kg) according to SAE J271. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.

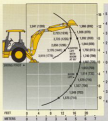
**310G Backhoe with
Standard Deviants**



**310G Backhoe with 3-ft. 6-in. (1.07 m)
Extended Deviants, Retracted**

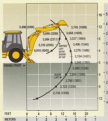


**310G Backhoe with 3-ft. 6-in. (1.07 m)
Extended Deviants, Extended**

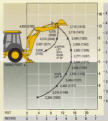


*Lift capacities are over-end values in lb. (kg) according to SAE J271. Figures listed are 87% of the maximum lift force available. Base vehicle includes counterweight.

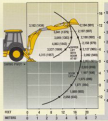
**3150G Backhoe with
Standard Deviants**



**3150G Backhoe with 3-ft. 6-in. (1.07 m)
Extended Deviants, Retracted**



**3150G Backhoe with 3-ft. 6-in. (1.07 m)
Extended Deviants, Extended**



Additional Equipment

Key: ■ Standard equipment ▲ Optional or special equipment

1. Engine

- John Deere Model 4440D - 4.3 liter, 72 SAE hp by naturally aspirated, isolation mounted
- ▲ John Deere Model 4441T - 4.3 liter, 72 SAE hp by naturally-aspirating turbocharged, isolation mounted
- John Deere Model 4441T - 4.3 liter, 85 SAE hp by turbocharged, isolation mounted
- Vertical spin-on engine oil filter
- ▲ Vertical spin-on John Deere fuel filter with water separator
- 30-horsepower engine oil cooler
- ▲ Additive, -32°F (-23°C)
- Diesel recovery tank
- Serpentine belt with automatic belt tensioner
- Bucket-type cooling fan
- ▲ Increased safety fan guard
- ▲ High ambient temperature engine cooling
- Fuel-vented drip-type air cleaner with evaporator valve and pressure vent
- W/Filter, underhood with curved end exhaust stack
- ▲ Chrome exhaust extension
- ▲ Electric after starting aid
- ▲ Engine coolant heater, 1,000 watts

Power Train

- Full-AMT transmission with torque converter fully synchronized four forward, four reverse speeds / location mounted to mainframe
- ▲ PowerShift transmission Torque converter with electrically actuated locked grip P-R-S in 1st through 4th gears
- Transmission with powershift reverse and torque converter; Fully synchronized four forward, four reverse speeds / location mounted to mainframe
- Transmission oil cooler
- Vertical spin-on transmission filter
- Electric forward-neutral-reverse control lever with neutral safety switch lockout
- Electric clutch cutoff on gearshift and loader levers
- Differential lock, electric foot-actuated
- Planetary four drives
- Power-assisted hydraulic service brakes (conform to SAE J1773), reduced, wet-disk, dual, self-adjusting and self-equilibrating
- Parking/emergency brake with electric switch control (conforms to SAE J1472); Spring applied, hydraulically released wet multi-disc / independent of service brakes
- Hydraulic power steering with emergency manual mode
- Non-powered front axle
- ▲ Mechanical-foot-actuated drive; Electric on/off control / Drive shaft guard / Tracked axle
- ▲ Mechanical-foot-actuated drive with limited-slip differential; Electric on/off control / Drive shaft guard / Steered axle

Wheels/Tires

- 15-1/2 P3 front tires
- ▲ 15-1/8 P3 front tires
- ▲ 15-1/8 S3 tractor front tires
- ▲ 15.00-16 tractor front tires
- 16.0-24 84 rear tires
- ▲ 16.0-24 84 rear tires
- ▲ 16.0-24 84 rear tires
- ▲ Rear wheel spacers for use with chains

Backhoe

- Backhoe with standard dipperstick, 14-3, 3-in. digging depth
- Backhoe with standard dipperstick, 14-3, 6-in. digging depth
- Two-level (lower) backhoe controls
- ▲ Three-level (lower) backhoe controls
- ▲ Four-level (lower) backhoe controls
- ▲ SAE excavator two-level backhoe controls

2. Backhoe (continued)

- Backhoe transport lock lever
- Swing lock pin stored in operator's station
- Stabilizer valve with low-dipstick anti-diff valves
- Pivoting stabilizers with 4-wheel pins
- ▲ Pivoting stabilizers with 4-wheel pins
- ▲ "Ground stabilizer"
- ▲ Stabilizer cylinder guards
- Low loader, with bucket pin
- ▲ Standard-duty backhoe bucket with lift lugs
- ▲ Heavy-duty backhoe bucket with lift lugs
- ▲ Green-duty backhoe bucket with lift lugs
- ▲ Backhoe for use "C," "D," "E," and "F" grades
- John Deere buckets, Case buckets, and Cat buckets
- ▲ Adjustable dipperstick, 2-8, 0-in. extension
- ▲ Auxiliary backhoe valve for excavator, thumb, etc.
- ▲ Auxiliary backhoe valve for trencher, compactors
- ▲ Auxiliary backhoe plumbing for trencher, compactors
- ▲ Auxiliary backhoe plumbing for swagers, thumb, etc.
- ▲ SAE-controlled load-lowering device valves

Ladder

- Hydraulic self leveling
- Retract-a-dig feature
- Single-level control with electric clutch cutoff switch
- Bucket-level indicator
- Loader boom service lock
- ▲ Side control
- ▲ Auxiliary loader hydraulics with low-level control
- ▲ Hydraulic cylinder for buckets, forks, etc.
- Low loader, with bucket pin
- ▲ Heavy-duty loader bucket with lift lugs, pre-padded for ball-in-curling edge
- ▲ Heavy-duty loader buckets with ball-in-curling edge, steel plates, and lift lugs
- ▲ Multi-purpose loader buckets with ball-in-curling edge, steel plates, and lift lugs

Hydraulic System

- 38 gal (144 L/min.) gear pump, open-center system
- 38 gal (144 L/min.) tandem gear pump, open-center system
- Independent hydraulic reservoir
- Swing-arm hydraulic oil cooler
- 100-gal tank with 100-psi backpressure
- 10- micron vortex spin-on filter
- 12 volt system
- 60 amp alternator
- Single battery with 100-mlt. reserve capacity and 700 CCA
- ▲ Dual batteries with 300-mlt. reserve capacity and 1,000 CCA
- Positive terminal battery cover
- Brake-type multi-bank electrical
- 35-gpm start safety cover on starter

Lights

- Four halogen strong/work lights, 50,000 candle-power each (two front and two rear)
- ▲ Six additional halogen work lights, 32,000 candle-power each (two front, two rear, and two side)
- Two front and two rear laser signal/flashing
- Two rear stop and turn
- Two rear reflectors
- ▲ Retracting beacon

Operator's Station

- Modular design ROPS/OPS canopy with molded roof (conforms to SAE J1043); isolation mounted
- Left and right access
- 30g-reduced steps and ergonomically located handholds

3. Operator's Station (continued)

- Molded floor mat
- Headliner
- Seat belt
- 12-volt auxiliary (2)
- 12-volt low-voltage battery
- 30-lb or Operator's Manual storage compartment with handle
- Interior rearview mirror
- ▲ Outside rearview mirror
- ▲ Seat frame with load-carrying rating of 1,100-lbs
- ▲ Suspended rear bench
- ▲ 700 steering
- Horn
- Key start vehicle with electric fuel shutoff
- Engine coolant temperature gauge, illuminated electronic, with audible warning
- 100 temperature gauge, illuminated electronic, with audible warning
- Fuel gauge, illuminated electronic
- Digital display of engine hours, engine rpm, and engine voltage
- Monitor system with audible and visual warnings; Engine oil pressure indicator / Engine oil pressure indicator with audible warning / Hydraulic filter restriction indicator / Parking brake on/off indicator with audible warning / Fuel level indicator / Low fuel pressure
- Non-removable vinyl covered seat without armrests
- ▲ Removable vinyl covered seat with armrests and lumbar support
- ▲ Suspension fabric covered seat with armrests and lumbar support
- ▲ Air suspension vinyl covered seat with armrests and lumbar support
- ▲ Air suspension fabric covered seat with armrests and lumbar support
- 3-in. seat belt with retractors
- 3-in. seat belt with retractors
- ▲ Cat: Multifunk, dome light, left and right 100-down, limited safety glass, one rear and one front illuminated wiper, trash air intake heater/hydraulic pressure (30,000-psi), [17.1 kW] heater, and 65-amp alternator standard / Front windshield wiper, air conditioning (26,000-psi), [14 kW] output and 22C front R134a refrigerant, 80-amp alternator, and 240/70-winch/brake ratio optional / 12 volt auxiliary (2)
- Curbular seat

Overall Vehicle

- Six-point overhead construction mainframe
- Hydraulic lockdown, two front and one rear
- Removable grass bank for front axle
- Right-mounted front bumper
- ▲ 400-ib, 133 kg front counterweight
- ▲ 300-ib, 136 kg front counterweight
- ▲ 300-ib, 136 kg front counterweight
- ▲ 5,700-ib, 2522 kg front counterweight
- ▲ 1,400-ib, 635 kg front counterweight
- Fuel tank, 38 gal (144 L), ground-level venting
- ▲ Front grille screen
- Under protection for instrument panel, engine hood, fanbelts, hydraulic reservoir, radiator, and fuel tank
- Reverse warning alarm; Detachable to ST 480J or J10 480J
- ▲ Dual-coverage full-coverage rear fenders
- ▲ Front fenders
- ▲ ROPS antenna
- ▲ Retard decal kit
- ▲ Special color paint

Net engine power is with standard equipment including air cleaner, exhaust system, alternator, and cooling fan, at standard conditions per SAE J1940 and SAE J1935, using No. 3-D fuel at 25-MPH gear rate. For details see required up to 5,000-R, 1700-mlt. altitude for the 3102 and up to 10,000-R (3300-mlt) for the 3102 with optional altitude compensating turbocharger and the 3100S. Gross power is without cooling fan.

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with SAE standards. Except where otherwise noted, these specifications are based on a 2700-psi and with 17.5L, 10.19 PFR rear tires, 15-1/2, 6.00 P3 front tires, 1.00-cu. yd. (0.76 m³) loader bucket, and 24-in x 6.5-cu. ft. (0.60 m³ x 0.18 m³) backhoe bucket, and a 3100S psi with 16.0L, 24 PFR rear tires, 15-1/8, 6.00 P3 front tires, 1.12-cu. yd. (0.86 m³) loader bucket, and 24-in. x 7.0-cu. ft. (0.60 m³ x 0.21 m³) backhoe bucket.



JOHN DEERE

